

EN

# MONTHLY BULLETIN JANUARY



### EUROSYSTEM







In 2009 all ECB publications feature a motif taken from the €200 banknote.

# MONTHLY BULLETIN JANUARY 2009

#### © European Central Bank 2009

#### Address

Kaiserstrasse 29 60311 Frankfurt am Main Germany

#### Postal address

Postfach 16 03 19 60066 Frankfurt am Main Germany

### Telephone

+49 69 1344 0

Website http://www.ecb.europa.eu

**Fax** +49 69 1344 6000

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

All rights reserved. Reproduction for educational and non-commercial purposes is permitted provided that the source is acknowledged.

The cut-off date for the statistics included in this issue was 14 January 2009.

ISSN 1561-0136 (print) ISSN 1725-2822 (online)



### CONTENTS

EDITORIAL	5
ECONOMIC AND MONETARY DEVELOPMENTS	9
The external environment of the euro area	9
Monetary and financial developments	14
Prices and costs	36
Output, demand and the labour market	44
Exchange rate and balance of payments developments	50
Boxes	
1 Tracking extraordinary portfolio shifts into money during the period of financial turmoil	17
2 Loan-deposit margins in the euro area	31
<ul><li>3 Why is services inflation higher than goods inflation in the euro area?</li><li>4 The adoption of the euro by Slovakia</li></ul>	38 52
ARTICLES	
Housing wealth and private consumption in the euro area Foreign asset accumulation by	59
authorities in emerging markets	73
EURO AREA STATISTICS	<b>S I</b>
ANNEXES	
Chronology of monetary policy measures of the Eurosystem	I
Documents published by the	
European Central Bank since 2008	
Glossary	IX

### **ABBREVIATIONS**

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

#### **OTHERS**

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**

At its meeting on 15 January, on the basis of its regular economic and monetary analyses, the Governing Council decided to reduce the interest rate on the main refinancing operations of the Eurosystem by a further 50 basis points, bringing the total reduction since 8 October 2008 to 225 basis points. The interest rate on the main refinancing operations of the Eurosystem was decreased to 2.00%, the rate on the marginal lending facility remained unchanged at 3.00%, and the rate on the deposit facility was set at 1.00%. The decision to lower the interest rate on the main refinancing operations by a further 50 basis points takes into account that inflationary pressures have continued to diminish, owing in particular to the further weakening in the economic outlook. Looking forward, the Governing Council continues to expect inflation rates in the euro area to be in line with price stability over the policy-relevant medium-term horizon, thereby supporting the purchasing power of incomes and savings. After this decision, the Governing Council considers the risks to price stability over the medium term to be broadly balanced. This takes into account the latest economic data releases and survey information, which add clear further evidence to the assessment that the euro area economy is experiencing a significant slowdown, largely related to the effects of the intensification and broadening of the financial turmoil. Both global demand and euro area demand are likely to be dampened for a protracted period. Monetary expansion is moderating further, supporting the assessment that inflationary pressures and risks are diminishing. All in all, the level of uncertainty remains exceptionally high. The Governing Council will continue to keep inflation expectations firmly anchored in line with its medium-term objective of inflation rates below, but close to, 2%. This supports sustainable growth and employment and contributes to financial stability. Accordingly, the Governing Council will continue to monitor very closely all developments over the period ahead.

Turning to the economic analysis, since September 2008 the financial market turmoil has intensified and broadened. Tensions have increasingly spilled over from the financial sector into the real economy. As a result, economic activity throughout the world, including in the euro area, has weakened further. In particular, foreign demand for euro area exports has declined, and euro area domestic activity has contracted in the face of weaker demand prospects and tighter financing conditions. The survey data and monthly indicators for November and December that have become available since the last meeting of the Governing Council clearly point to a further weakening of economic activity around the turn of the year, indicating the materialisation of previously identified downside risks to activity.

Looking further ahead, on the basis of its current analysis and assessment, the Governing Council continues to see global economic weakness and very sluggish domestic demand persisting in the coming quarters as the impact of the financial tensions on activity continues. At the same time, the Governing Council expects the fall in commodity prices to support real disposable income in the period ahead. Furthermore, the euro area should over time reap the full benefit from the effects of policy measures announced over recent weeks.

In the view of the Governing Council, this outlook for the economy remains surrounded by an exceptionally high degree of uncertainty. Overall, risks to economic growth remain clearly on the downside. They relate mainly to the potential for a stronger impact on the real economy of the turmoil in financial markets, as well as to concerns about the emergence and intensification of protectionist pressures and to possible adverse developments in the world economy stemming from a disorderly correction of global imbalances.

It is crucial that all parties concerned make their contribution to lay sound foundations for a sustainable recovery. For this to materialise as early as possible, it is of the utmost importance to maintain discipline and a medium-term perspective in macroeconomic policy-making,



pursuing a stability-oriented and sustainable approach. This is the best way to preserve and enhance confidence. The significant measures being implemented by governments to deal with the financial turmoil should help to ensure trust in the financial system and to ease constraints on credit supply to companies and households.

With regard to price developments, annual HICP inflation has declined substantially since the middle of 2008, when it peaked at 4.0%. HICP inflation was 1.6% in December, after 2.1% in November. As emphasised on previous occasions, the significant decline in headline inflation in the second half of 2008 reflects mainly the sharp falls in global commodity prices over the past few months.

Looking forward, lower commodity prices and weakening demand confirm that inflationary pressures in the euro area are diminishing. Owing mainly to base effects stemming from the past behaviour of energy prices, headline annual inflation rates are projected to decline further in the coming months, possibly reaching very low levels at mid-year. However, also owing to base effects stemming from past energy price developments, inflation rates are expected to increase again in the second half of the year. Hence it is likely that HICP inflation rates will fluctuate sharply during 2009. Such short-term volatility is, however, not relevant from a monetary policy perspective. Looking over the policy-relevant, medium-term horizon, annual HICP inflation is expected to be in line with price stability. This assessment is supported by available indicators of inflation expectations for the medium term.

Risks to price stability over the medium term are broadly balanced. Unexpected further declines in commodity prices or a stronger than expected slowdown in the economy could put downward pressure on inflation, while upside risks to price stability could materialise particularly if the recent fall in commodity prices were to reverse or if domestic price pressures turn out to be stronger than assumed. It is therefore crucial that price and wage-setters fully live up to their responsibilities.

Turning to the monetary analysis, the latest evidence confirms a moderating rate of monetary expansion in the euro area. Monetary trends therefore support the view that inflationary pressures and risks are diminishing.

In analysing monetary developments it should be recognised that the intensification of the financial market turmoil since mid-September 2008 has the potential to affect the evolution of monetary aggregates significantly. Recent money and credit data indicate that this has already had a substantial impact on the behaviour of market participants. Both the broad aggregate M3 and, in particular, the components of M3 that are most closely related to the ongoing financial tensions - such as holdings of money market funds - have shown high month-to-month volatility of late. Overall, however, looking to the extent possible through this volatility, the rate of broad money growth continues to moderate in line with the trend established over the past 18 months, with the intensification of financial tensions since September leading to significant substitution among the components of M3, rather than, at least so far, sharp changes in the trend of M3 itself.

Turning to the evolution of bank loans, the tightening of financing conditions resulting from the intensification of the financial tensions has contributed to a slowdown in the flow of monetary financial institution (MFI) loans to the non-financial private sector in recent months. More data and further analysis are necessary to form a robust judgement about the severity and scope of credit constraints and their possible implications for economic activity.

To sum up, the decision to lower the interest rate on the main refinancing operations of the Eurosystem by a further 50 basis points on 15 January 2009 takes into account that inflationary pressures have continued to diminish, owing in particular to the further weakening in the economic outlook. The Governing Council also recalled its operational decision, taken on 18 December 2008, to widen again the corridor formed by the rates on the Eurosystem's standing facilities as of 21 January 2009. Looking forward, the Governing Council expects inflation rates in the euro area to be in line with price stability over the policy-relevant medium-term horizon, thereby supporting the purchasing power of incomes and savings. The Governing Council considers the risks to price stability over the medium term to be broadly balanced. This takes into account the latest economic data releases and survey information, which add clear further evidence to the assessment that the euro area economy is experiencing a significant slowdown, largely related to the effects of the intensification and broadening of the financial turmoil. Both global demand and euro area demand are likely to be dampened for a protracted period. A cross-check of the outcome of the economic analysis with that of the monetary analysis confirms this view. Monetary expansion is moderating further, supporting the assessment that inflationary pressures and risks are diminishing. All in all, the level of uncertainty remains exceptionally high. The Governing Council will continue to keep inflation expectations firmly anchored in line with its medium-term objective of inflation rates below, but close to, 2%. This supports sustainable growth and employment and contributes to financial stability. Accordingly, the Governing Council will continue to monitor very closely all developments over the period ahead.

Regarding fiscal policies, the Governing Council welcomes the European Council's reconfirmation of its full commitment to sustainable public finances. In this respect, the current economic situation calls for particular prudence with regard to the adoption of extensive fiscal stimulus measures, taking into account the particular fiscal situation in each country. The operation of automatic stabilisers will provide a relatively large and powerful fiscal impulse to the weakening economy, in addition to already announced expansionary fiscal policy measures and the government support for the banking sector. Taken together, the additional measures decided so far put a considerable burden on public finances in a large number of euro area countries. If not reversed in due time, this will negatively affect in particular the younger and future generations. It is therefore essential to return to a credible commitment to medium-term budgetary objectives as soon as possible. The significant fiscal loosening and the implied increase in government debt should in any case not risk undermining public confidence in the sustainability of public finances, thereby detracting from the effectiveness of a fiscal stimulus.

Turning to structural policies, the ongoing period of weak economic activity and high uncertainty about the economic outlook imply the need to strengthen the resilience and flexibility of the euro area economy. Product market reforms should foster competition and speed up effective restructuring. Labour market reforms should help to facilitate appropriate wage-setting, as well as labour mobility across sectors and regions. The current situation should therefore be seen as a catalyst to foster the implementation of necessary domestic reforms in line with the principle of an open market economy with free competition.

This issue of the Monthly Bulletin contains two articles. The first reviews theoretical and empirical evidence on the effect of housing wealth on consumption, showing that the housing wealth effect is relatively limited in the euro area compared with the United States and the United Kingdom. The second article explains the reasons behind the considerable accumulation of foreign assets by authorities in emerging market economies over the past decade and the associated emergence of sovereign wealth funds.

FCR

### I THE EXTERNAL ENVIRONMENT OF THE EURO AREA

Recent indicators confirm that the global economy is undergoing a severe and synchronised downturn. Strains on the banking system have translated into tighter credit conditions, a rapid deterioration in confidence and tumbling stock markets. At the same time, global inflationary pressures are easing further owing to the sharp decrease in commodity prices and synchronised global economic downturn. The outlook for global economic growth remains highly uncertain owing to the volatility in financial markets, and risks lie on the downside.

#### I.I DEVELOPMENTS IN THE WORLD ECONOMY

Recent indicators confirm that the global economy is undergoing a severe and synchronised downturn. Strains on the banking system have translated into tighter credit conditions, a rapid deterioration in confidence and tumbling stock markets. In December the global all-industry output Purchasing Managers' Index (PMI) remained close to its lowest level since the survey began in 1998. The further worsening in the global economic situation in December was due mainly to the manufacturing sector, with production falling at a rapid pace. The situation in the services sector, however, did not deteriorate any further but remained historically weak.

Global inflationary pressures are easing further owing to the sharp decrease in commodity prices and synchronised global economic downturn. Consumer prices in OECD countries rose by 2.3% in the year to November 2008 compared





with 3.7% the month before. Excluding food and energy, consumer price inflation rose by 2.2% in the year to November, compared with 2.3% in the year to October. The global PMI input price index declined further in December owing to weakening labour markets and a further fall in oil, metals and transportation costs (see Chart 1).

#### **UNITED STATES**

In the United States, economic activity remained very weak, with the National Bureau of Economic Research announcing on 1 December 2008 that the economy has been in a recession since December 2007. According to final estimates, real GDP contracted at an annualised rate of 0.5% in the third quarter of 2008, compared with an expansion of 2.8% in the preceding quarter. The recession is likely to have deepened in the fourth quarter of 2008, as labour market conditions worsened and credit availability tightened amid intensified financial market tensions. Private consumption continues to be negatively affected by rising unemployment, waning consumer confidence and declines in household wealth. The ongoing housing market contraction and slowing foreign demand pose additional risks to the economic outlook. The federal budget deficit is deteriorating rapidly, as tax receipts have slowed and outlays are on the rise as a result of fiscal measures aimed at supporting the financial system and the economy.

#### ECONOMIC AND MONETARY DEVELOPMENTS

The external environment of the euro area As regards price developments, annual CPI inflation declined further to 1.1% in November 2008 and now stands well below its average of 4.2% for the year (see Chart 2). This deceleration reflects rapid declines in energy costs and greater slack in the economy, as well as base effects. The annual rate of inflation excluding food and energy eased to 2% in November, down from 2.2% in the previous month.

On 16 December 2008 the US Federal Open Market Committee (FOMC) decided to cut its target for the federal funds rate from 1% to within a range of 0% to 0.25%. With the effectiveness of the federal funds rate as a monetary policy tool approaching its limits – being so close to the zero bound – the FOMC signalled a growing focus on non-conventional measures to support the functioning of financial markets and stimulate the economy.

#### JAPAN

In Japan, economic activity has continued to decline, while inflation is on a downward trend. The Bank of Japan's Tankan Survey for December 2008 recorded its largest quarter-onquarter drop since 1975, signalling a substantial weakening in business conditions for both the manufacturing and non-manufacturing sectors. The deterioration in economic conditions in Japan is also reflected by a substantial downward revision of GDP for the third quarter of 2008, with the second preliminary release noting a decrease of 0.5% quarter on quarter as opposed to a decrease of 0.1% as reported in the first estimate published in late November.

### Chart 2 Main developments in major industrialised economies



Consumer price inflation continued to decline in November (see Chart 2). Driven by the moderation in energy prices and weakening economic activity, annual CPI inflation declined to 1.0% in November compared with 1.7% in October. Excluding food and energy, annual CPI inflation fell slightly to 0.0% from 0.2% in October.

At its meeting on 19 December 2008, the Bank of Japan decided to lower its target for the uncollateralised overnight call rate by 20 basis points to 0.1%.

#### **UNITED KINGDOM**

In the United Kingdom, real GDP declined by 0.6% quarter on quarter in the third quarter of 2008, while inflation fell from relatively high levels. The decline in real GDP was broad based, but reflected, in particular, a contraction in domestic demand. Confidence indicators suggest



The external environment of the euro area

that output is likely to fall further in the coming quarters. The correction in the housing market continued, as indicated by the Halifax House Price Index, which fell by 14.9% year on year in November. Ongoing declines in mortgage approvals suggest that this correction in house prices is likely to continue in the near future. Annual HICP inflation declined further to 4.1% in November (from 4.5% in October) and is likely to have fallen more sharply as of December 2008 due to a temporary reduction in the standard VAT rate (from 17.5% to 15% for 13 months).

On 4 December 2008 the Bank of England's Monetary Policy Committee decided to decrease its main policy rate by 100 basis points, to 2.0%, and on 8 January 2009 it made a further cut of 50 basis points, bringing the rate to a historical low of 1.5%.

#### **OTHER EUROPEAN COUNTRIES**

In most other non-euro area EU countries signs of weakening economic activity were accompanied by decreasing inflation. In Sweden, quarterly GDP contracted by 0.1% in the third quarter of 2008 for the second quarter in a row due to tighter financial conditions, weaker external demand and greater caution among households. These factors are dampening economic activity in Denmark too, where output contracted by 0.4% during the third quarter, following an increase of 0.4% in the second quarter. Short-term activity indicators point to a further weakening of economic activity in both countries. Having peaked in late summer, HICP inflation continued to fall in both countries, dropping to 2.4% in Sweden and 2.8% in Denmark in November. Inflation is expected to moderate further in these countries, in line with weaker economic activity. On 4 December 2008 Danmarks Nationalbank lowered its main policy rate by 75 basis points to 4.25% and Sveriges Riksbank decreased its main policy rate by 175 basis points to 2%.

Signs of weaker economic activity also began to emerge in the largest central and eastern European EU countries, where growth had been stable during the first half of 2008. Third-quarter GDP data for Hungary show that the economy contracted by 0.1%. Real GDP growth decelerated slightly in the third quarter in the Czech Republic and Poland, to 0.9% and 1.2% respectively, with short-term indicators pointing to a further deceleration in both countries. In Romania, real GDP growth was still strong in the third quarter (partly driven by a good harvest in the agricultural sector), but short-term indicators suggest a marked deceleration in recent months. The macroeconomic outlook has worsened substantially over the past few months in all four countries as a result of increased risk aversion to the region, tighter financing conditions and weakening international trade. Inflation rates have decreased in all four countries in recent months, reaching 6.8% in Romania, 4.1% in the Czech Republic and Hungary, and 3.6% in Poland in November 2008. The moderation in HICP inflation reflected mainly the fading effects of former hikes in food and energy prices, as well as weaker economic activity. On 8 and 22 December 2008 the Magyar Nemzeti Bank decreased its main policy rate in two steps by a total of 100 basis points to 10%. On 23 December Narodowy Bank Polski decided to lower its key policy interest rate by 75 basis points to 5%.

#### **EMERGING ASIA**

Economic activity has continued to slow in emerging Asia. In particular, exports from most of the countries in the region have suffered from a decrease in overseas demand, which has contributed to a drop in industrial production. Domestic demand is also weakening in most countries of the region. Furthermore, consumer price inflation continued to moderate owing to the decline in oil and other commodity prices, thus allowing several central banks to further loosen monetary policy.

In China, the economy has experienced a clear downturn in recent months. The decline in external demand and the real estate slowdown triggered a significant annual drop in industrial output growth,

to 5.4% in November. In addition, exports declined in November and December compared with the corresponding periods last year. In November 2008, annual CPI inflation slowed quickly to 2.4% from 4.0% in October. The People's Bank of China continued to loosen its monetary policy and in December cut its policy rates for the fifth time since September 2008. Its one-year lending benchmark rate was reduced from 7.47% in September to 5.31% and its one-year deposit rate was reduced from 4.14% in September to 2.25%. Over the same period, the reserve requirement ratio was lowered from 17.5% to 15.5%.

#### LATIN AMERICA

In Latin America, economic activity has been showing signs of deceleration, while inflationary pressures remained relatively elevated compared with other regions of the world. In Brazil, industrial production contracted at an annual rate of 6.2% in November 2008, having risen by only 1.1% in October after an exceptional 9.7% increase in September. Annual CPI inflation in November stood at 6.4%, as in the previous month. In Argentina, economic activity deteriorated in November, with industrial production remaining unchanged on an annual basis, following annual increases of 2.6% in October and 5.8% in September. CPI inflation remained at elevated levels, despite declining from 9% to 7.2% over the four months from August to November. Economic activity in Mexico remained very weak, with annual growth in industrial production contracting further from -1.6% in August to -2.7% in October. Annual inflation rose from 5.5% in September to 6.2% in November. In response to the heightened financial tensions, several central banks in the region have taken a range of measures aimed mainly at improving domestic liquidity conditions.

#### **I.2 COMMODITY MARKETS**

Oil prices continued to decline during December, standing at USD 39.5 at the end of the month (see Chart 3), which is 58% lower than at the beginning of 2008 (in euro terms, the decrease is around 54%). In the first half of January 2009, oil prices initially rallied but then declined again as news confirmed the weak outlook for global demand. On 14 January 2009, oil prices stood at

USD 43.8. Over the medium term, market participants expect prices to remain elevated, with futures prices for December 2009 trading at around USD 60.

Looking at the economic fundamentals, the global economic downturn appears to have seriously affected demand prospects. This is also true for emerging economies, with Chinese trade data showing a decline in crude oil imports. Against this background, OPEC announced a further supply reduction of 2.2 million barrels per day on 17 December 2008. Owing to widespread scepticism about OPEC members' willingness to commit to such a large production cut, the announcement failed to boost prices in the short run. However, spreads between different crude oil qualities have been declining sharply, which is a sign of market tightness and indicates that OPEC is indeed reducing its output.



Monthly Bulletin January 2009

The external environment of the euro area

The prices of non-energy commodities have moved sideways since the beginning of December. Metal prices have stabilised, having fallen sharply from their peak in July. The prices of food commodities, however, have increased, driven mainly by maize and wheat benefiting from weather-related factors in the southern hemisphere. In aggregate terms, the price index for non-energy commodities (denominated in US dollars) was approximately 23% lower at the end of December 2008 than in the previous year.

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

The global economic downturn implies a worsening in the prospects for foreign demand for euro area goods and services. As the repercussions of the financial crisis have spread, there has recently been a marked deterioration in world trade transactions.

The OECD composite leading indicator (CLI) for November 2008 also points to severe slowdowns in all major industrialised economies, as well as in major non-OECD member economies, particularly China, India and Russia.

The uncertainty surrounding the global economic outlook is exceptionally high. Financial market volatility has soared, which implies that the assessment of global economic prospects is currently subject to very high uncertainty. Overall, the risks for growth are on the downside. They relate mainly to the potential for financial market turmoil to have a more significant impact on the real economy. The depth and duration of the global economic downturn will depend crucially on the speed at which the financial crisis can be resolved. Other risks relate to concerns about protectionist pressures and potential disorderly developments owing to global imbalances.



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 monetary data for November 2008 confirm the ongoing moderation of broad money and credit growth, which reflects the impact of tighter financing conditions and slower economic growth. The intensification of financial market tensions observed since mid-September continues to affect specific components and counterparts of M3, such as MFI debt securities held by the euro area money-holding sector and non-residents. However, other components of the MFI balance sheet point to a return to the developments seen in the period before mid-September, i.e. prior to the intensification of the financial tensions. For example, November saw net purchases of money market fund shares/units by both residents and non-residents. Turning to credit developments, when adjusted for the impact of true-sale securitisation transactions, the data imply a continued flow of bank loans to the non-financial private sector, particularly non-financial corporations. This argues against a sharp break in the availability of bank lending in the aftermath of the intensification of the financial tensions. Nonetheless, loan dynamics are substantially weaker than a year ago. Moreover, the continued aggregate flows observed recently for bank lending do not rule out the possibility that some market segments may be facing credit constraints.

#### THE BROAD MONETARY AGGREGATE M3

The annual rate of growth of M3 declined in November 2008 to stand at 7.8%, down from 8.7% in the previous month (see Chart 5). This reflects the stagnation of M3 in November, following strong month-on-month growth of 1.3% in October. Some caution is warranted when interpreting monetary developments towards the end of the year, as behaviour could be influenced by accounting considerations, with the result that developments may potentially be surrounded by particular uncertainty. Taken together, the data for October and November still show a sustained rate of monetary expansion, as also reflected in the annualised three and six-month growth rates, which continue to hover around 8%.

The monetary data for November shed further light on the heightened level of stress in the financial system in the aftermath of Lehman Brothers' default in mid-September. That stress



remains visible, for example, in the further reduction in MFI debt securities held by the euro area money-holding sector and non-residents, with this source of funding remaining unavailable to credit institutions. At the same time, there are also some signs that monetary developments in November resumed the patterns seen prior to the intensification of the tensions in mid-September. For instance, both residents and non-residents purchased significant quantities of euro area money market fund shares/units, signalling a return to normal investment behaviour.

The latest monetary data also show a further decline in the growth rate of MFI loans to the non-financial private sector. However, at the same time, the data do not suggest that the

Monetary and financial developments

intensification of the financial tensions has led to a sharp break in the flow of bank lending. This conclusion is based on deeper analysis of the monetary information, which reveals that the very small flow of MFI loans to the private sector reported in the November statistics largely reflected the downward impact of the derecognition of loans on banks' balance sheets in the context of large-scale securitisation activities. When this impact is taken into account, the data show that banks are still originating loans, with volumes smaller than those observed during the recent period of strong credit expansion, but comparable to those observed between late 2002 and early 2004 – the last period of protracted economic weakness in the euro area. However, this does not allow strong conclusions to be drawn regarding the non-financial private sector's access to external funding in the coming months. Neither does it imply a benign assessment regarding the motivation underlying the continued borrowing, which may reflect distress on the part of some companies.

#### MAIN COMPONENTS OF M3

The moderation observed in annual M3 growth in November 2008 was driven by declines in the contributions of M1 and marketable instruments. Most of the annual growth of M3 was accounted for by the growth of short-term deposits other than overnight deposits, which remained robust.

The annual growth rate of M1 declined to 2.3% in November, down from 3.7% in October. The sub-components of M1 displayed conflicting dynamics (see Table 1). On the one hand, outflows in that month depressed the annual growth rate of overnight deposits, which fell to 0.1%, down from 1.9% in October. These outflows reversed the strong inflows seen in October and represent a return to the patterns observed prior to September, with shifts from poorly remunerated overnight deposits into time deposits. This suggests that remuneration considerations have regained precedence over the liquidity considerations that drove overnight deposits in the immediate aftermath of Lehman Brothers' default, as well as the associated concerns regarding the safety of the banking system.

Table   Summary	table of	monetary	variables
-----------------	----------	----------	-----------

	Outstanding	Annual growth rates						
	amount as a	2007	2008	2008	2008	2008	2008	
	percentage of M3 <sup>1)</sup>	Q4	Q1	Q2	Q3	Oct.	Nov.	
M1	42.3	5.9	3.8	2.3	0.6	3.7	2.3	
Currency in circulation	7.5	8.0	7.8	7.8	7.5	13.0	13.5	
Overnight deposits	34.8	5.5	3.0	1.2	-0.7	1.9	0.1	
M2 - M1 (= other short-term deposits)	43.3	16.8	18.4	19.3	18.9	15.5	16.0	
Deposits with an agreed maturity of								
up to two years	26.9	40.6	41.4	40.4	37.6	29.2	29.3	
Deposits redeemable at notice of up								
to three months	16.3	-3.9	-3.3	-2.3	-2.0	-1.3	-0.7	
M2	85.5	10.7	10.3	10.0	9.1	9.3	8.8	
M3 - M2 (= marketable instruments)	14.5	19.6	16.3	10.3	8.9	5.3	2.3	
M3	100.0	12.0	11.2	10.1	9.0	8.7	7.8	
Credit to euro area residents		9.2	10.0	9.6	9.1	7.3	7.2	
Credit to general government		-4.1	-2.5	-1.2	0.6	0.7	2.5	
Loans to general government		-1.8	-0.9	0.8	2.1	3.3	3.1	
Credit to the private sector		12.2	12.7	11.9	10.8	8.7	8.2	
Loans to the private sector		11.1	11.1	10.5	9.1	7.8	7.1	
Longer-term financial liabilities								
(excluding capital and reserves)		8.5	6.8	4.5	3.3	0.8	0.8	

Source: ECB.

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



On the other hand, the annual growth rate of currency in circulation rose to 13.5% in November, up from 13.0% in the previous month. Thus, the strong additional demand for currency observed in September and October continued in November, but with the flow returning to its normal size. Anecdotal information indicates that a large part of that additional demand for currency in November may have come from non-residents.

In the light of the current financial market tensions, the developments observed in annual M1 growth over the last three months mean that M1 should be interpreted with caution when looking for an indication of a turning point in real economic activity.

The annual growth rate of short-term deposits other than overnight deposits increased slightly to stand at 16.0% in November, up from 15.5% in October, reflecting increased holdings in both sub-components. Deposits with an agreed maturity of up to two years (i.e. short-term time deposits) continued to grow at a very high annual rate of 29.3% in November, broadly unchanged from the 29.2% observed in October. The annual growth rate of deposits redeemable at notice of up to three months (i.e. short-term savings deposits) was -0.7% in November, albeit less negative than in October, when it stood at -1.3%. The November data do not provide any evidence that depositors are reluctant to commit funds to banks for periods beyond the very short term, particularly as government guarantees for bank deposits are contributing positively to the normalisation of depositors' portfolio behaviour. The remuneration of short-term time deposits remains favourable – owing to banks' additional efforts to attract such deposits – and appears to be continuing to draw funds away from other instruments on either side of the term structure.

The annual growth rate of marketable instruments (i.e. M3-M2) declined further to stand at 2.3% in November, down from 5.3% in October. This reflects declines in the annual growth rates of repurchase agreements and short-term debt securities (i.e. debt securities with a maturity of less than two years). While gross issuance of MFI short-term debt securities was slightly positive in November – albeit with the benefit of government guarantees – the euro area money-holding sector did not increase its holdings of such securities.

The wave of withdrawals observed from euro area money market funds in September and, to a lesser extent, October did not continue in November. Developments in money market fund shares/units remained calm, with the euro area money-holding sector's investment of  $\notin$ 9 billion in such funds representing a partial reversal of the outflows observed in September. At the same time, non-residents' holdings in euro area money market funds – which are not, however, part of M3 – have also increased, with  $\notin$ 21 billion being invested in November.

The annual growth rate of M3 deposits – which comprise short-term deposits and repurchase agreements and represent the broadest monetary aggregate for which a sectoral breakdown is available – declined in November to stand at 9.1%, down from 9.6% in October. This development was slightly less pronounced than the moderation observed in overall M3 growth. Households continued to be the largest contributor to annual M3 deposit growth, with the annual growth rate of household M3 deposits rising to 10.0%, up from 9.7% in the previous month. By contrast, the annual growth rates of the M3 deposit holdings of non-financial corporations and non-monetary financial intermediaries moderated further to stand at 2.9% and 14.0% respectively in November, down from 4.5% and 16.3% in October.

Those developments in the sectoral composition of deposit holdings support the view that non-financial corporations and non-monetary financial intermediaries are increasingly making use of



Monetary and financial developments

their liquidity buffers as economic activity slows. At the same time, households have increased their deposit holdings with credit institutions, as expected given the recent government guarantees and the desire for liquid assets at a time of considerable financial market volatility (see Box 1 below).

#### Box I

# TRACKING EXTRAORDINARY PORTFOLIO SHIFTS INTO MONEY DURING THE PERIOD OF FINANCIAL TURMOIL

The financial market turmoil observed since August 2007 and its intensification in mid-September 2008 have increased uncertainty regarding future financial and economic developments. This is reflected, for instance, in the protracted decline observed in consumer confidence, which has fallen sharply to reach unprecedented levels (see Chart A). In the period 2001-03, another episode characterised by such increases in uncertainty and declines in confidence, euro area residents showed a strong preference for safe, liquid assets – a preference which was visible in extraordinary portfolio shifts into M3.<sup>1</sup> From a policy perspective, the tracking of such shifts is important, as they can be seen as positive money demand shocks that are not directly linked to risks to price stability. Against that background, this box looks at whether the current period of financial turmoil has given rise to similar shifts.

#### The period between mid-2007 and the third quarter of 2008

One possible indication of extraordinary portfolio shifts is a significant increase in the share of monetary assets in outstanding amounts for the total financial assets of the money-holding sector (see Chart B). In the period 2001-03 the increase observed in this share predominantly reflected the sale of foreign equity holdings and the repatriation of funds following the bursting

1 For a detailed assessment of this period, see the article entitled "Monetary analysis in real time" in the October 2004 issue of the Monthly Bulletin.



20.0

17.5

15.0

12.5

10.0

of the new economy bubble, which brought about a shift in investors' risk preferences and prompted safe-haven flows. By contrast, the increase in this share between mid-2007 and mid-2008 reflected portfolio reallocations comprising shifts from longer-term assets into money that were motivated by remuneration considerations in the context of the flat yield curve.<sup>2</sup> In particular, short-term time deposits offered relatively attractive levels of remuneration, which increased further as the financial turmoil continued, with MFIs seeking explicitly to strengthen their deposit-based funding.

In real time, the assessment of the various factors driving shifts into monetary assets relies on a detailed institutional analysis of quantities and prices. Looking backwards, this analysis is complemented by a structural decomposition of annual M3 growth based on a dynamic stochastic general equilibrium model with financial frictions and an explicit banking sector.<sup>3</sup> Such a model aims to





measure in a simplified and stylised way the fundamental causes of monetary developments. It measures, among other things, factors that have an indirect impact on money through their effect on macroeconomic variables such as income, consumption and inflation, which are important determinants of money demand. Productivity shocks or changes in money holders' preference for liquidity are a case in point. Finally, such a model needs to assume monetary policy's response to economic and monetary developments in the form of a simple estimated reaction function linking short-term interest rates to a number of endogenous variables.

Although any such model is inevitably too stylised to capture all elements of a broad-based monetary analysis, the model-based decomposition of past M3 growth is currently in line with the broad real-time assessments carried out for the periods in question. In this respect, the decomposition of data up until the third quarter of 2008 indicates that the strong M3 growth observed between late 2007 and the third quarter of 2008 was influenced to an important extent by "monetary policy shocks", which flattened the yield curve, leading to the rebalancing of wealth portfolios by means of the reallocation of assets from outside M3 into instruments included in M3-M1 (see Chart C). At the same time, the contributions of money demand and banking shocks (which should capture, inter alia, safe-haven flows into monetary assets) remained negative in late 2007 and early 2008.

<sup>2</sup> See Box 2, entitled "Recent shifts between different categories of financial asset held by households", in the June 2008 issue of the Monthly Bulletin. Alternatively, see Box 1, entitled "Underlying monetary dynamics: concept and quantitative illustration", in the May 2008 issue of the Monthly Bulletin.

<sup>3</sup> This model is similar to that presented in Box 2 of the article entitled "Interpreting monetary developments since mid-2004" in the July 2007 issue of the Monthly Bulletin. It is described in Christiano L., R. Motto and M. Rostagno (2003), "The Great Depression and the Friedman-Schwartz Hypothesis", Journal of Money, Credit and Banking 35(6), December. A recent analysis is presented in Christiano L., R. Motto and M. Rostagno (2008), "Shocks, structures or policies? The Euro Area and US after 2001", Journal of Economic Dynamics and Control, August, 32(8), pp. 2467-2506.

Monetary and financial developments

These only became marginally positive in the third quarter of 2008. On balance, this suggests that until the third quarter of 2008 monetary dynamics were driven by portfolio reallocations motivated by yield curve effects, rather than by extraordinary portfolio shifts triggered by an increased preference for liquidity. This is in stark contrast to the situation during the period 2001-03.

#### The period between mid-September and November 2008

Following the default of Lehman Brothers in mid-September 2008, financial and economic uncertainty increased strongly. This may have led to safe-haven flows becoming a driver of monetary developments. The real-time assessment of this question relies on a detailed analysis of the components and counterparts of M3, as the model-based decomposition of M3 growth described earlier cannot be used, not least owing to a lack of timely data.

Extraordinary portfolio shifts are likely to be visible in the safe-haven flows of households, particularly in the light of the renewed government guarantees announced in October for MFI deposits. The broadest sub-component of M3 that allows the monitoring of households' portfolio allocation is short-term deposits and repurchase agreements. The seasonally adjusted monthly flows observed for this sub-component in October and November were indeed somewhat larger than in previous months, although neither "eyeballing" nor statistical tests suggest that the difference was extraordinary. However, two components of M3 that are potentially important recipients of households' safe-haven flows – money market fund shares/units and currency in circulation – are not included in this sectoral sub-component.

Owing to the relatively low cost of switching between investment fund shares/units and money market fund shares/units, shifts into money market fund shares/units played a significant role

in the safe-haven flows observed during the period 2001-03. This has not been observed during the current financial turmoil, with the relatively volatile developments in money market fund shares/units instead reflecting developments in investors' perception of the risks associated with this instrument, as funds' portfolio allocation as well behaviour (see Chart D). As regards currency in circulation, the monthly flow for this component increased significantly (by around €35 billion) in October, which at first glance supports the view that households effected substantial safe-haven flows. However, there is information pointing to significant demand for euro banknotes on the part of non-euro area residents in October and November, with the result that, to a substantial extent, these extraordinary increases in currency reflect the fact that currency cannot be recorded separately for residents and non-residents, rather than portfolio shifts effected by euro area households.

### Chart D Monthly flows into selected M3 components



In conclusion, there are some initial signs that the intensification of the financial market turmoil observed since the default of Lehman Brothers in mid-September led to safe-haven flows into money in October and November 2008. While it is still too early for quantitative estimates, this issue needs to be monitored in the coming months. However, as the share of monetary assets in total financial assets is already considerably larger than at the start of earlier periods characterised by portfolio shifts, this may, all things being equal, limit somewhat the size of any future shifts.

### MAIN COUNTERPARTS OF M3

Turning to the counterparts of M3, the growth rate of total MFI credit to euro area residents stood at 7.2% in November, broadly unchanged from the 7.3% observed in October (see Table 1). This stability masks a shift in the composition of total MFI credit, which is moving from the private sector to the government sector. Indeed, the growth rate of credit to general government increased to 2.5% in November, up from 0.7% in the previous month. While there was a reduction in MFI loans to the government sector, MFIs purchased large amounts of securities issued by general government. The increase seen in November in MFIs' holdings of government securities largely offset the outflows observed in the period August-October.

At the same time, the annual growth rate of MFI credit to the private sector declined further to stand at 8.2% in November, down from 8.7% in October. The annual growth rate of loans, the largest component of credit to the private sector, continued to fall – reaching 7.1%, down from the 7.8% observed in the previous month. The growth of loans to the private sector may be dampened by the derecognition of loans in the context of true-sale securitisation activity. At the same time, to the extent that the resulting securities are retained by the credit institutions originating those loans, the increased holdings of securities will be reflected in the growth of MFI credit to the private sector, which will not, therefore, be affected by those transactions. Lending to non-financial corporations and households accounted for the bulk of the decline in loan growth, albeit with growth rates at very different levels (see Table 2). The main factors driving the slowdown in loan dynamics are the tighter financing conditions and the deterioration in the outlook for economic activity.

At the same time, the monetary data for November continue to provide no indication that the intensification of the financial tensions has led to an immediate drying-up of the availability of loans to the private sector. The fact that the flow of MFI loans to the private sector was close to zero in November essentially reflects the statistical downward impact of the derecognition of loans in the context of large-scale securitisation activities. Consequently, the growth dynamics of loans to households and non-financial corporations, particularly their shorter-term dynamics, should be interpreted with caution, as they are affected by the varying degrees of loan derecognition over time. Taking this impact into account implies that the flow of loans to the private sector totalled  $\notin$ 29 billion in November. Thus, banks are still originating loans, with volumes smaller than those observed during the recent period of strong credit expansion, but comparable to those observed between late 2002 and early 2004 – the last period of protracted economic weakness in the euro area. These developments allay some of the fears that the origination of bank loans has completely dried up since mid-September.

In November the annual growth rate of MFI loans to non-financial corporations declined somewhat further, reaching 11.1%, down from the 11.9% observed in October. The annualised three-month growth rate (an indicator of shorter-term dynamics) fell more sharply. Looking at the maturity

Monetary and financial developments

breakdown in November, the moderation observed in the dynamics of loans to non-financial corporations was broadly based across the maturity spectrum. In terms of monthly flows, lending at longer maturities (i.e. more than five years) accounted for more than half of the total flow, indicating that non-financial corporations continued to obtain funding at relatively long maturities.

The positive flows observed in November for loans to non-financial corporations suggest that firms were able to borrow from MFIs, but do not allow strong conclusions to be drawn regarding the non-financial private sector's access to external funding in the coming months. Neither do they imply a benign assessment regarding the motivation underlying that continued borrowing. In this respect, by end-November the deteriorating outlook for economic activity in the euro area resulted in any additional financing needed for investment purposes being scaled back considerably. In such an environment, firms will draw on their liquidity buffers, as can be seen in the monthly outflow from M3 deposit holdings.

The annual growth rate of loans to households declined further to stand at 2.5% in November, down from 3.3% in October in line with weakening economic and housing market prospects and tighter financing conditions. Shorter-term dynamics, as measured by the annualised three-month growth rate, slowed sharply. However, this development should be interpreted with caution, since it reflects to a large degree the impact of the derecognition of loans as a result of true-sale securitisation. The moderation observed in annual loan growth in November was driven by both lending for house purchase and consumer credit (the annual growth rates of which declined to 2.5% and 2.8% respectively, down from 3.5% and 3.4% in October).

Among the other counterparts of M3, the annual growth rate of MFI longer-term financial liabilities excluding capital and reserves stood at 0.8% in November, unchanged from the previous month, while the month-on-month growth rate was zero, following two months of negative growth. That development conceals a further decline in holdings of MFI debt securities with a maturity of more than two years, which was offset by an increase in deposits redeemable at notice of more than three months. The monthly data on debt securities issued by MFIs confirm that credit institutions have not been able to obtain funding from outside the MFI sector through this source.

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

	Outstanding amount	Annual growth rates						
	as a percentage of the	as a percentage of the	2007	2008	2008	2008	2008	2008
	total <sup>1)</sup>	Q4	Q1	Q2	Q3	Oct.	Nov.	
Non-financial corporations	44.5	14.0	14.6	14.5	12.8	11.9	11.1	
Up to one year	28.6	11.9	12.9	12.9	10.9	10.4	8.8	
Over one and up to five years	20.1	21.0	22.6	20.9	18.7	16.2	15.6	
Over five years	51.2	12.7	12.8	13.0	11.8	11.1	10.6	
Households <sup>2)</sup>	45.3	6.6	5.9	5.0	4.0	3.3	2.5	
Consumer credit <sup>3)</sup>	12.8	5.3	5.3	5.1	4.3	3.4	2.8	
Lending for house purchase3)	71.5	7.6	6.7	5.6	4.2	3.5	2.5	
Other lending	15.6	3.1	2.7	2.2	2.5	2.3	1.9	
Insurance corporations and pension funds	0.9	22.0	6.5	-1.6	-7.8	-9.5	-6.9	
Other non-monetary financial intermediaries	9.3	23.4	24.7	24.9	22.3	15.0	13.9	

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

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.
 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.



The annual growth rate of capital and reserves increased to 12.0% in November, up from 10.7% in October. Part of this large monthly inflow (which totalled  $\in$ 32 billion) can be explained by additional equity capital raised through placement with investors and capital injections by governments in order to strengthen the balance sheets of credit institutions.

Looking at developments in the external assets and liabilities of the MFI sector, large outflows can be seen on both sides of the balance sheet. These outflows support the view that the MFI sector's business activities with non-euro area residents are declining, thereby contributing to the deleveraging of credit institutions. In November the fact that liabilities fell more strongly than assets resulted in a net inflow of €11 billion to the MFI sector's net external position. Over the 12 months to November, however, MFIs increased their holdings of external assets by €21 billion, compared with an increase of €179 billion in their liabilities vis-à-vis non-euro area residents. Thus, MFIs' net external asset position declined by €158 billion in the 12 months to November, compared with a decline of €146 billion in the 12 months to October.



To sum up, while the November data provide further evidence that the recent intensification of financial market tensions has had an impact on specific counterparts of M3, there are no indications of a break that would imply, for instance, an immediate drying-up of lending to the non-financial private sector. However, this does not allow strong conclusions to be drawn regarding the non-financial private sector's access to external funding in the coming months. Neither does it imply a benign assessment regarding the motivation underlying the continued borrowing. At the same time, evidence of credit institutions' ongoing deleveraging is visible in the scaling back of their business activities with non-euro area residents.

#### 2.2 SECURITIES ISSUANCE

The annual growth rate of debt securities issued by euro area residents remained broadly unchanged in October 2008. While the growth rates for debt securities issued by MFIs, other financial corporations and non-financial corporations declined somewhat, the growth rate of debt securities issued by the general government sectors increased significantly. The growth rate of the issuance of quoted shares remained broadly unchanged in October 2008.

Monetary and financial developments

#### **DEBT SECURITIES**

The annual growth rate of debt securities issued by euro area residents remained broadly unchanged in October 2008, standing at 7.0%, compared with 7.1% in the previous month (see Table 3). As regards the maturity structure of debt securities issuance, the annual growth rate of short-term securities issued increased by 2.1 percentage points to 20.4% in October 2008, while that of long-term securities issued moderately decreased by 0.4 percentage point to stand at 5.3%. 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. This partly explains the fact that in October 2008 (as in preceding months) the annual rate of growth of floating rate securities issuance, despite declining somewhat, was significantly higher, at 11.8%, than the rate of growth of fixed rate securities issuance, which stood at 2.8% in the same month.

The annual growth rate of debt securities issued by non-financial corporations decreased to 3.9% in October 2008, down from 5.6% in September 2008, possibly reflecting the particularly difficult conditions in the capital markets after the collapse of Lehman Brothers, the US investment bank, in mid-September 2008. Viewed from a longer-term perspective, while remaining robust despite the intensification of the financial crisis, the current issuance activities by non-financial corporations are nevertheless significantly lower than immediately before the outbreak of the crisis in mid-2007 when debt securities issuance of non-financial corporations reached an annual growth rate of around 10%. In terms of the maturity structure of issuance, the annual growth rate of long-term debt securities issued by non-financial corporations decreased by 0.8 percentage point to 3.2% in October 2008, whereas the growth rate of short-term issuance declined strongly to 7.6%, down from about 15% in the month before.

Turning to seasonally adjusted data (which are more suitable for gauging short-term trends), the six-month annualised growth rate of debt securities issued increased by 0.7 percentage point to 8.9% in October 2008. This increase was largely driven by a rise in central government issuance activity. At the same time, the six-month annualised growth rate of debt securities issued by non-financial corporations declined somewhat to 3.4% in that month, from 4.9% in September 2008 (see Chart 7). However, seasonally adjusted data indicate continued strong issuance by non-financial corporations of short-term debt securities.

	Amount outstanding (EUR billions)  Annual growth rates <sup>1)</sup>						
	2008	2007	2008	2008	2008	2008	2008
Issuing sector	Oct.	Q4	Q1	Q2	Q3	Sep.	Oct.
Debt securities:	12,887	8.9	8.1	6.9	7.3	7.1	7.0
MFIs	5,314	10.8	9.3	7.7	8.1	6.9	5.4
Non-monetary financial corporations	1,732	26.6	24.9	21.8	23.6	24.6	21.7
Non-financial corporations	694	7.9	8.6	5.7	3.9	5.6	3.9
General government	5,147	3.0	2.7	2.2	2.4	2.6	4.8
of which:							
Central government	4,818	2.8	2.7	2.3	2.4	2.6	4.9
Other general government	330	5.2	2.7	1.3	3.0	2.3	2.8
Quoted shares:	3,734	1.3	1.2	0.9	0.6	0.7	0.7
MFIs	450	1.3	0.8	1.5	2.8	3.7	4.2
Non-monetary financial corporations	280	2.8	2.6	2.4	2.5	2.6	2.8
Non-financial corporations	3,004	1.2	1.2	0.6	0.0	0.0	-0.1

Source: ECB

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



As regards the financial sector, the annual growth rate of debt securities issued by MFIs declined to 5.4% in October 2008, down from 6.9% in September 2008. This decline was, in particular, reflected in a sharp fall in the issuance of short-term securities, which stood at an annual growth rate of 10.9% in October 2008 compared with growth rates above 20% during the first three quarters of 2008. The annual growth rate of MFIs' issuance of long-term debt securities decreased moderately to 4.4% in October 2008. The sharp fall in the issuance of short-term debt securities by MFIs possibly reflects the heightened uncertainty concerning the banking sector following the Lehman Brothers' collapse. The extent of this effect can be gauged more accurately by examining seasonally adjusted data. Indeed, six-month seasonally adjusted data indicate declines in October 2008 in the growth rates of both short and long-term debt securities issued by MFIs by 3.2 percentage points (to 9.0%) and 1.3 percentage points (to 6.1%), respectively.

The annual growth rate of debt securities issued by non-monetary financial corporations decreased somewhat to stand at 21.7% in October 2008, compared with 24.6% in the previous month, thus confirming the continued robust issuance activity in this sector. A large part of this issuance activity 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). Possibly related to the current difficulties in securitisation markets, the short-term dynamics evidenced by the six-month annualised growth rate, however, point to a substantial slowdown in issuance activity in this sector, with a growth rate of 24.5% in October 2008 compared with 30.0% in mid-2007.

The annual growth rate of debt securities issued by the general government sector increased significantly to 4.8% in October 2008, the highest level in three years, up from 2.6% in September 2008. This development broadly reflected an increase in the growth rate of debt securities issued by the central and local government sectors.

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



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

#### (annual growth rates)

- total
  monetary financial institutions
- ---- non-monetary financial institutions
- non-financial corporations



4 ECB Monthly Bulletin January 2009

Monetary and financial developments

#### **QUOTED SHARES**

The annual growth rate of quoted shares issued by euro area residents was 0.7% in October 2008, unchanged from the previous month (see Table 3). This stability broadly reflects a stagnant growth rate of quoted shares issued by non-financial corporations of -0.1%, while the growth rate of issuance by non-monetary financial institutions increased slightly from 2.6% to 2.8%. At the same time, the annual growth rate of quoted shares issued by MFIs increased further, reaching 4.2% in October 2008, reflecting the efforts of euro area banks to replenish their capital buffers to counter the severe write-downs on their securities holdings observed over the past year (see Chart 8).

#### 2.3 MONEY MARKET INTEREST RATES

Secured money market rates declined sharply in December, in line with the downward revision of markets' expectations regarding future key ECB interest rates and reflecting the large reduction in key ECB interest rates in early December. Unsecured money market interest rates also decreased, but by a larger amount, resulting in a narrowing of the spread between unsecured and secured rates. Nonetheless, this spread remains at an elevated level. While year-end effects did influence short-term money market rates, their impact was more muted than in previous years, mainly because of the liquidity management policy adopted by the Eurosystem in October.

Unsecured money market rates decreased significantly between 5 December 2008 and 14 January 2009. On 14 January the one-month. three-month, six-month and twelve-month EURIBOR rates stood at 2.28%, 2.57%, 2.63% and 2.70% respectively, i.e. 95, 99, 99 and 100 basis points below the levels observed on 5 December (see Chart 9). This decline unfolded at a relatively constant pace for all maturities, with the result that the spread between the twelve-month and one-month EURIBOR rates stood at 42 basis points on 14 January, broadly unchanged from 5 December (see Chart 9).

EONIA swap rates also decreased over the course of the month, but at a more subdued pace. This decrease reflects the 75 basis point reduction in key ECB interest rates announced on 4 December and markets' expectations of further cuts in the coming months. Consequently, the spread between the unsecured EURIBOR and the EONIA swap index decreased to levels last seen at the end of September prior to the peak in early October. At the three-month maturity, the spread between the EURIBOR

#### hart 9 Money market interest rate:



and the EONIA swap index decreased from 151 basis points on 5 December to 108 basis points on 14 January.

On 14 January the interest rates implied by the prices of three-month EURIBOR futures maturing in March, June and September 2009 stood at 1.975%, 1.770% and 1.765% respectively, representing declines of 70, 67 and 68.5 basis points by comparison with 5 December. These substantial falls in the interest rates implied by three-month EURIBOR futures partly reflect sharp declines in expectations regarding future key ECB interest rates, as well as a further decline in the expected spread between secured and unsecured rates.

On 4 December the Governing Council decided to cut the key ECB interest rates by 75 basis points, which resulted in the interest rate on the Eurosystem's main refinancing operations (MROs) standing at 2.50%. Furthermore, on 18 December the ECB announced that the Eurosystem's MROs would continue to be carried out through fixed rate tender procedures with full allotment beyond the maintenance period ending on 20 January 2009, and at least until the end of the third maintenance period of 2009. Moreover, it was announced that the

### Chart IO ECB interest rates and the overnight interest rate

#### (percentages per annum; daily data) minimum bid rate/fixed rate in the main refinancing operations deposit rate overnight interest rate (EONIA) marginal rate in the main refinancing operations marginal lending rate 5.5 5.5 5.0 5.0 4.5 4.5 4.0 4.0 3.5 3.5 3.0 3.0 2.5 2.5 2.0 2.0 1.5 1.5 1.0 1.0 Jan. Apr. July Oct. Jan. Apr. July Oct. Jan. Apr. July Oct. Jan. 2006 2007 2008 2009 Sources: ECB and Reuters

interest rate corridor established by the Eurosystem's standing facilities would be widened in a symmetrical manner as of 21 January, with the rate on the deposit facility falling by 50 basis points relative to the rate on the MROs and the rate on the marginal lending facility rising by the same amount.

At the start of the 12th maintenance period of 2008 (which ended on 20 January 2009) the EONIA fell significantly, in line with the reduction in key interest rates (see Chart 10). The EONIA continued to decline over the course of the maintenance period, albeit with upward spikes at the end of the year marking the usual seasonal effects. However, the end-of-year spike was relatively limited this year, as the ample liquidity provided by the Eurosystem in the context of its fixed rate tender procedures with full allotment smoothed the transition into the new year. Having stood at around 2.9% towards the end of the previous maintenance period, the EONIA declined to 2.225%, before increasing slightly to stand at 2.352% at the end of the year and then immediately dropping back to stand at 2.115% on 14 January. During that maintenance period the EONIA was consistently below the interest rate in the main refinancing operations. It averaged 27 basis points below that rate, with a low of 14.8 basis points at the end of the year and a maximum of 38.5 basis points on 14 January. This behaviour is consistent with the provision of abundant amounts of liquidity in the context of the policy of full allotment at a fixed rate.

26 BCB Monthly Bulletin January 2009

Monetary and financial developments

Owing to the Eurosystem's policy of using fixed rate tender procedures with full allotment in its MROs, the volume of liquidity provided to the market was determined solely by the bidding behaviour of counterparties. In the MROs of 9, 16, 22 and 30 December and 5 and 13 January, counterparties bid  $\notin$  22.4 billion,  $\notin$  296.2 billion,  $\notin$  335.2 billion,  $\notin$  363.6 billion,  $\notin$  373.1 billion and  $\notin$  331.8 billion in excess of the respective benchmark amounts, thereby obtaining liquidity well in excess of what would have been required in order to fulfil reserve requirements.

Recourse to the deposit facility increased considerably during this maintenance period. Reflecting the ample liquidity conditions and the absence of fine-tuning operations, average daily recourse to the deposit facility was around  $\in 231$  billion over that period, with a clear upward trend. At the same time, daily recourse to the marginal lending facility declined from around  $\notin 7$  billion on 10 December to around  $\notin 1.7$  billion on 14 January, with a noticeable spike around the end of the year. It averaged around  $\notin 2.3$  billion over the period as a whole.

Furthermore, using its reciprocal currency arrangements (swap lines) with the Federal Reserve, the Eurosystem continued to provide US dollar funding against collateral eligible in the Eurosystem, conducting operations with a maturity of one week on 10 and 17 December and 7 and 14 January, an operation with a maturity of two weeks on 23 December, operations with a maturity of one month on 16 December and 13 January and an operation with a maturity of three months on 30 December. The ECB also provided Eurosystem counterparties with US dollar and Swiss franc funding against euro cash via foreign exchange swap operations.

In the Eurosystem's supplementary longer-term refinancing operations on 10 December and 7 January (which were conducted with full allotment and a fixed rate equal to the interest rate in the Eurosystem's main refinancing operations), the ECB provided  $\in$ 7.5 billion and  $\in$ 38.1 billion respectively with a maturity of three months and  $\in$ 9.4 billion and  $\in$ 55.9 billion respectively with a maturity of six months. In the longer-term refinancing operation on 17 December (which was also conducted with full allotment at the fixed rate of 2.50% and a maturity of three months), the allotted amount was  $\in$ 50.7 billion.

### 2.4 BOND MARKETS

In December 2008 and early January 2009 long-term government bond yields decreased moderately in the euro area, while they declined substantially in the United States. Long-term break-even inflation rates in the euro area rebounded, largely due to a normalisation of previous atypical movements in inflation-linked bond prices. Implied bond market volatility remained at high levels on both sides of the Atlantic.

Compared with end-November, ten-year government bond yields in the euro area and the United States decreased by around 10 and 75 basis points, to stand at 3.6% and 2.2% respectively on 14 January (see Chart 11). Accordingly, the ten-year nominal interest rate differential between US and euro area government bonds widened towards about -140 basis points at the end of the review period. In Japan, ten-year government bond yields declined by 15 basis points, standing at 1.3% in early January. In December and early January bond market volatility on both sides of the Atlantic was well below the peaks observed in mid-November, but remained at elevated levels.



In the United States, bond yields continued the decline that started in early November. During the week in December in which the Federal Open Market Committee (FOMC) announced the new target range for the federal funds rate of 0.0 to 0.25%, ten-year government bond yields slid down by about 50 basis points. Part of this strong decrease is probably due to the fact that the FOMC announced that it would likely maintain the target range at a low level for a prolonged period.

In the euro area, flight-to-quality movements arguably abated somewhat compared with November, taking some pressure off long-term yields. Against the background of a largely anticipated 75 basis point reduction of the key ECB interest rates, long-term government bond yields in the euro area decreased only moderately overall. Spreads of ten-year government bonds of individual euro area countries vis-à-vis their German counterparts widened further in general, with new highs being observed at end-December and in early January. The elevated levels of intra-euro area sovereign spreads still seem to mainly reflect heightened risk aversion of bond investors, coupled with unusually low liquidity in some sovereign debt markets and concerns about the fiscal burden of rescue packages.<sup>1</sup>

Yields on long-term inflation-linked government bonds in the euro area decreased significantly during December and early January. After their strong increases in September and October, which had reflected selling pressure stemming from deleveraging by a number of financial institutions, real yields have arguably moved more in line with the depressed macroeconomic outlook. This normalisation saw a decrease of 115 and 85 basis points in the five and ten-year spot real yields, respectively (see Chart 12).



See the box entitled "Recent widening in euro area sovereign bond yield spreads" in the November 2008 issue of the Monthly Bulletin.

Monetary and financial developments

In combination with the small decline in nominal long-term yields, this normalisation induced a marked rebound in five and ten-year spot break-even inflation rates, which both increased by about 75 basis points. In early January, they stood at levels of 1.3% and 1.8%, respectively. Accordingly, five-year forward rates five years ahead went up by 70 basis points towards a level of 2.4%. To some extent, these movements can be considered as the mirror image of the correction in inflation-linked bond markets prompted by technical factors. However, there is still much uncertainty as to how much the ongoing strains in financial markets are distorting the relative pricing of conventional nominal bonds vis-à-vis the typically much less liquid inflation-linked government bonds. Hence, the interpretation of break-even inflation rates as a reflection of market participants' inflation expectations and related risk premia is still being hampered by these technical factors.

The development of the euro area term structure of short-term forward rates shows how the overall behaviour of euro area long-term bond yields can be decomposed into changes in interest rate expectations (and related risk premia) at different horizons (see Chart 14). The broadly unchanged level of long-term bond yields compared with end-November is the result of a downward revision of short-term interest rate expectations over shorter horizons, which was offset by higher rate expectations and a probable increase in risk premia over longer horizons.

Corporate bond spreads remained at very elevated levels in December and early January. Spreads for BBB-rated debt of non-financial corporations reached a new high (with respect to the period since 1999) by end-December. However, compared with end-November, the spreads between bond yields of nonfinancial corporations and comparable rates on government debt have decreased somewhat across all rating classes. Corporate bond spreads of higher-rated financial corporations declined likewise, while those of lower-rated debt of the financial sector increased further. Overall, the

### Chart 13 Euro inflation rates

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



Sources: Reuters and ECB calculations.

### hart 14 Implied forward euro area vernight interest rates



(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 vields.



still high corporate bond spreads reflect the sustained concern of investors regarding the health of both non-financial and financial corporations.

#### 2.5 INTEREST RATES ON LOANS AND DEPOSITS

In November 2008 almost all short and long-term MFI interest rates on new loans to households and non-financial corporations declined substantially. Likewise, most MFI interest rates on new deposits decreased significantly in November 2008, following pronounced increases in previous months.

In November 2008, except for short-term MFI interest rates on consumer loans, which increased somewhat, all short-term MFI interest rates on loans to households and non-financial corporations decreased significantly, bringing to an end the upward trend observed in preceding months (see Chart 15). Likewise, in November 2008 MFI interest rates on short-term deposits (i.e. deposits with an agreed maturity of up to one year) from both non-financial corporations and households declined significantly. These developments were most likely driven by the parallel and more pronounced falls in market rates with corresponding rate fixation periods. Reflecting the reductions in key ECB interest rates and the somewhat abating tensions in the money markets,

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

#### (percentages per annum; rates on new business)

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



# Chart 16 Spreads of short-term MFI interest rates versus the three-month money market rate

(spreads in percentage points; rates on new business)

money market rate

- spreads of loans to non-financial corporations of over €1 million with a floating rate and an initial rate fixation of up to one year versus the three-month money market rate
- spreads of loans to households for house purchase with a floating rate and an initial rate fixation of up to one year versus the three-month money market rate
  spreads of deposits from households with an agreed maturity of up to one year versus the three-month



Source: ECB.

Note: For the loans the spreads are calculated as the lending rate minus the three-month money market rate and for the deposits the spreads are calculated as the three-month money market rate minus the deposit rate.

Monetary and financial developments

the three-month EURIBOR sharply declined in November and December 2008.<sup>2</sup> This resulted in a widening of the spreads between shortterm MFI lending rates and short-term money market rates, while the spread between money market rates and short-term MFI deposit rates declined to zero in November 2008 (see Chart 16). These movements probably reflect the traditional sluggish pass-through of changes in market rates to retail bank interest rates, tighter bank credit standards and, as regards the narrowing of the deposit spread, continued strong competition among banks to attract deposit funding.

Similar developments were observed for longerterm MFI interest rates. Hence, all MFI lending rates with an initial rate fixation period of over one year declined in November 2008 (see Chart 17). The declines were particularly pronounced for long-term rates on loans to non-financial corporations, halting the upward trend observed in preceding months, whereas the decreases in long-term rates on loans to households were somewhat more limited. These developments

## Chart 17 Long-term MFI interest rates and a long-term market rate

(percentages per annum; rates on new business)



most likely reflected the fact that banks began adjusting to the significant decreases in market rates observed since September 2008. For example, between August and November 2008 the five-year euro area swap rate fell by around 140 basis points. Against this background, the overall decreases in MFI lending rates between August and November were more subdued, possibly reflecting both the usual inertia in the retail bank rate adjustment and concerns about the outlook for bank borrower conditions. At the same time, MFI interest rates on long-term deposits from households continued to increase, probably reflecting the fact that competition for refinancing via deposits further increased in an environment where the access to other sources of bank funding remained very difficult. Box 2 presents some measures of MFI loan-deposit margins, which constitute a major source of bank profitability, and reviews longer-term developments in these margins.

2 For an analysis of the retail bank interest rate pass-through in light of the tensions in the euro area money market, see the box entitled "The implications of the money market tensions for the pass-through of MFI interest rates" in the December 2008 issue of the Monthly Bulletin.

#### Box 2

#### LOAN-DEPOSIT MARGINS IN THE EURO AREA

This box examines developments in average MFI loan-deposit margins, defined as the difference between average interest rates on loans and average interest rates on deposits. Loan-deposit margins provide information about euro area banks' ability to generate interest revenues. Over the past two decades net interest revenues have become less important relative to other bank



Notes: The "loan-deposit margin based on outstanding amounts" is calculated as the difference between the weighted average rate on loans to non-financial corporations and households and the weighted average rate on deposits from non-financial corporations and households (using the outstanding amounts as weights). The "loan-deposit margin based on new business rates" is calculated by first deriving the weighted average of new business loan and deposit rates (excluding rates on overdrafts, overnight deposits and deposits redeemable at notice) using the new business volumes as weights. In a second step, the weighted average new business loan rate is combined with the rates on overdrafts to non-financial corporations and households (using outstanding amounts as weights) and similarly the weighted average new business deposit rate is combined with the rates on overlight deposits rate is calculated average that notice (again using outstanding amounts as weights). The difference between the two constitutes the loan-deposit margin on new business rates.

income sources (i.e. non-interest revenues) as banks have increasingly based their business model on activities generating fees, commissions and other operating income, but they remain the main component of total bank income.<sup>1</sup> Furthermore, the decline in banks' net interest revenues may also have been driven by intense competition and the relatively flat yield curve observed in recent years. In view of the still significant contribution of net interest revenues to the overall profitability of banks, MFI loan-deposit margins are monitored on an ongoing basis in conjunction with the regular analysis of developments in MFI interest rates.

The net interest margins referred to in this box relate only to loans to and deposits from the nonfinancial private sectors, as reported in the MFI interest rate statistics. As loans and deposits vis-à-vis the non-financial private sectors constituted respectively 30% and 21% of total MFI assets and liabilities in November 2008, it is likely that they account for most of the interest revenue generated by euro area MFIs. Two composite measures of the loan-deposit margin are calculated: the average MFI loan-deposit margin based on MFI interest rates on outstanding amounts (weighted by outstanding loans and deposits) and the average new business loandeposit margin based on MFI interest rates on new business (weighted using a combination of new business volumes and outstanding amounts). Both measures have their drawbacks. On the one hand, as it is based on outstanding volumes, thereby implying that past activities are included in the weights, the margin based on interest rates on outstanding amounts may become biased in situations where there are substantial structural changes in the pricing of bank

<sup>1</sup> According to the OECD's Bank Profitability Statistics net interest revenues amounted to 60% of total bank income by 2005, which compares with around 80% in the late 1980s; see also ECB (2003), "Structural analysis of the EU banking sector", November, and the article entitled "The role of banks in the monetary policy transmission mechanism" in the August 2008 issue of the Monthly Bulletin.



Monetary and financial developments

loans and deposits. Consequently, the margin based on new business, which is less sluggish by construction, can capture recent developments in bank interest income in a more timely fashion. On the other hand, the margin based on new business rates may be affected by the considerable amount of roll-over activity in new business volumes and hence may be biased towards short-term financing transactions.

The chart illustrates the developments in the two measures of the MFI loan-deposit margin since January 2003. In 2008, both types of margins hovered around the 3% level. While the margin based on new business, which reflects better the concurrent developments in bank rates, was lower than the margin based on outstanding amounts in the period 2003-07, the gap between the two measures narrowed towards the end of this period in parallel with the increasing level of short-term interest rates.

Looking in more detail, the MFI loan-deposit margin based on outstanding amounts narrowed somewhat in the course of 2008 and by November 2008 stood at 2.9%. This narrowing seems to reflect increases in both loan and deposit rates, while average deposit rates have increased relatively more, in part reflecting a shift from overnight deposits to time deposits, on which the interest rates are more sensitive to changes in corresponding market rates. From a longer perspective, since January 2003 the loan-deposit margin based on outstanding amounts has steadily narrowed, declining by about 60 basis points up until November 2008. The narrowing during the first half of the period since 2003 was mainly due to a stronger decrease in loan rates than in deposit rates, which possibly reflected the overall low level of interest rates and the compression of credit spreads in this period.

The generally more volatile loan-deposit margin based on new business rates overall remained broadly stable in 2008, reflecting the fact that the weighted averages of new business loan and deposit rates increased more or less in parallel during this period. The latest available data for November 2008, however, resulted in a 20 basis point decline in the new business loan-deposit margin, mainly owing to a sharp reduction of new business MFI loan rates. Taking a longer view, this margin currently stands somewhat above the level observed in early 2003, but around 40 basis points higher than the level observed in the second half of 2005. The increase in the loan-deposit margin based on new business between end-2005 and end-2007 was mainly due to a stronger rise in the composite new business loan rate than in the composite new business deposit rate.

### 2.6 EQUITY MARKETS

Between end-November and 14 January stock prices in the euro area and the United States declined by 5% and 6%, respectively. Earnings developments of listed companies showed a further sharp deterioration both in the euro area and in the United States, thereby contributing to the further depreciation of equities. Stock market volatility moved in a range considerably below the peak levels observed in October and November, but remained at elevated levels at near and longer horizons, reflecting uncertainty about the depth and length of the recessions on both sides of the Atlantic.

Between end-November and 14 January global stock prices fell again markedly. While they first experienced a period of relative calm in December after the strong declines and sharp fluctuations over the previous months, global equity prices showed a renewed strong decrease in the second



### Chart 19 Implied stock market volatility

(percentages per annum; five-day moving average of 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.



and third weeks of January. Overall, euro area stock prices as measured by the broad-based Dow Jones EURO STOXX index decreased by 5%, while in the United States the Standard and Poor's 500 index declined by 6% between end-November and 14 January (see Chart 18). Over the same period, stock prices in Japan, as measured by the Nikkei 225 index, decreased by 1%. Implied near-term volatility as extracted from stock options came down globally from its peak levels observed in October and November, but was still elevated by historical standards (see Chart 19). Moreover, expected volatility for the Dow Jones EURO STOXX 50 index for the one and two-year horizons abated only slightly, suggesting that market participants' uncertainty about stock market developments remained rather high, also beyond the very short term.

Over the review period, developments in stock markets appeared to be mainly driven by concerns regarding the length and depth of the recession on both sides of the Atlantic. In the United States, the overall stock market decline was strongly influenced by the financial sector, which registered a 14% decrease, and particularly by bank stocks, which recorded a 25% decline. Regarding the driving factors, strong interest rate declines, which would – ceteris paribus – support stock prices, were counteracted by still high risk premia required by investors, as well as a continuation of the depressing macroeconomic outlook. For instance, US unemployment statistics announced on 9 January were at a level not seen for 16 years, hence highlighting the depth of the prevailing recession. The latter is also reflected in earnings figures, as actual earnings-per-share growth rates further decreased in December towards about -15% for the Standard and Poor's 500 index. Expected earnings growth rates for index constituent firms have likewise declined. However, at a level of around 10%, these rates point to some extent to an expected rebound in corporate profits one year ahead.



Monetary and financial developments

Also in the euro area, stock prices decreased in both the non-financial sector and the financial sector by 3% and 6% respectively between end-December and 14 January. Bank stock prices ended the review period down by 10%. The main factor supporting stock price developments was arguably declining interest rates. While euro area stock markets first showed relatively subdued developments with gains across sectors until the first days of January, they have recorded large losses since then. These were registered against the background of negative news for the banking sector and evidence of the accelerated decline in economic activity. At the same time, required equity premia remained high. In this respect, the December 2008 Merrill Lynch Global Fund Manager Survey showed another fall in risk appetite, after it had picked up slightly in November. Overall, euro area stock markets appear to be strongly influenced by historically high risk aversion and low investor confidence.

Regarding the earnings developments of listed companies, actual annual earnings-per-share growth for the firms constituting the Dow Jones EURO STOXX index registered -13% in December, after -4% in November. Future earnings growth rates for the aggregate Dow Jones EURO STOXX index are still expected to be positive, but declined again: the forecasted growth rate of earnings per share 12 months ahead dropped from 4% in November to 3% in December.

Sectoral earnings developments in December showed a marked contrast between non-financial and financial corporations. While the former sector recorded an annual earnings-per-share growth rate of -9%, the financial sector registered a growth rate of -38%. However, earnings per share for the financial sector are expected to rebound by 15% over the one-year horizon. For the non-financial corporate sector, an expected earnings-per-share growth rate of -3% points to weak profitability ahead.
## **3 PRICES AND COSTS**

Euro area annual HICP inflation fell further to 1.6% in December 2008 following its sharp drop to 2.1% in November. At the same time, there are signs that supply chain price pressures have fallen very strongly in recent months from the elevated levels recorded mid-year. By contrast, euro area labour costs accelerated in the third quarter of 2008. Looking ahead, sharp falls in commodity prices, as well as the ongoing weakening in demand, suggest that the annual HICP inflation rate will continue to decline in the coming months. Strong base effects from past volatility in commodity prices will contribute to temporarily stronger downside movements in HICP inflation around the middle of 2009. Looking through such volatility, risks to price stability over the medium term are broadly balanced. Unexpected further declines in commodity prices or a stronger than expected slowdown in the economy could put downward pressure on inflation, while upside risks to price stability could materialise, particularly if the recent fall in commodity prices were to reverse or if domestic price pressures turn out to be stronger than assumed.

#### **3.1 CONSUMER PRICES**

Euro area annual HICP inflation fell further to 1.6% in December 2008 following a sharp drop to 2.1% in November (see Table 4). A detailed breakdown for December indicates that the sharp slowdown in annual HICP inflation that month was mainly attributable to a further drop in the annual growth rate of the energy component (see Chart 20). This marked decline resulted from a large reduction in energy prices in month-on-month terms, stemming mainly from oil energy components, such as car fuel and heating oil. By contrast, prices for gas and heating energy rose on a monthly basis in December, possibly reflecting lagged effects of past oil price increases.

The annual growth rate of euro area food prices also fell further in December owing to a decline in the annual growth rate of processed food. The annual rate of change in processed food prices fell further to 3.5% in December, down from the peak of 7.2% in July, in an environment of lower agricultural commodity prices. The decline in December was mainly due to the bread and cereal, dairy and oil and fats components, and largely reflected a favourable base effect. Unprocessed food prices remained unchanged in annual terms at 2.8% in December. However, there were counteracting movements among unprocessed food components, with the prices of meat, fish and fruit slowing in annual terms, while vegetable prices accelerated.

	2007	007 2008	2008	2008	2008	2008	2008	2008
			July	Aug.	Sep.	Oct.	Nov.	Dec.
HICP and its components								
Overall index	2.1	3.3	4.0	3.8	3.6	3.2	2.1	1.6
Energy	2.6	10.3	17.1	14.6	13.5	9.6	0.7	-3.7
Unprocessed food	3.0	3.5	4.4	3.7	3.6	3.4	2.8	2.8
Processed food	2.8	6.1	7.2	6.8	6.2	5.1	4.2	3.5
Non-energy industrial goods	1.0	0.8	0.5	0.7	0.9	1.0	0.9	0.8
Services	2.5	2.6	2.6	2.7	2.6	2.6	2.6	2.6
Other price indicators								
Industrial producer prices	2.8		9.2	8.5	7.9	6.3	3.4	
Oil prices (EUR per barrel)	52.8	65.9	85.3	77.0	70.0	55.2	43.1	32.1
Non-energy commodity prices	9.2	4.4	9.8	10.5	5.5	-7.4	-7.7	-17.1

#### Table 4 Price developments

Sources: Eurostat, HWWI and ECB calculations based on Thomson Financial Datastream data. Note: Data on industrial producer prices refer to the euro area including Slovakia.



Prices and costs



Excluding all food and energy items, or 30% of the HICP basket, HICP inflation declined marginally to 1.8% in December, down from 1.9% in the preceding three months. The annual rate of change of non-energy industrial goods prices posted a small decline for the second time in a row, falling from 1.0% in October to 0.8% in December, following some upward movement in previous months. The latest decline was mainly due to developments in car prices (accounting for 15% of the non-energy industrial goods component). A fall in the annual rate of change in car prices to zero in December resulted partly from a base effect and probably in part from a small month-on-month decline amid falling demand for cars. The annual growth rate of services prices remained at 2.6% in December, unchanged since September and broadly in line with the average over the period since January 2007. The unchanged rate of services price inflation in November nevertheless masked contrasting developments among the sub-components. In particular, there was a small increase in the annual rate of change in the transport services component, which was somewhat at odds with the latest oil price developments. This was offset by a significant fall in the annual rate of change in the prices of package holidays. In general, as discussed in Box 3, several structural factors have contributed to keeping services price inflation in the euro area at a more elevated level than inflation in non-energy industrial goods in recent years.

#### Box 3

#### WHY IS SERVICES INFLATION HIGHER THAN GOODS INFLATION IN THE EURO AREA?

When analysing economic activities, it is common to distinguish between services and goods. This box looks at the nature and possible explanations for the gap between services inflation and industrial goods price inflation in the euro area, paying particular attention to the tendency for this gap to persist over time.

Over the past two to three decades, the prices of services have risen more rapidly than the prices of goods in the euro area. This can be seen in both HICP data and gross value added deflators from the latest EU KLEMS database (see the chart and table respectively).<sup>1</sup> The concept of "goods" used here refers to manufacturing as the relevant national accounts category in the EU KLEMS database and to non-energy industrial goods (NEIG) when looking at HICP data. For both types of data, the gap between market-related services price inflation and goods price inflation has

# Gap between services and goods HICP inflation

#### (annual percentage changes)



Note: The latest data are for November 2008.

tended to be persistently positive over time. The gap has hovered at around 2 percentage points in the case of HICP data (1991-2008) and at 1.2 percentage points using EU KLEMS data (1981-2005). Moreover, the gap between services price inflation and goods price inflation has persisted regardless of the inflation rate. For example, growth in services prices outpaced growth in goods prices as much during periods when inflation was relatively high (e.g. during the 1980s and early 1990s) as it did when inflation was lower (since the mid-1990s).

There are a number of reasons why services prices tend to rise more rapidly than goods prices. One argument sometimes presented is higher growth in the demand for services as per capita income rises and the population ages. The share of services in gross value added rose from slightly more than 60% in 1980 to some 70% in 2005 (around 50% in the case of market services and 20% for non-market services). Increases in the demand for services relative to the demand for goods may at times explain some short-run increases in services prices relative to those for goods. Nevertheless, this factor fails to account for this phenomenon in the medium to long run as supply should have been able to match the trend rise in demand over time.

<sup>1</sup> On the EU KLEMS database, see Timmer, M., van Moergaestel, T., Stuivenwold, E., Ypma, G., O'Mahony, M., Kangasniemi, M.: EU KLEMS Growth and Productivity Accounts Version 1.0, March 2007. Although ESA-95 national accounts data from Eurostat are more timely, EU KLEMS data are used here for two reasons. First, they are available for a long period (from 1970 compared with the ESA-95 data, which are only available from the early 1990s). Second, EU KLEMS data report labour productivity per hour worked, while the ESA-95 statistics only report labour productivity per person employed. For an analysis of ESA-95 data on services inflation, see the box entitled "Judging sectoral inflation developments on the basis of national accounts data" in the May 2008 issue of the Monthly Bulletin.

Prices and costs

#### Inflation, productivity and competitior

(five-year averages, annual percentage changes)	)					
	1981-2005	1981-1985	1986-1990	1991-1995	1996-2000	2001-2005
Gross value added deflator						
Market services	3.8	7.2	4.2	3.7	1.4	2.5
Manufacturing	2.6	6.2	3.1	2.0	1.0	0.7
Market services minus manufacturing	1.2	1.0	1.1	1.7	0.4	1.7
Labour productivity growth per hour worke	d					
Market services	1.5	1.5	2.0	1.9	1.2	0.8
Manufacturing	2.8	3.7	2.4	3.3	2.6	2.1
Market services minus manufacturing	-1.3	-2.2	-0.4	-1.4	-1.4	-1.3
Profit mark-up						
Market services	36.4	32.7	36.5	38.3	37.9	36.7
Manufacturing	10.2	9.9	11.9	9.6	10.0	9.6
Market services minus manufacturing	26.2	22.8	24.7	28.7	27.9	27.1

Source: EU KLEMS.

Note: The profit mark-up is defined as the ratio of output to production costs. The euro area data exclude Cyprus, Malta, Slovakia and Slovenia.

Turning to the supply-side factors that could be behind the sustained gap between services inflation and goods price inflation, one explanation relates to sectoral productivity growth differentials. Concerning the growth in gross value added prices and the increase in labour productivity, on average a quantitatively similar gap can be observed between market services and manufacturing (see the table). For the period 1981-2005, gross value added annual inflation in market services exceeded that in manufacturing by 1.2 percentage points. The corresponding gap between manufacturing and services was 1.3 percentage points for labour productivity growth.

Another factor that could lead to higher relative prices of services is a rising mark-up induced by the lack of competition in this sector.<sup>2</sup> In this regard, mark-up increases in market services above those seen in manufacturing appeared to contribute to driving the inflation gap between the two sectors during the 1980s and until the mid-1990s as indicated by the rising gap in the profit mark-up (see the table). While since the mid-1990s this has ceased to be the case, it is worth mentioning that market services have continued to exhibit a relatively high level of mark-ups. Indeed, over the period 1996-2005 the "profit mark-up" – i.e. the ratio of output to production costs – averaged 37.3% in market services, compared with the much lower value of 9.8% in manufacturing.

Finally, two open economy-related factors are sometimes mentioned, namely the increased openness to foreign trade and the value of the euro. With regard to increased openness to foreign trade, it is argued that greater global competition affects goods price inflation more than services price inflation because the international trade in goods is considerably larger. The degree of euro area trade openness (measured in terms of exports plus imports as a percentage of GDP) has risen steadily from about 20% in 1990 to some 35% of GDP in 2008 (excluding intra-euro area trade). This increase has been fuelled by the contribution from regions with lower labour costs, notably the new European Union Member States and South-East Asia, which are able to produce and sell goods at relatively low prices. To maintain price competitiveness, euro area firms must find ways to cut their costs and prices. Both the low prices of goods produced in lower cost

<sup>2</sup> In practice, competition affects not only mark-ups but also productivity. See Task Force of the Monetary Policy Committee of the ESCB: "Competition, productivity and prices in the euro area services sector", ECB Occasional Paper No 44, 2006; and the article entitled "Competition in and economic performance of the euro area services sector" in the May 2007 issue of the Monthly Bulletin.

countries and sold within the euro area and the price responses of local producers help to keep prices for manufactured products low and to widen the gap between services and goods price inflation. In practice, however, the steady rise in euro area trade openness seen since the 1990s has not been matched by any detectable trend in the inflation gap. This lack of correlation is clear in the medium run, even if some co-movement can be found for shorter periods of time.

With regard to the value of the euro, a nominal exchange rate appreciation is expected to lower overall consumer goods inflation by making imports cheaper. Since international trade in goods is considerably greater than international trade in services, a rise in the value of the euro may thus cause goods prices to drop relative to services prices, contributing to the inflation gap. Conversely, an exchange rate depreciation would be conducive to a fall in the inflation gap between services and goods. However, since the 1990s the value of the euro has exhibited wide fluctuations and no clear trend. The exchange rate cannot therefore explain the persistence in the inflation gap in the medium to long run. This notwithstanding, in some instances exchange rate fluctuations may have temporarily influenced inflation gap developments.

In sum, over the past two to three decades services price inflation has been higher than goods price inflation in the euro area. The persistent inflation gap between services and goods has been associated with poor labour productivity growth. Other factors appear to have played only a transient role in driving inflation in services higher than inflation in goods, including higher demand for services relative to goods, open economy considerations (in the form of heightened foreign competition and fluctuations in the euro exchange rate) and rising mark-ups. With regard to the latter factor, it is worth mentioning that the services sector has continued to display relatively high mark-ups since the mid-1990s. All this suggests that structural reforms aimed at raising productivity growth and reducing profit margins, such as an increase in market competition in the services sector, would contribute to making relative prices more flexible and to reducing overall inflationary pressure from services prices in the euro area.

#### 3.2 INDUSTRIAL PRODUCER PRICES

Supply chain price pressures have been receding steadily since they reached very elevated levels in summer 2008. The annual growth in industrial producer prices (excluding construction) fell sharply to 3.4% in November from 6.3% in October (see Chart 21). This fall could in part be attributed to a strong base effect in the energy component, with the annual growth rate of energy producer prices declining to 6.3% in November 2008 from 15.9% in October. Excluding energy (and construction), producer price inflation declined to 2.3%. While this reflected lower inflation rates in nearly all main industrial groupings, there was a particularly marked fall in the annual rate of growth of intermediate goods prices, which fell to 2.7% in November 2008 from 4.3% in October. It is likely that this resulted from the easing in industrial raw materials prices, which has been exerting a downward effect on the short-term dynamics of producer prices along the production chain. Further down the production chain, the annual rate of change in consumer goods prices decreased again in November to 2.0%, on account of lower inflation in both the durable and the non-durable goods components.

More recent information from surveys on price-setting behaviour by firms suggests that supply chain price pressures continued to ease in December 2008 (see Chart 22). According to the latest Purchasing Managers' Index, following the sharp fall in indices for input prices and selling prices, most indicators of price pressures in the manufacturing and services sectors stood in the vicinity of historical lows at the end of 2008 in stark contrast to the elevated levels recorded mid-year.

#### Prices and costs



### **3.3 LABOUR COST INDICATORS**

Available data suggest that euro area wage growth remained strong throughout much of 2008, with negotiated wages, hourly labour costs and compensation per employee all growing at elevated rates through the third quarter of the year (see Chart 23 and Table 5). Negotiated wages grew by 3.4%, probably influenced by past labour market tightness, as well as second-round effects in some euro area countries stemming from indexation to temporarily high inflation outcomes. Hourly labour costs accelerated in the third quarter, rising by 4.0% on an annual basis. This high hourly labour cost growth outturn, which was broadly based across all sectors (see Chart 24), may to some extent have derived from the developments in hours worked, given an adjustment in hours worked in response to weakening demand which was not accompanied by a similar adjustment in wages, as well as a correction in hours worked resulting from the early timing of Easter in 2008 (which distorted

(annual percentage changes, unless other	wise indicated)						
	2006	2007	2007	2007	2008	2008	2008
			Q3	Q4	Q1	Q2	Q3
Negotiated wages	2.3	2.2	2.2	2.1	2.9	2.8	3.4
Total hourly labour costs	2.5	2.6	2.5	2.9	3.5	2.8	4.0
Compensation per employee	2.2	2.5	2.3	2.9	3.1	3.4	3.5
Memo items:							
Labour productivity	1.2	0.8	0.7	0.4	0.5	0.2	-0.1
Unit labour costs	1.0	1.7	1.6	2.5	2.6	3.2	3.6

Sources: Eurostat, national data and ECB calculations. Note: Data on negotiated wages do not include Slovakia.





hours worked in the second quarter). The annual growth rate of compensation per employee, at 3.5%, combined with the contraction in euro area productivity witnessed in the same quarter, pushed up annual growth in unit labour costs to 3.7%, its highest level in over a decade. Labour cost growth thus remained relatively strong at a time of slowing activity. However, it appears very likely that labour cost growth will fall again in view of the weak euro area growth outlook.

#### **3.4 THE OUTLOOK FOR INFLATION**

Euro area annual HICP inflation fell to 1.6% in December 2008 following its sharp drop to 2.1% in November. At the same time, there are signs



that supply chain price pressures have fallen very strongly in recent months from the high levels recorded mid-year. By contrast, euro area labour costs accelerated during the third quarter of 2008.

cost index

Looking ahead, sharp falls in commodity prices, as well as the ongoing weakening in demand, suggest that the annual HICP inflation rate will continue to decline in the coming months. Strong base effects from past volatility in commodity prices will contribute to temporarily stronger downside movements in HICP inflation around the middle of 2009. Likewise, base effects will contribute to increasing inflation rates in the second half of the year, implying the strong likelihood

ECB Monthly Bulletin January 2009

Prices and costs

of sharp fluctuations in HICP inflation rates during 2009. Looking through such volatility, risks to price stability over the medium term are broadly balanced. Unexpected further declines in commodity prices or a stronger than expected slowdown in the economy could put downward pressure on inflation, while upside risks to price stability could materialise, particularly if the recent fall in commodity prices were to reverse or if domestic price pressures turn out to be stronger than assumed.



## **4 OUTPUT, DEMAND AND THE LABOUR MARKET**

The pace of euro area activity declined markedly in the second half of 2008 as tensions increasingly spilled over from the financial sector to the real economy. Survey data and monthly indicators point to a further weakening of economic activity around the turn of the year. The outlook for economic activity is extraordinarily uncertain, in large part stemming from the financial market turmoil. Global economic weakness and very sluggish domestic demand are expected to persist over the next few quarters as the impact of the financial market tensions on activity continues. At the same time, the fall in commodity prices is expected to support real disposable income in the period ahead. Furthermore, the euro area should, over time, benefit from the effects of policy measures announced over recent weeks. Overall, risks to economic growth remain clearly on the downside. They relate mainly to the potential for a stronger impact on the real economy of the turmoil in financial markets, as well as to concerns about the emergence and intensification of protectionist pressures and to possible adverse developments in the world economy stemming from a disorderly correction of global imbalances.

#### 4.1 REAL GDP AND DEMAND COMPONENTS

The pace of euro area activity declined markedly in the second half of 2008. On a quarterly basis, real GDP fell by 0.2% in the third quarter of 2008, following a similar decline in the previous quarter (see Chart 25). Forward-looking survey data point to a deeper contraction in activity towards the end of the year.

The breakdown in expenditure for the third quarter indicated sluggish final domestic demand, with subdued private consumption growth and falling investment offset partially by rising government expenditure. The contribution from domestic demand (excluding inventories) was confirmed to be zero. Net trade detracted from growth as exports remained weak and growth in imports rebounded.

As a result of a downward revision to exports and a slight upward revision to imports, the net trade contribution was revised downwards by 0.1 percentage point and now stands at -0.6 percentage point. The contribution of inventories to overall growth was revised slightly upwards to 0.4 percentage point from 0.3 percentage point.

After having underperformed, in relation to its main determinants, from the middle of 2006 until the end of 2007, private consumption growth has proceeded in line with fundamentals since the beginning of 2008. In the aftermath of the financial turmoil in August 2007, the contribution of financial wealth turned negative already by the end of 2007. Moreover, the contribution from real disposable income turned negative in the third quarter of 2008, reflecting the high inflation driven by commodity price increases.

Private consumption was broadly unchanged in the third quarter of 2008, having fallen in the



ECB Monthly Bulletin January 2009

Output, demand and the labour market

second quarter. Recent developments in retail trade, taken together with consumer confidence and new car registrations, point to continued weak consumer spending in the last quarter of 2008 and the first months of 2009. The volume of retail sales rose 0.6% month on month in November, following a fall of 1.0% in October. On a three-month moving average basis, growth in retail sales remained negative (see Chart 26). In addition, new passenger car registrations continued the steep decline seen in recent months. Consumer confidence deteriorated in December and reached the lowest level since the survey began in 1985.

Investment growth also moderated in the third quarter of 2008, reflecting a sharp contraction in construction investment and a smaller fall in business investment. The breakdown of gross fixed capital formation for the third quarter of 2008 recently released indicates that the decline in total investment by 0.6% at a quarterly rate was due to a strong fall in



construction investment by 1.0%, after having declined by 1.7% in the previous quarter, and a fall of non-construction investment by 0.3%, compared with growth of 0.1% in the second quarter of 2008.

Looking ahead, weakness in investment is expected to continue towards the end of 2008 and during much of 2009 in both construction and non-construction investment. Ongoing adjustment in several euro area country housing markets is likely to dampen residential investment over the coming quarters. New loans for house purchase in the euro area have been showing annual negative variations since the early months of 2007, but the contraction has been accelerating in the course of 2008, as credit conditions applied to loans to households have tightened. Together with ongoing weakness in household disposable income and the protracted deterioration in consumer confidence, it is likely that weakness in euro area housing markets will persist for some time.

Business investment is also likely to soften further. Waning demand has already lowered profitability. Falling demand has also reduced capacity constraints within firms, potentially dampening the need for businesses to expand production capacity. In addition, tighter lending standards have raised financing spreads, which will tend to discourage investment growth.

#### 4.2 OUTPUT, SUPPLY AND LABOUR MARKET DEVELOPMENTS

The decline in activity in the third quarter primarily reflected falls in manufacturing and construction production. The quarter-on-quarter growth of real value added by industry was revised upwards to -1.3% from -1.4%. As a result, the contribution of industry to the growth of total value added in real terms was revised upwards to -0.3 percentage point. Services sector value added growth was slightly more resilient, registering modest positive growth. The services sector contribution to the aggregate real value added growth stood at 0.1 percentage point.

Recent data releases suggest a marked weakening in activity during the fourth quarter. Euro area industrial production (excluding construction) pointed to a steeper and accelerated contraction in industrial production during the fourth quarter. Production fell by 1.6% month on month in November, after sharp falls in October and September (see Chart 27). The monthly fall in euro area production in November resulted from sharp declines in the production of intermediate and capital goods, while consumer goods production receded mildly. Taking a somewhat longer-term perspective, in year-on-year terms, euro area industrial production (excluding construction) declined by 6.9% in October and has meanwhile fallen back to a level comparable to that reached in early 2006.

Construction production in the euro area decreased by 0.1% month on month in October, following a larger fall in September. Information provided by building permits granted in the euro area, which constitutes a leading indicator of developments in housing supply, suggests that residential construction is likely to be weak in the months ahead.

Surveys of business activity have recorded further large, broad-based declines (see Chart 28). The PMI and the European Commission's surveys of industrial and services sector activity showed declines in December, with the Commission's survey recording the lowest level seen since it began in 1985. The further loss in business confidence in December 2008 was broad based, occurring in the manufacturing, services, retail and construction sectors. In manufacturing, although the fall of the PMI index in December was clearly smaller than the exceptionally strong declines in the previous two months, it still signalled an ongoing acceleration in the contraction of euro area manufacturing activity. Overall, the latest surveys suggest that the underlying growth momentum



Monthly Bulletin January 2009

Output, demand and the labour market

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

	Annual	Annual rates			Quarterly rates				
	2006	2007	2007 Q3	2007 Q4	2008 Q1	2008 Q2	2008 Q3		
Whole economy	1.6	1.8	0.5	0.3	0.4	0.2	0.0		
of which:									
Agriculture and fishing	-1.9	-1.2	-1.0	-0.4	0.5	-1.2	-0.8		
Industry	0.6	1.4	0.0	0.1	0.2	-0.3	-0.7		
Excluding construction	-0.3	0.3	0.0	0.1	0.3	0.1	-0.3		
Construction	2.7	3.9	-0.1	0.0	0.0	-1.2	-1.5		
Services	2.2	2.1	0.7	0.4	0.4	0.4	0.2		
Trade and transport	1.7	1.8	0.8	0.1	0.5	0.3	0.1		
Finance and business	3.9	4.1	0.8	0.8	0.8	0.4	0.0		
Public administration <sup>1)</sup>	1.9	1.4	0.5	0.5	0.1	0.5	0.5		

Sources: Eurostat and ECB calculations.

Note: Data refer to the euro area including Slovakia. 1) Also includes education, health and other services.

continues to deteriorate and points to a stronger fall in real GDP growth in the last quarter of 2008 than in the previous one.

#### LABOUR MARKET

Conditions in euro area labour markets continued to deteriorate. Employment was unchanged quarter on quarter in the third quarter of 2008, following growth of 0.2% in the previous quarter (see Table 6). Nevertheless, more recent indicators such as the PMI employment indices for





December, show deep job cuts in manufacturing and in the services sector. In particular, the strong deterioration in the index for services indicates that lower demand for services is starting to have a large effect on employment. Surveys of firms' employment intentions suggest a continuation of the subdued outlook for employment in the coming months (see Chart 29).

As activity contracted, labour productivity declined (see Chart 30). Year-on-year labour productivity growth (per person employed) was -0.1% in the third quarter of 2008 compared with 0.2% in the previous one. Labour productivity growth currently stands at its lowest rate since the beginning of 2002. Looking forward, latest data for November from the PMI productivity index, suggest an ongoing deterioration in labour productivity growth. The index currently stands at its lowest level since its inception (1998).

The unemployment rate in the euro area has increased since the start of the year, moving from 7.2% in the first quarter of the year to 7.8% by November (see Chart 31). The rise in the euro area unemployment rate for November reflects further marked rises in unemployment in a number of euro area countries, most notably Spain, France and a smaller increase in Ireland. Unlike in previous months, no notable offsetting declines were recorded elsewhere in the euro area in November. The number of unemployed rose for the eighth consecutive month in November in the euro area.

Output, demand and the labour market

### **4.3 THE OUTLOOK FOR ECONOMIC ACTIVITY**

The pace of euro area activity declined markedly in the second half of 2008 as tensions increasingly spilled over from the financial sector to the real economy. Survey data and monthly indicators point to a further weakening of economic activity around the turn of the year. The outlook for economic activity is extraordinarily uncertain, in large part stemming from the intensification and broadening of the financial market turmoil. Global economic weakness and very sluggish domestic demand is expected to persist over the next few quarters as the impact of the financial market tensions on activity continues. At the same time, the fall in commodity prices is expected to support real disposable income in the period ahead. Furthermore, the euro area should, over time, benefit from the effects of policy measures announced over recent weeks. Overall, risks to economic growth remain clearly on the downside. They relate mainly to the potential for a stronger impact on the real economy of the turmoil in financial markets, as well as to concerns about the emergence and intensification of protectionist pressures and to possible adverse developments in the world economy stemming from a disorderly correction of global imbalances.



## 5 EXCHANGE RATE AND BALANCE OF PAYMENTS DEVELOPMENTS

#### **5.1 EXCHANGE RATES**

Over the last three months bilateral foreign exchange rates have recorded sizeable swings amid considerable volatility. In nominal effective terms the euro weakened in October and remained broadly stable in November, while in December it partially recouped previous losses.

#### **EFFECTIVE EXCHANGE RATE OF THE EURO**

On 14 January 2009 the nominal effective exchange rate of the euro - as measured against the currencies of 21 of the euro area's important trading partners - stood at approximately the same level as at the end of September and about 1.5% below its 2008 average (see Chart 32). The nominal effective exchange rate of the euro has swung significantly over the last three months, amid persistently heightened volatility expectations, to remain broadly stable overall. However, this masks rather diverging patterns in nominal bilateral rates. A strong euro depreciation vis-à-vis the US dollar, the Japanese yen, the Swiss franc and the Chinese renminbi has indeed been offset by an appreciation vis-à-vis most of the other major currencies, particularly the pound sterling, the Swedish krona and the currencies of some new EU Member States.

#### **US DOLLAR/EURO**

After depreciating sharply vis-à-vis the US dollar in October and broadly stabilising in November, mirroring a deterioration in market expectations concerning economic growth in both the United States and the euro area, the euro rebounded in December, as financial deleveraging and technical factors apparently played a lesser role and monetary policy in the United States eased further. In the first half of January 2009 the euro weakened again, however, possibly as markets were discounting the implications of the expected fiscal package for US economic growth, while inflation and industrial production releases in the euro area, both lower than expected by market participants, may have influenced market expectations

## Chart 32 Euro effective exchange rate and its decomposition $^{\rm (l)}$

#### (daily data)

Index: Q1 1999 = 100



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

From 30 September 2008 to 14 January 2009





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

From 3 January 2005 to 14 January 2009 (in percentage points)





1) An upward movement of the index represents an appreciation of the euro against the currencies of 21 of the important trading partners of the euro area and all non-euro area EU Member States. 2) Contributions to EER-21 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-21 index. Changes are calculated using the corresponding overall trade weights in the EER-21 index.

Monthly Bulletin January 2009

FCR

Exchange rate and balance of payments developments

concerning relative short-term interest rates in the two main economic areas. On 14 January the euro traded at USD 1.32, about 8% below its level at the end of September and 10.5% weaker than its average level in 2008 (see Chart 33).

#### **JAPANESE YEN/EURO**

Over the past three months, the euro has depreciated sharply against the Japanese yen, mainly on account of a rise in implied exchange rate volatility to historical highs, which reduced the attractiveness of the Japanese currency as a means of funding carry trade positions. The strong convergence in nominal short-term interest rates worldwide also contributed to a reduction of the attractiveness of carry trades among the major currency pairs. Overall, developments in the EUR/JPY bilateral rate mirrored those in the EUR/USD rate. On 14 January the euro stood at JPY 117.66, i.e. around 22% weaker than its level at the end of September 2008 (see Chart 33) and around 23% weaker than its average throughout the year.

#### **EU MEMBER STATES' CURRENCIES**

Over the past three months, most currencies participating in ERM II have remained stable and have continued to trade at, or close to, their respective central rates (see Chart 34). Since the end of September 2008 the Latvian lats has traded on the weak side of its fluctuation band but has strengthened somewhat since end-December and on 14 January 2009 was trading close to its central rate. On 1 January Slovakia became the 16th country to adopt the euro at the conversion rate of SKK 30.1260 (see Box 4).



#### THE ADOPTION OF THE EURO BY SLOVAKIA

On 1 January 2009 Slovakia adopted the euro, resulting in an increase in the number of euro area countries from 15 to 16. The euro is now the currency of 329 million people in the euro area. The conversion rate between the Slovak koruna and the euro was irrevocably fixed at SKK 30.1260. During its participation in ERM II, from 28 November 2005, the central parity of the Slovak koruna was revalued twice against the euro (by 8.5% in March 2007 and by 17.6472% in May 2008).

Slovakia is a relatively small economy in comparison with the rest of the euro area. Consequently, the statistical and macroeconomic features of the euro area would be only marginally affected following this latest enlargement (see the table).

		Unit	Euro area	E.	CI 11
	Reporting period	Unit	Euro area excl. Slovakia	Euro area incl. Slovakia	Slovakia
	period		exci. Slovakla	inci. Siovakia	
Population and economic activity <sup>1)</sup>					
Total population <sup>2)</sup>	2007	millions	320.5	325.9	5.4
GDP	2007	EUR billions	8,927.6	8,982.5	54.9
GDP per capita	2007	EUR thousands	27.9	27.6	10.2
GDP per capita (PPP)	2007	Euro 15=100	100.0	99.4	61.2
GDP (share of world GDP) <sup>3)</sup>	2007	%	16.1	16.3	0.2
Value added by economic activity <sup>4)</sup>					
Agriculture, fishing, forestry	2007	% of total	1.9	1.9	2.9
Industry (including construction)	2007	% of total	26.7	26.8	37.0
Services (including non-market services)	2007	% of total	71.4	71.3	60.2
Monetary and financial indicators					
Credit to the private sector <sup>5)</sup>	2007	% of GDP	109.5	109.1	41.8
Stock market capitalisation6)	2007	% of GDP	73.7	73.3	8.3
External trade <sup>7)</sup>					
Exports of goods and services	2007	% of GDP	22.3	22.3	86.0
Imports of goods and services	2007	% of GDP	21.1	21.1	86.9
Current account balance	2007	% of GDP	0.4	0.4	-5.3
Labour market					
Labour force participation rate <sup>8)</sup>	2008 Q3	%	71.7	71.7	69.3
Unemployment rate	2008 Q3	%	7.5	7.5	9.2
Employment rate <sup>8)</sup>	2008 Q3	%	66.5	66.5	63.1
General government					
Surplus (+) or deficit (-)	2007	% of GDP	-0.6	-0.6	-1.9
Revenue	2007	% of GDP	45.5	45.5	32.7
Expenditure	2007	% of GDP	46.2	46.1	34.6
Gross debt outstanding	2007	% of GDP	66.3	66.1	29.4

Sources: Eurostat, IMF, European Commission and ECB calculations. 1) The data in Slovak korunas were recalculated using the market exchange rate.

Annual average.
 GDP shares are based on a PPP valuation of the country GDPs.

4) Based on nominal gross value added at basic prices.
 5) Comprises loans and holdings of securities as well as holdings of shares and other equities.

6) The market capitalisation is the total outstanding amount of quoted shares issued by euro area/Slovak residents at market value.

7) Balance of payments data. Euro area data are compiled on the basis of transactions with residents of countries outside the euro area (i.e. excluding intra-euro area flows). Data for Slovakia include transactions with residents from the rest of the world (i.e. including transactions with the euro area).

8) Share of the working age population (i.e. those aged between 15 and 64).

Exchange rate and balance of payments developments

The GDP of Slovakia accounts for only about 0.6% of the GDP of the enlarged euro area. In 2007, Slovakia's GDP per capita in purchasing power parity (PPP) terms was slightly above 61% of the euro area average. In recent years, real GDP in Slovakia has grown significantly faster than that of the rest of the euro area, mainly reflecting an improved production capacity of the economy as a result of large investment projects financed by foreign direct investment inflows. These investment projects have enhanced the industrial capacity of the Slovak economy, in which industry including construction plays a more important role than in the rest of the euro area. The agricultural sector contributes to the total gross value added only slightly more in Slovakia than in the rest of the euro area. The financial sector in Slovakia is still developing, as shown by a significantly lower share of outstanding credit to the private sector than in the rest of the euro area. The more limited role played by the financial sector in the country is even more visible when comparing stock market capitalisation figures. The liquidity of the stock market is very low.

Slovakia is a small open economy and the rest of the euro area is its key trading partner, accounting for 47% of its total exports and almost 43% of its total imports.

The labour market in Slovakia differs to that of the rest of the euro area in several ways. Despite robust economic development in the last few years, Slovakia's unemployment rate is still relatively high and stood at over 9% in the third quarter of 2008. The unemployment rate in the euro area was 7.5% in the same period. Moreover, the labour force participation rate and the employment rate are below the level of the rest of the euro area. Local labour market weaknesses include the high number of long-term unemployed, an unfavourable skill mix among the unemployed and significant disparities between regional labour markets.<sup>1</sup>

The general government deficit in Slovakia has been declining in recent years and stood at 1.9% of GDP in 2007, compared with a deficit of 0.6% in the rest of the euro area. By contrast, government debt is much lower: the ratio of government debt to GDP in Slovakia was below 30% in 2007, while in the rest of the euro area it was above 66%. On 3 June 2008 the Council of the European Union abrogated the excessive deficit procedure for Slovakia.

The adoption of the euro further increases the benefits of the Single Market for Slovakia. The euro offers a credible framework for price stability and eliminates exchange rate uncertainty within the euro area. The benefits of euro adoption for Slovakia have already materialised by way of the stability of the Slovak koruna over the last few months, at a time when many transition economies were suffering from the turbulences in global financial markets. In order to fully reap the advantages of the euro and allow the adjustment mechanisms to operate efficiently within the enlarged currency area, further efforts should be made in Slovakia to maintain sustainable convergence, underpin external competitiveness and strengthen economic resilience. In the short term, following the euro changeover, the conversion of prices into euro should not affect the price level.

Looking further ahead, it will be important for the Slovak economy to maintain sustainable economic convergence. Despite the recent economic slowdown, the authorities should continue to avoid excessive deficits and proceed with fiscal consolidation so as to reach their

<sup>1</sup> While many EU Member States opened their local labour markets to Slovak citizens, allowing for greater mobility within the EU, some euro area countries still apply restrictions to Slovakia.

medium-term budgetary objective as soon as possible. The functioning of Slovakia's labour market must be further improved and efforts need to be made to tackle the high structural unemployment rate. There is also a need to further improve the business environment in order to enhance productivity growth and preserve the country's attractiveness for foreign capital. Slovakia's recently achieved low-inflation environment will need to be sustained in the future. Pursuing this ambitious policy agenda is, together with the stability-oriented monetary policy of the ECB, the best means of bringing sustainable economic growth, job creation and social cohesion to Slovakia.

With regard to the currencies of other EU Member States not participating in ERM II, the euro has appreciated rather sharply vis-àvis the pound sterling since end-October 2008. Following the significant easing of monetary policy conditions by the Bank of England's Monetary Policy Committee since November, in late December the euro reached its highest level against the pound since its introduction. Between the end of September and 30 December the euro appreciated by about 20% vis-à-vis the pound sterling. However, about one third of this gain was reversed in the first half of January 2009, notwithstanding a further reduction in official interest rates by the Bank of England (by 50 basis points) on 9 January. Over the same period the euro appreciated by 22% against the Polish zloty and by around 14.5% against both the Hungarian forint and the Romanian leu, reflecting market concerns about vulnerabilities in new EU Member States as the financial turmoil seems to have played an increasingly negative effect on real activity worldwide. Finally, the euro appreciated by around 12% against the Swedish krona.





#### **OTHER CURRENCIES**

The movements in expected foreign exchange volatility have had a significant effect on the EUR/CHF exchange rate, by lowering the funding role of the Swiss franc in carry trade operations. Moreover, the Swiss currency may have acted as a safe haven amid the financial turbulence. As a result, between the end of September 2008 and 14 January 2009 the euro depreciated by around 6.5% against the Swiss franc.

#### **5.2 BALANCE OF PAYMENTS**

The 12-month cumulated current account up to October 2008 recorded a deficit of  $\notin$ 42.5 billion (0.5% of GDP), compared with a surplus of  $\notin$ 48.9 billion a year earlier. This largely reflected a decrease in the goods surplus and an increase in the deficit in current transfers. In the financial account, combined direct and portfolio investment registered cumulative net inflows of  $\notin$ 4.7 billion



Exchange rate and balance of payments developments

in the 12-month period to October 2008, compared with net inflows of  $\in 123.2$  billion a year earlier. This shift largely resulted from lower net purchases of euro area securities by non-euro area resident investors.

#### TRADE AND THE CURRENT ACCOUNT

Having steadily increased since June 2008, the 12-month cumulated current account deficit was  $\notin$ 42.5 billion (working day and seasonally adjusted data) in October 2008, corresponding to 0.5% of GDP, compared with a surplus of  $\notin$ 48.9 billion a year earlier. This shift from surplus to deficit resulted mainly from the sharp contraction in the surplus of goods (see Chart 35) by  $\notin$ 62.2 billion in the 12-month period to October 2008, driven principally by higher import prices combined with weakening exports.

In September and October 2008, month-onmonth exports and imports value growth was negative. As a result, in the three months to



October, the growth in the value of imports of goods moderated to 0.7%, from 3.2% in the three months to July (see Table 7). Meanwhile, value exports growth in the three months to October turned negative (-0.2%) after moderate growth (0.2%) in three months to July.

The breakdown of trade in goods to volumes and prices, available up to September 2008, points to a steady increase in import prices since the last quarter of 2007. While import price growth decelerated slightly recently, owing to the fall in oil prices, on a 12-month cumulated basis higher oil and non-oil commodity prices still accounted for the strong growth in the value of imports. More specifically, on a 12-month cumulated basis, the oil trade deficit amounted to  $\notin$ 225.68 billion in September 2008.

The quarterly growth rates of both export and import volumes are in negative territory owing to the fall in foreign demand and euro area industrial production, as well as, possibly, a deterioration of trade financing worldwide. In September 2008, euro area export volumes to the United States and other OECD countries, as well as to China and to those Member States that have joined the European Union since 2004, declined compared with the previous quarter. At the same time, the growth in export volumes to OPEC remained fairly robust, owing to strong economic growth in these countries and wealth effects from oil revenues. In the three-month period to September 2008, the most significant export and import volume declines were recorded in intermediate and consumption goods.

Turning to other items of the current account, in 12-month cumulated terms the surplus in services increased to  $\notin$ 53 billion in October 2008, up from  $\notin$ 51.6 billion year earlier. At the same time, the income balance deteriorated by  $\notin$ 23.3 billion from a surplus of  $\notin$ 14.8 billion in the 12-month period to October 2007 to a deficit of  $\notin$ 8.5 billion in the 12 months to October 2008. This resulted from

(seasonally adjusted, unless otherwise indicated)

			Thre	ee-month mo figures e	oving averag nding	ge	12-month of figures	
	2008	2008	2008	2008	2008	2008	2007	2008
	Sep.	Oct.	Jan.	Apr.	July	Oct.	Oct.	Oct.
		E	EUR billions					
Current account	-8.8	-6.4	-3.9	0.6	-4.0	-6.9	48.9	-42.5
Goods balance	-4.7	1.0	0.6	3.2	-0.6	-1.9	66.1	3.9
Exports	131.6	130.5	128.0	133.0	133.3	133.0	1,500.6	1,582.1
Imports	136.3	129.5	127.4	129.8	133.9	134.9	1,434.5	1,578.2
Services balance	2.4	2.8	4.8	5.2	4.4	3.3	51.6	53.0
Exports	42.0	41.9	41.9	42.0	41.5	42.3	479.7	503.2
Imports	39.6	39.1	37.1	36.8	37.1	39.0	428.1	450.2
Income balance	0.0	-0.4	-0.8	-0.6	-0.9	-0.6	14.8	-8.5
Current transfers balance	-6.6	-9.7	-8.5	-7.2	-6.9	-7.7	-83.6	-90.9
Financial account <sup>1)</sup>	-5.8	75.3	-7.0	6.6	17.2	13.3	19.5	90.5
Combined net direct and portfolio investment	26.0	107.6	-12.4	-22.4	1.2	35.2	123.2	4.7
Net direct investment	-18.5	-14.1	-23.6	-21.8	-13.0	-14.1	-127.6	-217.5
Net portfolio investment	44.5	121.7	11.2	-0.6	14.1	49.3	250.8	222.3
Equities	-62.9	5.3	1.1	4.5	-5.7	-19.8	89.8	-59.7
Debt instruments	107.4	116.4	10.1	-5.1	19.9	69.1	161.0	281.9
Bonds and notes	36.7	7.4	20.6	2.8	22.4	20.6	223.8	199.3
Money market instruments	70.8	109.0	-10.5	-7.9	-2.6	48.5	-62.7	82.6
	Pe	rcentage cha	nges over pr	evious period	ł			
Goods and services								
Exports	-3.6	-0.7	-0.2	3.0	-0.1	0.3	10.3	5.3
Imports	-0.7	-4.1	3.0	1.3	2.7	1.7	7.0	8.9
Goods								
Exports	-4.0	-0.9	-0.5	3.9	0.2	-0.2	10.2	5.4
Imports	-1.9	-5.0	3.8	1.9	3.2	0.7	6.2	10.0
Services								
Exports	-2.3	-0.3	0.8	0.1	-1.2	2.0	10.5	4.9
Imports	3.4	-1.1	0.4	-0.7	0.8	5.0	9.9	5.2

Source: ECB.

Note: Figures may not add up due to rounding. 1) Figures refer to balances (net flows). A positive (negative) sign indicates a net inflow (outflow). Not seasonally adjusted.

higher income payments to non-euro area residents. Finally, the deficit in current transfers widened from €83.6 billion in 12-month cumulated terms in October 2007 to €90.9 billion in 12-month cumulated terms in October 2008.

#### **FINANCIAL ACCOUNT**

In the three-month period to October 2008, the euro area combined direct and portfolio investment account recorded average monthly net inflows of €35.2 billion, owing to net inflows in money market instruments and, to a lesser extent, net inflows in bonds and notes, which were partially offset by net outflows in foreign direct investment and equities.

The latest balance of payments data show that net inflows in money market instruments have increased sharply in recent months owing to inflows in both assets and liabilities. Net inflows in money market instruments reached €70.8 billion in September 2008 and €109.0 billion in October 2008 (see Table 7), which are the highest recorded figures since 1999. Meanwhile, net inflows in bonds and notes decreased in the same period.

Exchange rate and balance of payments developments

From a longer-term perspective, combined direct and portfolio investment recorded net inflows of €4.7 billion in the 12-month period to October 2008, compared with net inflows of €123.2 billion a year earlier (see Chart 36). This decrease in net financial flows largely resulted from sharp disinvestment in euro area stocks by non-resident investors as a result of the financial turmoil. Global investors moved funds out of euro area equities because the corporate profit outlook had deteriorated in OECD countries, but also - according to market reports - because market participants expected a depreciation of the euro. In the 12-month period to October 2008, direct investment and equities recorded net outflows of €217.5 billion and €59.7 billion, respectively. By contrast, net inflows in bonds and notes reached €199.3 billion, and net inflows in money market instruments amounted to €82.6 billon (see Table 7). Increased risk aversion, heightened liquidity needs and short-term interest rate differentials might have contributed to these developments.





## ARTICLES

## HOUSING WEALTH AND PRIVATE CONSUMPTION IN THE EURO AREA

This article reviews theoretical and empirical evidence on the effect of housing wealth on consumption, a key link between the housing sector and economic activity. Limited available evidence suggests that the housing wealth effect is relatively modest in the euro area compared with the United States and the United Kingdom, which may in part reflect the fact that euro area households borrow less extensively against housing wealth to finance consumption. In particular, generally vigorous house price growth in the euro area over the last decade has contrasted with weak consumption growth. However, it must be acknowledged that there is considerable heterogeneity across the euro area in terms of both the dynamics of house prices and the reaction of consumer spending to house price shocks.

### I INTRODUCTION

Housing prices in industrialised countries have received much attention in recent years, because of both their generally strong growth in the decade up to 2005 and their more recent deceleration. In the euro area, a significant cooling in house price growth since 2005 has raised questions about the qualitative and quantitative linkages between the housing sector and the rest of the economy. This article reviews the evidence on the influence of housing wealth<sup>1</sup> on private consumption spending.

While other channels between housing markets and the economy may exist, such as the effects of housing price fluctuations on residential investment or on the balance sheets of financial institutions, the wealth effect link is often believed, given the large share of consumption in GDP (57% in the euro area in 2007), to be particularly significant. Increasing house prices result in greater housing wealth and also make it possible for households to borrow more using housing wealth as collateral. Both effects contribute to higher consumer spending. Given that housing often makes up the bulk of the assets of homeowners, it often requires debt financing. Accordingly, institutional mortgage market features (such as the opportunities for early repayment) are of considerable importance in shaping both the evolution of housing wealth and any associated wealth effects on consumption spending. Unfortunately, limited data availability implies that there is little empirical literature on the housing wealth effect in the euro area. The small body of evidence

suggests that housing wealth has a relatively modest impact on consumption (compared with other industrialised countries such as the United Kingdom or the United States).

This article describes the dynamics of consumption and wealth in the euro area. summarises the links between housing and consumer expenditure, and discusses the estimates of the housing wealth effect on consumption, the determinants of this effect and its variation across countries. In the following section, the recent evolution of euro area house prices is described, along with developments in household wealth and private consumption. Section 3 discusses how wealth affects consumer spending, how various "frictions" such as collateral constraints or down-payments can play a role, how financial innovation changes the transmission of housing price shocks to consumer spending and how the responses of households differ depending on their home-ownership status, wealth or debt. Section 4 reviews the existing empirical estimates of wealth effects and investigates how they vary across countries and households. Section 5 concludes.

Household net worth equals total assets net of total liabilities. Total assets consist of financial assets (which include currency and deposits, shares and other securities) and non-financial assets, whose key component is housing wealth (i.e. real estate).

1



FCB



### 2 HOUSING MARKETS, HOUSEHOLD NET WORTH AND CONSUMPTION IN THE EURO AREA

The development of housing wealth in the euro area over the past 25 years has generally borne a close resemblance to the evolution of euro area residential property prices (see Chart 1; see also Box 2 for a cross-country analysis).<sup>2</sup> This relationship follows from the fact that house prices affect the value of the stock of housing.

The two broad housing wealth cycles in the euro area since the early 1980s have corresponded to cycles in house prices, with peaks in the growth rates in the period 1989-90 and in 2005. Housing market developments have been moderating fairly steadily since mid-2005, following a strong expansion over the preceding years. In annual terms, house price growth declined from a peak of 7.6% in the first half of 2005 to 3.7% in the second half of 2007 (or 4.2% for 2007 as a whole). This compares with an average annual growth rate of 6.6% over the period 1999-2005. The moderating dynamic in house prices has corresponded to a marked fall in the growth rate of euro area housing wealth in the period to 2007. Available information,

for instance country information on house price developments and data on euro area housing loans, indicates that a further fall is likely in 2008.<sup>3</sup>

Housing wealth has played a dominant role in the evolution of household net worth in the euro area over recent years. As indicated in Chart 2, net worth as a percentage of gross disposable income in the euro area was around 640% in 2007, up from nearly 530% in 1999. This development mostly reflects the strong housing market dynamics and associated house price increases, as the ratio of housing wealth to disposable income increased by more than 41% over the same period. A steady increase in housing wealth contrasts with higher volatility in financial wealth. According to available estimates, financial wealth peaked in 1999 as a percentage of disposable income but, following a pronounced decline, only regained this level

- 2 For more detail, see the box entitled "Estimates of housing wealth for households in the euro area" in the December 2006 issue of the Monthly Bulletin.
- 3 For more detail, see the box entitled "Recent housing market developments in the euro area" in the July 2008 issue of the Monthly Bulletin.



Note: Data for housing wealth in 2007 are a preliminary estimate. Housing wealth data exclude Slovenia.



Note: Data for housing wealth in 2007 are a preliminary estimate. Housing wealth data exclude Slovenia.

## Chart 3 Real wealth breakdown and real private consumption

(annual percentage changes)

real private consumption growth (right-hand scale)
 real housing wealth growth (left-hand scale)
 real financial wealth growth (left-hand scale)



Sources: ECB and Eurostat

Notes: Real data obtained using the private consumption deflator for the euro area. Data for housing wealth in 2007 are a preliminary estimate. Data for housing wealth and private consumption before 1995 are linked backwards using data from the ECB's Area-Wide Model. Housing wealth data exclude Slovenia.

again in 2005. As financial wealth is influenced by equity prices (in addition to bonds and other financial assets), much of this volatility relates to pronounced equity market movements over this period. The levels of volatility in housing and financial wealth may influence the extent to which euro area households perceive the respective movements in wealth as permanent versus transitory.

Despite the sizeable increase in household housing wealth and net worth since 1999, private consumption growth in the euro area has remained relatively subdued, influenced in particular by weak income growth as well as by commodity price shocks over the last few years.<sup>4</sup> Because private consumption in the euro area has many fundamental drivers, it is that unsurprising housing wealth and consumption have not shown a consistent relationship over the last 25 years. Over the 1980s and much of the 1990s, private consumption growth tended to move closely together with housing wealth, even preceding movements in the latter to some extent. In recent years, however, the co-movement

between the two variables appears to have weakened somewhat, at a time when the comovement between financial wealth and private consumption appears to have been somewhat stronger (see Chart 3).

A comparison of data on the euro area with data on the United States suggests that the ratio of both the housing and financial wealth components, as well as of consumption, to disposable income differs considerably across the two economic regions, notwithstanding important caveats related to measurement issues. In particular, euro area housing wealth relative to household disposable income is higher than in the United States, while the analogous ratio for euro area financial wealth is lower (see Chart 4). At the same time, the ratio of private consumption expenditure to household disposable income is lower in the euro area than in the United States (with the corollary of a higher euro area saving ratio). Moreover, the indebtedness of euro area households appears to remain below that of households in the United States. While euro area loans to households for house purchase grew steadily from around 40% of household disposable income in the fourth quarter of 1999 to almost 60% in the fourth quarter of 2007, this ratio remains below the ratio of home mortgage liabilities of households (and non-profit organisations) to disposable income in the United States, which stood at over 100% in the fourth quarter of 2007.

For recent developments in private consumption, see the Box entitled "Recent developments in private consumption and the impact of price increases" in the July 2008 issue of the Monthly Bulletin.

### ARTICLES

Housing wealth and private consumption in the euro area

FCF

(as a percentage of nominal disposable income)



Sources: ECB and Eurostat

#### 3 HOUSING AND CONSUMPTION: MAIN LINKS AND MECHANISMS

The last section having reviewed the evolution of euro area wealth and consumption, this section discusses the channels through which wealth would be expected to influence consumption. The conceptual framework which tends to be used to analyse consumption dynamics is the permanent income hypothesis/the life-cycle theory, in which consumption spending is determined by expected lifetime resources.

In addition to serving as an asset to invest in, housing provides housing services.<sup>5</sup> Following an increase in house prices, not only do homeowners become wealthier but at the same time the price of housing services rises. Consumers may as a result reduce their demand for housing services. The overall effect of higher house prices on total consumption expenditure is thus in theory ambiguous.

#### **FINANCIAL FRICTIONS**

Much of the empirical evidence suggests that the housing wealth effect is quite large, especially





Analysis Note: Personal consumption expenditures as a proportion of disposable personal income. Wealth data include households and non-profit organisations. Housing wealth refers to total real estate holdings; financial wealth refers to total financial assets.

in countries such as the United States and the United Kingdom (see Section 4 for a summary of the literature). To account for this finding, recent theoretical models have recognised the importance of financial "frictions", such as collateral constraints, down-payments and transaction costs.

Collateral constraints limit the ability of consumers to borrow against their expected future income. As banks are unable to evaluate credibly the risk inherent in households' expected income stream, they require collateral. Households may be offered more favourable conditions on loans which are backed by collateral. The total value of a loan is normally kept below a given fraction of household assets. For example, a bank may only be willing to lend up to 70% of the value of a house. For homeowners who are at their borrowing limits, a rise in housing prices can alleviate these constraints, making it possible to borrow more funds against the increased value of their house and consequently allowing them to spend more.

The price of housing services reflects the amount of money that 5 tenants spend on the provision of shelter (rents) and that owner occupants would have spent had they been renting (imputed rental value)

FCR

Note: Data for housing wealth in 2007 are a preliminary estimate. Housing wealth data exclude Slovenia.

#### ARTICLES

Housing wealth and private consumption in the euro area

On the other hand, faced with higher housing prices and down-payments, households considering buying a house may have to cut their spending. First-time buyers are typically people acquiring a house early in life when their income is relatively low. Since the purchase of a house requires a large sum of money, which rises with its value, many young households may actually save more and spend less when real estate prices increase. However, because down-payments only affect households which are considering buying a house for the first time - a relatively small fraction of population – this effect is likely to be relatively small in the aggregate.

A key feature of housing wealth is its illiquidity: compared with most financial assets, it is relatively costly to convert increases in housing wealth into money, which can be spent.<sup>6</sup> Consequently, the response of consumers to house price shocks can be qualitatively different from their reaction to financial asset price shocks. In particular, consumer spending is likely to respond to a house price shock only after the accumulated price shock has become so large that it exceeds the transaction costs associated with adjusting the housing stock or borrowing against housing wealth.7 Transaction costs can also explain why the response of consumption to large house price shocks can be disproportionately stronger than the response to small shocks.

#### **MORTGAGE MARKET INSTITUTIONS**

The transmission of house price shocks through the macroeconomy is affected by how "complete" mortgage market institutions are in terms of offering a wide spectrum of financial products that make it easy to borrow (for and against housing), in terms of the prices of these products and in terms of the range of customers the institutions serve. Consumer spending in countries with more complete mortgage markets, where housing is effectively more liquid, typically responds more to house price shocks than in countries with less complete mortgage markets (see also the empirical evidence reported in Section 4). Measures of the completeness of mortgage markets are generally constructed using information on a number of institutional features, above all typical loan-to-value ratios, the cost of early repayment and the availability of mortgage equity withdrawal.<sup>8</sup>

In part as a result of deregulation and financial innovation, mortgage markets have over the past 20 years generally become more complete, although at a different pace and to a different extent across countries. Loan-to-value ratios have risen and the use of equity release products has become more widespread, especially in countries such as the United States and the United Kingdom.

Deregulation of mortgage and financial markets in many countries, which intensified substantially in the early 1980s, has also allowed more financial institutions to enter the market and lowered transaction costs. In addition, new financial products have made it easier for homeowners to borrow against housing. Increased availability of credit – in particular lower down-payments for first-time home buyers and easier access to loans collateralised by houses (manifested in increasing loan-tovalue ratios) – has contributed to the substantial increase in the size of the housing wealth effect

- 6 It is even more costly to adjust one's housing stock by moving. For the way in which moving costs and the availability of reverse mortgages affect the housing wealth effect see Skinner, J. (1996), "Is housing wealth a sideshow?", in D. Wise (ed.), Advances in the Economics of Aging, NBER, University of Chicago Press, pp. 241-268.
- 7 Transaction costs normally have both a fixed component (stemming from various fees) and a variable component, which depends on the value of the house. The mechanism described here is based on the assumption that the accumulated house price shocks have to cover both cost components to justify moving.
- 8 The loan-to-value ratio is the amount of mortgage credit as a percentage of the total value of the property. The cost of early repayment reflects how much a household has to pay to the mortgage provider if it decides to pay back the mortgage earlier than specified in the contract (possibly in order to switch to a mortgage with more favourable conditions). Mortgage equity withdrawal is the practice of households taking on debt that is secured with a property in order to finance consumption spending, the acquisition of other assets or the repayment of unsecured debt. For an indicator of mortgage market completeness, see IMF (2008), "The Changing Housing Cycle and the Implications for Monetary Policy", World Economic Outlook, Chapter 3, April.

FCF

in countries such as the United States and the United Kingdom.9

While financial innovation is taking place worldwide, substantial differences persist in institutional mortgage market features, such as the typical loan-to-value ratios and the cost of early repayment of mortgages, even in areas such as the euro area that are in many respects fairly homogeneous, as shown in Box 1. Variation in these institutional features can affect the response of economies to housing price and interest rate shocks.<sup>10</sup> For example, the transmission of interest rate shocks is likely to be stronger in countries with adjustable-rate mortgages.

Although financial innovation, a wider range of financial products and lower transaction costs can in principle increase the welfare of many households, economies where households can access mortgage credit more easily (such as the United States, Denmark, the Netherlands, Australia or Sweden)<sup>11</sup> are likely to be more responsive to house price shocks than the

economies of many euro area members (including France, Italy, Germany, Austria, Belgium or Greece). The latter economies may be more stable and more effective at minimising default risk and lending to households that want to borrow beyond their expected income prospects. In addition, credit provision in the former group of countries may be particularly pro-cyclical and therefore prone to amplifying macroeconomic volatility.12

- See Muellbauer, J. N. (2007), "Housing, Credit and Consumer 9 Expenditure" in the proceedings of the Federal Reserve Bank of Kansas City Symposium on Housing, Housing Finance and Monetary Policy, Jackson Hole.
- 10 See Maclennan, D., J. N. Muellbauer and M. Stephens (1998), "Asymmetries in Housing and Financial Market Institutions and EMU", Oxford Review of Economic Policy 14, pp. 54-80.
- 11 The countries in this and the following bracket are sorted by the value of the index of household access to mortgage credit (see IMF (2008), "The Changing Housing Cycle and the Implications for Monetary Policy", Chapter 3, World Economic Outlook, April).
- 12 For evidence from a highly disaggregated (zip-code-level) US dataset on how rapid expansion in the supply of mortgage credit to high-risk borrowers can explain much of the boombust variations in house prices and the related dynamics in defaults, see Mian, A. and A. Sufi (2008), "The Consequences of Mortgage Credit Expansion: Evidence from the 2007 Mortgage Default Crisis", NBER Working Paper 13936.

### THE ROLE OF INSTITUTIONAL FACTORS IN THE TRANSMISSION OF HOUSING PRICE SHOCKS

The ease with which it is possible to transform house price gains into funds for spending differs across euro area economies, partly reflecting institutional differences in mortgage markets. Thus the strength of the transmission of house price shocks to the economy depends on – among other things – the percentage of the population owning a dwelling, the typical loan-to-value ratio (LTV) and possibilities for early repayment of mortgages. This box discusses these factors, but in view of the lack of harmonised and centralised data, a degree of caution in interpreting the numbers is warranted.

Wealth gains or losses through changes in house prices can only arise for households owning a dwelling (a house or a flat). For most countries, the owner-occupation rate, which indicates the percentage of dwellings occupied by their owners, gives a good approximation of the proportion of the population owning a dwelling. This rate varies substantially in the euro area, from 44% in Germany to 83% in Spain (see table). All other things being equal, wealth effects could be much higher in the latter country.

Another variable in the transmission of housing price shocks is the LTV ratio. All other things being equal, a higher ratio indicates easier access for households to debt based on a house as



### **ARTICLES**

Housing wealth and private consumption in the euro area

Institutional mortgage market characteristics in selected euro area countries

(percentages)				
	Owner-occupation rate <sup>1)</sup> 2005	Typical LTV ratio <sup>2)</sup> 2005	Early repayment <sup>3)</sup> 2007	Debt for house <sup>4)</sup> purchase-to-GDP ratio 2007
Belgium	67	80-85	С	33.9
Germany	44	70	F/N	39.6
Ireland	78	91-95	Ν	65.6
Greece	73	60	Ν	27.2
Spain	83	83	С	58.0
France	58	66	С	33.5
Italy	72	80	F	17.2
Cyprus	68	80	С	43.5
Luxembourg	69	Max 80	F/N	37.9
Malta	75	68	Ν	36.1
Netherlands	54	112	Ν	67.8
Austria	52	70-85	Ν	23.8
Portugal	73	70-80	С	61.0
Slovenia	82	NA	С	7.7
Finland	64	70-85	Ν	33.8

Sources:

1) Eurostat, Yearbook 2008

Miles, D. and V. Pillonca (2008), "Financial Innovation and European Housing and Mortgage Markets", Oxford Review of Economic Policy, Vol. 24, Issue 1, pp. 145-175.
 European Commission 2007 White Paper on the Integration of EU Mortgage Credit Markets, supplemented with more recent information.

4) ECBNote: C = capped fees, F = no fees, N = no limits on fees imposed, NA = not available.

collateral in the event that house prices increase. The higher the LTV ratio, the more a house price change can increase households' borrowing opportunities. Furthermore, a high LTV ratio may indicate that households not having taken the maximum loan amount initially may increase their borrowing. The table shows large differences between typical LTV ratios in euro area countries, ranging in 2005 from 60% in Greece to 112% in the Netherlands, though for most countries the typical loan represents about 80% of the house value. The differences across the euro area reflect, among other things, the presence in some countries of a guarantee system for interest payments and redemptions, sometimes set up by the government and paid for by all participating households. Where such a system is in place, as in the Netherlands and Finland, banks will be willing to grant loans for house purchase with a higher LTV. A relatively easy enforcement of foreclosure procedures in the event that a household fails to repay a loan will also have a positive effect on the LTV ratio that mortgage suppliers offer.

Opportunities for early repayment of loans for house purchase – that is, before the agreed maturity of the loan has been reached – may further strengthen the transmission effect. Early repayment means the debtor can switch to a new and larger loan should the value of the underlying collateral, the house, rise, and thereby gives access to housing wealth. Households may choose this option when other possibilities, notably taking up a second loan on the same property, are not feasible or are more expensive. Early repayment regimes in the euro area vary considerably, as shown by the table: while in most countries early repayment is a legally established right, in others it can be excluded by contract. Fees to be paid by households should they exercise the option of early repayment differ widely: in some countries demanding a fee is legally prohibited, whereas in others there is full contractual freedom to set fees. The table shows the general compensation regime in euro area countries, although many exemptions and other details are not shown. It must be noted that in countries where fees are capped or excluded banks may pass on the costs related to early repayment to all households taking up a loan for house purchase by demanding generally



higher interest rates. Besides early redemption fees, other transaction costs of remortgaging play a role in households' decisions whether to redeem part or all of their loan for house purchase and take up a new one. More generally, lower housing transaction costs facilitate selling and/or buying a house, which can be an indirect way to withdraw equity.

The amount of outstanding debt for house purchase can be seen as a crude summary indicator of the potential strength of the transmission of house price shocks to the economy, as higher owner-occupation rates, higher LTV ratios and greater opportunities for early repayment will in principle be reflected in higher debt ratios. Large differences in debt ratios can in fact be observed in the euro area: from 8% of GDP (Slovenia) to 68% of GDP (the Netherlands). However, these differences also reflect other factors, which somewhat reduce the information value of the debt-to-GDP ratio as a summary indicator of the opportunities for realising wealth effects. In some countries, households tend to have no or only small mortgages for historical and cultural reasons. Cross-country variation in debt for house purchase is also related to features such as the degree to which the rental market offers good alternatives to owning a dwelling and the scale of fiscal subsidisation of owner-occupied housing. It is worth noting that lending to households with a high probability of insolvency seems to have been more limited in the euro area than in the United States and the United Kingdom.

In conclusion, substantial differences in mortgage market institutions can be observed in euro area countries, which may well affect the transmission of house price, income or interest rate shocks to the economy. For example, the extent of household indebtedness or the interest rate sensitivity of consumers' liabilities affects the vulnerability of an economy to adverse shocks. In addition, a high degree of owner-occupation, high LTV ratios and extensive opportunities for early repayment in principle allow a stronger and faster transmission. However, the same factors may also contribute to a higher degree of housing market volatility.<sup>1</sup>

1 For more detailed results see e.g., Calza, A., T. Monacelli and L. Stracca (2006), "Mortgage Markets, Collateral Constraints, and Monetary Policy: Do Institutional Factors Matter?", Working Paper 10, Center for Financial Studies, Goethe University, Frankfurt.

### DIFFERENCES IN WEALTH EFFECTS ACROSS HOUSEHOLDS

The response of the macroeconomy to house price shocks is determined by the reactions of individual households, which differ substantially depending on their wealth, expected income profile, debt, home-ownership status and demographics. Both theoretical considerations and the available evidence (based on householdlevel data) suggest considerable heterogeneity in wealth effects across households. An understanding of these differences can shed light on what happens to the wealth effects at the aggregate level as financial innovation progresses, demographics evolve or tax and pension systems change. The reactions of renters and homeowners to positive housing shocks differ: the former are negatively affected by increased (current and expected future) rents and have to reduce expenditure on other consumption goods. The latter, on the other hand, spend more as their wealth rises. The extent to which both groups react to housing price changes depends on the flexibility of rents. Much of the housing market (both in the United States and in particular in the euro area) is subject to rent controls, which limit the pass-through of shocks to rents.<sup>13</sup>

However, the reactions of renters and homeowners do not have to be symmetric. For example, if homeowners are wealthier, they are



<sup>13</sup> For empirical evidence from the United States see Genesove, D. (2003), "The nominal rigidity of apartment rents", *Review of Economic Studies* 85(4), pp. 844-853.

#### ARTICLES

Housing wealth and private consumption in the euro area

unlikely to react as strongly as renters. A key reason is that richer people have lower marginal propensities to consume. Moreover, there is some empirical evidence that precautionary savings cause asymmetric reactions of spending to negative and positive wealth shocks.

In addition, the spending of more indebted households can be more sensitive to shocks. While greater access to new credit can give consumers better opportunities to insulate spending from income and interest rate shocks, households which accumulate a substantial amount of debt may have to allocate sizeable resources to debt service. Consequently, they have a smaller amount of funds available to smooth consumption should they face adverse shocks (such as an increase in the interest rate on their mortgage). The mechanism can in some countries be amplified by the strong positive correlation between income and housing price shocks.

Interactions between income and housing prices can during good times constitute a self-sustaining process in which consumers experience positive shocks to both variables. Because housing price increases are fairly persistent (relative to stock price increases, for example), housing booms often last several years. In such periods some people may extrapolate the rising house prices into the future and may invest in houses even though their current and expected incomes are insufficiently high. Such consumers may have to face adverse consequences once housing prices start to stagnate or even fall. Households which are confronted with a combination of low or even negative house equity and bad income shocks may have to curb their spending considerably.<sup>14</sup>

#### 4 EMPIRICAL ESTIMATES OF THE HOUSING WEALTH EFFECTS IN INDUSTRIALISED COUNTRIES

This section outlines empirical evidence on housing wealth and private consumption, building on the descriptive analysis and theoretical arguments presented thus far. While numerous studies have analysed the relationship between housing wealth and private consumption in industrialised countries, few studies exist on the euro area as relatively limited data on housing wealth hamper a complete empirical assessment. The literature can be divided into two groups, one dealing with macro data and one using micro data.

Much of the literature uses aggregate data, which are available for longer periods, more frequently and with greater timeliness than household-level data. Because measurement of household net worth can be problematic and reliable data on housing wealth in the euro area have only recently become available, much of the work initially concentrated on the United States (see following table) and the evidence from other countries was added only later. Results are usually summarised in terms of the marginal propensity to consume out of housing wealth, which indicates how much consumption changes (in absolute terms) for a one-euro/dollar/ pound change in wealth. The studies found long-term marginal propensities to consume of between 6 and 10 cents per dollar for the United States, 9 cents per dollar for Canada, 4 pence per pound for the United Kingdom and 1 to 2 cent per euro for Italy. Some work estimated the consumption response to wealth shocks using elasticities rather than marginal propensities to consume. The two measures are closely related: the elasticity of consumption to housing wealth equals the marginal propensity to consume multiplied by the ratio of housing wealth to (annual) consumer expenditure.15 In general, these elasticities also

- 14 While the links between household balance sheets, income and expenditure are under-researched, household-level data from the United Kingdom provide evidence that indebted households react (much) more strongly to shocks, see Disney, R., S. Bridges and J. Gathergood (2006), "Housing wealth and household indebtedness: Is there a household financial accelerator?", Česká národní banka Working Paper 12. Using data from the British Household Panel Survey, the authors "estimate an average aggregate marginal propensity to increase household net borrowing in response to an increase in house prices of around 0.03 varying from almost 0.4 for highly levered households to zero for households with very low loan-to-value ratios". House price fluctuations can also have a disproportionate impact on savings for households with negative housing equity.
- 15 The ratio of housing wealth to consumption varies considerably over time and across industrialised countries. For the euro area, it ranged between 3.3 and 5.8 between 1980 and 2006. See also Box 2 entitled "Cross-country heterogeneity in housing wealth".

FCB

suggest the existence of positive and significant housing wealth effects for countries such as the United States and the United Kingdom, while the evidence for euro area countries is more mixed and relatively scarce. In addition, wealth effects tend to be larger for economies with more developed financial markets,16 which could indicate that the reaction to housing shocks is on average smaller for the euro area, where many countries have bank-based financial systems, than for countries such as the United States and the United Kingdom.

the euro area as a whole, constructing housing wealth data for eight euro area countries over the period 1979-99. It finds no significant housing wealth effects for the euro area over the full sample, although the effect is significant for the period starting in 1989, with a marginal propensity to consume out of one euro of housing wealth of 1.95 cent. This estimate is substantially smaller than the study's results for the United States and the United Kingdom, which exceed 3 cents/pence per dollar/pound.

Unlike most other studies, Slacalek (2006)<sup>17</sup> provides estimates of housing wealth effects for

Estimates of housing wealth effects using macro and micro data

16 See Ludwig and Sløk (2004; see table below). 17 See table.

estimates of nousing wear					• • • • •				
(marginal propensity to consume out of	of one unit of	f local curr	ency of ho	ousing wealth	)				
	US	CAN	UK	OECD	FR	IT	FI	ES	euro area
Macro data									
Marginal propensities to consume									
Bassanetti and Zollino (2008)						0.01-0.02			
Bertaut (2002)	0.10	0.09	0.04						
Carroll, Otsuka and Slacalek (2006)	0.06								
Skinner (1993)	0.06								
Slacalek (2006)	0.05	0.05	0.05	0.01					0
Elasticities									
Boone and Girouard (2002)	0.03	0.19	0.04		0.05	-0.06			
Case, Quigley and Shiller (2005)	0.03-0.10			0.09-0.17					
Ludwig and Sløk (2004)				0.04					
Micro data									
Marginal propensities to consume									
Bover (2006)								0.02-0.07	
Campbell and Cocco (2007)			0.08						
Guiso, Paiella and Visco (2005)						0.02			
Lehnert (2004)	0.02								
Paiella (2004)						0.02			
Elasticities									
Bostic et al. (2006)	0.06								
Grant and Peltonen (2008)						0.08			
Sierminska and Takhtamanova (2007)		0.12				0.13	0.10		

 Sterminska and Takhtamanova (2007)
 0.12
 0.13
 0.10
 Sources: Bassanetti, A. and F. Zollino (2008), "The Effects of Housing and Financial Wealth on Personal Consumption: Aggregate Evidence for Italian Households", in *Household Wealth in Italy*, Banca d'Italia; Bertaut, C. C. (2002), "Equity Prices, Household Wealth, and Consumption Growth in Foreign Industrial Countries: Wealth Effects in the 1990s", Federal Reserve Board, International Financee Discussion Papers 2002-724; Carroll, C. D., M. Otsuka and J. Slacalek (2006), "How Large Is the Housing Wealth Effect? A New Approach", NBER Working Paper 12746; Skinner, J. (1993), "Is Housing Wealth a Sideshow?", NBER Working Paper 4552; Slacalek, J. (2006), "What Drives Personal Consumption? The Role of Housing and Financial Wealth", DIW Berlin Discussion Paper 647 (only the panel results are reported in the table); Boone, L. and N. Girouard (2002), "The Stock Market, the Housing Market and Consumer Behaviour", OECD Economic Studies, 32(2):175-200; Case, K. E., J. M. Quigley and R. J. Shiller (2005), "Comparing Wealth Effects: The Stock Market versus the Housing Market, Advances in Macroeconomics", 5(1):1-32; Ludwig and Sløk (2004), "The Relationship between Stock Prices, House Prices and Consumption in OECD Countries", *Topics in Macroeconomics*, 4(1), Article 4; Bover, O. (2006), "Wealth Effects on Consumption: Microeconometric Estimates from the Spanish Survey of Household Finances", CEPR Discussion Paper 5874; Campbell, J. Y. and J. F. Cocco (2007), "How Do House Prices Affect Consumption? Estimates of Wealth Effects from Micro Data", *Journal of Monetary Economics*, 54(3): 591-621; Guiso, L., M. Paiella and I. Visco (2005), "Do Capital Gains Affect Consumption? Estimates of Wealth Effects from Italian Households' Behavior", Banca d'Italia Working Paper 515 (June); Lehnert, A. (2004), "Housing Consumption, and Credit Consumption? Federal Reserve Board, Finance and Economics Discussion Series 2004-63; Group Comparisons", Federal Reserve Bank of San Francisco Working Paper Series, 2007-01, January.

#### ARTICLES

Housing wealth and private consumption in the euro area

Because of data limitations there is little consensus on how the wealth effects differ for housing and financial wealth: while some studies find that the housing wealth effect is substantially stronger than the financial wealth effect, <sup>18</sup> others report the opposite.<sup>19</sup> The theoretical reasons for such differences are also not clear-cut. On the one hand, financial wealth tends to be more concentrated in high-income households, and shocks to financial wealth are typically much more transitory than shocks to housing wealth. Both facts could suggest a weaker propensity to consume out of financial wealth. On the other hand, when housing wealth increases are caused by house price increases, house buyers need to save more in order to accumulate the necessary savings for a down-payment.<sup>20</sup> In addition, the size of the housing wealth effect is affected by the pass-through of housing price shocks to rents and the proportions of renters and homeowners in the economy.

Estimates of the wealth effect using aggregate data suffer from at least two shortcomings. First, heterogeneity across households (in terms of home-ownership status, age, income or region) cannot be investigated. Differences between households can be important if the intention is to restrict the analysis to a particular population group, such as highly indebted consumers. Second, variations in asset prices and consumption are in part driven by the same macroeconomic factors, which are difficult to account for adequately. Although this may bias estimates of the wealth effect, it is a less serious issue at less aggregate (e.g. regional) levels, where variation in local housing prices is driven to some extent by local rather than macroeconomic factors.

Marginal propensities to consume estimated with household-level data generally lie close to those obtained with macro data. A number of studies using micro data exist for some euro area countries – mainly Spain, France, Italy and Finland – which provide data at the household level. Estimated marginal propensities to consume out of housing wealth for Spain and Italy are 2 to 7 cent per euro and 2 cent per euro respectively.<sup>21</sup> There is also mixed evidence as to whether the housing wealth effect is larger than the financial wealth effect in these studies.

Studies based on micro data have also examined the heterogeneity of wealth effects across controlling for households. demographic variables.<sup>22</sup> It was for example found that middle-aged homeowners have the largest wealth effects.<sup>23</sup> In addition, homeowners tend to have positive wealth effects when house prices rise, while renters increase their savings.<sup>24</sup> Therefore, demographic changes and changes in the economy's home-ownership structure can affect aggregate consumption behaviour. In addition, some evidence was found for an asymmetric effect of wealth on consumption: consumers seem to react more to housing wealth losses than to gains.<sup>25</sup> This might be related to the existence of precautionary savings as well as to liquidity constraints.

The empirical evidence on the strength of the wealth effect on consumption is subject to many caveats. First, household wealth does not move independently of consumption, and other variables may affect this bivariate relationship. Indeed, while asset prices (including housing) are influenced by economic activity, they may also embody expectations (and changes in expectations) about future income. As standard theoretical models based on the permanent income hypothesis/the life-cycle theory ultimately relate to lifetime consumption

- 18 For example Case et al. (2005; see table above).
- 19 For example Ludwig and Sløk (2004; see table above).
- 20 See also the article entitled "Recent trends in residential property prices in the euro area" in the May 2003 issue of the Monthly Bulletin.
- 21 The results for Finland and France in the table above are reported in terms of elasticities rather than as marginal propensities to consume.
- 22 See also Section 2.
- 23 See Bover (2006; see table above). For a discussion of this effect, see also Section 2.
- 24 See Guiso et al. (2005) and Campbell and Cocco (2007). See table above.
- 25 See Engelhardt, G. V. (1996), "House prices and home owner saving behaviour", *Regional Science and Urban Economics*, 26(3/4): pp. 313-336 and Berben, R. P., K. Bernoth and M. Mastrogiacomo (2006), "Households' response to wealth changes: Do gains or losses make a difference?", De Nederlandsche Bank Working Paper 90.

planning, demographic developments – both current and expected – as well as credit market imperfections are likely to play a significant role in governing the household wealth/consumption relationship. Empirical literature often has serious difficulties adequately accounting for these complex relationships.

Second, a muted consumption response to increases in housing wealth at the euro area level may to some extent mask heterogeneity across euro area countries – owing to both country-specific mortgage finance structures (see Box 1) and the evolution of country-specific fundamentals that are important for consumption and translate into differences in housing wealth (see Box 2). Third, housing markets may be particularly prone to structural breaks and subject to nonlinear relationships with economic

activity. The influence of housing wealth may be particularly susceptible to changes in historical relationships given evolving economic, financial or institutional factors (with the latter including, for instance, the role of non-market forces such as housing market regulation and tax policies in driving housing market developments). Fourth, threshold effects and asymmetries may affect the transmission of housing price shocks. Threshold effects, due to which consumption reacts differently to small and large house price shocks, can be caused by credit market imperfections. These imperfections can include transaction costs or can arise as households strive to separate out transitory and permanent wealth shocks. Asymmetries, for example a larger response of spending to a fall in housing prices than to an increase, can be caused by liquidity constraints.

#### Box 2

ECB Monthly Bulletin January 2009

## CROSS-COUNTRY HETEROGENEITY IN HOUSING WEALTH

Box 1 documents the substantial heterogeneity across euro area countries in terms of various institutional features of mortgage markets. These features can lead to cross-country heterogeneity of housing wealth and its accumulation rate.

Comparable data on housing wealth in the euro area countries are not available. However, an approximate indication of the growth in housing wealth in individual countries can be obtained by looking at the average change in residential property prices, the average change in the number of dwellings per 1,000 inhabitants and the average growth rate of the population (see Chart A). These three factors combined give a broad indication of the growth of the nominal stock of housing wealth.<sup>1</sup>

#### Chart A Residential property prices, number of dwellings and population

(average annual percentage changes)

residential property prices (1997-2007) (left-hand scale) number of dwellings per 1,000 inhabitants (1997-2006) (right-hand scale)



Sources: ECB and Eurostat.

Notes: Comparable data are not available for Greece, Cyprus, Luxembourg, Slovenia or Slovakia. Residential property price changes for Finland are an average of

1997-2000. Changes in the number of dwellings are averages of 1997-2005 for Ireland, Italy and Portugal, of 1997-2004 for Malta and of 1997-2002 for Austria.

1 More formally:  $\Delta HW = \Delta P + \Delta(N/POP) + \Delta POP$ , i.e. in a given period the (percentage) change in nominal housing wealth ( $\Delta HW$ ) equals the change in house prices ( $\Delta P$ ) plus the change in the number of dwellings per inhabitant ( $\Delta(N/POP)$ ) plus the change in population ( $\Delta POP$ )). The information provided in Chart A does not give any indication of the *level* of housing wealth across euro area countries.

#### ARTICLES

Housing wealth and private consumption in the euro area

Between 1997 and 2006 the number of dwellings per 1,000 inhabitants rose on average in all euro area countries for which data are available, especially in Ireland, Spain, Malta and Portugal. The largest increases were recorded in countries (such as Ireland and Spain) showing the strongest population growth. These increases notwithstanding, the number of dwellings per 1,000 inhabitants in 2006 ranged between 560 in Spain to close to 350 in Ireland, thus exhibiting substantial differences across countries (see Chart B). This may also hint at heterogeneity of the level of the housing stock in the euro area.<sup>2</sup>

Given a high correlation between residential property prices and housing wealth in the euro area (see Chart 1 in Section 2), changes in the former have been the major driver of housing



Source: Eurostat.

Notes: Data for Luxembourg are not available. Data for Ireland, Italy, Portugal and Slovenia refer to 2005, for Greece and Malta to 2004 and for Austria to 2002.

wealth dynamics. Between 1997 and 2007, prices for residential property increased on average by close to 5.5% annually in nominal terms in the euro area, with considerable heterogeneity across countries. The strongest price increases were recorded in Ireland and Spain (close to 15% and above 10% respectively), suggesting that population growth has contributed to the housing price dynamics in these countries, while an average drop in prices of close to 0.6% per year was observed in Germany. Considerable house price inflation, above or just below 8%, was also reported in Belgium, France, Malta and the Netherlands.

2 A higher number of dwellings in some Mediterranean countries may also be related to a higher number of secondary residences in these countries.

#### 5 CONCLUSION

The limited available evidence on the dynamics of consumption and housing wealth in the euro area suggests a relatively weak relationship between them compared with economies with more strongly market (versus bank) based mortgage markets, such as the United States and the United Kingdom, especially since 2000. This finding can be partly explained by the institutional features of mortgage markets and the way in which they affect the links between housing and the economy. In particular, mortgage equity withdrawal is generally less widespread in the euro area than in countries such as the United States and the United Kingdom, probably both because it is less widely offered by banks and because it is less frequently demanded by households. In addition, less financial innovation may have had the beneficial corollary of a less pronounced expansion of lending to less creditworthy borrowers, whose consumption may be particularly sensitive to house price and other shocks.

Accordingly, just as the housing market boom of recent years did not appear to provide a large boost to euro area consumption spending, the slowdown under way should on balance also have a relatively limited impact in the euro area as a whole. Nevertheless, substantial cross-country heterogeneity may imply stronger effects in some regions of the euro area.
# FOREIGN ASSET ACCUMULATION BY AUTHORITIES IN EMERGING MARKETS

Global foreign exchange reserves and other government-owned financial assets have, over the last decade, grown at a remarkable pace, and are likely to exceed USD 10,000 billion today. While no consensus on the optimal reserve levels has been reached among practitioners and academics, this article finds that the notable rise of foreign exchange reserves and sovereign wealth funds among commodity-exporting economies can be explained, to some extent, by intergenerational equity considerations. In the case of Asian countries where the accumulation of foreign assets by central banks and governments is mainly a reflection of inflexible exchange rate regimes, the economic rationale for large holdings of foreign assets appears weaker. The implications of the rise in foreign exchange reserves and assets held by sovereign wealth funds on the global financial system are difficult to predict. More transparency in this area would help in order to study possible global repercussions in this context, and would also contribute to greater global financial stability.

#### I INTRODUCTION

Over the past decade, governments in emerging economies have built up sizeable holdings of foreign financial assets, mainly in the form of foreign exchange reserves. More recently, sovereign wealth funds, which manage governments' financial assets outside "traditional" foreign exchange reserves, have grown rapidly and received considerable attention in the public debate. The growing pace at which governments in emerging economies invest in global financial markets has become an important policy issue. Against this background, this article first reviews the motives behind the accumulation of foreign assets by government authorities in emerging market economies, taking into account the different sources for funding such investments, as well as the vehicles and instruments that governments use to channel their savings into global financial markets. The article then provides a factual review of trends in the accumulation of traditional foreign exchange reserves over the past decade, and takes stock of the debate on the two main related policy issues, namely the question of whether foreign exchange reserves have grown too large and to what extent shifts in the currency composition of foreign exchange reserves have taken place or are to be expected. Finally, the article reviews the available evidence on the accumulation of assets by sovereign wealth funds, and provides a tentative assessment of the potential impact of sovereign wealth funds on the global financial system.

#### 2 SOURCES AND MOTIVES FOR ACCUMULATION OF OFFICIAL RESERVES

Traditionally, the motives for holding foreign exchange reserves have been mainly explained by the transaction needs of the central bank.<sup>1</sup> Such transaction needs include temporary import financing, foreign exchange interventions or the balancing of capital outflows. A related argument suggests that an insurance motive has led to the accumulation of international reserves, reflecting the desire of governments for selfinsurance against future sudden stops of capital inflows, in case of which reserves can be used to help domestic firms and thus avoid a financial crisis. The financial crises in Asia and Latin America in the 1990s have indeed reaffirmed the importance of such transaction and precautionary motives for holding foreign exchange reserves. In fact, emerging economies in Asia only started to accumulate sizeable foreign exchange reserves following the sudden stop in 1997 that caused massive net capital outflows (see Chart 1).

See, for example, Chinn, Menzie D. and Frankel, Jeffrey A. (2008), "The Euro May Over the Next 15 Years Surpass the Dollar as Leading International Currency", National Bureau of Economic Research (NBER) Working Paper No 13909, Beck, Roland and Rahbari, Ebrahim (2008), "Optimal reserve composition in the presence of sudden stops: the euro and the dollar as safe haven currencies", ECB Working Paper No 916.

#### ARTICLES

Foreign asset accumulation by authorities in emerging markets



More recently, the academic literature has explained the massive reserve build-up with "mercantilist" motives.<sup>2</sup> According to this view, the accumulation of foreign exchange reserves is the result of managed exchange rate regimes of countries that target the international competitiveness of the exchange rate in order to promote "export-led" growth. The empirical literature tends, however, to find that traditional transaction and insurance motives have historically outweighed the mercantilist motive.<sup>3</sup> This is perhaps not surprising given that financial crises have been a recurring event also in recent years. In fact, between 1995 and 2003, countries experienced financial crises, either in the form of sudden stops of capital inflows or massive capital flight of domestic investors, in at least 36 instances (see Table 1). Even more recently, some emerging markets have been subject to capital outflows and reserve losses during the ongoing global financial crisis. In some countries, large holdings of reserves have also been used to provide the domestic banking system with foreign exchange liquidity.

The accumulation of large foreign asset holdings by emerging economies mainly originates in two sources, namely net receipts of foreign exchange through trade and through capital

- 2 See, for example, Dooley, Michael P., Folkerts-Landau, David and Garber, Peter (2004), "The Revived Bretton Woods System: The Effects of Periphery Intervention and Reserve Management on Interest Rates and Exchange Rates in Center Countries", NBER Working Paper No 10332.
- 3 See, for example, Aizenman, Joshua and Lee, Jaewoo (2008), "The Real Exchange Rate, Mercantilism and the Learning by Doing Externality", NBER Working Paper No 13853.

#### Table I Financial account crises between 1995 and 2003

Country	Beginning of the crisis	Country	Beginning of the crisis
Argentina	January 1995	Pakistan	May 1998
Brazil	February 1995	Chile	June 1998
Sri Lanka	February 1995	Jordan	October 1998
India	May 1995	Turkey	October 1998
Philippines	June 1995	Brazil	January 1999
Pakistan	September 1995	Peru	Febraury 1999
Chile	October 1995	Slovak Republic	April 1999
South Africa	November 1996	Argentina	August 1999
Hungary	December 1996	Greece	October 1999
Thailand	December 1996	Indonesia	December 1999
Brazil	January 1997	Philippines	January 2000
Czech Republic	January 1997	Venezuela	March 2000
Philippines	June 1997	Sri Lanka	November 2000
Peru	July 1997	Argentina	March 2001
Slovak Republic	July 1997	Korea	April 2001
Korea	September 1997	Turkey	June 2001
Indonesia	December 1997	Slovak Republic	August 2003
Colombia	April 1998	Pakistan	December 2003

Sources: Rothenberg, Alexander D. and Warnock, Francis E. (2006), "Sudden Flight and True Sudden Stops", NBER Working Paper No 12726.



#### ARTICLES

Foreign asset accumulation by authorities in emerging markets

Chart 2 Foreign exchange reserves, current account balance, and fiscal balance of emerging economies

#### (in percentage of GDP)



Source: International Monetary Fund

inflows. From a balance-of-payment perspective, current account surpluses translate into either private sector or public sector savings that are invested abroad. What is striking and specific to many emerging market economies is that current account surpluses mostly translate into the accumulation of public sector foreign financial assets, rather than private sector capital outflows, as is the case for most advanced economies. In fact, emerging economies have, on aggregate, sharply improved their government balances during recent years of unprecedented growth in foreign exchange reserves, suggesting that a substantial part of the fiscal gains from large trade surpluses in many emerging economies have been channelled into global financial markets through official capital outflows in the form of foreign exchange reserves or sovereign wealth funds (see Chart 2).

One group of countries that has built up large sovereign foreign asset holdings are resourcerich economies, which, in recent years, have benefited from high oil and other commodity prices and have thus accumulated foreign assets at a remarkable pace, well above that of non-commodity-exporting emerging Chart 3 Foreign exchange reserves of commodity exporters, peggers and other emerging economies

(2008, unweighted average in percent of GDP)



Sources: International Monetary Fund WEO projections and ECB calculations.

economies (see Chart 3). In these countries, foreign assets partly also serve the purpose of stabilising government and export revenues which would otherwise mirror the volatility of oil and commodity prices. A second motive for accumulating foreign assets in resource-rich countries is the desire to save for future generations, as natural resources are non-renewable and will be exhausted at some point.

A second group of countries, most notably in Asia, has been accumulating foreign assets through receipts from trade surpluses that are not directly linked to the recent hike in commodity prices, but rather to their choice of exchange rate regime. Many of these countries had experienced a strong depreciation of their currencies during the financial crises in the late 1990s, and subsequently re-pegged their currencies – de jure or de facto – to the US dollar. At the beginning of their economic recovery in the aftermath of the crises, this facilitated the pursuit of policies aimed at promoting export-led growth (see Chart 3). Savings rates



in this group of countries appear large by international and historical standards.

Traditionally, governments have accumulated foreign assets mostly as official foreign exchange reserves due to transaction motives of central banks which require reserve portfolios of highly liquid foreign securities. Some governments, however, have started using sovereign wealth funds to manage their foreign investments more and more intensively over the years. Most notably, many commodity-exporters - also in mature economies - have established sovereign wealth funds or similar investment vehicles over the past 50 years. Governments of commodity-exporting economies appear to hold at least half of their foreign assets in sovereign wealth funds (see Chart 4). This may, to some extent, reflect the fact that the transaction motive for holding foreign assets is dominated by the "investment" motive, as the need to save for future generations appears to have gained importance relative to macroeconomic stabilisation objectives.

Countries with inflexible exchange rate regimes have, until recently, managed their foreign assets within the central banks' foreign



Chart 4 Foreign exchange reserves and sovereign wealth funds

Sources: International Monetary Fund and Beck, Roland and Fidora, Michael (2008), "The impact of sovereign wealth funds on global financial markets", Occasional Paper No 91, July 2008, ECB.

exchange reserves due to the importance of transaction motives in the context of balance-of-payment stabilisation and a history of financial crises (see Chart 4). Several of these countries, however, have also established sovereign wealth funds to manage part of their foreign assets, indicating that authorities in these countries feel that they have accumulated foreign assets in excess of the liquidity needed for transaction purposes or as insurance against sudden stops in capital flows.

#### 3 THE RISE IN FOREIGN EXCHANGE RESERVES AND ITS IMPLICATIONS

#### RECENT TRENDS IN FOREIGN EXCHANGE RESERVE GROWTH

Global foreign exchange reserves have risen significantly over the past decade, from around USD 1,600 billion in 1999 to more than USD 7,000 billion as of end-June 2008. During the same period, crude oil prices have risen ten-fold from around USD 12 per barrel to more than USD 120 per barrel at end-June 2008, though oil prices have declined again recently. However, while for a number of countries higher revenues from oil and other commodities are the main reason for the sharp increase in reserve accumulation, this is not the case for other emerging markets.

Disaggregating the rise in foreign exchange reserves by country groups shows that the increase in reserves has taken place almost entirely in emerging economies, rather than advanced economies with the exception of Japan, as reserves have risen from below USD 1.000 billion in 1999 to around USD 5,500 billion in June 2008 (see Chart 5, upper panel). At the same time, the increase of foreign exchange reserves in emerging economies has not been limited commodity-exporting countries to (see Chart 5, lower panel). To the contrary, oil-exporting countries account, in absolute US dollar terms, only for a relatively small share in total reserves held by emerging economies,





Sources: International Monetary Fund and ECB calculations. Notes: The aggregate for "oil-exporting countries" refers to Algeria, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Oman, Qatar, Saudi Arabia, United Arab Emirates and Venezuela (IMF definition in its International Financial Statistics) and Russia where oil and gas exports account for over 50% of total exports. even when including Russia in this subgroup of countries (see Chart 5, lower panel).

In view of the large current account surpluses in oil-exporting countries, this observation appears surprising at first, since one would expect that authorities in these countries have accumulated sizeable foreign exchange reserves. To some extent, however, relatively moderate growth of foreign exchange reserves among oil-exporting economies can be attributed to the accumulation of foreign assets in sovereign wealth funds, which are not included under the category of foreign exchange reserves, and which will be reviewed in the next section of this article.

At the level of individual countries, the growth of foreign exchange reserves over the past decade has been mainly accounted for by a few countries, namely China, Japan and Russia which, together, account for more than 70% of the rise of foreign exchange reserves since 1999 (see Table 2).<sup>4</sup>

This implies that the degree of concentration of holdings of foreign exchange reserves has increased substantially over the past couple of years. In particular, the share of China's foreign exchange reserve holdings in global foreign exchange reserves has risen from around 9% in 1999 to around 31% in June 2008.

4 The Japanese authorities officially stopped interventions in the foreign exchange market in 2004. Since then, Japan's reserves have continued to rise due to return earned on these foreign assets and valuation effects.

#### Table 2 The largest foreign exchange reserve accumulator

2004 2005 2006

(June 2008 against March 1999)								
		March 1999	June 2008	Char	ıge			
		(USD billions)	(USD billions)	(USD billions)	(percent)			
1	China, Mainland	146.6	1,756.7	1,610.0	1,098			
2	Japan	211.4	973.8	762.4	361			
3	Russia	6.7	554.1	547.4	8,200			
4	India	29.5	302.3	272.8	924			
5	Taiwan, Province of China	93.0	290.1	197.1	212			
6	Brazil	31.2	199.8	168.6	540			
7	Algeria	5.1	133.2	128.1	2,490			
8	Thailand	28.9	103.0	74.1	257			
9	Mexico	30.8	93.0	62.3	203			
10	Turkey	21.2	75.5	54.3	256			

Sources: International Monetary Fund, national sources and ECB calculations.

#### ARTICLES

Foreign asset accumulation by authorities in emerging markets



Sources: International Monetary Fund and ECB calculations. Notes: The Charts refer to 162 IMF member countries excluding the Bahamas, the Maldives, Eritrea and the Solomon Islands due to a lack of reliable reserve data. End-2008 figures refer to IMF WEO projections.

Nevertheless, the accumulation of reserves is a more wide-spread phenomenon as many small open economies have accumulated sizeable levels of foreign exchange reserves (see Chart 6). Measured as a share of GDP, reserves in some of these smaller economies exceed those of many larger holders.

## Chart 7 Reserve holdings and indicators of reserve adequacy in emerging economies



ECB Monthly Bulletin January 2009

## THE IMPLICATIONS OF THE ACCUMULATION OF FOREIGN EXCHANGE RESERVES

The notable rise of foreign exchange reserves has raised the question of whether foreign exchange reserves among emerging market economies have grown too large from a normative perspective. Most traditional rules of thumb for reserve adequacy suggest that foreign exchange reserve holdings have grown beyond what may be required for transactions needs. For example, foreign exchange reserves of emerging economies have risen substantially beyond the amount needed to cover three months of imports or 100% of short-term debt or even the sum of the two (see Chart 7), which are rules often used to assess reserve adequacy. Another benchmark that has been suggested in the literature to judge the adequacy of reserves is the stock of broad money supply, since the demand for foreign currency during a "sudden flight" could amount to the whole domestic money supply.5 When applying this rather extreme benchmark, which would require reserve holdings in excess of what is required in a currency board arrangement, foreign exchange reserves in emerging economies do not seem overly large, as indicated in Chart 7.

Such computations should, however, be treated with caution. A more systematic assessment of reserve adequacy requires indeed a careful analysis of the costs and benefits associated with the holding of foreign exchange reserves.<sup>6</sup> Large holdings of foreign exchange reserves can create sizeable costs for the respective economies. From a public sector perspective, the difference between the interest rate paid on domestic government bonds and the return on foreign

<sup>5</sup> See, for example, Obstfeld, Maurice, Shambaugh, Jay C. and Taylor, Alan M. (2008), "Financial Stability, the Trilemma, and International Reserves", NBER Working Paper No 14217.

<sup>6</sup> See, for example, Jeanne, Olivier and Ranciere, Romain (2008), "The Optimal Level of International Reserves for Emerging Market Countries: A New Formula and Some Applications", Centre for Economic Policy Research Discussion Paper No 6723, or Obstfeld, Maurice, Shambaugh, Jay C. and Taylor, Alan M. (2008), "Financial Stability, the Trilemma, and International Reserves", NBER Working Paper No 14217.

### Chart 8 Cost of holding excess reserves in emerging economies



Sources: International Monetary Fund and ECB calculations based on the methodology developed in Rodrik, Dani (2006), "The social cost of foreign exchange reserves", International Economic Journal, Vol. 20(3).

Notes: Excess reserves are computed as the difference between actual reserve holdings and reserves required to cover three months of imports; interest rate spread refers to the difference between the return on domestic and foreign investment.

exchange reserves is often considered as a vardstick for the fiscal costs of holding reserves. Such costs typically arise in the balance sheet of the respective central bank that is accumulating foreign assets through sterilised interventions, i.e. through purchases of foreign assets and concomitant sales of domestic government bonds. From a macroeconomic perspective, however, the cost of holding reserves originates in the spread between the interest on private short-term external borrowing and the return on foreign assets.7 Some observers have also suggested measuring the social costs of holding reserves in terms of the opportunity cost of not investing in the domestic economy. These costs need to be weighed against the benefits of holding foreign exchange reserves. One way of accounting for these benefits is to consider only reserves in excess of what may be needed for transaction purposes. Approximating reserves needed for balance-of-payment purposes with traditional rules-of-thumb, such as the three-months-ofimports rule, and considering alternative assumptions about the relevant interest rate spread suggests that the costs of holding reserves

may have grown to up to 1.5% of GDP in emerging economies (see Chart 8).<sup>8</sup>

A final issue is the implications from the rapid reserve accumulation of emerging markets for advanced economies, and, in particular, for the United States and the euro area, where a large part of the reserves are invested. In fact, some have argued that under the current system of fixed exchange rates in several emerging economies, emerging market central banks have increasingly contributed to the financing of the US current account deficit and to exceptionally low real interest rates by investing the bulk of their foreign exchange reserves in low-yielding US government bonds.9 According to this line of reasoning, countries with managed exchange rates against the US dollar find it difficult to diversify their reserve portfolios, as such changes would be inconsistent with their overall exchange rate policy framework. Others have stressed that the rise in reserves may offer scope for "reserve diversification".10 The available empirical evidence suggests, though, that the currency composition of global foreign exchange reserves has, following a gradual rise in the share of the euro during the first years of European Monetary Union, remained relatively stable over the past couple of years (see the box).

- 7 For a detailed discussion, see Rodrik, Dani (2006), "The social cost of foreign exchange reserves", International Economic Journal, Vol. 20(3).
- To achieve more precise estimates of the costs of holdings reserves at the country level, the pure fiscal costs can be computed using actual interest rate differentials between (typically) US dollar and domestic interest rates. Data on interest rates for short-term external private borrowing or estimates of the social rate of return are not available for most emerging markets.
- For macroeconomic considerations in this context, see Dooley, Michael P., Folkerts-Landau, David and Garber, Peter (2004), "The Revived Bretton Woods System: The Effects of Periphery Intervention and Reserve Management on Interest Rates and Exchange Rates in Center Countries", NBER Working Paper No 10332. Regarding the impact on US interest rates, see Warnock, Francis E. and Warnock, Veronica Cacdac (2006), "International Capital Flows and U.S. Interest Rates", NBER Working Paper No 12560.
- 10 See, for example, Summers, Lawrence H. (2006) "Reflections on Global Account Imbalances and Emerging Markets Reserve Accumulation", speech at the L. K. Jha Memorial Lecture at the Reserve Bank of India.

#### ARTICLES

Foreign asset accumulation by authorities in emerging markets

FCF

#### THE CURRENCY COMPOSITION OF GLOBAL FOREIGN EXCHANGE RESERVES

The currency composition of foreign exchange reserves has remained relatively stable during the rise in reserves in emerging economies, according to the IMF data on the Currency Composition of Global Foreign Exchange Reserves which covers, however, only around two-thirds of global foreign exchange reserves (see the chart, left panel). To some extent, the gradual decline in the share of the US dollar and the rise in the share of the euro reflect valuation effects, as shown when measuring the currency shares at constant exchange rates (see the chart, right panel). In addition, the gradual increase in the use of the euro – in particular over the first few years of European Economic and Monetary Union – may reflect the establishment of a credible, stability-oriented monetary policy and the improvements in the liquidity of euro area capital markets.<sup>1</sup>

Moreover, the above patterns in the currency composition of foreign exchange reserves may also reflect the declining importance of transaction motives in central bank reserve management, as many emerging market economies may have accumulated reserve levels in excess of precautionary levels.<sup>2</sup> Given that such transaction motives typically appear to favour the use of the US dollar as a reserve currency, their declining relevance in reserve management can be interpreted as one possible reason for the increase in the share of the euro in the early 2000s.

2 See, for example, Beck, Roland and Rahbari, Ebrahim (2008), "Optimal reserve composition in the presence of sudden stops: the euro and the dollar as safe haven currencies", ECB Working Paper No 916.

Currency shares in global foreign exchange reserves (with disclosed currency composition)

USD EUR JPY

— GBP

Percentages; at current exchange rates

80 80 70 70 60 60 50 50 40 40 30 30 20 20 10 10 0 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 Source: ECB (2008). "The international role of the euro". July 2008





#### 4 THE RISE OF SOVEREIGN WEALTH FUNDS

Sovereign wealth funds, broadly defined as public investment agencies which manage part of the foreign assets of governments, have grown rapidly in recent years and have attracted considerable public attention. Although there is no commonly accepted definition of sovereign wealth funds, three elements can be identified that are common to such funds. First, sovereign

#### Box



<sup>1</sup> For a detailed analysis, see ECB (2008), "The international role of the euro", July 2008.



### Chart 9 The largest sovereign and private asset managers

Source: See Beck, Roland and Fidora, Michael (2008), "The impact of sovereign wealth funds on global financial markets", Occasional Paper No 91, July 2008, ECB.

wealth funds are state-owned. Second, they are not subject to a committed stream of permanent payments, as with pension funds, for example, and, third, sovereign wealth funds are managed separately from official foreign exchange reserves.<sup>11</sup> In addition, most sovereign wealth funds share certain characteristics that originate from their specific nature. For example, the lack of a continuous stream of outflows favours the pursuit of long-term investment strategies, as implemented by most sovereign wealth funds. In this respect, sovereign wealth funds differ

11 The International Working Group of Sovereign Wealth Funds defines sovereign wealth funds as "special purpose investment funds or arrangements, owned by the general government. Created by the general government for macroeconomic purposes, SWFs hold, manage, or administer assets to achieve financial objectives, and employ a set of investment strategies which include investing in foreign financial assets. The SWFs are commonly established out of balance of payments surpluses, official currency operations, the proceeds of privatizations, fiscal surpluses, and/or receipts resulting from commodity exports."

#### ARTICLES

Foreign asset accumulation by authorities in emerging markets

from sovereign pension funds that operate subject to explicit liabilities and a continuous stream of payments, making sovereign wealth funds more similar to private mutual funds. Second, the absence of explicit liabilities also has a bearing on the willingness to take risk, as standard theory predicts a higher share of fixedincome securities for funds that are subject to recurring payments. Third, most sovereign wealth funds appear to have substantial exposure to foreign investments or are even entirely invested in foreign assets.

Sovereign wealth funds are currently estimated to manage between USD 2,000 and 3,000 billion, although estimates are subject to considerable uncertainty since most sovereign wealth funds do not disclose detailed information about their size and asset allocation and the delineation between sovereign wealth funds and other public

financial entities, such as development banks, is blurred in a number of cases.

The largest sovereign wealth funds have more assets under management than the world's biggest hedge funds, though they continue to command significantly less market exposure than the largest global asset managers. As regards the relative size of sovereign wealth funds, total assets are relatively small compared with the more than USD 50,000 billion managed by the private asset management industry. However, the largest sovereign wealth funds currently already manage portfolios that are in the order of magnitude of the biggest private investment companies and could in the future - to the extent that external surpluses are increasingly accumulated in sovereign wealth funds or that existing reserves are shifted into such funds even exceed the largest private investment managers' portfolios (see Chart 9).

(in USD billion	s)			
Country	Fund	Assets	Foreign investment	Equity investmen
Oil exporters		1240-2220		
UAE	Abu Dhabi Investment Council	400-800	high	high
Norway	Government Pension Fund - Global	373	high	medium
Saudi Arabia	SAMA	300	high	low
Kuwait	Kuwait Investment Authority	213	high	high
UAE	Investment Corporation of Dubai	20-80	high	high
Qatar	Qatar Investment Authority	20-60	high	high
Libya	Libyan Investment Authority	20-60	high	high
Brunei	Brunei Investment Agency	10-50	high	high
Norway	Government Pension Fund - Norway	~20	low	medium
Russia	National Welfare Fund	~24	high	high
Kazakhstan	National Oil Fund	22	high	low
Malaysia	Khazanah Nasional Berhad	~18	low	high
East Asia		~585		
China	China Investment Corporation	~200	high	high
Singapore	Government of Singapore Investment Corporation	~130	high	high
Hong Kong	Exchange Fund Investment Portfolio	~112	high	low
Singapore	Temasek Holdings	~108	medium	high
Korea	Korea Investment Corporation	~20	high	high
Taiwan	National Stabilisation Fund	~15	low	high
Others		~138		
Australia	Government Future Fund	~49	medium	medium
United States	Alaska Permanent Fund Corporation	~38	medium	medium
United States	Permanent University Fund	~20	medium	medium
United States	New Mexico State Investment	~16	medium	medium
Canada	Alberta Heritage Savings Trust Fund	~15	medium	medium
TOTAL		1963-2943		

Source: Beck, Roland and Fidora, Michael (2008), "The impact of sovereign wealth funds on global financial markets", Occasional Paper No 91, July 2008, ECB



#### ARTICLES

Foreign asset accumulation by authorities in emerging markets

Oil exporters, mostly from the Middle East, but also Norway's Government Pension Fund, are estimated to account for the largest part of total assets managed by sovereign wealth funds, probably between USD 1,200 and 2,200 billion, although this estimate is subject to substantial uncertainty (see Table 3).

A smaller fraction, of around USD 600 billion, is accounted for by Asian emerging economies,

(in USD billions and percent of firm valu	e)		
Sovereign wealth fund	Acquired company	Transacti	on velue
Sovereign weath fund	Acquired company		
		(in USD billions)	(in percent of firm value)
GIC of Singapore	UBS	9.8	8.6
Abu Dhabi Investment Council	Citigroup	7.6	4.9
GIC of Singapore	Citigroup	6.9	4.4
nvestment Corporation of Dubai	MGM Mirage	5.1	9.5
China Investment Corporation	Morgan Stanley	5.0	9.9
Temasek (Singapore)	Merrill Lynch	5.0	11.3
Qatar Investment Authority	Barclays	4.0	8.0
Datar Investment Authority	Sainsbury	3.7	25.0
XIA (Kuwait)	Merrill Lynch	3.4	7.0
China Development Bank	Barclays	3.0	3.1
China Investment Corporation	Blackstone	3.0	10.0
Investment Corporation of Dubai	London Stock Exchange	3.0	28.0
Temasek (Singapore)	China Eastern Air	2.8	8.3
SAFE (China)	Total	2.8	1.6
SAFE (China)	British Petroleum	2.0	1.0
KIC (Korea)	Merrill Lynch	2.0	4.3
Temasek (Singapore)	Barclays	2.0	1.8
Qatar Investment Authority	London Stock Exchange	2.0	20.0
Temasek (Singapore)	Standard Chartered	2.0	5.4
Undisclosed "Middle East investor"	UBS	1.8	1.6
Abu Dhabi Investment Council	Carlyle Group	1.4	7.5
Investment Corporation of Dubai	Och-Ziff Capital Management	1.4	9.9
Investment Corporation of Dubai	Mauser Group	1.2	100.0
Investment Corporation of Dubai	Alliance Medical	1.2	100.0
GIC of Singapore	Myer Melbourne	1.0	100.0
China Citic Securities	Bear Stearns	1.0	6.0
Borse Dubai	Nasdaq	1.0	19.9
Investment Corporation of Dubai	Standard Chartered	1.0	2.7
Investment Corporation of Dubai	Almatis	1.0	100.0
GIC of Singapore	Merrill Lynch Financial Centre (real estate)	1.0	100.0
Investment Corporation of Dubai	Barney's New York	0.9	100.0
Investment Corporation of Dubai	EADS	0.8	3.1
GIC of Singapore	Hawks Town (real estate )	0.8	100.0
Investment Corporation of Dubai	ICICI Bank Ltd	0.8	2.9
Temasek (Singapore)	Tokyo Westin	0.7	100.0
Mubadala Development Comp. (UAE)	Advanced Micro Devices	0.6	8.0
GIC of Singapore	WestQuay Shopping Centre (real estate )	0.6	50.0
Investment Corporation of Dubai	Sony	0.5	1.0
Qatar Investment Authority	OMX	0.5	10.0
GIC of Singapore	British Land	0.3	3.0
Investment Corporation of Dubai	Metropole Hotel <i>(real estate )</i>	0.3	100.0
GIC of Singapore	Kungshuset ( <i>real estate</i> )	0.2	100.0
SAFE (China)	Commonwealth Bank of Australia	0.2	0.3
SAFE (China)	Australia and New Zealand Banking Group	0.2	0.3
SAFE (China)	National Australia Bank	0.2	0.3
GIC of Singapore	Roma Est Shopping Centre <i>(real estate )</i>	0.2	50.0
Temasek (Singapore)	9You Online Games	0.1	9.4
remaser (Singapore)	7 For Onnine Games	0.1	7.4

Sources: Company announcements and media reports.

most notably Singapore, which has been running sovereign wealth funds since the 1970s. But also mature economies, other than Norway, have set up sovereign wealth funds, mostly to save receipts from the exploitation of natural resources. In sum, a plausible estimate of total assets managed by sovereign wealth funds ranges from USD 2,000 to 3,000 billion.

Despite the scarce information available, two main traits of the portfolio composition of sovereign wealth funds can be identified: First, the largest part of sovereign wealth funds' holdings is accounted for by foreign investment, although some sovereign wealth funds either restrict their portfolio to domestic assets. Second, the share of risky assets in sovereign wealth funds' portfolios appears to be substantial. In fact, sovereign wealth funds have, over recent vears, acquired significant shares in many large stock corporations in advanced economies, in particular, in the financial sector (Table 4). Overall, the share of sovereign wealth funds' equity investments exceeds, in most likelihood, one half of the total assets.

important issue arising from these An considerations is whether a gradual shift of official portfolios away from traditional foreign exchange reserves to more diversified sovereign wealth funds might have an impact on global capital flows. While the magnitude of future capital flows is difficult to quantify, the rise of sovereign wealth funds could, potentially, generate net capital flows between major regions of the global economy. Changes in the patterns of global capital flows due to the rise of sovereign wealth funds could also have an impact on asset prices and exchange rates either directly through price pressure on certain market segments and currencies, or indirectly via a decrease in average risk aversion. Against this background, it seems, however, likely that major sovereign holders of foreign assets will only gradually change the composition of their portfolios so as to minimise the impact on asset price configurations.

Given their systemic relevance, sovereign wealth funds have received considerable attention also in several international organisations and policy fora, including the IMF and the G7, which led to the establishment of an International Working Group of Sovereign Wealth Funds comprised of 23 investor countries as well as permanent observers, including from the OECD and the World Bank. In late 2008, the International Working Group, in consultation with representatives from mature economies and the IMF, agreed on a set of 24 Generally Accepted Practices and Principles for Sovereign Wealth Funds that are intended to guide the appropriate governance and accountability arrangements, as well as the conduct of appropriate investment practices by sovereign wealth funds. Likewise, the OECD is working on issues relating to the treatment of sovereign wealth funds in capital recipient countries. These multilateral efforts aim at ensuring efficient asset management of sovereign wealth funds based on purely financial considerations, sound corporate governance standards, and transparent and open capital markets, in order to promote the potentially beneficial role of sovereign wealth funds in global financial markets. Thus, sovereign wealth funds could contribute to a widening of the long-term investor base for non-government securities, including corporate bonds, private equity, emerging market assets, real estate and commodities, and more efficient sharing and diversification of risk at the global level. Such positive effects on the global financial system will, however, only materialise if investments by sovereign wealth funds are only driven by financial and not political motives.

#### **5** CONCLUSION

Global foreign exchange reserves and foreign assets managed by sovereign wealth funds have risen substantially over the past decade as authorities in emerging markets have accumulated external assets for a variety of reasons. Most prominently, authorities in the emerging markets have increased their holdings of foreign exchange reserves as an insurance against sudden stops in capital flows. During the current turmoil in the financial markets,

FCR

#### ARTICLES

Foreign asset accumulation by authorities in emerging markets

these high levels of reserves have reduced the vulnerability of these countries to shifts in global risk aversion.

In most oil-exporting countries, foreign assets have been accumulated mainly in sovereign wealth funds, as intergenerational equity considerations in the context of non-renewable resources have gained importance relative to macroeconomic stabilisation objectives.

Large holders of foreign exchange reserves in Asia – where the reserve build-up is, to a large extent, a reflection of inflexible exchange rate regimes – have also recently started to set up sovereign wealth funds in order to improve the returns on their reserve portfolios. These transfers of traditional foreign exchange reserves into national investment vehicles can be interpreted as an indication of possibly too large reserve holdings in these countries.

Transfers of sizeable amounts of traditional foreign exchange reserves into sovereign wealth funds may have also have an impact on global capital flows since such funds are likely to pursue an investment strategy that differs considerably from that of central banks. Whether sovereign wealth funds could have an impact on financial stability will depend critically on the motives underlying the investment decisions of such funds. In fact, provided that such funds pursue only financial objectives, sovereign wealth funds may contribute to a widening of the long-term investor base for risky assets. In this regard, measures aimed at restricting capital flows into developed countries entail the risk of curtailing these benefits.

As central banks and sovereign wealth funds have become large market participants in the global financial system, it is of particular importance that transparency is raised in this area. While the size of global foreign exchange reserves is public information, details about their composition is available only for around two-thirds of global reserves. In the case of sovereign wealth funds, their size and composition is subject to considerable uncertainty. Improvements in this area, in particular along the lines suggested by the Generally Accepted Practices and Principles for Sovereign Wealth Funds, would make an important contribution to the transparency of global financial markets.

EURO AREA STATISTICS





### **CONTENTS**<sup>1</sup>

		AREA OVERVIEW mary of economic indicators for the euro area	S 5
1		TARY POLICY STATISTICS	
	1.1	Consolidated financial statement of the Eurosystem	<b>S 6</b>
		5	S7
	1.3 1.4	Eurosystem monetary policy operations allotted through tenders Minimum reserve and liquidity statistics	88 89
	1.4	winning reserve and requerty statistics	37
2		EY, BANKING AND INVESTMENT FUNDS	
	2.1	Aggregated balance sheet of euro area MFIs	<b>S I O</b>
	2.2	Consolidated balance sheet of euro area MFIs	S I I
	2.3	Monetary statistics	S I 2
	2.4	MFI loans, breakdown	S I 4
	2.5	Deposits held with MFIs, breakdown	S I 7
	2.6	MFI holdings of securities, breakdown	<b>S20</b>
	2.7	Revaluation of selected MFI balance sheet items	S2 I
	2.8	Currency breakdown of selected MFI balance sheet items	<b>S22</b>
	2.9	Aggregated balance sheet of euro area investment funds	<b>S24</b>
	2.10	Assets of euro area investment funds broken down by investment policy and type of investor	S 2 5
3	EURO	AREA ACCOUNTS	
	3.1	Integrated economic and financial accounts by institutional sector	<b>S26</b>
	3.2	Euro area non-financial accounts	<b>S30</b>
	3.3	Households	<b>S</b> 32
	3.4	Non-financial corporations	<b>S</b> 33
	3.5	Insurance corporations and pension funds	<b>S</b> 34
4	FINA	ICIAL MARKETS	
	4.1	Securities, other than shares, by original maturity, residency of the issuer and currency	S 3 5
	4.2	Securities, other than shares, issued by euro area residents, by sector of the issuer and instrument type	\$36
	4.3	Growth rates of securities, other than shares, issued by euro area residents	\$38
	4.4	Quoted shares issued by euro area residents	<b>S40</b>
	4.5	MFI interest rates on euro-denominated deposits and loans by euro area residents	<b>S42</b>
	4.6	Money market interest rates	<b>S44</b>
	4.7	Euro area yield curves	S45
	4.8	Stock market indices	<b>S46</b>
5	PRICI	ES, OUTPUT, DEMAND AND LABOUR MARKETS	
	5.1	HICP, other prices and costs	S47
	5.2	Output and demand	<b>S 5 0</b>
	5.3	Labour markets	<b>S 5 4</b>
6	GOVE	RNMENT FINANCE	
	6.1	Revenue, expenditure and deficit/surplus	S 5 5
		Debt	\$56

1 For further infomation, please contact us at: 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.



	6.3	Change in debt	\$57
	6.4	Quarterly revenue, expenditure and deficit/surplus	\$58
	6.5	Quarterly debt and change in debt	\$59
7	EXT	ERNAL TRANSACTIONS AND POSITIONS	
	7.1	Summary balance of payments	\$60
	7.2	Current and capital accounts	\$61
	7.3	Financial account	\$63
	7.4	Monetary presentation of the balance of payments	\$69
	7.5	Trade in goods	\$70
8	EXC	HANGE RATES	
	8.1	Effective exchange rates	\$72
	8.2	Bilateral exchange rates	\$73
9	DEV	ELOPMENTS OUTSIDE THE EURO AREA	
	9.1	In other EU Member States	\$74
	9.2	In the United States and Japan	\$75
	LIST	OF CHARTS	\$76
	TECI	HNICAL NOTES	\$77
	GEN	ERAL NOTES	\$83

#### ENLARGEMENT OF THE EURO AREA ON I JANUARY 2009 TO INCLUDE SLOVAKIA

Unless otherwise indicated, all data series covering observations for 2009 relate to the Euro 16 (the euro area including Slovakia) 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 the respective year of entry into the euro area of Greece (2001), Slovenia (2007), Cyprus (2008), Malta (2008) and Slovakia (2009), calculated from bases covering the year prior to the year of entry, use a series in which the impact of these countries' joining the euro area is taken into account. Historical data referring to the euro area before the entry of Slovakia are available on the ECB's website at http://www.ecb.europa.eu/stats/services/downloads/html/index.en.html

#### Conventions used in the tables

۰۰_››	data do not exist/data are not applicable
"·"	data are not yet available
"…"	nil or negligible
"billion"	109
(p)	provisional
s.a.	seasonally adjusted
n.s.a.	non-seasonally adjusted





### **EURO AREA OVERVIEW**

#### 1. Monetary developments and interest rates<sup>1)</sup>

	M1 <sup>2)</sup>	M2 <sup>2)</sup>	<b>M3</b> <sup>2), 3)</sup>	M3 <sup>2), 3)</sup> 3-month moving average (centred)	MFI loans to euro area residents excluding MFIs and general government <sup>2)</sup>	Securities other than shares issued in euro by non-MFI corporations <sup>2)</sup>	3-month interest rate (EURIBOR, % per annum, period averages)	10-year spot rate (% per annum, end-of- period) <sup>4)</sup>
	1	2	3	4	5	6	7	8
2007 2008	6.4	9.9	11.1	-	10.8	18.6	4.28 4.64	4.38 3.69
2008 Q1 Q2 Q3 Q4	3.8 2.3 0.6	10.3 10.0 9.1	11.2 10.1 9.0	- - -	11.1 10.5 9.1	19.8 17.2 18.6	4.48 4.86 4.98 4.24	4.13 4.73 4.34 3.69
2008 July Aug. Sep. Oct. Nov. Dec.	0.3 0.2 1.2 3.7 2.3	9.1 8.9 8.9 9.3 8.8	9.2 8.8 8.7 8.7 7.8	9.2 8.9 8.7 8.4	9.3 8.8 8.5 7.8 7.1	16.9 20.0 20.3 18.0	4.96 4.97 5.02 5.11 4.24 3.29	4.53 4.34 4.34 4.25 3.77 3.69

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

	HICP <sup>1)</sup>	Industrial producer prices	Hourly labour costs	Real GDP	Industrial production excluding construction	Capacity utilisation in manufacturing (percentages)	Employment	Unemployment (% of labour force)
	1	2	3	4	5	6	7	8
2007 2008	2.1 3.3	2.8	2.6	2.6	3.4	84.2	1.8	7.4
2008 Q2 Q3 Q4	3.6 3.8 2.3	7.1 8.5	2.8 4.0	1.4 0.6	1.1 -1.5	83.4 82.3	1.3 0.8	7.4 7.5
2008 July Aug. Sep. Oct.	4.0 3.8 3.6 3.2	9.2 8.5 7.9 6.3	- - -	- - -	-1.1 -0.6 -2.5 -5.7	82.9 - 81.6	- - -	7.4 7.5 7.6 7.7
Nov. Dec.	2.1 1.6	3.3	-	-	-7.7	-	-	7.8

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

(EUR billions, unless otherwise indicated)

	Balance of payments (net transactions)				Reserve assets (end-of-period	Effective exchange rate of the euro: EER-22 <sup>5)</sup>		USD/EUR exchange rate	
	Current and	Casta	Direct	Portfolio	positions)	(index, 1999 Q1	(index, 1999 Q1 = 100)	0	
	capital accounts	Goods	investment	investment	_	Nominal	Real (CPI)		
	1	2	3	4	5	6	7	8	
2007 2008	51.8	57.5	-90.4	137.7	347.4	107.7 112.7	108.3 112.7	1.3705 1.4708	
2008 Q1 Q2 Q3 Q4	-2.4 -21.4 -7.1	-1.5 6.2 -5.9	-107.1 -49.2 -40.5	73.8 34.3 17.4	356.3 353.9 370.9	112.7 115.7 113.7 108.8	113.2 115.6 113.2 109.0	1.4976 1.5622 1.5050 1.3180	
2008 July Aug. Sep. Oct. Nov. Dec.	2.0 -5.5 -3.7 -4.8	2.3 -5.2 -2.9 2.3	-12.3 -9.8 -18.5 -14.1	-8.8 -18.2 44.5 121.7	355.6 350.7 370.9 368.0 393.4	115.8 113.5 111.6 107.6 106.8 112.0	115.5 113.2 111.2 107.4 106.6 112.3	1.5770 1.4975 1.4370 1.3322 1.2732 1.3449	

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

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

1)

Data refer to the changing composition of the euro area. For further information, see the General notes. Annual percentage changes of monthly data refer to the end of the month, whereas those of quarterly and yearly data refer to the annual change in the period average of the series. See the Technical notes for details. 2)

M3 and its components exclude holdings by non-euro area residents of money market fund shares/units and debt securities with a maturity of up to two years. 3)

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**

### I.I Consolidated financial statement of the Eurosystem (EUR millions)

#### 1. Assets

	2008 19 December	2008 26 December	2009 2 January	2009 9 January
Gold and gold receivables	219,824	219,707	218,415	218,392
Claims on non-euro area residents in foreign currency	152,779	149,650	162,054	159,502
Claims on euro area residents in foreign currency	221,411	229,518	225,808	218,039
Claims on non-euro area residents in euro	8,938	9,202	19,707	20,517
Lending to euro area credit institutions in euro	829,584	843,197	857,510	828,533
Main refinancing operations	210,427	224,400	239,592	216,830
Longer-term refinancing operations	616,899	616,901	616,924	610,161
Fine-tuning reverse operations	0	0	0	0
Structural reverse operations	0	0	0	0
Marginal lending facility	2,190	1,820	942	1,459
Credits related to margin calls	69	77	52	84
Other claims on euro area credit institutions in euro	54,755	58,438	58,084	56,861
Securities of euro area residents in euro	120,835	121,287	282,693	280,219
General government debt in euro	37,496	37,496	37,469	37,438
Other assets	375,861	374,969	227,138	226,063
Total assets	2,021,484	2,043,465	2,088,878	2,045,566

#### 2. Liabilities

	2008 19 December	2008 26 December	2009 2 January	2009 9 January
Banknotes in circulation	753,279	765,413	763,682	751,133
Liabilities to euro area credit institutions in euro	436,414	455,784	504,306	475,277
Current accounts (covering the minimum reserve system)	205,686	225,947	213,283	157,536
Deposit facility	230,667	229,785	281,670	315,254
Fixed-term deposits	0	0	0	0
Fine-tuning reverse operations	0	0	9,240	2,305
Deposits related to margin calls	61	52	114	182
Other liabilities to euro area credit institutions in euro	215	211	340	325
Debt certificates issued	0	0	1,003	1,003
Liabilities to other euro area residents in euro	129,675	116,079	93,805	98,652
Liabilities to non-euro area residents in euro	279,046	285,988	286,768	282,120
Liabilities to euro area residents in foreign currency	2,775	2,874	4,463	1,793
Liabilities to non-euro area residents in foreign currency	13,080	10,191	11,283	11,517
Counterpart of special drawing rights allocated by the IMF	5,384	5,384	5,446	5,446
Other liabilities	161,237	161,162	169,155	170,573
Revaluation accounts	168,685	168,685	176,589	176,589
Capital and reserves	71,694	71,694	72,039	71,140
Total liabilities	2,021,484	2,043,465	2,088,878	2,045,566

Source: ECB.



### I.2 Key ECB interest rates

	With effect from <sup>1)</sup>	Deposit facili	ty	Ma	in refinancing operatio	ns	Marginal lendin	g facility
$ \begin{array}{ c c c c c c c } \hline level & level $				Fixed rate tenders	Variable rate tenders			
1234561999 41200 $\cdot$ 300 $ \cdot$ 45022 2 2 2 9200 $-0.75$ 3.00300 $ \cdot$ 45022 2 2 92.00 $-0.75$ 3.00300 $ \cdot$ $\cdot$ 4502004Feb. 2.002.00 $0.50$ $3.25$ 3.00 $ -0.50$ $4.00$ 20004Feb. 2.002.25 $0.25$ $3.25$ 3.00 $ 0.25$ $4.25$ 17 <mar. </mar.  2.84 92.35 $0.25$ $3.25$ 3.25 $ 0.25$ $4.52$ 28 9 3.25 $2.55$ $3.75$ 3.25 $ 0.25$ $4.57$ 28 9 3.10 $3.25$ $0.25$ $ 4.50$ $0.25$ $5.57$ 31 Aug. 3.14ug. $3.50$ $0.25$ $ 4.50$ $0.25$ $5.25$ 18 9 Nov. $2.25$ $0.50$ $ 3.25$ $0.50$ $4.75$ 20026 Dec. $1.75$ $0.50$ $ 2.75$ $0.50$ $4.75$ 2003 $7 Mar.$ $2.55$ $ 2.00$ $0.50$ $3.00$ 2004 $6 Dec.$ $1.75$ $0.50$ $ 2.75$ $0.50$ $4.75$ 2005 $6 Dec.$ $1.75$ $0.50$ $ 2.75$ $0.50$ $4.75$ 2005 $6 Dec.$ $1.25$ $0.25$ $ 2.25$ $0.50$ $3.00$ 2005 $6 Dec.$ $1.25$ $0.25$ $ 2.75$ </td <td></td> <td></td> <td></td> <td>Fixed rate</td> <td>Minimum bid rate</td> <td></td> <td></td> <td></td>				Fixed rate	Minimum bid rate			
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		Level	Change	Level	Level	Change	Level	Change
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		1	2	3	4	5	6	7
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	1999 1 Jan.				-	-		-
$\begin{array}{c c c c c c c c c c c c c c c c c c c $					-			-1.25
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $					-			1.25
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	9 Apr.				-			-1.00
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	5 Nov.	2.00	0.50	3.00	-	0.50	4.00	0.50
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2000 4 Feb.				-		4.25	0.25
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	17 Mar.				-			0.25
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	28 Apr.				-			0.25
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	9 June		0.50	4.25	-	0.50		0.50
$\begin{array}{c c c c c c c c c c c c c c c c c c c $				-				
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1 Sep.			-				0.25
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	6 Oct.	3.75	0.25	-	4.75	0.25	5.75	0.25
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2001 11 May	3.50	-0.25	-	4.50	-0.25	5.50	-0.25
$\begin{array}{c c c c c c c c c c c c c c c c c c c $				-				-0.25
9 Nov.2.25 $-0.50$ $ 3.25$ $-0.50$ $4.25$ 2002 6 Dec. $1.75$ $-0.50$ $ 2.75$ $-0.50$ $3.75$ 203 7 Mar. $1.50$ $-0.25$ $ 2.50$ $-0.25$ $3.50$ $6$ June $1.00$ $-0.50$ $ 2.00$ $-0.50$ $3.00$ 2005 6 Dec. $1.25$ $0.25$ $ 2.25$ $0.25$ $3.25$ 2006 8 Mar. $1.50$ $0.25$ $ 2.50$ $0.25$ $3.50$ $15$ June $1.75$ $0.25$ $ 2.75$ $0.25$ $3.75$ $9$ Aug. $2.00$ $0.25$ $ 3.00$ $0.25$ $4.25$ $13$ Dec. $2.50$ $0.25$ $ 3.50$ $0.25$ $4.50$ $2007$ 14 Mar. $2.75$ $0.25$ $ 4.25$ $0.25$ $4.50$ $2008$ 9 July $3.25$ $0.25$ $ 4.25$ $0.25$ $5.00$ $9 0$ $3.25$ $0.25$ $ 4.25$ $0.25$ $5.25$ $9 0$ $3.25$ $0.25$ $ 4.25$ $0.25$ $5.25$ $9 0$ $3.25$ $0.50$ $   4.75$ $9 0$ $3.25$ $0.50$ $   4.25$ $13$ Duc $2.00$ $-0.50$ $3.25$ $ -0.50$ $3.75$ $13$ Duc $2.25$ $0.50$ $   4.25$ $13$ Duc $2.25$ $0.50$ $   4.25$				-				-0.50
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	9 Nov.			-				-0.50
6 June         1.00         -0.50         -         2.00         -0.50         3.00           2005 6 Dec.         1.25         0.25         -         2.25         0.25         3.25           2006 8 Mar.         1.50         0.25         -         2.50         0.25         3.50           15 June         1.75         0.25         -         2.75         0.25         3.75           9 Aug.         2.00         0.25         -         3.00         0.25         4.00           11 Oct.         2.25         0.25         -         3.50         0.25         4.25           13 Dec.         2.50         0.25         -         3.50         0.25         4.50           2007 14 Mar.         2.75         0.25         -         3.75         0.25         4.50           2008 9 July         3.25         0.25         -         4.00         0.25         5.00           2008 9 July         3.25         0.25         -         4.25         0.25         5.25           8 Oct.         2.75         -0.50         -         -         -         4.75           9 <sup>4</sup> 3.25         0.50         -         -	2002 6 Dec.	1.75	-0.50	-	2.75	-0.50	3.75	-0.50
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	2003 7 Mar.	1.50	-0.25	-	2.50	-0.25	3.50	-0.25
$\begin{array}{cccccccccccccccccccccccccccccccccccc$				-				-0.50
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	2005 6 Dec.	1.25	0.25	-	2.25	0.25	3.25	0.25
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	2006 8 Mar	1.50	0.25		2 50	0.25	3 50	0.25
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$				-				0.25
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$				-				0.25
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $				-				0.25
$\begin{array}{c c c c c c c c c c c c c c c c c c c $				-				0.25
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	2007 14 Mar	2.75	0.25		3 75	0.25	4 75	0.25
$\begin{array}{cccccccccccccccccccccccccccccccccccc$				_				0.25
$\begin{array}{cccccccccccccccccccccccccccccccccccc$								
$\begin{array}{cccccccccccccccccccccccccccccccccccc$				-	4.25	0.25		0.25 -0.50
$15^{-5}$ $3.25$ $3.75$ - $-0.50$ $4.25$ $12$ Nov. $2.75$ $-0.50$ $3.25$ - $-0.50$ $3.75$ $10$ Dec. $2.00$ $-0.75$ $2.50$ - $-0.75$ $3.00$				-	-	-		-0.50
12 Nov.         2.75         -0.50         3.25         -         -0.50         3.75           10 Dec.         2.00         -0.75         2.50         -         -0.75         3.00				2 75	-	0.50		
10 Dec. 2.00 -0.75 2.500.75 3.00			0.50		-			-0.50
					-			-0.75
2009 21 Jan. 1.00 -1.00 2.000.50 3.00								-0.75
	2009 21 Jan.	1.00	-1.00	2.00	-	-0.50	3.00	

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.

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.
 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

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) As of 9 October 2008 the ECB reduced the standing facilities corridor from 200 basis points to 100 basis points around the interest rate on the main refinancing operations.

As of 9 October 2008 the ECB reduced the standing facilities corridor from 200 basis points to 100 basis points around the interest rate on the main refinancing operations.
 On 8 October 2008 the ECB announced that, starting from the operation to be settled on 15 October, the weekly main refinancing operations would be carried out through a fixed rate tender procedure with full allotment at the interest rate on the main refinancing operations. This change overrode the previous decision (made on the same day) to cut by 50 basis points the minimum bid rate on the main refinancing operations conducted as variable rate tenders.



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

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

Date of settlement	Bids (amount)	Number of participants	Allotment (amount)	Fixed rate tenders	Varia	able rate tenders	s	Running for () days
	(anto anto)	Paracipano		Fixed rate	Minimum bid rate	Marginal rate <sup>4)</sup>	Weighted average rate	(11) aujo
	1	2	3	4	5	6	7	8
			Main refina	incing operations				
2008 17 Sep.	328,662	533	150,000	-	4.25	4.53	4.58	7
24	334,044	506	180,000	-	4.25	4.73	4.78	7
1 Oct.	228,012	419	190,000	-	4.25	4.65	4.96	7
8	271,271	436	250,000	-	4.25	4.70	4.99	7
15 5)	310,412	604	310,412	3.75	-	-	-	7
22	305,421	703	305,421	3.75	-	-	-	7
29	325,112	736	325,112	3.75	-	-	-	7
5 Nov.	311,991	756	311,991	3.75	-	-	-	7
12	334,413	848	334,413	3.25	-	-	-	7
19	338,018	851	338,018	3.25	-	-	-	7
26	334,461	836	334,461	3.25	-	-	-	7
3 Dec.	339,520	787	339,520	3.25	-	-	-	7
10	217,856	783	217,856	2.50	-	-	-	7
17	209,721	792	209,721	2.50	-	-	-	6
23	223,694	640	223,694	2.50	-	-	-	7
30	238,891	629	238,891	2.50	-	-	-	7
2009 6 Jan.	216,122	600	216,122	2.50	-	-	-	8
14	203,792	614	203,792	2.50	-	-	-	7
			Longer-term re	financing operations				
2008 30 Sep.	141.683	210	120,000	-	-	4.36	4.88	38
9 Oct.	113,793	181	50,000	-	-	5.36	5.57	182
30 5)	103,108	223	103,108	3.75	-	-	-	91
7 Nov.	20,416	55	20,416	3.75	-	-	-	33
13	66,807	139	66,807	3.25	-	-	-	91
13	41,558	127	41,558	3.25	-	-	-	182
27	42,185	161	42,185	3.25	-	-	-	91
10 Dec.	134,949	139	134,949	2.50	-	-	-	42
11	38,080	96	38,080	2.50	-	-	-	182
11	55,924	105	55,924	2.50	-	-	-	91
18	50,793	169	50,793	2.50	-	-	-	98
2009 8 Jan.	7,559	39	7,559	2.50	_	_	-	182
8	9,454	45	9,454	2.50	-	-	-	98

#### 2. Other tender operations

Date of settlement	Type of operation	Bids (amount)	Number of participants	Allotment (amount)	Fixed rate tenders		Variable r	ate tenders		Running for () days
					Fixed rate	Minimum	Maximum	Marginal		
						bid rate	bid rate	rate <sup>4)</sup>	average rate	
	1	2	3	4	5	6	7	8	9	10
2008 8 July	Collection of fixed-term deposits	14,585	12	14,585	4.00	-	-	-	-	1
12 Aug.	Collection of fixed-term deposits		10	21,000	4.25	-	-	-	-	1
9 Sep.	Collection of fixed-term deposits	20,145	17	20,145	4.25	-	-	-	-	1
15	Reverse transaction	90,270	51	30,000	-	4.25	-	4.30	4.39	1
16	Reverse transaction	102,480	56	70,000	-	4.25	-	4.32	4.40	1
18	Reverse transaction	49,330	43	25,000	-	4.25	-	4.30	4.39	1
24	Reverse transaction	50,335	36	40,000	-	4.25	-	4.25	4.35	1
1 Oct.	Collection of fixed-term deposits	173,047	52	173,047	4.25	-	-	-	-	1
2	Collection of fixed-term deposits	216,051	65	200,000	4.25	-	-	-	-	1
3	Collection of fixed-term deposits		54	193,844	4.25	-	-	-	-	3
6	Collection of fixed-term deposits	171,947	111	171,947	4.25	-	-	-	-	1
7	Collection of fixed-term deposits	147,491	97	147,491	4.25	-	-	-	-	1
9	Reverse transaction	24,682	99	24,682	3.75	-	-	-	-	6
11 Nov.	Collection of fixed-term deposits	149,656	117	79,940	-	-	3.75	3.60	3.51	1
9 Dec.	Collection of fixed-term deposits	152,655	95	137,456	-	-	3.25	3.05	2.94	1

Source: ECB.

1)

The amounts shown may differ slightly from those in Section 1.1 due to operations allotted but not settled. 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 2) classified as main refinancing operations. For split tender operations conducted before this month, see Table 2 in Section 1.3.

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. In liquidity-providing (absorbing) operations, the marginal rate refers to the lowest (highest) rate at which bids were accepted. On 8 October 2008 the ECB announced that, starting from the operation to be settled on 15 October, the weekly main refinancing operations would be carried out through a fixed rate tender procedure with full allotment at the interest rate on the main refinancing operations. 3)

4) 5)



#### 1.4 Minimum reserve and liquidity statistic

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

		5 1				
Reserve base	Total	Liabilities to which a 2% res	serve coefficient is applied	Liabilities to which	ch a 0% reserve coeffic	cient is applied
as at 1)		Deposits (overnight,		Deposits (over 2 years'	Repos	Debt securities over 2 years'
		up to 2 years'	agreed maturity	agreed maturity		agreed maturity
		agreed maturity and notice period)		and notice period)		
		and notice period)				
	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 Q2	17,971.8	9,775.4	916.3	2,172.4	1,439.4	3,668.1
Q3	18,231.2	9,968.9	917.1	2,186.7	1,457.1	3,701.5
2008 Aug.	18,165.4	9,888.1	948.6	2,184.4	1,438.7	3,705.6
Sep.	18,231.2	9,968.9	917.1	2,186.7	1,457.1	3,701.5
Oct. <sup>2)</sup>	18,437.5	10,154.4	900.0	2,211.6	1,445.4	3,726.2

#### 2. Reserve maintenance

Maintenance period ending on:	Required reserves	Credit institutions' current accounts	Excess reserves	Deficiencies 4	Interest rate on minimum reserves
2007 2008	195.9 217.2	196.8 218.7	1.0 1.5	0.0 0.0	4.17 3.25
2008 8 July 12 Aug. 9 Sep. 7 Oct. 11 Nov. 9 Dec.	211.9 214.1 213.3 2148 216.1 217.2	212.7 214.8 214.0 216.8 218.6 218.6 218.7	0.8 0.7 0.7 2.0 2.4 1.5	0.0 0.0 0.0 0.0 0.0 0.0 0.0	4.06 4.35 4.38 4.58 3.94 3.25
2009 20 Jan. <sup>3)</sup>	220.2		•		

#### 3. Liquidity

Maintenance period		Liquidity	-providing fact				Liquidi	ty-absorbing	factors		Credit institutions'	Base money
ending on:			Monetary po	licy operation	is of the Euro	system					current accounts	
	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	Banknotes in circulation	Central government deposits with the Eurosystem	Other factors (net)		
	1	2	3	4	5	6	7	8	9	10	11	12
2007 2008	327.5 580.5	173.0 337.3	278.6 457.2	0.3 2.7	$0.0 \\ 0.0$	0.4 200.9	2.2 4.9	644.6 731.1	61.9 107.8	-126.6 114.3	196.8 218.7	841.9 1,150.7
2008 8 July 12 Aug. 9 Sep. 7 Oct. 11 Nov. 9 Dec.	376.4 374.5 376.6 417.3 549.0 580.5	185.4 166.3 163.5 174.1 301.6 337.3	275.4 299.3 300.0 334.3 452.5 457.2	$\begin{array}{c} 0.1 \\ 0.1 \\ 0.1 \\ 7.5 \\ 12.7 \\ 2.7 \end{array}$	$0.0 \\ 0.0 \\ 0.0 \\ 5.9 \\ 4.2 \\ 0.0$	0.4 0.3 0.6 19.9 213.7 200.9	0.5 0.6 0.7 45.5 2.3 4.9	677.2 686.1 685.0 684.3 722.1 731.1	64.9 61.3 61.1 55.2 85.0 107.8	-118.3 -123.0 -121.2 -82.6 78.2 114.3	212.7 214.8 214.0 216.8 218.6 218.7	890.3 901.2 899.5 921.0 1,154.4 1,150.7

Source: ECB. 1) End of period.

2) The end-October 2008 reserve base is used for the calculation of the reserve requirements of euro area credit institutions for the maintenance period ending in January 2009 and therefore includes the reserve bases of credit institutions in Slovakia. For reserve base figures as from end-October 2008, credit institutions located in other euro area countries may have decided to deduct from their own reserve bases any liabilities owed to credit institutions located in Slovakia.

euro area countries may have decided to deduct from their own reserve bases any liabilities owed to credit institutions located in Slovakia.
Owing to the adoption of the euro by Slovakia on 1 January 2009, the reserve requirement is an average - weighted by the number of calendar days - of the reserve requirements for the then 15 countries of the euro area for the period 10-31 December 2008 and the reserve requirements for the 16 countries now in the euro area for the period 1-20 January 2009.





### 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	Lo	ans to euro a	rea resident	ts	shares i	ngs of securi ssued by eu		dents	Money market fund	Holdings of shares/ other equity	External assets	Fixed assets	Remaining assets
		Total	General government	Other euro area residents	MFIs	Total	General government	Other euro area residents	MFIs	shares/ units <sup>2)</sup>	issued by euro area residents			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
							Eurosystem							
2006 2007	1,558.2 2,046.1	695.7 1,031.7	19.7 17.8	0.6 0.6	675.3 1,013.3	217.0 268.6	187.5 225.1	2.5 1.9	27.0 41.6	-	17.2 17.4	351.4 373.7	14.7 15.2	262.4 339.6
2008 Q2	2,098.5	1,010.6	18.5	0.7	991.5	277.5	234.7	2.4	40.4	-	15.7	381.5	15.9	397.3
2008 July Aug. Sep. Oct. Nov. <sup>(p)</sup>	2,098.8 2,147.2 2,473.4 2,781.3 2,803.3	1,004.4 1,048.3 1,342.5 1,632.6 1,632.5	18.4 18.4 18.5 18.5 18.5	0.7 0.7 0.7 0.6 0.6	985.4 1,029.2 1,323.3 1,613.5 1,613.3	277.1 279.0 278.9 283.8 291.3	234.9 236.8 237.4 242.5 249.9	2.5 2.4 2.4 2.4 2.4 2.4	39.8 39.8 39.1 38.9 39.0	- - -	15.4 15.5 14.7 13.9 14.2	385.6 456.5 482.4 478.7 497.0	16.1 16.1 16.0 16.0 16.0	400.1 331.8 338.9 356.2 352.3
						MFIs exc	luding the Eu	irosystem						
2006 2007	25,950.2 29,446.8	14,904.3 16,904.8	810.5 956.1	9,160.3 10,159.8	4,933.5 5,788.9	3,555.4 3,880.6	1,276.5 1,194.1	645.9 949.8	1,632.9 1,736.6	83.5 93.5	1,171.4 1,296.2	4,329.0 4,873.3	172.6 206.0	1,733.9 2,192.4
2008 Q2	30,759.9	17,638.7	975.8	10,661.4	6,001.5	4,192.5	1,219.3	1,079.4	1,893.9	98.4	1,309.8	4,895.0	201.3	2,424.2
2008 July Aug. Sep. Oct. Nov. <sup>(p)</sup>	30,769.0 31,031.6 31,529.3 32,451.7 32,435.3	17,694.9 17,741.1 18,146.1 18,441.6 18,295.5	977.3 970.1 979.4 980.1 978.1	10,714.2 10,722.6 10,819.2 10,876.0 10,883.3	6,003.5 6,048.4 6,347.5 6,585.4 6,434.2	4,239.4 4,287.7 4,188.7 4,249.6 4,361.8	1,226.2 1,228.1 1,190.8 1,185.3 1,227.0	1,096.5 1,125.9 1,099.0 1,133.5 1,168.8	1,916.7 1,933.7 1,898.9 1,930.8 1,966.0	97.9 98.5 100.4 95.6 94.7	1,329.4 1,325.2 1,318.5 1,264.8 1,245.8	4,933.0 5,040.1 5,118.5 5,302.1 5,166.9	201.6 202.1 203.4 204.3 205.3	2,272.7 2,336.9 2,453.7 2,893.8 3,065.3

#### 2. Liabilities

	Total	Currency		Deposits of eur	o area residents		Money market	Debt securities	Capital and	External liabilities	Remaining liabilities
		circulation	Total	Central government	Other general government/ other euro area residents	MFIs	fund shares/ units <sup>3)</sup>	issued <sup>4)</sup>	reserves		
	1	2	3	4	5	6	7	8	9	10	11
					Eurosystem						
2006	1,558.2	647.0	431.6	33.7	15.9	382.0	-	0.1	208.6	35.3	235.6
2007	2,046.1	697.0	714.7	23.9	19.1	671.8	-	0.1	238.0	66.0	330.3
2008 Q2	2,098.5	699.6	733.2	55.2	24.6	653.3	-	0.1	240.7	98.7	326.2
2008 July	2,098.8	707.8	720.9	61.3	17.5	642.1	-	0.1	242.5	102.1	325.5
Aug.	2,147.2	704.8	766.9	67.5	14.8	684.7	-	0.1	243.9	178.8	252.7
Sep.	2,473.4	705.4	932.3	51.3	17.7	863.3	-	0.1	264.4	285.0	286.2
Oct.	2,781.3	749.1	1,026.0	78.9	29.8	917.3	-	0.1	262.0	401.9	342.2
Nov. <sup>(p)</sup>	2,803.3	752.9	1,079.9	107.7	27.6	944.6	-	0.1	283.5	369.1	317.8
				MFIs	excluding the Eur	rosystem					
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	29,446.8	-	15,082.4	127.1	8,865.9	6,089.4	754.1	4,645.2	1,678.9	4,533.2	2,753.0
2008 Q2	30,759.9	-	15,660.0	155.9	9,216.7	6,287.4	831.7	4,808.3	1,713.8	4,790.2	2,955.8
2008 July	30,769.0	-	15,649.2	119.6	9,232.3	6,297.3	841.5	4,851.8	1,734.9	4,829.0	2,862.6
Aug.	31,031.6	-	15,727.0	119.3	9,256.4	6,351.3	856.7	4,880.0	1,739.4	4,939.4	2,889.0
Sep.	31,529.3	-	16,214.5	140.1	9,325.6	6,748.7	828.2	4,864.5	1,749.2	4,884.0	2,988.8
Oct.	32,451.7	-	16,815.7	179.5	9,414.5	7,221.7	825.6	4,878.3	1,742.6	4,878.7	3,310.9
Nov. (p)	32,435.3	-	16,699.1	221.1	9,439.8	7,038.2	836.4	4,896.3	1,753.5	4,781.9	3,468.1

Source: ECB.

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

2) 3) 4)

Amounts issued by euro area residents. Amounts issued by non-euro area residents are included in external assets. Amounts held by euro area residents. 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 dur

#### 1. Assets

	Total	Loans to	) euro area resi	idents	issued by	ecurities other y euro area res		Holdings of shares/ other equity	External assets	Fixed assets	Remaining assets
		Total	General government	Other euro area residents	Total	General government	Other euro area residents	issued by other euro area residents			
	1	2	3	4	5	6	7	8	9	10	11
					Outstandi	ing amounts					
2006 2007	19,723.8 22,331.2	9,991.1 11,134.3	830.2 973.9	9,161.0 10,160.4	2,112.4 2,371.0	1,464.0 1,419.2	648.4 951.8	811.2 884.3	4,680.4 5,247.0	187.3 221.1	1,941.4 2,473.5
2008 Q2	23,320.2	11,656.3	994.2	10,662.1	2,535.8	1,454.0	1,081.8	860.5	5,276.5	217.2	2,773.9
2008 July Aug. Sep. Oct.	23,309.5 23,519.6 23,787.4 24,476.9	11,710.6 11,711.8 11,817.7 11,875.2	995.7 988.6 997.9 998.6	10,714.8 10,723.2 10,819.8 10.876.7	2,560.1 2,593.2 2,529.6 2,563.7	1,461.1 1,464.9 1,428.3 1,427.8	1,098.9 1,128.4 1,101.4 1,135.9	878.9 880.0 875.6 837.0	5,318.6 5,496.6 5,600.9 5,780.8	217.7 218.2 219.4 220.3	2,623.7 2,619.9 2,744.3 3,199.8
Nov. (p)	24,610.6	11,880.5	996.6	10,883.9	2,648.1	1,476.8	1,171.2	828.5	5,663.9	220.3	3,368.3
					Trans	sactions					
2006 2007	1,997.5 2,594.2	877.3 1,016.7	-14.4 -9.7	891.6 1,026.4	10.7 229.5	-96.8 -46.8	107.5 276.3	97.7 60.1	801.9 792.9	6.4 -0.5	203.5 495.4
2008 Q2 Q3	355.0 270.5	233.0 144.9	16.8 3.4	216.2 141.6	94.5 -17.7	15.8 -35.9	78.7 18.3	-3.7 22.5	-72.9 77.0	3.7 2.1	100.4 41.6
2008 July Aug.	-21.1 112.1	57.0 -9.7	1.5 -7.4	55.5 -2.3	20.0 26.5	3.4 -0.1	16.6 26.7	19.5 0.4	33.1 20.8	0.5 0.4	-151.2 73.6
Sep. Oct. Nov. <sup>(p)</sup>	179.5 422.1 171.8	97.7 18.2 15.0	9.3 -0.1 -1.9	88.4 18.4 16.9	-64.1 27.2 78.0	-39.2 -4.0 42.0	-24.9 31.2 36.0	2.6 -32.2 -5.4	23.1 -42.4 -83.9	$1.1 \\ 1.0 \\ 1.0$	119.2 450.2 167.1

#### 2. Liabilities

	Total	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
	1	2	3	4	5	6	7	8	9	10
				0	utstanding amou	nts				
2006	19,723.8	592.2	158.0	7,906.5	614.6	2,587.8	1,280.8	4,026.5	2,541.8	15.6
2007	22,331.2	638.5	151.0	8,885.0	660.4	2,867.1	1,487.6	4,599.2	3,083.3	-41.1
2008 Q2	23,320.2	652.0	211.2	9,241.2	733.0	2,874.1	1,489.5	4,889.0	3,282.0	-52.2
2008 July	23,309.5	658.7	180.9	9,249.8	743.2	2,895.5	1,511.3	4,931.1	3,188.1	-49.5
Aug.	23,519.6	656.0	186.8	9,271.2	757.9	2,906.5	1,522.6	5,118.3	3,141.7	-41.7
Sep.	23,787.4	657.1	191.4	9,343.3	727.5	2,926.6	1,555.9	5,169.1	3,275.0	-58.8
Oct.	24,476.9	698.8	258.3	9,444.3	729.7	2,908.7	1,563.0	5,280.6	3,653.1	-59.9
Nov. <sup>(p)</sup>	24,610.6	703.7	328.8	9,467.4	741.4	2,891.4	1,605.5	5,151.0	3,786.0	-64.7
					Transactions					
2006	1,997.5	59.4	-15.2	683.7	27.6	285.5	57.4	601.6	252.2	45.3
2007	2,594.2	45.8	-13.3	835.1	54.5	270.5	163.1	778.8	467.6	-8.0
2008 Q2	355.0	19.2	10.8	207.3	-9.2	51.9	7.8	54.0	47.9	-34.8
Q3	270.5	5.1	-19.8	74.1	-7.5	16.1	69.1	48.5	127.2	-42.3
2008 July	-21.1	6.7	-30.2	3.2	8.8	21.7	22.8	34.5	-92.1	3.5
Aug.	112.1	-2.7	5.9	8.9	14.6	-7.8	12.5	27.5	65.6	-12.4
Sep.	179.5	1.1	4.6	62.0	-30.9	2.2	33.8	-13.5	153.7	-33.3
Oct.	422.1	41.7	66.9	67.7	2.5	-74.8	15.7	-97.5	469.0	-69.1
Nov. <sup>(p)</sup>	171.8	4.8	70.4	31.5	11.6	-10.7	23.9	-100.9	131.5	9.7

Source: ECB.
Data refer to the changing composition of the euro area. For further information, see the General notes.
Amounts held by euro area residents.
Amounts issued with maturity up to two years held by non-euro area residents are included in external liabilities.

#### 1. Monetary aggregates<sup>2)</sup> and counterparts

	M1	M2-M1	M2	M3-M2	M3	M3 3-month moving average (centred)	Longer-term financial liabilities	Credit to general government	Credit to euro area re		Net external assets <sup>3)</sup>
	1	2	3	4	5	6	7	8	9	10	11
					Outstanding a	amounts					
2006 2007	3,685.4 3,832.7	2,954.2 3,507.2	6,639.6 7,339.9	1,101.5 1,310.5	7,741.1 8,650.4	-	5,434.1 5,977.8	2,321.3 2,417.2	10,644.4 12,027.2	9,171.5 10,176.4	634.3 627.5
2008 Q2	3,843.3	3,826.0	7,669.4	1,355.9	9,025.3	-	6,007.0	2,432.2	12,564.6	10,633.0	378.9
2008 July Aug. Sep. Oct. Nov. <sup>(p)</sup>	3,832.1 3,844.5 3,879.6 4,002.2 3,961.8	3,904.1 3,949.1 3,977.3 4,009.7 4,054.4	7,736.2 7,793.6 7,856.9 8,011.9 8,016.2	1,364.3 1,363.8 1,369.9 1,362.2 1,356.4	9,100.5 9,157.4 9,226.8 9,374.2 9,372.6		6,046.3 6,098.2 6,130.8 6,131.0 6,168.5	2,450.3 2,466.3 2,440.1 2,435.0 2,471.2	12,659.7 12,793.6 12,823.3 12,869.7 12,886.6	10,680.5 10,754.1 10,817.8 10,885.8 10,877.3	373.2 384.8 428.3 481.5 487.8
					Transacti	ons					
2006 2007	261.2 145.4	310.5 525.4	571.7 670.7	130.9 220.3	702.6 891.0	-	427.7 489.5	-114.7 -60.1	1,105.8 1,369.9	898.6 1,031.7	200.6 13.5
2008 Q2 Q3	-2.2 27.3	153.0 136.8	150.8 164.1	21.8 16.4	172.7 180.5	-	56.3 81.2	24.8 -2.6	249.8 248.9	183.6 168.7	-153.5 33.7
2008 July Aug. Sep. Oct. Nov. <sup>(p)</sup>	-13.0 8.3 31.9 111.3 -40.0	74.9 38.9 23.0 16.0 47.4	62.0 47.2 55.0 127.3 7.4	8.4 0.5 7.5 -4.6 -5.0	70.4 47.6 62.5 122.7 2.4		38.7 31.0 11.4 -56.5 29.7	14.4 11.9 -29.0 -9.3 29.3	98.5 119.7 30.7 10.9 30.3	50.3 62.9 55.5 29.4 1.1	-7.1 14.1 26.6 39.9 10.6
					Growth r	ates					
2006 Dec. 2007 Dec.	7.6 3.9	11.7 17.7	9.4 10.1	13.3 20.0	10.0 11.5	9.8 11.8	8.5 9.0	-4.7 -2.6	11.6 12.8	10.8 11.2	200.6 13.5
2008 June	1.5	19.0	9.5	9.8	9.6	9.6	5.4	-0.8	11.2	9.9	-287.1
2008 July Aug. Sep. Oct. Nov. <sup>(p)</sup>	0.3 0.2 1.2 3.7 2.3	19.4 19.0 17.7 15.5 16.0	9.1 8.9 8.9 9.3 8.8	9.6 8.5 7.3 5.3 2.3	9.2 8.8 8.7 8.7 7.8	9.2 8.9 8.7 8.4	5.2 5.2 5.2 3.2 3.5	0.2 1.6 0.8 0.7 2.5	10.9 10.8 10.1 8.7 8.2	9.3 8.8 8.5 7.8 7.1	-298.0 -249.5 -187.7 -145.9 -158.1

CI Monetary aggregates <sup>1)</sup>





#### longer-term financial liabilities . . . . credit to general government loans to other euro area residents



Source: ECB.

Data refer to the changing composition of the euro area. For further information, see the General notes.
 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).
 Values in the section "growth rates" are sums of the transactions during the 12 months ending in the period indicated.



Capital

reserves

1,277.3

1,486.9

1 504 5 1,523.0 1,550.3

1,562.8

1.613.4

57.0

14.6

66.0

18.6

19.7 27.7 21.1 31.9

4.7 12.5

10.9

10.5 11.4

 $\begin{array}{c} 12.9\\ 10.7 \end{array}$ 

12.0

162.8

10

1,655.0

1,813.5

1,832.8

1.833.3

1,841.1 1,836.6 1,833.9

1 829 9

138.1

164.5

17.6

-0.5

0.2 5.5 -6.2 -8.0 -0.5

9.1 9.9

5.5

4.6 4.6

4.0 2.8 2.5

and

11

#### 2. Components of monetary aggregates and longer-term financial liabilities Currency in circulation Overnight Deposits Deposits redeemable Deposits with agreed Deposits redeemable Money Debt Debt Repos with agreed deposits securities securities market maturity up at notice up fund up to over at notice maturity to 3 months shares/units 2 vears 2 years over 3 months to 2 years over 2 years 5 Outstanding amounts 3,107.0 3,206.9 1,552.0 1.535.3 2,399.6 2,561.0 2006 578.4 1,402.2 198.5 102.2 266.1 636.9 2007 625.8 1.971.8 307.4 686.6 316.6 1196 2008 Q2 649.6 3,193.7 2,289.3 1,536.7 340.6 728.0 287.3 2,570.4 116.9 2.374.0 2008 July 1.530.1 727.5 2 592 0 649.7 3.182.5 346.4 290.4 116.4 1,527.8 1,521.9 1,524.6 281.6 292.7 282.1 653.7 662.9 3,190.8 3,216.7 2,421.2 2,455.4 336.6 344.5 745.6 732.7 2,618.8 2,629.7 Aug. Sep. Oct. 115.4 698.4 3,303.8 2,485.1 346.1 734.0 2,617.9 116.3 Nov. (F 3 257 7 704 1 2 522 5 1 531 9 329.8 743 5 283.1 2 606 3 118.8 Transactions 57.3 46.9 2006 2007 203.9 9.3 -55.9 30.9 30.0 217.2 152.3 15.4 9.9 301.2 70.0 98.4 581.3 43.3 118.3 58.6 2008 Q2 11.6 -13.8 157.8 -4.8 31.9 -18.6 8.5 26.6 -2.5 -2.7 Õ3 13.3 14.0 152.4 -15.6 3.6 2.7 10.1 18.4 20.5 6.9 -9.0 -7.2 5.7 -9.9 4.7 -7.8 2008 July 0.1 -13.0 82.1 -2.0 -0.5 -1.1 4.3 22.8 75.8 45.7 Aug. 4.0 41.3 18.2 Sep. 9.2 35.5 5.7 -6.1 2.3 7.3 29.1 7.8 -13.5 13.2 -7.4 0.1 -71.7 -4.2 1.2 1.6 9.4 Oct. 13.72.1 2.5 40.1 -14.6 Nov. Growth rates 2006 Dec. 2007 Dec. 27.2 4.9 9.2 54.4 9.9 17.8 9.6 11.0 7.0 0.6 13.2 32 59.6 81 414 -3.6 163 63 2008 June 8.0 0.3 38.8 -2.0 18.4 2.0 21.5 2.7 -0.8 7.1 7.2 -1.0 -1.1 38.9 37.3 -2.1 -1.8 17.2 16.7 1.1 4.2 25.0 10.5 3.0 2.7 -2.2 -3.4 2008 July Aug. 8.2 13.0 -2.0 -1.3 -0.7 Sep. Oct. -0.1 1.9 34.4 29.2 16.5 19.4 3.6 2.2 6.6 -1.3 2.3 -0.3 -5.7 -4.4 Nov. (p) 13 5 0.1 293 115 2.0-6.0 -0.2-2.2

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





debt securities over 2 years



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 rate

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

	Insurance corpor and pension fu		Other finan intermediari			Non-financial cor	Non-financial corporations			
	Total		Total		Total	Up to	Over 1 year	Over		
		Up to 1 year		Up to 1 year		1 year	and up to 5 years	5 years		
	1	2	3	4	5	6	7	8		
			Outstar	iding amounts						
2006 2007	82.8 95.1	55.2 70.6	696.0 867.9	420.6 526.3	3,844.5 4,388.7	1,137.9 1,276.5	707.1 858.9	1,999.5 2,253.3		
2008 Q2	103.3	79.3	998.0	625.8	4,670.7	1,365.6	925.7	2,379.4		
2008 July Aug. Sep. Oct. Nov. <sup>(p)</sup>	101.1 99.9 100.5 103.9 100.7	78.0 76.1 77.0 81.0 77.3	1,000.3 987.2 1,017.9 1,015.9 1,016.1	612.3 596.6 621.1 623.9 616.3	4,709.0 4,722.1 4,762.9 4,816.3 4,839.5	1,375.8 1,360.9 1,375.5 1,385.9 1,386.1	933.5 943.6 952.8 964.9 973.3	2,399.7 2,417.7 2,434.6 2,465.5 2,480.2		
			Tra	insactions						
2006 2007	18.1 14.0	13.9 15.8	81.9 175.4	57.7 113.5	446.2 556.3	100.5 144.9	123.1 155.7	222.6 255.7		
2008 Q2 Q3	0.5 -3.3	0.2 -2.6	53.4 12.4	29.2 -10.2	130.5 84.9	37.9 7.2	31.8 27.1	60.8 50.6		
2008 July Aug. Sep. Oct. Nov. <sup>(p)</sup>	-2.3 -1.5 0.5 3.0 -3.2	-1.2 -2.2 0.8 3.8 -3.7	0.7 -16.2 27.9 -14.3 2.6	-14.1 -18.4 22.4 -4.9 -5.9	41.5 7.0 36.4 32.8 27.9	10.6 -16.4 13.0 2.8 2.1	8.5 9.8 8.8 8.0 9.9	22.5 13.6 14.5 21.9 16.0		
				owth rates						
2006 Dec. 2007 Dec.	28.0 16.8	33.3 28.5	13.3 25.0	15.6 27.0	13.1 14.5	9.7 12.7	20.8 22.0	12.4 12.8		
2008 June	-4.8	-4.6	25.6	26.0	13.7	11.9	20.0	12.3		
2008 July Aug. Sep. Oct. Nov. <sup>(p)</sup>	-7.8 -8.5 -9.2 -9.5 -6.9	-7.4 -10.8 -12.3 -10.7 -7.7	24.0 20.8 18.9 15.0 13.9	22.2 18.2 15.6 15.6 13.4	12.9 12.6 12.2 11.9 11.1	11.1 10.8 10.1 10.4 8.8	18.8 18.4 17.5 16.2 15.6	11.8 11.6 11.4 11.1 10.6		

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



MFI sector excluding the Eurosystem; sectoral classification is based on ESA 95. Data refer to the changing composition of the euro area. For further information, see the General notes. 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. 3) 4)

This category includes investment funds.



### **2.4 MFI loans, breakdown**<sup>1), 2)</sup> (EUR billions and annual growth rate

#### 2. Loans to households 3)

	ouscholus												
	Total		Consum	er credit		Lei	nding for h	ouse purchase			Other l	ending	
		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
					0	utstanding an	nounts						
2006 2007	4,537.0 4,808.1	586.5 617.8	135.3 137.6	202.7 203.7	248.5 276.5	3,212.1 3,436.9	15.6 15.9	72.1 73.8	3,124.5 3,347.2	738.4 753.4	146.2 147.5	101.5 104.0	490.7 501.8
2008 Q2	4,889.4	635.8	139.8	203.8	292.2	3,485.1	15.8	73.2	3,396.0	768.6	152.7	102.4	513.4
2008 July Aug. Sep. Oct. Nov. <sup>(p)</sup>	4,903.8 4,913.3 4,937.8 4,939.9 4,927.0	636.2 633.5 636.5 637.4 633.1	139.1 137.3 140.4 140.0 137.3	203.0 202.2 201.3 200.2 199.0	294.1 294.0 294.8 297.2 296.8	3,503.2 3,515.5 3,533.9 3,534.8 3,523.2	15.8 15.9 16.5 16.6 16.5	73.4 72.6 72.7 72.1 71.2	3,414.1 3,427.0 3,444.7 3,446.1 3,435.4	764.4 764.3 767.3 767.6 770.6	146.8 146.7 149.9 148.2 152.0	102.2 100.7 100.3 99.7 98.3	515.4 516.8 517.2 519.7 520.3
						Transaction	18						
2006 2007	345.3 280.6	42.6 31.3	8.2 3.6	4.8 1.1	29.5 26.6	281.8 228.6	1.5 0.9	4.6 2.3	275.8 225.3	20.9 20.8	1.4 1.7	3.8 4.4	15.7 14.7
2008 Q2 Q3	31.8 47.6	12.0 1.1	3.3 0.7	1.1 -2.4	7.6 2.7	8.9 47.0	-0.3 0.6	$\begin{array}{c} 0.0\\ 0.0\end{array}$	9.1 46.4	10.9 -0.5	6.2 -3.0	-1.8 -1.9	6.5 4.4
2008 July Aug. Sep. Oct. Nov. <sup>(p)</sup>	15.6 8.5 23.6 -3.1 -10.5	0.8 -2.6 3.0 0.5 -3.8	-0.6 -1.9 3.2 -0.3 -2.6	-0.7 -0.8 -0.8 -1.1 -1.0	2.0 0.1 0.6 1.9 -0.1	18.7 11.1 17.3 -2.9 -10.6	0.0 0.1 0.6 0.1 -0.1	0.1 -0.2 0.1 -0.7 -0.8	18.6 11.2 16.6 -2.3 -9.7	-3.9 0.0 3.4 -0.7 3.9	-5.8 -0.2 3.0 -2.4 4.0	-0.3 -1.2 -0.5 -0.2 -1.3	$2.2 \\ 1.4 \\ 0.8 \\ 1.9 \\ 1.1$
						Growth rat	es						
2006 Dec. 2007 Dec.	8.2 6.2	7.7 5.3	6.5 2.7	2.4 0.5	13.2 10.7	9.6 7.1	9.7 6.1	6.8 3.2	9.7 7.2	2.9 2.8	1.0 1.2	3.9 4.4	3.3 3.0
2008 June	4.2	4.9	4.0	-0.8	9.9	4.4	-1.0	1.0	4.5	2.8	2.0	0.6	3.4
2008 July Aug. Sep. Oct. Nov. <sup>(p)</sup>	4.0 3.9 3.8 3.3 2.5	4.3 4.0 4.3 3.4 2.8	2.6 2.0 4.9 3.2 3.6	-1.3 -1.4 -1.3 -2.3 -3.2	9.6 9.1 8.1 7.7 6.9	4.3 4.1 4.0 3.5 2.5	0.0 0.2 2.3 3.5 3.2	0.6 0.2 0.0 -1.4 -2.5	4.4 4.2 4.1 3.6 2.6	2.4 2.5 2.4 2.3 2.0	0.6 2.1 2.3 1.4 0.8	-0.2 -1.5 -2.1 -2.6 -4.3	3.5 3.4 3.4 3.6 3.6

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



1999 2000 2001 2002 2003 2004 2005 2006 200
Source: ECB.
MFI sector excluding the Eurosystem; sectoral classification is based on ESA 95.
Data refer to the changing composition of the euro area. For further information, see the General notes.
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.

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

		G	eneral governme	nt			Non-	euro area reside	nts				
	Total	Central government	Other	general governme	nt	Total	Banks <sup>3)</sup>		Non-banks				
		8	State government	Local government	Social security funds			Total	General government	Other			
	1	2	3	4	5	6	7	8	9	10			
		Outstanding amounts											
2005 2006	826.9 810.5	125.1 104.1	246.8 232.5	425.8 448.1	29.2 25.8	2,485.2 2,924.3	1,722.1 2,061.0	763.1 863.4	66.0 63.2	697.1 800.2			
2007 Q4 2008 Q1 Q2 Q3 <sup>(p)</sup>	956.1 958.0 975.8 979.4	213.4 210.6 221.0 223.7	217.6 212.8 215.1 210.0	495.7 497.3 497.6 501.6	29.4 37.2 42.0 44.1	3,295.3 3,413.9 3,310.8 3,518.9	2,337.9 2,395.5 2,299.2 2,459.2	957.4 1,018.4 1,011.5 1,059.7	59.8 61.5 63.0 63.4	897.5 956.9 948.5 996.3			
				Trai	nsactions								
2006 2007	-13.4 -7.7	-17.6 -4.5	-14.3 -13.0	21.9 6.2	-3.4 3.5	532.5 542.1	402.9 382.1	129.5 160.1	-0.1 0.3	129.6 159.8			
2007 Q4 2008 Q1 Q2 Q3 <sup>(p)</sup>	8.0 0.7 17.7 3.4	7.1 -3.3 10.3 2.4	3.8 -4.8 2.1 -5.2	9.2 1.0 0.6 4.0	-12.0 7.8 4.8 2.1	56.9 215.8 -100.1 94.0	23.3 122.3 -94.8 84.1	33.7 93.3 -5.2 9.9	-0.1 2.9 1.6 -1.8	33.8 90.4 -6.7 11.8			
				Gro	wth rates								
2005 Dec. 2006 Dec.	1.7 -1.6	-4.3 -14.0	-3.2 -5.8	5.4 5.1	22.9 -11.6	14.8 21.8	15.3 23.7	13.6 17.4	2.0 -0.1	14.9 19.1			
2007 Dec. 2008 Mar. June Sep. <sup>(p)</sup>	-1.0 0.1 2.4 3.3	-4.3 0.9 7.8 12.3	-5.6 -5.1 -1.8 -1.9	1.4 1.6 2.3 3.2	13.7 19.5 11.8 6.6	18.7 15.7 7.7 8.2	18.6 12.7 4.6 5.8	18.8 23.2 15.4 14.2	0.5 10.0 9.5 4.3	20.3 24.1 15.8 14.9			

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



Source: ECB.
 MFI sector excluding the Eurosystem; sectoral classification is based on ESA 95.
 Data refer to the changing composition of the euro area. For further information, s
 The term "banks" is used in this table to indicate institutions of a similar type to N

Data refer to the changing composition of the euro area. For further information, see the General notes. The term "banks" is used in this table to indicate institutions of a similar type to MFIs resident outside the euro area.



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

#### 1. Deposits by financial intermediaries

1. Deposits by	manch	a muci m	culai ies											
		Insu	rance corpor	ations an	d pension fu	inds				Other finan	cial intern	nediaries <sup>3)</sup>		
	Total	Overnight	With agreed	maturity	Redeemabl	e at notice	Repos	Total	Overnight	With agree	d maturity	Redeemable	e 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
						Outstand	ing amounts							
2006 2007	650.0 687.8	70.2 71.1	57.1 68.9	495.4 525.1	1.0 0.8	1.4 1.1	24.9 20.9	1,140.3 1,472.7	283.1 312.3	251.8 348.0	469.4 652.8	10.6 12.2	0.2 0.3	125.1 147.1
2008 Q2	717.5	73.5	83.7	537.5	1.4	1.6	19.8	1,600.7	335.6	387.2	682.5	12.0	0.2	183.2
2008 July Aug. Sep. Oct. Nov. <sup>(p)</sup>	716.8 713.2 727.8 735.9 738.0	69.6 66.6 75.6 83.7 85.0	86.0 85.5 90.2 90.3 94.9	538.3 538.7 538.9 538.1 535.9	1.3 1.2 1.2 1.2 1.1	1.6 1.6 1.5 1.5	20.1 19.5 20.3 21.0 19.7	1,604.5 1,615.5 1,643.4 1,674.0 1,655.3	299.9 287.0 323.2 336.5 320.3	428.9 449.1 446.7 445.5 444.3	683.1 681.9 674.2 683.4 685.0	14.1 12.9 11.7 12.2 12.0	0.2 0.1 0.1 0.1 0.1	178.4 184.3 187.5 196.4 193.6
100. **	738.0	85.0	94.9	333.9	1.1		sactions	1,055.5	520.5	444.5	085.0	12.0	0.1	193.0
2006	37.9	2.7	5.5	25.6	-0.2	0.0	4.4	249.2	45.5	(7.9	130.5	0.2	0.1	4.9
2006 2007	37.9 41.4	2.7 0.8	5.5 11.7	25.6 33.4	-0.2	-0.3	4.4 -4.1	249.2 341.1	45.5 32.7	67.8 98.9	130.5 183.7	0.3 1.7	0.1 0.1	4.9 24.1
2008 Q2 Q3	-5.9 8.4	-8.3 1.8	-0.2 6.0	4.9 0.3	-0.2 -0.2	$\begin{array}{c} 0.0\\ 0.0\end{array}$	-2.1 0.5	76.4 30.5	3.3 -16.0	28.3 55.1	32.5 -12.1	-1.2 -0.6	0.0 -0.1	13.6 4.1
2008 July Aug. Sep. Oct. Nov. <sup>(p)</sup>	-0.8 -4.1 13.3 6.7 4.1	-3.9 -3.1 8.8 7.6 1.3	2.2 -0.7 4.5 -0.7 4.8	0.8 0.4 -0.9 -0.7 -0.5	-0.1 -0.1 0.0 0.0 -0.1	0.0 0.0 -0.1 0.0	0.3 -0.6 0.8 0.6 -1.3	1.7 5.2 23.5 16.0 -15.3	-36.4 -14.5 34.9 8.7 -15.9	40.6 18.4 -4.0 -5.8 -0.7	0.2 -3.2 -9.1 4.3 2.5	2.1 -1.3 -1.3 0.2 -0.1	$\begin{array}{c} 0.0\\ 0.0\\ 0.0\\ 0.0\\ 0.0\\ 0.0\end{array}$	-4.8 5.8 3.1 8.6 -1.0
						Grov	vth rates							
2006 Dec. 2007 Dec.	6.2 6.4	4.0 1.1	10.7 20.5	5.4 6.8	-16.3 -22.5	-	21.2 -16.3	28.2 30.0	19.5 11.5	36.8 39.5	38.9 39.1	2.9 16.0	-	4.0 19.0
2008 June	9.6	13.3	42.4	5.7	-10.5	-	3.4	19.8	5.5	35.7	19.7	5.6	-	20.8
2008 July Aug. Sep. Oct. Nov. <sup>(p)</sup>	7.1 7.4 7.1 5.1 6.1	-4.1 8.4 10.9 12.3 21.7	38.3 23.4 40.1 18.1 20.2	5.5 5.6 3.1 2.6 2.3	-20.6 -15.4 -20.1 -20.0 -29.7	- - - -	-3.2 -5.9 -3.3 -4.0 0.0	17.9 18.7 17.6 15.3 12.6	-6.3 -4.9 -3.1 1.9 -7.8	48.4 48.5 45.0 28.6 33.4	16.1 15.7 16.0 12.9 12.0	5.8 8.8 -11.6 -6.3 -2.1		18.4 18.4 16.1 25.2 17.1

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



#### Total deposits and deposits included in M3 C 9

insurance corporations and pension funds (total) . . .

other financial intermediaries (total)

insurance corporations and pension funds (included in M3)<sup>4</sup>) other financial intermediation (included in M3)<sup>5</sup> other financial intermediaries (included in M3)



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) 5) Covers deposits in columns 2, 3, 5 and 7. Covers deposits in columns 9, 10, 12 and 14.

ECB Monthly Bulletin January 2009 🕽

Source: ECB.

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

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

			Non-finar	icial corp	orations		1	Households <sup>3)</sup>						
	Total	Overnight	With agreed	maturity	Redeemabl	e at notice	Repos	Total	Overnight	With agree	d maturity	Redeemable	e 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
						Outstand	ing amounts							
2006 2007	1,343.1 1,470.6	851.8 882.1	355.3 474.6	69.4 59.6	40.5 29.2	1.3 1.4	24.8 23.7	4,552.6 4,989.0	1,751.2 1,777.7	669.0 994.5	606.8 561.1	1,355.7 1,457.6	99.8 111.1	70.0 87.1
2008 Q2	1,481.1	866.2	501.4	61.8	27.3	1.5	23.0	5,162.9	1,784.0	1,179.5	534.8	1,460.4	105.7	98.5
2008 July Aug. Sep. Oct. Nov. <sup>(p)</sup>	1,469.0 1,472.4 1,497.1 1,499.4 1,497.4	842.8 839.4 873.4 860.6 870.5	511.9 518.7 507.7 517.9 509.2	63.2 63.4 64.0 65.7 65.4	26.2 25.9 25.6 24.9 26.0	1.4 1.4 1.4 1.4 1.3	23.4 23.7 25.1 29.0 25.0	5,186.8 5,195.5 5,197.2 5,252.4 5,290.1	1,769.0 1,744.9 1,750.0 1,758.5 1,778.3	1,224.6 1,256.4 1,270.9 1,332.0 1,352.6	531.1 530.0 523.9 515.5 511.4	1,449.7 1,449.4 1,441.3 1,439.3 1,443.0	105.2 104.1 103.1 106.1 109.8	107.1 110.8 108.0 101.1 95.1
	Transactions													
2006 2007	141.2 134.5	85.7 31.8	55.7 123.3	3.9 -8.0	-4.2 -11.0	0.1 -0.7	0.2 -1.1	215.2 280.9	65.7 21.7	137.5 321.9	-23.1 -45.4	2.5 -45.6	15.4 11.2	17.2 17.1
2008 Q2 Q3	27.6 3.1	16.3 2.5	11.1 0.1	1.7 0.6	-1.5 -2.2	0.0 -0.1	0.1 2.1	87.1 33.8	26.6 -34.3	79.9 89.1	-13.5 -8.6	-5.5 -19.2	-3.3 -2.6	2.9 9.5
2008 July Aug. Sep. Oct. Nov. <sup>(p)</sup>	-15.2 -0.3 18.6 -7.0 -1.5	-24.5 -5.0 32.0 -17.3 10.0	9.0 4.9 -13.8 5.8 -8.4	1.4 0.0 -0.7 1.2 -0.1	-1.5 -0.3 -0.3 -0.6 1.1	0.0 0.0 0.0 0.0 0.0	0.5 0.2 1.4 3.9 -4.0	23.8 6.1 3.8 47.3 37.5	-15.0 -24.7 5.3 7.0 19.8	45.1 29.8 14.1 55.0 20.3	-3.7 -1.2 -3.8 -8.4 -4.0	-10.7 -0.4 -8.1 -2.2 3.6	-0.5 -1.1 -1.0 2.9 3.7	8.6 3.6 -2.7 -7.0 -6.0
						Grov	vth rates							
2006 Dec. 2007 Dec.	11.7 10.0	11.2 3.7	18.4 34.8	5.7 -11.7	-9.4 -26.9	5.9 -31.6	0.6 -4.3	5.0 6.1	3.9 1.2	25.8 47.8	-3.7 -7.5	0.2 -3.5	18.2 11.2	32.6 24.4
2008 June	7.2	0.8	28.2	-7.4	-26.5	-6.7	-13.0	6.5	-0.4	44.8	-7.3	-1.6	-1.1	26.8
2008 July Aug. Sep. Oct. Nov. <sup>(p)</sup>	6.1 5.8 5.6 4.3 2.9	0.4 1.6 2.9 1.8 1.2	23.2 18.8 14.3 10.4 7.8	-4.9 -5.2 -2.7 -0.4 3.3	-28.0 -22.5 -22.8 -19.6 -22.3	-16.0 -16.9 -17.3 -12.6 -15.5	-8.3 -11.0 2.9 19.6 3.2	6.9 7.1 6.5 7.4 7.7	-0.2 0.0 -0.6 1.2 2.1	44.8 43.6 40.8 40.5 38.6	-7.2 -6.8 -7.0 -7.7 -7.9	-1.5 -1.3 -1.3 -0.5 0.3	-2.2 -3.6 -5.1 -3.4 -0.9	29.8 27.4 28.6 17.1 8.9



Source: ECB.

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

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

2) 3) 4) 5) Including non-profit institutions serving households. Covers deposits in columns 2, 3, 5 and 7. Covers deposits in columns 9, 10, 12 and 14.

CII Total deposits and deposits included in M3 by sector <sup>2)</sup> (annual growth rates)







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

		Ger	neral governmen	ıt			Non-e	uro area resider	its					
	Total	Central government	Other	general governm	ient	Total	Banks <sup>3)</sup>		Non-banks					
		government	State government	Local government	Social security funds			Total	General government	Other				
	1	2	3	4	5	6	7	8	9	10				
		Outstanding amounts												
2005 2006	313.1 329.0	149.2 124.2	38.3 45.4	80.9 90.8	44.7 68.6	3,050.5 3,429.0	2,250.5 2,557.1	800.0 871.9	125.8 128.6	674.2 743.3				
2007 Q4 2008 Q1 Q2 Q3 <sup>(p)</sup>	372.9 375.9 410.3 400.2	127.1 139.6 155.9 140.1	59.0 49.6 56.4 61.7	106.8 107.6 112.0 113.4	80.1 79.1 86.0 85.0	3,856.2 4,039.7 4,019.9 4,138.4	2,944.2 3,075.7 3,036.7 3,147.5	912.0 964.1 983.2 990.9	143.4 131.1 129.3 139.6	768.6 833.0 853.9 851.3				
					Transactions									
2006 2007	14.2 30.9	-24.5 -3.1	7.0 13.6	7.8 8.9	23.9 11.5	476.6 614.6	385.8 547.2	90.8 67.4	6.6 20.2	84.2 47.2				
2007 Q4 2008 Q1 Q2 Q3 <sup>(p)</sup>	-12.0 2.8 34.4 -10.4	-21.9 12.4 16.0 -15.8	-1.0 -9.3 6.8 5.2	2.8 0.7 4.4 1.3	8.1 -1.0 7.2 -1.1	50.2 279.2 -17.5 -22.2	53.2 220.4 -37.0 -6.4	-3.0 58.8 19.5 -15.8	-0.5 -8.5 -1.8 6.5	-2.5 67.3 21.3 -22.3				
					Growth rates									
2005 Dec. 2006 Dec.	10.9 4.5	8.1 -16.5	25.4 18.4	16.6 9.6	0.6 53.5	15.4 15.8	16.4 17.3	12.7 11.5	16.8 5.3	12.0 12.6				
2007 Dec. 2008 Mar. June Sep. <sup>(p)</sup>	9.4 7.7 4.4 3.7	-2.3 -3.7 -12.2 -6.7	29.9 18.1 28.9 2.9	9.8 13.4 10.0 9.0	16.7 16.5 21.0 18.3	18.0 17.8 11.8 7.6	21.5 19.6 12.6 7.9	7.8 12.2 9.4 6.5	15.8 5.5 -0.2 -2.9	6.4 13.4 11.0 8.3				

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



#### Source: ECB.

- 1)
- 2)
- MFI sector excluding the Eurosystem; sectoral classification is based on ESA 95. Data refer to the changing composition of the euro area. For further information, see the General notes. The term "banks" is used in this table to indicate institutions of a similar type to MFIs resident outside the euro area. 3)

## **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)

			5	Securities of	ther than sh	ares				Shares and	d other equity	y
	Total	MF	Is	Gen govern		Other area res		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
					Out	standing am	ounts					
2006 2007	4,664.3 5,113.7	1,560.6 1,652.6	72.3 84.0	1,260.4 1,177.5	16.2 16.6	615.8 916.5	30.1 33.4	1,108.9 1,233.1	1,465.9 1,639.9	373.0 424.8	798.5 871.4	294.4 343.7
2008 Q2	5,483.3	1,795.3	98.6	1,204.1	15.1	1,031.4	48.0	1,290.7	1,601.2	460.4	849.3	291.4
2008 July Aug. Sep. Oct. Nov. <sup>(p)</sup>	5,547.3 5,638.3 5,497.1 5,563.1 5,668.2	1,813.3 1,828.2 1,796.9 1,821.5 1,861.7	103.3 105.5 102.0 109.2 104.3	1,211.2 1,213.3 1,175.2 1,166.0 1,208.7	15.1 14.8 15.6 19.3 18.2	1,047.8 1,075.1 1,048.2 1,079.1 1,115.2	48.6 50.9 50.8 54.5 53.6	1,307.9 1,350.6 1,308.4 1,313.5 1,306.4	1,621.7 1,618.9 1,607.7 1,551.4 1,532.9	461.4 456.2 453.1 437.1 427.0	868.0 869.0 865.4 827.7 818.8	292.3 293.7 289.3 286.7 287.1
						Transaction	s					
2006 2007	337.4 541.2	122.8 136.3	10.6 18.2	-122.7 -86.7	0.5 1.5	100.6 267.3	6.5 9.5	219.0 195.0	193.3 164.5	58.6 52.0	96.2 60.0	38.5 52.5
2008 Q2 Q3	201.1 -43.3	68.4 2.1	11.4 -3.0	12.7 -34.9	-0.1 -0.8	75.9 19.2	2.6 -0.8	30.1 -25.2	8.1 27.3	15.8 1.7	-3.7 22.7	-4.0 2.9
2008 July Aug. Sep. Oct. Nov. <sup>(p)</sup>	57.7 56.6 -157.6 -5.3 112.7	18.2 14.4 -30.5 26.1 41.0	4.2 -0.9 -6.3 -1.4 -3.4	4.7 -0.3 -39.3 -9.4 37.6	-0.1 -0.9 0.3 1.8 -1.0	16.1 26.6 -23.5 32.5 36.3	0.4 0.2 -1.4 -1.4 -0.4	14.1 17.6 -56.9 -53.5 2.6	23.2 -2.2 6.3 -47.0 -7.2	2.1 -5.1 4.7 -15.0 -3.5	19.5 0.4 2.8 -32.1 -5.8	1.6 2.5 -1.1 0.1 2.1
						Growth rate	s					
2006 Dec. 2007 Dec.	7.7 11.7	8.5 8.7	16.5 25.6	-8.9 -6.9	3.0 10.5	19.3 42.9	25.7 33.4	24.2 17.7	15.2 11.2	18.6 13.9	13.6 7.5	15.2 17.8
2008 June	12.0	11.2	36.7	-4.5	9.7	36.3	61.2	12.5	3.6	17.5	2.4	-10.4
2008 July Aug. Sep. Oct. Nov. <sup>(p)</sup>	12.2 14.4 11.4 8.2 9.3	11.4 12.5 11.0 9.2 11.2	26.4 33.0 23.9 16.2 15.3	-2.3 0.2 -1.9 -2.8 0.6	9.8 4.9 6.6 17.1 10.7	35.7 37.9 31.1 29.0 30.4	53.4 62.9 45.8 29.1 42.8	11.4 13.8 10.3 1.9 -0.4	5.7 6.3 5.4 0.1 -0.3	18.4 16.1 13.7 11.3 11.2	5.9 7.1 7.7 -1.4 -1.9	-10.2 -7.7 -10.3 -9.7 -10.2

CI3 MFI holdings of securities <sup>2)</sup>



Source: ECB.

MFI sector excluding the Eurosystem; sectoral classification is based on ESA 95.
 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</sup>), <sup>2</sup>) (EUR billions)

#### 1. Write-offs/write-downs of loans to households<sup>3)</sup>

		Consum	er credit		L	ending for h	ouse purchase			Other l	ending	
	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 2007	-3.9 -4.2	-1.5 -1.2	-0.9 -1.4	-1.6 -1.6	-2.7 -2.7	-0.1 -0.2	-0.1 -0.2	-2.4 -2.3	-6.7 -6.9	-1.1 -0.8	-2.0 -2.3	-3.6 -3.7
2008 Q2 Q3	-0.9 -1.0	-0.2 -0.2	-0.4 -0.4	-0.4 -0.4	-0.4 -0.4	0.0 0.0	0.0 0.0	-0.4 -0.4	-1.9 -1.3	-0.2 -0.2	-0.9 -0.5	-0.8 -0.7
2008 July Aug. Sep. Oct. Nov. <sup>(p)</sup>	-0.3 -0.3 -0.4 -0.6 -0.3	-0.1 -0.1 -0.3 0.0	-0.1 -0.1 -0.1 -0.2 -0.2	-0.1 -0.1 -0.2 -0.1 -0.1	0.0 -0.1 -0.3 -0.6 -0.2	$\begin{array}{c} 0.0 \\ 0.0 \\ 0.0 \\ 0.0 \\ 0.0 \end{array}$	$\begin{array}{c} 0.0\\ 0.0\\ 0.0\\ 0.0\\ 0.0\\ 0.0\end{array}$	0.0 -0.1 -0.3 -0.6 -0.1	-0.2 -0.6 -0.5 -0.7 -0.5	0.0 0.0 -0.1 0.1 0.0	0.0 -0.4 -0.1 -0.5 -0.1	-0.2 -0.2 -0.3 -0.2 -0.3

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

		Non-financial corp		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	-12.5	-2.1	-5.4	-4.9	-5.2	-3.4	-1.8
2008 Q2	-5.4	-0.9	-3.4	-1.1	0.0	-0.1	0.0
Q3	-4.2	-0.8	-2.3	-1.0	-1.3	-0.7	-0.5
2008 July	-0.5	-0.2	-0.2	-0.2	-0.5	-0.4	-0.1
Aug.	-1.9	-0.1	-1.6	-0.2	-0.1	0.0	-0.1
Sep.	-1.8	-0.5	-0.6	-0.6	-0.6	-0.3	-0.3
Oct.	-1.5	0.0	-1.1	-0.4	-1.0	-0.2	-0.8
Nov. <sup>(p)</sup>	-2.0	-0.4	-1.2	-0.4	-0.6	-0.2	-0.4

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

			5	ecurities of		Shares and other equity						
	Total	otal MFIs		General government		Other euro area residents		Non-euro area residents	Total	MFIs	Non-MFIs	Non-euro area residents
	1	Euro 2	Non-euro 3	Euro 4	Non-euro 5	Euro 6	Non-euro 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	12.6	3.0	8.8	0.8
2008 Q2	-18.5	-1.5	-0.1	-8.7	-0.1	-2.5	-0.5	-5.0	-7.8	-2.9	-6.5	1.5
Q3	-1.7	-1.2	0.2	5.8	0.2	-1.7	0.0	-5.0	-19.4	-7.6	-6.7	-5.1
2008 July	1.9	0.1	0.1	2.3	0.0	0.4	0.0	-1.0	-2.0	-0.4	-0.8	-0.7
Aug.	4.6	0.9	0.2	2.4	0.1	0.3	0.1	0.8	-0.7	-0.1	0.6	-1.1
Sep.	-8.3	-2.2	0.0	1.1	0.1	-2.3	-0.1	-4.8	-16.7	-7.0	-6.4	-3.3
Oct.	-4.7	-1.2	0.2	0.2	0.2	-1.6	-0.1	-2.4	-9.3	-1.1	-5.5	-2.7
Nov. <sup>(p)</sup>	3.9	0.5	0.0	5.1	0.1	0.4	0.0	-2.1	-4.4	-0.9	-1.8	-1.7

Source: ECB.
 MFI sector excluding the Eurosystem; sectoral classification is based on ESA 95.
 Data refer to the changing composition of the euro area. For further information, see the General notes.
 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	Euro <sup>4)</sup>		Non-euro	o currencies	8		All	Euro <sup>4)</sup>		Non-euro	o currencies			
	(outstanding amount)		Total				(	outstanding amount)		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 are	ea resider	its							
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 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	6,147.8	91.8	8.2	4.7	0.5	1.3	1.0	9,151.4	96.4	3.6	2.1	0.4	0.1	0.6	
Q2	6,287.4	91.6	8.4	5.0	0.4	1.4	1.0	9,372.6	96.4	3.6	2.1	0.5	0.1	0.5	
Q3 (p)	6,748.7	89.4	10.6	6.8	0.4	1.6	1.1	9,465.8	96.2	3.8	2.2	0.5	0.1	0.6	
					В	y non-euro	area resid	lents							
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 Q4	2,944.2	46.8	53.2	33.6	2.9	2.4	11.1	912.0	50.0	50.0	32.9	1.6	1.8	9.9	
2008 Q1	3,075.7	48.1	51.9	32.9	3.0	2.6	10.5	964.1	52.3	47.7	31.9	1.4	1.8	8.7	
Q2	3,036.7	46.5	53.5	33.9	3.0	2.7	10.6	983.2	51.8	48.2	31.8	1.2	1.7	9.3	
Q3 (p)	3,147.5	46.0	54.0	34.8	2.9	2.7	10.2	990.9	51.2	48.8	31.3	1.2	1.6	10.5	

# 2. Debt securities issued by euro area MFIs

	All	Euro <sup>4)</sup>										
	(outstanding amount)		Total									
				USD	JPY	CHF	GBP					
	1	2	3	4	5	6	7					
2005 2006	4,051.7 4,485.5	81.2 80.5	18.8 19.5	9.6 10.0	1.8 1.6	1.9 1.9	3.2 3.5					
$2007 Q4 \\ 2008 Q1 \\ Q2 \\ Q3 ^{(p)}$	4,948.0 4,993.0 5,146.7 5,182.3	81.4 82.1 82.0 81.8	18.6 17.9 18.0 18.2	9.3 8.8 8.9 8.9	1.7 1.8 1.7 1.8	1.9 1.9 1.8 1.9	3.4 3.2 3.5 3.4					

Source: ECB.

MFI sector excluding the Eurosystem; sectoral classification is based on ESA 95.
 Data refer to the changing composition of the euro area. For further information, see the General notes.
 For non-euro area residents, the term "MFIs" refers to institutions of a similar type to euro area MFIs.
 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	Euro <sup>4)</sup>		Non-eu	ro currencie	s		All	Euro <sup>4)</sup>		Non-euro	o currencies	5			
	(outstanding amount)		Total				Ì	outstanding amount)		Total						
				USD	JPY	CHF	GBP				USD	JPY	CHF	GBP		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14		
						To euro a	rea resider	nts								
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 Q4	5,788.9	-	-	-	-	-	-	11,115.9	96.2	3.8	1.8	0.2	0.9	0.6		
2008 Q1	5,836.3	-	-	-	-	-	-	11,415.0	96.1	3.9	1.8	0.2	1.0	0.6		
Q2 Q3 <sup>(p)</sup>	6,001.5 6,347.5	-		-		-	-	11,637.2 11,798.6	96.0 95.8	4.0 4.2	1.9 2.1	0.2 0.2	1.0 1.0	0.6 0.5		
<u>v</u> ,	0,517.5				1	o non-euro	oreo resid		,,,,,	1.2	2.1	0.2	1.0	0.5		
2005 2006	1,722.1 2,061.0	48.5 50.7	51.5 49.3	30.5 28.9	4.3 2.0	2.0 2.3	$10.1 \\ 11.0$	763.1 863.4	38.2 39.3	61.8 60.7	43.7 43.2	1.8 1.1	4.1 4.0	8.6 8.6		
2000 Q4	2,337.9	48.0	52.0	28.9	2.3	2.4	12.7	957.4	40.9	59.1	41.3	1.2	3.7	8.2		
2007 Q4 2008 Q1	2,395.5	48.0	51.8	28.9	2.5	2.4	12.7	1,018.4	43.0	57.0	39.1	1.2	4.2	8.2 7.8		
2008 Q1 Q2	2,395.5	46.4	53.6	29.3	2.9	2.8	12.4	1,011.5	43.0	57.0	38.4	1.5	4.0	8.6		
Q3 <sup>(p)</sup>	2,459.2	42.8	57.2	32.6	2.7	2.7	12.8	1,059.7	40.7	59.3	40.5	1.4	3.9	8.5		

## 4. Holdings of securities other than shares

		Issued by MFIs <sup>3)</sup>						Issued by non-MFIs						
	All	Euro <sup>4)</sup>		Non-eur	o currencies	8		All	Euro <sup>4)</sup>		Non-euro	o currencies	;	
	(outstanding amount)		Total				(	(outstanding amount)		Total				
	(into unit)			USD	JPY	CHF	GBP	uniouni			USD	JPY	CHF	GBP
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
					Iss	ued by euro	o area resi	idents						
2005	1,517.7	95.6	4.4	2.0	0.3	0.4	1.4	1,980.9	97.8	2.2	1.1	0.3	0.1	0.5
2006	1,632.9	95.6	4.4	2.3	0.2	0.3	1.3	1,922.5	97.6	2.4	1.3	0.3	0.1	0.7
2007 Q4	1,736.6	95.2	4.8	2.4	0.3	0.3	1.5	2,144.0	97.7	2.3	1.4	0.2	0.1	0.5
2008 Q1	1,816.0	95.2	4.8	2.5	0.3	0.3	1.4	2,219.9	97.2	2.8	1.9	0.3	0.1	0.4
Q2 Q3 <sup>(p)</sup>	1,893.9 1,898.9	94.8 94.6	5.2 5.4	2.6 2.9	0.4 0.4	0.3 0.3	1.6 1.5	2,298.6 2,289.8	97.3 97.1	2.7 2.9	1.8 1.9	0.3 0.3	0.1 0.1	0.5 0.5
Q3 *	1,090.9	94.0	5.4	2.9					97.1	2.9	1.9	0.5	0.1	0.5
						d by non-eu								
2005 2006	397.5 514.5	51.0 52.2	49.0 47.8	28.5 28.8	0.8 0.7	0.5 0.4	15.7 14.5	522.8 594.4	38.3 38.9	61.7 61.1	35.0 36.5	7.8 4.9	0.8 0.8	12.6 14.2
2007 Q4	580.8	53.8	46.2	27.4	0.7	0.4	14.4	652.3	35.8	64.2	39.4	4.5	0.8	12.6
2008 Q1	636.2	50.8	49.2	30.2	0.8	0.6	14.4	629.5	38.0	62.0	36.8	5.8	0.9	11.4
Q2 Q3 <sup>(p)</sup>	663.7 653.0	50.2 51.1	49.8 48.9	30.7 30.7	0.7 0.7	0.5 0.4	14.9 14.2	627.0 655.4	38.5 37.2	61.5 62.8	36.9 38.0	5.8 6.0	0.8 0.9	10.4 10.4

Source: ECB.
 MFI sector excluding the Eurosystem; sectoral classification is based on ESA 95.
 Data refer to the changing composition of the euro area. For further information, see the General notes.
 For non-euro area residents, the term "MFIs" refers to institutions of a similar type to euro area MFIs.
 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	Deposits		gs of securities than shares		Holdings of shares/ other	Holdings of investment fund shares	Fixed assets	Other assets
			Total	Up to 1 year	Over 1 year	equity			
	1	2	3	4	5	6	7	8	9
2007 Q2	5,993.1 5.892.8	344.2 358.3	2,046.7 2.015.0	191.9	1,854.8 1.828.0	2,219.3 2,168.5	786.1	179.7	417.2
Q3 Q4	5,892.8	358.5 353.4	1,993.4	187.0 184.1	1,828.0	2,168.5 2,077.4	773.6 784.0	180.6 189.1	396.6 384.0
2008 Q1	5,160.6	365.5	1,857.8	164.8	1,693.0	1,670.3	719.8	197.1	350.1
Q2 Q3 <sup>(p)</sup>	5,015.2 4,713.2	359.3 377.1	1,807.2 1.747.3	157.5 148.1	1,649.7 1,599.2	1,624.4 1,411.4	690.7 641.3	204.9 202.8	328.7 333.3

# 2. Liabilities

	Total	Deposits and loans taken	Investment fund shares	Other liabilities
	1	2	3	4
2007 Q2	5,993.1	82.9	5,589.0	321.3
Q3	5,892.8	78.5	5,496.8	317.5
Q4	5,781.3	76.8	5,411.5	293.0
2008 Q1	5,160.6	76.4	4,846.6	237.6
Q2	5,015.2	74.8	4,720.9	219.5
Q3 <sup>(p)</sup>	4,713.2	71.0	4,413.4	228.7

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

	Total		Fund	ds by investment po	olicy		Funds by type of investor		
		Equity funds	Bond funds	Mixed funds	Real estate funds	Other funds	General public funds	Special investors' funds	
	1	2	3	4	5	6	7	8	
2007 Q2 Q3 Q4	5,993.1 5,892.8 5,781.3	1,826.0 1,797.1 1,735.5	1,692.8 1,654.6 1,596.8	1,541.6 1,523.2 1,535.4	230.8 236.1 244.2	701.8 681.7 669.4	4,579.4 4,468.3 4,344.6	1,413.8 1,424.5 1,436.7	
2008 Q1 Q2 Q3 <sup>(p)</sup>	5,160.6 5,015.2 4,713.2	1,362.6 1,325.3 1,132.6	1,483.3 1,413.4 1,382.5	1,427.8 1,405.2 1,358.8	249.6 256.1 253.1	637.4 615.3 586.2	3,778.1 3,647.1 3,340.8	1,382.5 1,368.1 1,372.4	



#### Source: ECB.

1) Other than money market funds. For further details, see the General notes.



Other assets

Fixed assets

# 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)

# Holdings of securities other than shares Total Deposits Over 1 year Up to 1 year Total

# 1. Funds by investment policy

	1	2	3	4	5	6	7	8	9
				Equity funds					
2007 Q2	1,826.0	61.1	67.7	27.0	40.7	1,546.9	84.5	-	65.8
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 Q2 Q3 <sup>(p)</sup>	1,362.6 1,325.3 1,132.6	51.2 54.3 48.3	63.0 65.0 61.3	20.5 21.3 22.0 20.2	41.7 43.0 41.1	1,130.9 1,088.6 915.2	65.7 65.7 57.6	-	51.7 51.6 50.2
				Bond funds					
2007 Q2	1,692.8	115.1	1,347.9	98.3	1,249.6	62.3	55.6		112.0
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	1,483.3	124.7	1,167.7	80.3	1,087.5	56.8	45.5	-	88.6
Q2	1,413.4	115.9	1,118.4	74.6	1,043.7	57.9	42.7	-	78.5
Q3 <sup>(p)</sup>	1,382.5	128.7	1,073.5	67.9	1,005.6	55.7	41.1	-	83.5
				Mixed funds					
2007 Q2	1,541.6	81.5	530.2	50.8	479.4	399.2	347.9	0.9	181.9
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	1,427.8	97.9	528.0	46.4	481.6	339.4	313.9	1.2	147.3
Q2	1,405.2	99.0	519.9	42.6	477.3	341.6	307.9	0.8	135.9
Q3 <sup>(p)</sup>	1,358.8	108.9	512.6	42.2	470.4	312.1	287.1	1.1	137.0
				Real estate fund	s				
2007 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	249.6	19.9	5.3	1.1	4.2	3.1	11.3	195.4	14.6
Q2	256.1	17.9	5.9	1.1	4.8	3.0	10.1	203.5	15.7
Q3 <sup>(p)</sup>	253.1	18.9	4.7	1.3	3.4	3.0	9.3	201.2	15.9

Holdings of shares/ other equity

Holdings of investment fund shares

# 2. Funds by type of investor

	Total	Deposits	Holdings of securities other than shares	Holdings of shares/ other equity	Holdings of investment fund shares	Fixed assets	Other assets
	1	2	3	4	5	6	7
			General put	blic funds			
2007 Q2	4,579.4	278.8	1,434.5	1,819.1	577.5	145.0	324.5
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	3,778.1	277.6	1,218.3	1,362.1	514.2	154.1	251.9
Q2	3,647.1	264.5	1,177.3	1,326.8	485.5	155.0	238.0
Q3 <sup>(p)</sup>	3,340.8	265.1	1,104.7	1,140.7	440.7	152.4	237.2
			Special inves	stors' funds			
2007 Q2	1,413.8	65.4	612.2	400.2	208.6	34.7	92.6
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	1,382.5	88.0	639.6	308.1	205.6	43.0	98.2
Q2	1,368.1	94.8	629.9	297.6	205.2	49.9	90.7
Q3 <sup>(p)</sup>	1,372.4	112.0	642.5	270.7	200.6	50.5	96.1

Source: ECB.



# **EURO AREA ACCOUNTS**

# 3.1 Integrated economic and financial accounts by institutional sector (EUR billions)

(EUR billions)						
Uses	Euro area	Households	Non-financial corporations	Financial corporations	General government	Rest of the world
2008 (	2					
External account				I I		
Exports of goods and services						525.8
Trade balance <sup>1)</sup>						-17.9
Generation of income account						
Gross value added (basic prices) Taxes less subsidies on products						
Gross domestic product (market prices)						
Compensation of employees	1,112.2	110.7	712.1	55.3	234.1	
Other taxes less subsidies on production	40.6	4.4	28.2	4.2	3.7	
Consumption of fixed capital	337.0	91.4	191.3	11.0	43.4	
Net operating surplus and mixed income <sup>1)</sup>	586.3	304.0	253.6	30.1	-1.4	
Allocation of primary income account						
Net operating surplus and mixed income						
Compensation of employees Taxes less subsidies on production						4.5
Property income	1,201.5	59.6	514.5	553.8	73.6	166.1
Interest	561.9	57.2	89.7	341.5	73.5	87.5
Other property income	639.5	2.3	424.8	212.3	0.1	78.6
Net national income <sup>1)</sup>	1,947.4	1,690.8	-8.9	32.2	233.3	
Secondary distribution of income account						
Net national income						
Current taxes on income, wealth, etc.	295.1	225.8	53.5	15.5	0.3	5.3
Social contributions	413.6	413.6				0.8
Social benefits other than social transfers in kind	407.5	1.4 69.4	16.0 25.2	28.5 49.2	361.5 40.6	0.6
Other current transfers Net non-life insurance premiums	184.4 47.1	34.5	25.2 11.0	49.2 0.9	40.6	8.4 1.2
Non-life insurance claims	47.0	54.5	11.0	47.0	0.7	0.8
Other	90.2	34.9	14.2	1.2	39.9	6.5
Net disposable income <sup>1)</sup>	1,929.3	1,474.7	-75.1	33.2	496.6	
Use of income account						
Net disposable income						
Final consumption expenditure	1,768.8	1,304.8			464.0	
Individual consumption expenditure	1,587.0	1,304.8			282.2	
Collective consumption expenditure Adjustment for the change in net equity of households in pension fund reserves	181.7 18.1	0.0	0.2	17.9	181.7 0.0	0.1
Net saving/current external account <sup>1)</sup>	160.6	188.0	-75.3	17.9	32.6	25.1
Capital account	10010	10010	7515			
Net saving / current external account						
Gross capital formation	522.7	164.9	288.8	14.7	54.3	
Gross fixed capital formation	521.1	165.3	286.9	14.7	54.2	
Changes in inventories and acquisitions less disposals of valuables	1.6	-0.3	1.9	0.0	0.0	
Consumption of fixed capital						
Acquisitions less disposals of non-produced non-financial assets	0.3	-1.8	1.9	0.2	0.0	-0.3
Capital transfers	34.6	9.1	2.1	1.5	21.8	5.1
Capital taxes Other capital transfers	5.9 28.7	5.7 3.4	0.2 1.9	0.0 1.5	21.8	0.0 5.1
Net lending (+)/net borrowing (-) (from capital account) <sup>1)</sup>	-22.4	116.6	-159.0	1.5	9.3	22.4
Statistical discrepancy	0.0	-22.2	22.2	0.0	0.0	0.0

Sources: ECB and Eurostat. 1) For the calculation of the balancing items, see the Technical notes.



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

Resources	Euro area	Households	Non-financial corporations	Financial corporations	General government	Rest of the world
2008	Q2			_	_	
External account				I I		
Imports of goods and services Trade balance						507.9
Generation of income account						
Gross value added (basic prices) Taxes less subsidies on products Gross domestic product (market prices) <sup>2)</sup> Compensation of employees Other taxes less subsidies on production Consumption of fixed capital <i>Net operating surplus and mixed income</i>	2,076.0 233.4 2,309.4	510.4	1,185.2	100.7	279.7	
Allocation of primary income account						
Net operating surplus and mixed income Compensation of employees Taxes less subsidies on production Property income Interest Other property income	586.3 1,113.9 274.8 1,173.9 545.7 628.2	304.0 1,113.9 332.5 82.7 249.8	253.6 252.0 49.9 202.1	30.1 555.8 405.1 150.8	-1.4 274.8 33.5 8.0 25.5	2.7 -0.8 193.7 103.7 89.9
Net national income						
Secondary distribution of income account						
Net national income Current taxes on income, wealth, etc. Social contributions Social benefits other than social transfers in kind Other current transfers	1,947.4 299.9 413.3 405.2 164.1	1,690.8 1.1 405.2 87.8	-8.9 16.8 11.6	32.2 46.0 48.3	233.3 299.9 349.5 16.4	0.5 1.1 3.0 28.6
Net non-life insurance premiums Non-life insurance claims Other Net disposable income	47.0 46.4 70.7	36.8 51.0	8.6 3.0	47.0 0.7 0.5	0.3 16.1	1.2 1.4 26.0
Use of income account						
Net disposable income Final consumption expenditure Individual consumption expenditure Collective consumption expenditure Adjustment for the change in net equity of households in pension fund reserves Net saving/current external account	1,929.3	1,474.7	-75.1	33.2	496.6	0.0
Capital account						
Net saving / current external account Gross capital formation Gross fixed capital formation Changes in inventories and acquisitions less disposals of valuables	160.6	188.0	-75.3	15.4	32.6	25.1
Consumption of fixed capital Acquisitions less disposals of non-produced non-financial assets Capital transfers	337.0 37.5	91.4 9.6	191.3 17.8	11.0 0.6	43.4 9.5	2.2
Capital taxes Other capital transfers Net lending (+)/net borrowing (-) (from capital account) Statistical discrepancy	5.9 31.6	9.6	17.8	0.6	5.9 3.6	0.0 2.2

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-	Insurance corporations and pension	General govern- ment	Rest of the world
2008 Q2					mediaries	funds		
Opening balance sheet, financial assets								
Total financial assets		17,379.8	14,812.5	22,782.7	10,163.0	6,210.5	2,861.4	15,119.2
Monetary gold and special drawing rights (SDRs)				212.8				
Currency and deposits		5,763.1	1,747.0	2,486.8	1,580.2	837.3	559.6	4,174.2
Short-term debt securities Long-term debt securities		59.3 1,392.3	137.8 215.9	136.8 3,752.4	382.8 1,799.7	260.9 1,996.1	27.6 221.7	725.3 2,628.9
Long-term debt securities		39.9	2,275.0	12,458.3	1,753.7	354.3	366.3	1,756.2
of which long-term		23.2	1,223.7	9,349.6	1,394.1	287.3	330.2	1,750.2
Shares and other equity		4,674.1	7,371.2	1,867.1	4,431.9	2,271.6	1,114.6	5,023.9
Quoted shares		914.8	1,697.1	610.6	2,213.4	663.7	362.2	
Unquoted shares and other equity		2,229.4	5,310.1	1,006.6	1,532.6	479.0	608.0	
Mutual fund shares		1,529.9	364.1	249.9	686.0	1,128.8	144.4	
Insurance technical reserves Other accounts receivable and financial derivatives		5,183.2 267.9	137.3 2,928.2	2.0 1,866.6	0.0 214.7	147.7 342.6	3.3 568.3	235.8 575.0
Net financial worth		207.9	2,920.2	1,800.0	214.7	542.0	508.5	575.0
Financial account, transactions in financial assets								
Total transactions in financial assets		134.7	104.3	384.4	204.8	45.7	60.4	138.6
Monetary gold and special drawing rights (SDRs)		134./	104.3	-0.4	204.8	43.7	00.4	138.0 0.4
Currency and deposits		110.7	23.5	-99.8	87.7	-9.1	46.1	11.1
Short-term debt securities		-1.3	-26.9	11.9	2.2	19.2	1.9	33.5
Long-term debt securities		26.1	-26.7	141.3	15.7	28.5	7.6	159.5
Loans		0.4	58.8	228.8	58.0	-1.1	2.5	-24.4
of which long-term		0.0	11.1	150.5	35.5	3.5	0.7	
Shares and other equity		-32.1	117.2	23.2	39.4	4.0	0.8	-44.8
Quoted shares		-18.1	91.4	-7.4	29.8	3.8	0.9	·
Unquoted shares and other equity Mutual fund shares		17.2 -31.2	30.6 -4.8	30.6 -0.1	40.3 -30.8	1.4 -1.2	-0.5 0.5	•
Insurance technical reserves		-51.2	-4.8	-0.1	-50.8	2.7	0.0	2.9
Other accounts receivable and financial derivatives		-30.4	-41.9	79.4	1.8	1.6	1.4	0.4
Changes in net financial worth due to transactions								
Other changes account, financial assets								
Total other changes in financial assets		-245.9	-306.2	-51.6	-263.1	-100.0	-4.7	-142.1
Monetary gold and special drawing rights (SDRs)				-0.2				
Currency and deposits		0.8	0.8	-1.9	2.4	2.1	0.1	-3.8
Short-term debt securities		-0.3	6.7	-2.9	-1.3	1.1	0.1	-1.8
Long-term debt securities Loans		-18.3 -0.3	-0.9 -5.0	-21.1 -13.2	-46.2 -11.5	-26.8 0.1	-4.3 0.0	-75.2 13.2
of which long-term		-0.3	-4.5	-13.2	-11.5	0.1	0.0	13.2
Shares and other equity		-189.4	-340.8	-34.9	-205.8	-74.2	0.0	-57.0
Quoted shares		-71.0	-180.4	-5.6	-176.7	-54.9	2.8	
Unquoted shares and other equity		-99.3	-152.9	-24.8	-7.4	-14.5	-2.2	
Mutual fund shares		-19.1	-7.5	-4.5	-21.6	-4.8	-0.4	
Insurance technical reserves		-37.4	4.1	0.0	0.0	0.5	0.0	-26.6
Other accounts receivable and financial derivatives Other changes in net financial worth		-1.0	29.0	22.5	-0.8	-2.9	-0.8	9.2
Closing balance sheet, financial assets								
Total financial assets		17,268.7	14,610.6	23,115.5	10,104.7	6,156.1	2,917.1	15,115.4
Monetary gold and special drawing rights (SDRs)		17,200.7	14,010.0	23,113.3	10,104.7	0,150.1	2,717.1	15,115.4
Currency and deposits		5,874.6	1,771.3	2,385.0	1,670.3	830.3	605.9	4,181.5
Short-term debt securities		57.8	117.6	145.8	383.7	281.2	29.6	757.0
Long-term debt securities		1,400.0	188.3	3,872.7	1,769.3	1,997.8	225.0	2,713.2
Loans		40.1	2,328.7	12,673.8	1,800.2	353.2	368.8	1,745.0
of which long-term		23.2	1,230.4	9,489.0	1,425.7	291.2	330.9	4 022 1
Shares and other equity Quoted shares		4,452.6 825.7	7,147.6 1,608.1	1,855.4 597.5	4,265.5 2,066.5	2,201.4 612.6	1,115.6 365.9	4,922.1
Unquoted shares and other equity		2,147.2	5,187.8	1,012.5	2,000.3	466.0	605.2	
Mutual fund shares		1,479.6	351.8	245.4	633.6	1,122.8	144.5	
Insurance technical reserves		5,207.3	141.8	2.0	0.0	150.9	3.4	212.1
Other accounts receivable and financial derivatives		236.5	2,915.3	1,968.5	215.7	341.3	568.8	584.7
Net financial worth								
Source: ECB								

Source: ECB.



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

Liabilities	Euro area	Households	Non-financial corporations	MFIs	Other financial inter-	Insurance corporations and pension	General govern- ment	Rest of the world
2008 Q2					mediaries	funds		
Opening balance sheet, liabilities								
Total liabilities		6,151.0	23,451.4	22,711.1	9,926.6	6,389.6	6,896.8	13,589.9
Monetary gold and special drawing rights (SDRs)			25.0	14.040.0	22.6	2.5	220.2	<b>a</b> 000 0
Currency and deposits Short-term debt securities			25.0 285.1	14,049.0 410.7	32.6 104.9	2.5 0.3	238.2 656.5	2,800.8 273.0
Long-term debt securities			435.4	2,726.9	1,786.6	25.8	4,435.8	2,596.4
Loans		5,450.3	7,605.8	2,720.9	1,662.4	209.6	1,188.6	2,886.9
of which long-term		5,128.9	5,127.5		777.7	66.8	1,024.6	í.
Shares and other equity			12,267.3	3,114.0	6,188.1	613.9	5.4	4,565.7
Quoted shares			4,197.8	856.7	252.3	244.3	0.0	
Unquoted shares and other equity			8,069.5	1,101.0	1,108.2	368.8	5.4	•
Mutual fund shares Insurance technical reserves		33.1	328.7	1,156.4 56.6	4,827.6 0.6	5,289.8	0.5	•
Other accounts payable and financial derivatives		667.7	2,504.0	2,353.7	151.5	247.6	371.7	467.2
Net financial worth <sup>1)</sup>	-1,316.6	11,228.8	-8,638.9	71.6	236.4	-179.1	-4,035.4	107.2
Financial account, transactions in liabilities	,	,	,				,	
Total transactions in liabilities		40.3	241.0	359.3	196.8	68.1	51.0	116.2
Monetary gold and special drawing rights (SDRs)		1015	211.0	557.5	150.0	00.1	51.0	110.2
Currency and deposits			-0.2	267.1	1.0	-0.1	0.8	-98.4
Short-term debt securities			8.3	2.6	5.8	0.0	23.0	0.8
Long-term debt securities			3.1	77.6	124.4	0.6	34.8	111.6
Loans		67.2	164.5		40.8	-2.0	7.5	45.0
of which long-term Shares and other equity		57.6	84.9 25.6	20.4	38.4 23.7	2.6 5.0	-3.3 0.0	32.8
Quoted shares			-4.3	6.2	0.0	1.3	0.0	32.0
Unquoted shares and other equity			29.9	5.4	22.6	3.7	0.0	
Mutual fund shares				8.8	1.2			
Insurance technical reserves		0.0	0.3	1.6	0.0	65.6	0.0	
Other accounts payable and financial derivatives		-26.9	39.4	-9.9	1.2	-1.1	-15.0	24.4
Changes in net financial worth due to transactions <sup>1</sup>	-22.4	94.4	-136.8	25.1	8.0	-22.4	9.3	22.4
Other changes account, liabilities								
Total other changes in liabilities Monetary gold and special drawing rights (SDRs)		0.1	-422.1	-174.5	-285.9	-76.2	-119.0	-36.0
Currency and deposits			0.0	-0.6	0.0	0.0	0.0	1.1
Short-term debt securities			0.1	-1.0	0.0	0.0	-0.2	2.8
Long-term debt securities			-8.6	-1.6	-15.1	-0.1	-133.9	-33.4
Loans		-5.4	5.8		-9.4	-0.2	0.1	-7.7
of which long-term		-5.2	7.4		-5.2	0.0	0.1	_ :
Shares and other equity			-438.0	-215.1	-220.2	-36.6	0.0	7.9
Quoted shares Unquoted shares and other equity			-223.6 -214.4	-199.2 -15.5	-49.8 -46.5	-29.6 -7.0	0.0 0.0	
Mutual fund shares			-214.4	-0.4	-123.8	-7.0	0.0	•
Insurance technical reserves		0.0	0.0	0.0	0.0	-59.4	0.0	•
Other accounts payable and financial derivatives		5.5	18.7	43.8	-41.2	20.1	15.1	-6.7
Other changes in net financial worth <sup>1)</sup>	105.9	-245.9	115.9	122.8	22.7	-23.9	114.2	-106.1
Closing balance sheet, liabilities								
Total liabilities		6,191.5	23,270.4	22,895.9	9,837.6	6,381.5	6,828.9	13,670.1
Monetary gold and special drawing rights (SDRs)			04.0	14 215 5	22.6	2.4	220.0	2 702 5
Currency and deposits Short-term debt securities			24.8 293.5	14,315.5 412.3	33.6 110.7	2.4 0.3	239.0 679.3	2,703.5 276.6
Long-term debt securities			429.9	2,803.0	1,895.8	26.3	4,336.6	2,674.5
Loans		5,512.1	7,776.1	,	1,693.8	207.4	1,196.3	2,924.2
of which long-term		5,181.3	5,219.8		810.9	69.4	1,021.3	
Shares and other equity			11,855.0	2,919.4	5,991.7	582.3	5.4	4,606.4
Quoted shares			3,969.9	663.7	202.5	216.1	0.0	
Unquoted shares and other equity Mutual fund shares			7,885.0	1,090.9	1,084.2	365.5	5.4	
Insurance technical reserves		33.1	329.0	1,164.8 58.1	4,704.9 0.6	5,296.1	0.5	•
Other accounts payable and financial derivatives		646.3	2,562.0	2,387.6	111.5	266.7	371.7	484.9
Net financial worth <sup>1)</sup>	-1,233.1	11,077.2	-8,659.8	219.6	267.1	-225.4	-3,911.8	
Source: ECB.								



# **3.2 Euro area non-financial accounts** (EUR billions; four-quarter cumulated flows)

Uses	2004	2005	2006	2006 Q3- 2007 Q2	2006 Q4- 2007 Q3	2007 Q1- 2007 Q4	2007 Q2- 2008 Q1	2007 Q3- 2008 Q2
Generation of income account								
Gross value added (basic prices) Taxes less subsidies on products Gross domestic product (market prices)								
Compensation of employees Other taxes less subsidies on production	3,777.3 122.9	3,891.5 130.0	4,050.2 128.9	4,138.1 133.5	4,178.9 134.6	4,231.2 136.3	4,280.4 136.4	4,331.3 135.7
Consumption of fixed capital Net operating surplus and mixed income <sup>1)</sup>	1,124.0 1,989.8	1,177.7 2,060.4	1,234.9 2,165.8	1,269.7 2,232.0	1,284.7 2,271.3	1,299.6 2,298.2	1,310.8 2,318.9	1,322.5 2,341.3
Allocation of primary income account								
Net operating surplus and mixed income Compensation of employees Taxes less subsidies on production								
Property income Interest	2,338.2 1,250.3	2,577.1 1,342.7	2,978.9 1,634.5	3,238.2 1,808.7	3,353.4 1,898.8	3,472.9 1,993.9	3,562.7 2,072.0	3,664.5 2,142.2
Other property income Net national income <sup>1)</sup>	1,087.9 6,692.6	1,234.3 6,937.5	1,344.4 7,280.5	1,429.5 7,468.5	1,454.7 7,559.8	1,479.0 7,646.3	1,490.7 7,708.5	1,522.3 7,759.5
Secondary distribution of income account								
Net national income	000 7	000 0	10046	1.000.0	1.005.0	1 100 0	1 125 0	1 105 0
Current taxes on income, wealth, etc. Social contributions	883.7 1.430.0	933.3 1.472.4	1,024.6 1,534.7	1,060.6 1,564.0	1,085.2 1,576.4	1,109.0 1,593.6	1,125.0 1.610.3	1,135.3 1.626.7
Social benefits other than social transfers in kind	1,455.4	1,499.2	1,549.5	1,567.8	1,578.6	1,594.4	1,606.0	1,619.6
Other current transfers	684.7	707.2	715.0	727.5	731.8	741.5	750.3	756.4
Net non-life insurance premiums	178.0	178.3	177.4	180.4	181.4	182.7	183.0	184.4
Non-life insurance claims	178.7	179.3	177.5	180.5	181.1	182.1	182.5	184.2
Other Net disposable income <sup>1)</sup>	328.0 6,616.5	349.5 6,850.3	360.0 7,189.0	366.7 7,378.0	369.3 7,468.9	376.6 7,553.3	384.7 7,610.3	387.9 7,660.2
Use of income account								
Net disposable income								
Final consumption expenditure	6,083.3	6,325.9	6,589.3	6,704.5	6,766.5	6,836.7	6,902.3	6,973.6
Individual consumption expenditure Collective consumption expenditure	5,437.7 645.6	5,665.5 660.3	5,911.2 678.1	6,015.1 689.3	6,070.4 696.2	6,133.6 703.1	6,193.7 708.6	6,256.0 717.7
Adjustment for the change in net equity of households	045.0	000.5	078.1	089.5	090.2	705.1	708.0	/1/./
in pension funds reserves	58.0	60.4	59.0	57.5	58.0	59.5	60.5	63.2
Net saving <sup>1</sup>	533.4	524.8	599.9	673.7	702.6	716.8	708.2	686.8
Capital account								
Net saving	1 (12 4	1 704 5	1 0 4 0 0	1.001.0	1.051.4	1 007 1	2010.9	2,034.3
Gross capital formation Gross fixed capital formation	1,613.4 1,602.0	1,704.5 1,698.1	1,848.8 1,835.9	1,921.9 1,912.0	1,951.4 1,939.0	1,987.1 1,967.0	2,010.8 1,987.4	2,034.3
Changes in inventories and acquisitions less disposals of valuables	1,002.0	6.3	1,855.9	1,912.0	1,939.0	20.1	23.4	2,000.5
Consumption of fixed capital		0.5	.2.5	1010		20.1	20	2011
Acquisitions less disposals of non-produced non-financial assets	-1.1	0.6	0.4	-0.4	-0.6	-0.2	0.1	0.5
Capital transfers	174.5	180.8	173.8	170.2	169.1	163.9	164.6	167.7
Capital taxes	29.9	24.4	22.5	23.3	23.8	23.8	23.4	23.5
Other capital transfers Nat leading $(1)$ (not horrowing (1) (from capital account) <sup>1</sup> )	144.7 61.0	156.4 8.2	151.2 -4.5	146.9 32.4	145.3 46.8	140.1 39.6	141.2 20.1	144.2 -12.1
<i>Net lending</i> (+)/ <i>net borrowing</i> (-) ( <i>from capital account</i> ) <sup>1)</sup>	61.0	8.2	-4.5	32.4	46.8	39.0	20.1	-12.1

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 Q3- 2007 Q2	2006 Q4- 2007 Q3	2007 Q1- 2007 Q4	2007 Q2- 2008 Q1	2007 Q3- 2008 Q2
Generation of income account		2000	2000		2007 20	2007 Q.	2000 Q1	
Gross value added (basic prices)	7.013.9	7,259.6	7,579.8	7,773.3	7,869.5	7,965.3	8,046.5	8,130,9
Taxes less subsidies on products	797.5	841.2	910.5	937.1	947.2	953.9	955.6	953.3
Gross domestic product (market prices) <sup>2)</sup>	7,811.4	8,100.8	8,490.3	8,710.4	8,816.7	8,919.1	9,002.1	9,084.1
Compensation of employees	, i i i i i i i i i i i i i i i i i i i		, í					
Other taxes less subsidies on production								
Consumption of fixed capital								
Net operating surplus and mixed income								
Allocation of primary income account								
Net operating surplus and mixed income	1,989.8	2,060.4	2,165.8	2,232.0	2,271.3	2,298.2	2,318.9	2,341.3
Compensation of employees	3,784.8	3,897.9	4,057.0	4,144.9	4,185.8	4,238.1	4,287.7	4,338.7
Taxes less subsidies on production	935.0	983.8	1,050.4	1,079.1	1,088.7	1,096.8	1,097.0	1,093.7
Property income	2,321.3	2,572.4	2,986.2	3,250.6	3,367.4	3,486.0	3,567.6	3,650.2
Interest Other property income	1,216.9 1,104.5	1,315.6 1,256.8	1,608.8 1,377.4	1,781.9 1,468.7	1,868.0 1,499.4	1,958.5 1,527.5	2,028.4 1,539.2	2,090.5 1,559.7
Net national income	1,104.5	1,250.8	1,377.4	1,400.7	1,499.4	1,527.5	1,559.2	1,559.7
Secondary distribution of income account								
Net national income	6,692.6	6,937.5	7,280.5	7,468.5	7,559.8	7,646.3	7,708.5	7,759.5
Current taxes on income, wealth, etc.	886.8	937.1	1,029.6	1,067.7	1,092.9	1,116.6	1,132.3	1,143.0
Social contributions	1,429.1	1,471.7	1,533.9	1,563.2	1,575.5	1,592.9	1,609.4	1,625.8
Social benefits other than social transfers in kind	1,447.7	1,491.4	1,541.3	1,558.9	1,569.3	1,585.1	1,596.5	1,610.0
Other current transfers	614.1	624.9	627.5	639.6	643.4	650.9	655.0	659.9
Net non-life insurance premiums	178.7	179.3	177.5	180.5	181.1	182.1	182.5	184.2
Non-life insurance claims Other	175.8	176.8 268.8	174.6 275.4	177.7 281.5	178.6 283.7	179.7 289.1	180.0 292.5	181.4 294.4
Net disposable income	259.6	208.8	273.4	261.3	285.7	269.1	292.3	294.4
Use of income account								
Net disposable income	6,616.5	6,850.3	7,189.0	7,378.0	7,468.9	7,553.3	7,610.3	7,660.2
Final consumption expenditure								
Individual consumption expenditure								
Collective consumption expenditure								
Adjustment for the change in net equity of households	59.2	(0.7	50.2	57.0	50.0	59.7	(0.7	(2.4
in pension funds reserves Net saving	58.2	60.7	59.3	57.8	58.2	59.7	60.7	63.4
Capital account								
Net saving	533.4	524.8	599.9	673.7	702.6	716.8	708.2	686.8
Gross capital formation Gross fixed capital formation								
Changes in inventories and acquisitions less disposals of valuables								
Consumption of fixed capital	1,124.0	1,177.7	1,234.9	1,269.7	1,284.7	1,299.6	1,310.8	1,322.5
Acquisitions less disposals of non-produced non-financial assets								
Capital transfers	190.5	191.6	183.7	180.7	179.5	174.0	176.5	181.2
Capital taxes	29.9	24.4	22.5	23.3	23.8	23.8	23.4	23.5
Other capital transfers	160.6	167.2	161.1	157.4	155.7	150.2	153.1	157.7
Net lending (+)/net borrowing (-) (from capital account)								

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)

Current taxes on income and wealth (-)       707.3       739.8       792.3       814.7       831.5       851.9       86         Net social contributions (-)       1,426.3       1,468.5       1,530.6       1,559.8       1,572.2       1,589.4       1,60         Net social contributions (-)       1,442.8       1,486.2       1,535.8       1,553.4       1,563.8       1,579.5       1,59         Net current transfers receivable (+)       63.9       66.7       66.8       68.9       68.8       69.4       6         = Gross disposable income       5,186.0       5,362.4       5,571.7       5,689.3       5,737.8       5,793.1       5,484         Final consumption expenditure (-)       4,489.3       4,668.9       4,866.5       4,991.0       4,996.2       5,047.0       5,092         Changes in net worth in pension funds (+)       57.8       60.3       58.9       57.6       58.2       59.7       6	2008 Q2           .7         4,338.7           .9         1,538.8           .4         319.7           .2         221.7           .2         768.7           .8         9.9           .3         880.4           .1         1,622.5           .9         1,604.4
Compensation of employees (+) $3,784.8$ $3,897.9$ $4,057.0$ $4,144.9$ $4,185.8$ $4,238.1$ $4,28$ Gross operating surplus and mixed income (+) $1,286.7$ $1,338.3$ $1,415.7$ $1,459.7$ $1,481.1$ $1,499.4$ $1,51$ Interest receivable (+) $233.2$ $229.8$ $266.3$ $282.7$ $291.5$ $301.6$ $31$ Interest payable (-) $126.2$ $130.5$ $164.4$ $187.3$ $198.1$ $208.6$ $21$ Other property income receivable (+) $643.7$ $691.6$ $727.0$ $751.1$ $758.3$ $764.8$ $76$ Other property income payable (-) $9.2$ $9.5$ $9.7$ $9.7$ $9.6$ $9.9$ Current taxes on income and wealth (-) $707.3$ $739.8$ $792.3$ $814.7$ $831.5$ $851.9$ $86$ Net social contributions (-) $1,426.3$ $1,468.5$ $1,530.6$ $1,559.8$ $1,572.2$ $1,589.4$ $1,60$ Net social benefits (+) $1,442.8$ $1,486.2$ $1,533.4$ $1,563.8$ $1,579.5$ $1,59$ Net current transfers receivable (+) $63.9$ $66.7$ $66.8$ $68.9$ $68.8$ $69.4$ $6$ = Gross disposable income $5,186.0$ $5,362.4$ $5,571.7$ $5,689.3$ $5,737.8$ $5,793.1$ $5,80$ Final consumption expenditure (-) $4,489.3$ $4,668.9$ $4,866.5$ $4,951.0$ $4,996.2$ $5,047.0$ $5,09$ Changes in net worth in pension funds (+) $57.8$ $60.3$ $58.9$ $57.6$ </th <th>.9         1,538.8           .4         319.7           .2         221.7           .2         768.7           .8         9.9           .3         880.4           .1         1,622.5           .9         1,604.4</th>	.9         1,538.8           .4         319.7           .2         221.7           .2         768.7           .8         9.9           .3         880.4           .1         1,622.5           .9         1,604.4
Gross operating surplus and mixed income (+) $1,286.7$ $1,338.3$ $1,415.7$ $1,459.7$ $1,481.1$ $1,499.4$ $1,51$ Interest receivable (+) $233.2$ $229.8$ $266.3$ $282.7$ $291.5$ $301.6$ $31$ Interest payable (-) $126.2$ $130.5$ $164.4$ $187.3$ $198.1$ $208.6$ $21$ Other property income receivable (+) $643.7$ $691.6$ $727.0$ $751.1$ $758.3$ $764.8$ $90.9$ Current taxes on income and wealth (-) $707.3$ $739.8$ $792.3$ $814.7$ $831.5$ $851.9$ $86$ Net social contributions (-) $1,426.3$ $1,468.5$ $1,530.6$ $1,559.8$ $1,572.2$ $1,589.4$ $1,60$ Net social benefits (+) $1,442.8$ $1,486.2$ $1,535.8$ $1,573.4$ $1,563.8$ $1,579.5$ $1,59$ Net current transfers receivable (+) $63.9$ $66.7$ $66.8$ $68.9$ $68.8$ $69.4$ $66$ <b>= Gross disposable income</b> $5,186.0$ $5,362.4$ $5,571.7$ $5,689.3$ $5,737.8$ $5,793.1$ $5,84$ Final consumption expenditure (-) $4,489.3$ $4,668.9$ $4,896.5$ $4,951.0$ $4,992.2$ $5,047.0$ $5,092$ Changes in net worth in pension funds (+) $57.8$ $60.3$ $58.9$ $57.6$ $58.2$ $59.7$ $66$	.9         1,538.8           .4         319.7           .2         221.7           .2         768.7           .8         9.9           .3         880.4           .1         1,622.5           .9         1,604.4
Gross operating surplus and mixed income (+) $1,286.7$ $1,338.3$ $1,415.7$ $1,459.7$ $1,481.1$ $1,499.4$ $1,51$ Interest receivable (+) $233.2$ $229.8$ $266.3$ $282.7$ $291.5$ $301.6$ $31$ Interest payable (-) $126.2$ $130.5$ $164.4$ $187.3$ $198.1$ $208.6$ $21$ Other property income receivable (+) $643.7$ $691.6$ $727.0$ $751.1$ $758.3$ $764.8$ $90.9$ Current taxes on income and wealth (-) $707.3$ $739.8$ $792.3$ $814.7$ $831.5$ $851.9$ $86$ Net social contributions (-) $1,426.3$ $1,468.5$ $1,530.6$ $1,559.8$ $1,572.2$ $1,589.4$ $1,60$ Net social benefits (+) $1,442.8$ $1,486.2$ $1,535.8$ $1,573.4$ $1,563.8$ $1,579.5$ $1,59$ Net current transfers receivable (+) $63.9$ $66.7$ $66.8$ $68.9$ $68.8$ $69.4$ $66$ <b>= Gross disposable income</b> $5,186.0$ $5,362.4$ $5,571.7$ $5,689.3$ $5,737.8$ $5,793.1$ $5,84$ Final consumption expenditure (-) $4,489.3$ $4,668.9$ $4,896.5$ $4,951.0$ $4,992.2$ $5,047.0$ $5,092$ Changes in net worth in pension funds (+) $57.8$ $60.3$ $58.9$ $57.6$ $58.2$ $59.7$ $66$	.9         1,538.8           .4         319.7           .2         221.7           .2         768.7           .8         9.9           .3         880.4           .1         1,622.5           .9         1,604.4
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	.4 319.7 .2 221.7 .2 768.7 .8 9.9 .3 880.4 .1 1,622.5 .9 1,604.4
Other property income receivable (+) $643.7$ $691.6$ $727.0$ $751.1$ $758.3$ $764.8$ $766.9$ Other property income payable (-) $9.2$ $9.5$ $9.7$ $9.6$ $9.9$ Current taxes on income and wealth (-) $707.3$ $739.8$ $792.3$ $814.7$ $831.5$ $851.9$ $86$ Net social contributions (-) $1,426.3$ $1,468.5$ $1,530.6$ $1,559.8$ $1,572.2$ $1,589.4$ $1,600$ Net social benefits (+) $63.9$ $66.7$ $66.8$ $68.9$ $68.8$ $69.4$ $69.4$ <b>e Gross disposable income</b> $5,186.0$ $5,362.4$ $5,571.7$ $5,689.3$ $5,737.8$ $5,793.1$ $5,84$ Final consumption expenditure (-) $4,489.3$ $4,668.9$ $4,866.5$ $4,951.0$ $4,996.2$ $5,047.0$ $5,09$ Changes in net worth in pension funds (+) $57.8$ $60.3$ $58.9$ $57.6$ $58.2$ $59.7$ $66$	.2 768.7 .8 9.9 .3 880.4 .1 1,622.5 .9 1,604.4
Other property income payable (-)         9.2         9.5         9.7         9.7         9.6         9.9           Current taxes on income and wealth (-)         707.3         739.8         792.3         814.7         831.5         851.9         86           Net social contributions (-)         1,426.3         1,468.5         1,530.6         1,559.8         1,572.2         1,589.4         1,60           Net social benefits (+)         1,442.8         1,468.2         1,535.8         1,553.4         1,563.8         1,579.5         1,59           Net current transfers receivable (+)         63.9         66.7         66.8         68.9         68.8         69.4         6 <b>= Gross disposable income</b> 5,186.0         5,362.4         5,571.7         5,689.3         5,737.8         5,793.1         5,494           Final consumption expenditure (-)         4,489.3         4,668.9         4,866.5         4,951.0         4,996.2         5,047.0         5,099           Changes in net worth in pension funds (+)         57.8         60.3         58.9         57.6         58.2         59.7         6	.8 9.9 .3 880.4 .1 1,622.5 .9 1,604.4
Current taxes on income and wealth (-)707.3739.8792.3814.7831.5851.986Net social contributions (-)1,426.31,468.51,530.61,559.81,572.21,589.41,60Net social benefits (+)1,442.81,486.21,535.81,553.41,563.81,579.51,59Net current transfers receivable (+)63.966.766.868.968.869.46= Gross disposable income5,186.05,362.45,571.75,689.35,737.85,793.15,84Final consumption expenditure (-)4,489.34,668.94,866.54,951.04,996.25,047.05,90Changes in net worth in pension funds (+)57.860.358.957.658.259.76	.3 880.4 .1 1,622.5 .9 1,604.4
Net social contributions (-)         1,426.3         1,468.5         1,530.6         1,559.8         1,572.2         1,589.4         1,600           Net social benefits (+)         1,442.8         1,486.2         1,535.8         1,553.4         1,563.8         1,579.5         1,590           Net current transfers receivable (+)         63.9         66.7         66.8         68.9         68.8         69.4         66 <b>= Gross disposable income</b> 5,186.0         5,362.4         5,571.7         5,689.3         5,737.8         5,793.1         5,84           Final consumption expenditure (-)         4,489.3         4,668.9         4,866.5         4,951.0         4,996.2         5,047.0         5,092           Changes in net worth in pension funds (+)         57.8         60.3         58.9         57.6         58.2         59.7         6	.1 1,622.5 .9 1,604.4
Net social benefits (+)1,442.81,486.21,535.81,553.41,563.81,579.51,59Net current transfers receivable (+)63.966.766.868.968.869.466= Gross disposable income5,186.05,362.45,571.75,689.35,737.85,793.15,84Final consumption expenditure (-)4,489.34,668.94,866.54,951.04,996.25,047.05,09Changes in net worth in pension funds (+)57.860.358.957.658.259.766	.9 1,604.4
Net current transfers receivable (+)         63.9         66.7         66.8         68.9         68.8         69.4         66           = Gross disposable income         5,186.0         5,362.4         5,571.7         5,689.3         5,737.8         5,793.1         5,84           Final consumption expenditure (-)         4,489.3         4,668.9         4,866.5         4,951.0         4,996.2         5,047.0         5,09           Changes in net worth in pension funds (+)         57.8         60.3         58.9         57.6         58.2         59.7         66	,
= Gross disposable income         5,186.0         5,362.4         5,571.7         5,689.3         5,737.8         5,793.1         5,84           Final consumption expenditure (-)         4,489.3         4,668.9         4,866.5         4,951.0         4,996.2         5,047.0         5,09           Changes in net worth in pension funds (+)         57.8         60.3         58.9         57.6         58.2         59.7         6	
Final consumption expenditure (-)         4,489.3         4,668.9         4,866.5         4,951.0         4,996.2         5,047.0         5,09           Changes in net worth in pension funds (+)         57.8         60.3         58.9         57.6         58.2         59.7         66	.3 72.2
Changes in net worth in pension funds (+)         57.8         60.3         58.9         57.6         58.2         59.7         66	,
	.6 539.5
Net capital transfers fecetivatie (+) $18.4$ $22.8$ $19.9$ $10.8$ $10.7$ $15.5$ $1$ Other changes in net worth $^{10}$ (+) $327.0$ $529.5$ $532.8$ $635.8$ $230.7$ $-37.7$ $-80$	
$= Changes in net worth^{1} (+) 798.4 989.0 982.3 1,104.2 697.7 428.7 -33$	
	-055.9
Investment, financing and changes in net worth	
Net acquisition of non-financial assets (+) 519.9 552.1 605.0 630.5 637.5 640.5 64	
Consumption of fixed capital (-)     301.5     317.2     334.5     348.5     352.7     35       Main items of financial investment (+)     301.5     317.2     334.5     344.3     348.5     352.7     35	
Short-term assets 214.9 207.5 306.3 382.1 396.8 420.1 44	
Currency and deposits         213.0         247.9         283.8         316.9         328.3         348.0         38	
	.4 16.5 .3 20.7
Long-term assets         347.3         426.5         345.7         258.3         212.5         202.7         13           Deposits         32.2         -5.0         0.7         -17.0         -24.7         -30.3         -3	
1	.6 84.5
Shares and other equity $-1.4$ 133.5 $-19.8$ $-44.9$ $-41.3$ $-55.1$ $-11$	
Quoted, unquoted shares and other equity $-9.9$ $63.0$ $-0.1$ $14.8$ $28.3$ $22.5$ $-11$	
Mutual fund shares 8.5 70.5 -19.7 -59.7 -69.6 -77.6 -10	
Life insurance and pension fund reserves 252.7 292.9 285.8 276.7 266.7 252.0 24	
Main items of financing (-)	
Loans 307.7 390.4 392.4 369.0 365.8 350.1 30	.1 278.4
of which from euro area MFIs 277.8 358.5 348.3 317.4 303.2 283.2 25	.5 198.9
Other changes in financial assets (+)	
Shares and other equity         282.8         451.5         484.3         594.5         226.0         -74.6         -72	,
Life insurance and pension fund reserves         48.6         105.6         54.5         58.1         21.6         2.2         -6	
Remaining net flows (+) -5.9 -46.5 -86.7 -105.9 -82.3 -59.5 -9	
= Changes in net worth <sup>1</sup> )         798.4         989.0         982.3         1,104.2         697.7         428.7         -33	.3 -653.9
Financial balance sheet	
Financial assets (+)	1 5 150 0
Short-term assets         4,276.1         4,493.4         4,754.4         4,972.5         5,020.1         5,208.4         5,36           Concernment of the sector         2,000.0         4,412.7         4,455.5         4,612.2         4,652.0         4,844.7         4,022.5	,
Currency and deposits         3,926.0         4,176.7         4,456.5         4,613.3         4,653.9         4,844.7         4,93           Money market fund shares         313.9         300.5         261.7         304.9         304.1         303.5         35	
	.2 357.2 .7 70.8
Long-term assets 9,938.2 10,947.0 11,898.0 12,246.1 12,071.6 11,995.3 11,36	
Deposits 894.2 946.2 946.1 920.4 920.1 880.9 82	
Deposits 034.2 940.2 940.1 920.4 920.1 000.9 02 Debt securities 1,226.1 1,206.3 1,312.9 1,299.6 1,300.9 1,349.3 1,38	
Shares and other equity $3,967.8 + 4,546.0 + 5,050.0 + 5,057.4 + 4,921.9 + 4,312 + 4,921.9 + 4,312 + 4,921.9 + 4,312 + 4,921.9 + 4,312 + 4,921.9 + 4,312 + 4,921.9 + 4,312 + 4,921.9 + 4,312 + 4,921.9 + 4,312 + 4,921.9 + 4,312 + 4,921.9 + 4,312 + 4,921.9 + 4,312 + 4,921.9 + 4,312 + 4,921.9 + 4,312 + 4,921.9 + 4,312 + 4,921.9 + 4,312 + 4,921.9 + 4,312 + 4,921.9 + 4,312 + 4,921.9 + 4,312 + 4,921.9 + 4,312 + 4,921.9 $	
Quoted, unquoted shares and other equity 2,802.2 3,208.3 3,632.0 3,854.0 3,674.0 3,572.2 3,14	
Mutual fund shares 1,165.6 1,337.7 1,418.0 1,423.9 1,383.4 1,349.7 1,17	
Life insurance and pension fund reserves 3,850.1 4,248.6 4,588.9 4,748.2 4,793.1 4,843.2 4,83	
Remaining net assets (+) 112.1 67.0 18.9 9.8 5.6 -14.1 -4	
Liabilities (-)	
Loans 4,287.4 4,693.7 5,095.1 5,262.1 5,333.7 5,415.8 5,45	.3 5,512.1
of which from euro area MFIs 3,812.5 4,210.4 4,559.5 4,708.9 4,769.8 4,827.8 4,86	.3 4,889.7
<b>= Net financial wealth</b> 10,038.9 10,813.7 11,576.2 11,966.3 11,763.6 11,773.8 11,22	

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; c

	1	1		2005 02	2006 04	2007-01	2007.02	2007-02
	2004	2005	2006	2006 Q3- 2007 Q2	2006 Q4- 2007 Q3	2007 Q1- 2007 Q4	2007 Q2- 2008 Q1	2007 Q3- 2008 Q2
Income and saving								
Gross value added (basic prices) (+)	3,990.1	4,128.9	4,318.5	4,440.4	4,499.5	4,554.8	4,598.8	4,641.2
Compensation of employees (-)	2,388.1	2,459.7	2,569.3	2,630.5	2,659.3	2,693.3	2,727.9	2,759.7
Other taxes less subsidies on production (-)	65.6	72.8	75.1	79.2	79.9	80.7	80.8	80.0
= Gross operating surplus (+)	1,536.4	1,596.4	1,674.1	1,730.7	1,760.3	1,780.8	1,790.1	1,801.6
Consumption of fixed capital (-)	636.9	667.3	698.0	718.3	726.9	735.6	742.1	748.6
= Net operating surplus (+)	899.5	929.1	976.2	1,012.5	1,033.4	1,045.2	1,048.0	1,053.0
Property income receivable (+)	373.1	436.4	499.1	541.1	557.3	572.2	581.0	587.6
Interest receivable	125.1	136.1	158.3	170.1	177.5	184.6	189.9	195.0
Other property income receivable	248.0	300.4	340.9	371.0	379.8	387.6	391.0	392.5
Interest and rents payable (-)	226.3	236.4	278.5	303.7	317.3	331.4	344.9	357.0
= Net entrepreneurial income (+)	1,046.3	1,129.2	1,196.8	1,249.8	1,273.4	1,286.0	1,284.1	1,283.5
Distributed income (-)	744.0	843.4 148.6	904.1 187.5	937.2 198.1	952.1	963.2 208.7	972.5 209.6	988.5 206.9
Taxes on income and wealth payable (-)	135.4 73.5	72.7	77.1	72.0	205.0 68.9	66.8	209.0	66.2
Social contributions receivable (+)	73.5 60.4	60.6	62.5	63.4	68.9 64.0	64.5	63.8 64.5	64.4
Social benefits payable (-)	59.9	61.5	64.3	58.8	55.9	54.9	54.8	56.7
Other net transfers (-) = Net saving	120.1	87.8	55.5	58.8 64.4	65.2	61.5	48.5	33.1
= Net saving Investment, financing and saving	120.1	07.0	33.3	04.4	03.2	01.5	46.3	55.1
Net acquisition of non-financial assets (+)	218.1	245.0	289.6	310.7	321.0	341.9	352.8	364.5
Gross fixed capital formation (+)	218.1 847.9	243.0 903.6	289.0 971.6	1,016.7	1,034.3	1,055.4	332.8 1,069.0	1,081.4
Consumption of fixed capital (-)	636.9	667.3	698.0	718.3	726.9	735.6	742.1	748.6
Net acquisition of other non-financial assets (+)	7.1	8.6	15.9	12.3	13.6	22.1	25.9	31.8
Main items of financial investment (+)	7.1	0.0	15.7	12.5	15.0	22.1	25.5	51.0
Short-term assets	103.3	127.6	154.5	200.7	171.8	168.6	157.7	120.1
Currency and deposits	88.9	112.9	144.5	163.4	157.6	148.3	116.3	110.8
Money market fund shares	16.5	8.6	3.7	23.5	-9.2	-18.8	-7.5	-9.0
Debt securities <sup>1)</sup>	-2.1	6.1	6.3	13.8	23.4	39.2	48.9	18.3
Long-term assets	197.7	380.1	410.2	434.8	476.1	468.7	475.6	443.9
Deposits	0.8	25.2	26.6	40.3	30.3	26.0	3.2	-19.1
Debt securities	-52.3	-32.6	-22.5	-45.7	-58.8	-74.1	-88.7	-115.9
Shares and other equity	190.1	244.6	231.0	244.8	289.1	323.4	367.7	383.9
Other, mainly intercompany loans	59.1	142.8	175.1	195.4	215.5	193.5	193.3	195.0
Remaining net assets (+)	70.8	88.1	201.8	180.2	199.3	160.1	105.4	30.8
Main items of financing (-)								
Debt	202.2	433.2	701.8	731.4	757.1	766.6	766.6	685.6
of which loans from euro area MFIs	164.8	264.5	449.8	484.2	522.4	559.5	593.3	563.3
of which debt securities	7.7	10.7	37.5	48.5	28.7	34.7	36.1	11.1
Shares and other equity	201.8	260.6	230.2	256.7	271.6	247.8	210.0	173.1
Quoted shares	11.6	101.3	38.6	68.5	82.5	42.3	21.8	-12.6
Unquoted shares and other equity	190.2	159.2	191.6	188.2	189.0	205.5	188.2	185.7
Net capital transfers receivable (-)	65.7	59.3	68.6	71.7	72.0	64.3	67.1	71.0
= Net saving	120.1	87.8	55.5	64.4	65.2	61.5	48.5	33.1
Financial balance sheet								
Financial assets	1.276.0	1.506.4	1 (54.0	1 7 40 0	1 754 5	1 000 0	1 0 2 0 2	1.051.6
Short-term assets	1,376.8	1,506.4	1,654.2	1,740.2	1,754.5	1,823.9	1,838.2	1,851.6
Currency and deposits	1,102.6	1,220.7	1,356.8	1,405.0	1,429.0	1,499.7	1,478.9	1,513.1
Money market fund shares Debt securities <sup>1)</sup>	163.7	176.3	185.9	205.2	185.8	162.3	186.9	185.7
	110.5	109.5	111.5	130.0 10,570.6	139.8	161.9	172.3	152.7
Long-term assets Deposits	7,563.9 154.0	8,586.4 196.6	9,842.1 227.7	284.5	10,464.0 276.2	10,564.9 274.1	9,908.9 268.1	9,701.9 258.1
Debt securities	322.8	279.1	270.6	284.5	197.8	196.0	181.4	153.1
Shares and other equity	5,389.6	6,266.3	7,319.0	7,900.9	7,798.5	7,855.0	7,184.3	6,961.9
Other, mainly intercompany loans	1,697.5	1,844.3	2,024.8	2,144.7	2,191.4	2,239.8	2,275.0	2,328.7
Remaining net assets	298.8	374.3	473.1	543.5	538.1	571.3	586.6	519.9
Liabilities	290.0	574.3	+/3.1	5-5.5	550.1	5/1.5	500.0	519.9
Debt	6,547.0	7,030.7	7,732.9	8,170.8	8,298.4	8,488.8	8,655.1	8,828.6
of which loans from euro area MFIs	3,160.8	3,433.0	3,872.5	4,122.6	4,247.9	4,407.4	4,547.6	4,671.0
of which debt securities	651.5	671.3	688.9	725.7	709.8	714.9	720.5	723.4
Shares and other equity	9,580.4	10,924.1	12,720.3	13,810.3	13,626.5	13,640.3	12,267.3	11,855.0
Quoted shares	2,992.7	3,689.3	4,464.6	5,040.7	4,960.8	4,981.0	4,197.8	3,969.9
Unquoted shares and other equity	6,587.7	7,234.8	8,255.7	8,769.5	8,665.8	8,659.3	8,069.5	7,885.0
Sources: ECB and Eurostat.					,		,	

Sources, ECB and Eurostat.
 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 Q3- 2007 Q2	2006 Q4- 2007 Q3	2007 Q1- 2007 Q4	2007 Q2- 2008 Q1	2007 Q3- 2008 Q2
Financial account, financial transactions				I		I		
Main items of financial investment (+)								
Short-term assets	40.1	26.1	50.9	54.0	47.1	41.4	61.5	73.4
Currency and deposits	13.2	7.2	12.4	2.4	8.9	7.8	32.5	34.1
Money market fund shares	2.7	0.4	3.7	3.6	0.3	0.0	10.6	8.9
Debt securities <sup>1)</sup>	24.2	18.5	34.8	48.0	37.9	33.6	18.4	30.3
Long-term assets	222.1	293.9	326.2	286.0	267.9	241.1	232.4	189.2
Deposits	36.7	16.5	76.6	66.6	66.6	52.8	29.7	16.8
Debt securities	131.9	132.4	132.5	154.1	153.6	131.3	110.2	94.0
Loans	7.4	-4.0	1.5	-16.2	-21.7	-17.5	16.6	16.7
Quoted shares	12.7	32.5	2.4	5.3	3.4	-1.4	2.9	1.1
Unquoted shares and other equity	2.6	30.2	29.3	20.2	23.8	23.6	42.7	38.9
Mutual fund shares	30.8	86.3	83.8	55.9	42.2	52.2	30.3	21.7
Remaining net assets (+)	10.4	11.8	21.2	28.4	31.3	1.7	-3.1	-0.4
Main items of financing (-)								
Debt securities	-1.7	-0.4	5.2	3.9	3.0	1.1	1.0	2.0
Loans	4.6	17.4	40.3	27.8	22.2	7.2	31.7	17.8
Shares and other equity	12.3	13.9	10.7	12.8	9.2	1.5	1.7	4.2
Insurance technical reserves	262.6	334.3	332.4	337.0	324.5	304.7	286.8	272.8
Net equity of households in life insurance and pension fund reserves	231.0	292.1	282.7	280.3	277.2	267.0	255.5	241.1
Prepayments of insurance premiums and reserves for								
outstanding claims	31.6	42.2	49.7	56.7	47.3	37.6	31.2	31.7
= Changes in net financial worth due to transactions	-5.1	-33.4	9.6	-13.0	-12.7	-30.3	-30.3	-34.6
Other changes account								
Other changes in financial assets (+)								
Shares and other equity	111.0	182.1	177.3	237.9	124.9	-2.8	-186.4	-321.1
Other net assets	142.0	70.8	-34.6	-78.8	-101.2	-50.2	0.2	-5.6
Other changes in liabilities (-)								
Shares and other equity	21.2	118.3	47.2	98.5	14.8	-20.9	-91.9	-153.1
Insurance technical reserves	83.7	137.9	52.7	62.6	24.7	15.2	-58.3	-135.3
Net equity of households in life insurance and pension fund reserves	63.9	147.0	56.0	61.7	25.0	1.3	-70.9	-147.1
Prepayments of insurance premiums and reserves for								
outstanding claims	19.8	-9.1	-3.3	0.8	-0.3	13.9	12.6	11.9
= Other changes in net financial worth	148.0	-3.2	42.7	-2.0	-15.8	-47.3	-36.0	-38.2
Financial balance sheet								
Financial assets (+)	401.7	122.5	40.4.4	511.5	<b>515 7</b>	501.1	5(2.0	500.0
Short-term assets	401.7	432.5	484.4	511.5	515.7	521.1	562.8	580.2
Currency and deposits	133.6	142.7	154.6	144.4	154.0	163.2	190.9	179.9
Money market fund shares	72.2	74.3	80.4	84.2	81.0	78.2	88.0	87.4
Debt securities <sup>1)</sup>	195.8	215.5 4.611.7	249.4	282.9	280.7	279.8	283.9	312.8
Long-term assets	4,097.8	4,611.7	5,051.3 598.0	5,232.0	5,256.8	5,240.5 647.8	5,157.5 646.4	5,083.8 650.4
Deposits	500.6			637.2	647.0	047.8 1.939.5		
Debt securities	1,617.1	1,776.4	1,851.2	1,892.4	1,931.8	,	1,973.2	1,966.2
Loans Overted shares	348.2	353.2	350.3	335.0	332.7	327.7	354.3	353.2
Quoted shares	590.3	649.6	729.4	775.5	766.3	735.0	663.7	612.6
Unquoted shares and other equity	350.3	403.3	474.6	493.7	484.3	497.4	479.0 1.040.8	466.0
Mutual fund shares	691.3	908.5	1,047.7	1,098.3	1,094.8	1,093.1	240.1	1,035.4
Remaining net assets (+)	138.2	178.5	223.5	211.1	220.8	224.7	240.1	223.1
Liabilities (-)	22.2	21.2	267	26.5	26.1	27.1	26.1	26.6
Debt securities Loans	22.3	21.3	26.7	26.5	26.1	27.1	26.1	26.6
Loans Shares and other equity	118.0 497.7	136.2 629.9	171.8	190.9 731.3	195.1	175.9 668.3	209.6	207.4 582.3
1 5	4,106.9	629.9 4,579.2	687.8 4,964.3		697.6 5 216 3		613.9 5,289.8	5,296.1
Insurance technical reserves				5,158.5	5,216.3	5,284.2		
Net equity of households in life insurance and pension fund reserves Prepayments of insurance premiums and reserves	3,474.5	3,913.5	4,252.3	4,419.8	4,471.8	4,520.7	4,515.2	4,513.8
								700.0
for outstanding claims = Net financial wealth	632.5 -107.1	665.6 -143.8	712.0 -91.5	738.7 -152.5	744.5	763.5 -169.2	774.6 -179.1	782.2 -225.4

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; )

		Fotal in euro <sup>1)</sup>		By euro area residents								
		i otar in curo			In euro				In all cu	rrencies		
	Outstanding amounts	Gross issues	Net issues	Outstanding amounts	Gross issues	Net issues	Outstanding amounts		Net issues	Annual growth rates	Seasonally a	djusted <sup>2)</sup>
										8	Net issues g	6-month
	1	2	3	4	5	6	7	8	9	10	11	12
						Total						
2007 Oct.	12,778.2	1,351.6	109.2	10,711.4	1,280.1	130.3	12,039.1	1,349.3	147.8	9.1	116.8	9.0
Nov.	12,867.6	1,177.0	87.6	10,783.0	1,108.7	69.7	12,084.6	1,161.0	64.6	8.6	52.0	7.5
Dec.	12,892.4	1,040.8	27.8	10,779.0	959.2	-1.0	12,064.7	1,002.3	-18.4	9.0	94.1	8.1
2008 Jan.	12,925.5	1,200.1	37.0	10,832.8	1,130.5	57.8	12,132.2	1,196.2	67.4	8.5	28.6	7.5
Feb.	13,006.4	1,025.8	82.1	10,903.8	967.2	72.2	12,188.3	1,035.4	75.4	8.0	44.8	6.9
Mar.	13,112.5	1,072.1	105.1	10,951.0	967.7	46.0	12,209.1	1,023.2	43.8	7.0	20.1	6.1
Apr.	13,162.9	1,159.2	50.5	11,016.7	1,067.6	65.8	12,288.0	1,132.3	77.8	7.0	58.7	5.0 5.8
May	13,341.3 13,478.1	1,125.0 1,154.4	178.4 135.1	11,155.7 11,231.3	1,035.2 1.039.1	138.9 74.1	12,450.7 12,522.6	1,109.1 1,111.4	153.8 80.4	6.7	98.7 87.1	5.8 5.7
June July	13,478.1	1,136.6	133.1	11,289.5	1,039.1	56.3	12,522.0	1,111.4	80.4 75.8	6.8 7.1	98.0	6.8
Aug.	13,491.0	878.2	124.0	11,289.5	813.8	106.4	12,730.6	887.8	112.9	7.1	164.0	8.8
Sep.	13,620.4	1,019.1	1.1	11,366.4	927.8	-33.8	12,689.9	999.2	-42.9	7.0	-14.0	8.2
Oct.	15,020.1			11,515.0	1,414.1	148.3	12,887.3	1,492.9	145.0	7.0	103.1	8.9
						Long-term						
2007 Oct.	11,501.0	238.1	78.8	9,567.1	201.9	66.0	10,702.1	226.4	73.2	7.7	70.3	6.6
Nov.	11,582.1	176.0	79.5	9,627.9	142.4	59.1	10,744.9	157.4	56.1	7.1	38.8	5.3
Dec.	11,637.6	198.9	56.1	9,674.7	164.8	47.4	10,778.8	176.1	36.2	7.3	71.8	5.6
2008 Jan.	11.635.9	194.9	1.6	9,666.9	166.6	-4.5	10.775.2	190.4	0.8	6.7	15.4	5.1
Feb.	11,681.5	182.4	46.5	9,714.7	163.1	48.7	10,812.6	187.5	51.0	6.1	28.6	4.7
Mar.	11,717.4	179.9	35.1	9,740.2	145.1	24.5	10,814.4	160.2	21.4	5.3	11.8	4.5
Apr.	11,804.0	258.4	86.7	9,803.1	207.2	63.0	10,887.5	225.0	68.3	5.5	64.0	4.4
May	11,957.2	290.4	153.4	9,916.5	234.6	113.6	11,011.5	257.1	122.8	5.1	69.1	4.9
June	12,071.2	283.3	114.3	10,003.9	229.8	87.7	11,098.3	252.9	95.0	5.2	68.0	4.8
July	12,097.9	206.8	25.0	10,036.1	176.9	30.3	11,137.7	195.2	36.0	5.4	60.9	5.7
Aug.	12,188.0 12,176.8	158.0 181.7	88.1 -10.4	10,115.2 10,093.4	132.0 144.1	77.2 -21.0	11,238.0 11,221.7	147.7 157.3	79.0 -31.2	6.2 5.7	134.9 -17.1	7.7 7.1
Sep. Oct.	12,170.8	101.7	-10.4	10,093.4	144.1	-21.0	11,221.7	193.9	-31.2	5.3	-17.1 22.6	6.3
	1			· · ·			,					

C15 Total outstanding amounts and gross issues of securities, other than shares, issued by euro area residents

total gross issues (right-hand scale) . . . . total outstanding amounts (left-hand scale) outstanding amounts in euro (left-hand scale) with My AMY T 

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

Total         Mrtls (unsolution)         Nor-MI corporations Financial Nor-financial other that (unsolution)         Central (unsolution)         Other (unsolution)         Total         Mrtls (unsolution)         Central (unsolution)         Other (unsolution)         Other (unsolution)         Mrtls (unsolution)         Central (unsolution)         Other (unsolution)         Other (unsolut				Outstandi	ng amounts					Gross i	ssues 1)		
		Total		Non-MFI co	orporations	General go	vernment	Total		Non-MFI co	orporations	General go	overnment
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$				corporations other than			general			corporations other than			general
		1	2		4	5		7	8		10	11	12
$      \frac{1007}{10} (J) = 12065 5.053 1.503 662 4.520 327 1.171 888 81 94 94 92 16 6 (J) = 1205 1.525 3.523 1.625 680 4.663 320 1.118 786 69 9102 140 20 (J) = 12523 3.235 1.625 680 4.663 320 1.118 786 69 9102 140 20 (J) = 1206 3.273 1.694 688 4.711 324 1.015 690 54 97 147 27 (J) = 1208 1.173 19 1.694 688 4.710 323 8.99 385 384 1.18 18 18 12 4.1 013 164 36 (J) = 12139 5.314 1.1732 694 4.101 323 8.99 385 384 6.1 11 224 2.25 0.11 11 224 2.25 0.11 11 224 2.25 0.11 11 224 2.25 0.11 11 224 2.25 0.11 1228 7.514 1.1733 2.9 0.94 4.18 330 1.499 1.920 94 110 242 25 0.01 124 12.887 786 35 0.10 1345 18 946 754 11 8 10 64 9 0.00 0.01 128 786 35 0.10 1345 18 946 65 2.1 92 77 11 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0$							313						
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $								,					
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	2008 Q1	12,003	5,095	1,519	666	4,612	317	1,085	786	38	92	150	19
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		12,523 12,690											20 27
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		12,599 12,731	5,284 5,319	1,641 1,694			322 325						
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Sep.	12,690	5,273	1,694	688	4,711	324	999	673	36	100	164	26
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		12,007	5,514	1,752	074	4,010		1,495	1,020				
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	2006 2007	1,014 1,286	573 786	29 36	79 101	322 345	12 18						4 9
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		1,286		36						23	86	55	12
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Q2	1,424	832	51	114	415	11	873	665	21	92	77	17
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		1,461				429					98		30
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$				64									18 23
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Oct.		825				17	1,299	933		105	189	18
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2006	10.090	3.997	1.164	539	4.089	0	181	84	31	8	54	5
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2007	10,779	4,267	1,468	561	4,174	309	191	86	41	8	52	3
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	2008 Q1	10,814	4,278	1,471	554	4,205	306	179	86	17	4	67	5
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Q2 Q3	11,098 11,222	4,403 4,449	1,574 1,632		4,247 4,255					5		3
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		11,138 11,238	4,438 4 459	1,583 1,630	566 570	4,239 4,266	311 313			21 51	53	71 26	6
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	Sep.	11,222	4,449	1,632	576	4,255	311	157	71	15	5	63	37
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		11,511	1,105	1,000	500	,				10	,	55	,
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$													
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		7,324	2,272	588	425	3,788	250		43		6	33	3
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Q2	7,470	2,357	599	430	3,836	248	145	66	11	9	56	2
$\begin{array}{c c c c c c c c c c c c c c c c c c c $						,					3		
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Aug.	7,518	2,386		432	3,844	251	66	32 42		2		1
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Oct.	7,564	2,405		441	3,853	249	96	39		6	47	3
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2006	2.611	1.512	609	113				34	19	3	4	1
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2007	2,999	1,617	862	124	338	58	69	31	30		4	0
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	2008 Q1	3,040	1,629	868	126	357	60	53	32	12	1	7	2
Aug.         3,251         1,696         998         129         366         62         73         27         41         1         3         1           Sep.         3,220         1,691         992         130         345         61         29         19         5         2         4         1	Q2 Q3			949 992		360 345		88 52	46 24				
Sep. 3,220 1,691 992 130 345 61 29 19 5 2 4 1								53 73	26 27		2		2
		3,220 3,276						29 86		5 37			

Source: ECB.
Monthly averages of/monthly data for the transactions during this period.
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)

			Non-seasona	lly adjusted 1)					Seasonally	adjusted 1)		
	Total	MFIs (including	Non-MFI co	orporations	General go	overnment	Total	MFIs (including	Non-MFI co	orporations	General go	overnment
		Eurosystem)	Financial corporations other than MFIs	Non-financial corporations	Central government	Other general government		Eurosystem)	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	67.7	35.3	20.9	2.1	7.0	2.3	67.6	35.7	20.5	2.1	7.1	2.3
2007	83.4	40.6	27.7	4.2	9.7	1.2	83.9	41.1	27.2	4.3	10.1	1.2
2007 Q4	64.7	32.1	48.6	3.4	-22.8	3.5	87.6	42.7	32.1	5.0	4.9	2.9
2008 Q1	62.2	23.3	7.3	2.6	32.1	-3.1	31.2	4.1	16.9	2.0	11.5	-3.4
Q2	104.0	46.1	35.3	4.8	16.9	0.9	81.5	48.0	31.2	0.6	1.1	0.6
Q3	48.6	11.9	20.1	1.5	14.0	1.2	82.7	19.8	33.4	4.8	22.2	2.4
2008 July	75.8	49.0	15.6	3.2	5.3	2.7	98.0	47.5	17.3	3.0	26.7	3.5
Aug.	112.9	26.0	48.5	0.9	35.4	2.1	164.0	40.1	67.1	5.8	47.2	3.8
Sep.	-42.9	-39.2	-3.8	0.4	1.2	-1.3	-14.0	-28.1	15.8	5.5	-7.1	0.0
Oct.	145.0	15.5	26.4	0.1	97.5	5.6	103.1	-21.2	11.5	-5.2	113.5	4.5
001.	145.0	15.5	20.4	0.1	91.5	Long-term	105.1	-21.2	11.5	-3.2	115.5	4.5
2006	63.4	29.1	20.1	2.1	10.1	1.9	63.3	29.3	19.8	2.1	10.2	1.9
2007	61.6	23.8	27.1	2.3	7.7	0.7	61.2	24.0	26.7	2.3	7.7	0.7
2007 Q4	55.2	9.7	45.2	2.3	-3.7	1.6	60.3	17.7	29.2	1.8	10.7	0.8
2008 Q1	24.4	11.5	3.2	-1.0	11.4	-0.7	18.6	2.4	12.6	1.5	2.9	-0.8
Q2	95.4	42.4	34.1	4.0	14.0	0.9	67.0	36.0	30.1	0.4	-0.2	0.7
Q3	27.9	8.1	16.7	2.2	0.6	0.5	59.5	15.9	29.3	3.8	9.0	1.6
2008 July	36.0	32.5	8.9	0.6	-8.2	2.3	60.9	33.0	10.0	0.5	13.7	3.7
Aug.	79.0	9.3	42.7	1.9	23.1	2.0	134.9	27.2	62.6	4.7	36.9	3.5
Sep.	-31.2	-17.6	-1.6	4.1	-13.1	-3.0	-17.1	-12.5	15.2	6.2	-23.6	-2.4
Oct.	30.5	4.1	24.5	-1.8	2.0	1.8	22.6	-3.4	7.1	-3.6	21.7	0.8

# 2. Net issues

**CI6** Net issues of securities, other than shares, seasonally adjusted and non-seasonally adjusted (EUR billions; transactions during the month; nominal values)



# Source: ECB.

1) Monthly averages of/monthly data for the transactions during this period.



	Annual growth rates (non-seasonally adjusted)							6-mon	th seasonally a	djusted growt	h rates	
	Total	MFIs (including	Non-MFI co	•	General go		Total	MFIs (including	Non-MFI co	•	General go	
		Eurosystem)	Financial corporations other than MFIs	Non-financial corporations	Central government	Other general government		Eurosystem)		Non-financial corporations	Central government	Other general government
	1	2	3	4	5	6 Total	7	8	9	10	11	12
2007.0	0.1	11.0	26.0				0.0	10.4	25.0			
2007 Oct. Nov.	9.1 8.6	11.0 10.5	26.8 25.6	8.1 7.9	2.9 2.6	6.0 4.7	9.0 7.5	10.4 9.3	25.8 22.4	7.5 7.6	3.4 1.7	4.0 4.7
Dec.	9.0	10.5	25.0	8.1	2.6	4.6	8.1	10.5	26.0	3.9	1.2	9.9
2008 Jan.	8.5	10.0	26.9	9.2	2.2	3.0	7.5	9.9	23.9	4.2	1.0	4.3
Feb.	8.0	8.7	23.9	8.9	3.0	2.1	6.9	7.6	21.8	7.2	2.3	0.4
Mar.	7.0	7.7	20.3	7.2	2.8	1.1	6.1	5.7	22.4	6.6	2.2	-1.0
Apr.	7.0	7.3	22.4	6.0	3.0	0.3	5.0	4.1	19.0	4.3	2.5	-3.3
May	6.7 6.8	7.9 8.3	21.3 23.2	6.0 3.2	1.7 1.4	1.9 2.1	5.8 5.7	6.3 6.3	20.0 20.6	4.3 2.4	1.7 1.7	-0.9 -5.2
June July	7.1	8.5	23.2	2.6	2.1	3.3	6.8	7.4	20.0	0.9	3.1	2.2
Aug.	7.8	8.3	24.7	4.8	3.0	3.4	8.8	9.2	27.5	2.5	3.7	6.6
Sep.	7.1	6.9	24.6	5.6	2.6	2.3	8.2	8.1	27.1	4.9	3.1	5.8
Oct.	7.0	5.4	21.7	3.9	4.9	2.8	8.9	6.5	24.5	3.4	7.4	9.5
						Long-term						
2007 Oct.	7.7	8.9	26.7	5.6	2.0	4.6	6.6	5.7	24.9	4.7	2.7	2.8
Nov.	7.1	7.7	25.5	6.0	1.9	3.1	5.3	4.6	21.3	5.3	1.4	3.2
Dec.	7.3	7.1	28.1	5.2	2.3	2.7	5.6	4.2	24.8	1.7	2.0	4.1
2008 Jan.	6.7	6.6	26.6	5.9	1.6	2.2	5.1	4.1	22.7	3.6	1.0	3.1
Feb. Mar.	6.1 5.3	5.3 4.3	22.7 19.1	5.8 4.4	2.3 2.4	1.9 0.9	4.7 4.5	2.9 2.9	18.9 19.3	4.3 3.6	2.3 2.0	0.9 0.0
Apr.	5.5 5.5	4.3	21.2	4.4	2.4	0.9	4.5	2.9	19.3	3.0 4.1	2.0	-1.9
May	5.1	4.5	20.0	4.8	1.4	1.8	4.9	4.5	18.5	4.2	1.4	0.5
June	5.2	4.9	21.6	1.9	1.2	1.9	4.8	5.5	18.6	2.0	0.4	-0.1
July	5.4	5.2	20.1	1.9	1.5	3.1	5.7	6.2	17.6	0.2	2.1	3.0
Aug.	6.2	5.3	22.4	2.8	2.4	3.5	7.7	7.8	26.1	1.3	2.5	6.2
Sep. Oct.	5.7 5.3	5.1 4.4	22.3 19.9	4.0 3.2	1.6 2.0	2.2 1.4	7.1 6.3	7.4 6.1	25.6 22.2	4.5 2.3	1.3 1.8	4.6 5.0
001.	5.5	4.4	19.9	5.2	2.0	1.4	0.5	0.1	22.2	2.3	1.0	5.0

C17 Annual growth rates of long-term debt securities, by sector of the issuer, in all currencies combined





Source: ECB.

1) For the calculation of the growth rates, see the Technical notes. The 6-month growth rates have been annualised.



(perc	centage chai	iges)										
			Long-tern	n fixed rate					Long-term v	variable rate		
_	Total	MFIs (including	Non-MFI co	orporations	General go	overnment	Total	MFIs (including	Non-MFI co	orporations	General go	overnment
		Eurosystem)	Financial corporations other than MFIs	Non-financial corporations	Central government	Other general government		Eurosystem)	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 cor	nbined					
2006 2007	4.5 5.1	4.7 7.1	14.1 17.4	0.1 3.7	3.2	13.5	16.2 15.8	11.9 11.1	40.2 37.7	24.7 17.8	5.0 3.8	4.3
					2.4	6.6						-1.8
2007 Q4	4.5	6.7	13.1	4.7	1.8	6.3	15.0	9.1	38.5	13.8	4.8	-6.5
2008 Q1	3.3 2.6	5.3 4.3	8.4 5.2	4.4 3.7	1.3 1.3	3.3 1.4	14.1 12.0	6.0 5.0	37.3 32.2	12.2 8.1	11.4 7.6	-3.2 0.4
Q2 Q3	3.1	5.6	5.1	3.1	1.5	2.0	12.0	5.3	33.4	2.9	6.3	6.0
2008 May	2.6	4.7	4.6	4.7	1.0	1.7	12.1	5.4	31.5	8.0	6.9	2.0
June	2.8	5.3	6.2	2.3	0.9	1.9	11.8	4.9	32.8	2.3	5.4	1.6
July	3.0	5.7	4.8	2.5	1.2	2.1	11.7	5.1	30.9	2.0	5.7	6.6
Aug.	3.3	5.6	4.4	3.3	1.9	2.4	13.7	5.7	35.6	3.4	9.3	7.0
Sep. Oct.	3.1 2.8	5.6 4.6	5.8 3.7	4.7 3.3	1.1 1.7	0.8 -0.7	12.3 11.8	5.0 5.2	34.5 31.1	4.0 4.9	2.6 1.6	7.4 9.2
	2.0	4.0	5.7	5.5	1.7	In euro	11.0	5.2	51.1	4.9	1.0	9.2
2007	2.0	2.1	11.5	0.7	2.2		15.0	10.0	26.0	2( 0	5.0	2.5
2006 2007	3.8 4.5	3.1 6.4	11.5 14.1	-0.7 2.0	3.2 2.7	13.7 6.7	15.0 15.1	10.2 10.3	36.8 35.4	26.9 17.6	5.2 3.9	3.5 -2.4
2007 O4	4.0	6.2	10.9	3.1	2.1	6.6	14.8	8.8	36.9	12.4	4.9	-7.1
2008 Q1	2.9	4.9	7.1	2.9	1.5	3.5	14.7	5.9	37.6	11.3	11.7	-4.0
Q2	2.4	3.9	4.6	1.6	1.5	1.4	13.2	5.6	33.4	7.8	8.0	-1.2
Q3	3.0	5.4	6.1	0.8	1.6	1.8	14.3	6.7	35.3	3.5	6.7	4.6
2008 May	2.3	4.3	4.1	2.8	1.1	1.7	13.4	6.4	32.6	7.8	7.2	0.5
June	2.5	5.0	6.6	-0.2	1.1	2.0	13.4	6.3	33.8	2.7	5.8	0.1
July	2.8 3.3	5.5 5.4	5.3 6.1	0.2 0.8	1.5 2.2	2.0 2.1	13.4 15.7	6.5 7.1	32.8 37.8	2.5 4.1	6.1 9.8	5.2 5.6
Aug. Sep.	3.3 3.0	5.6	7.6	0.8	1.4	2.1	15.7	6.8	37.8 36.8	4.1	9.8 2.9	5.0 6.3
Oct.	2.8	4.7	5.8	1.2	1.4	-1.2	13.8	6.9	33.7	5.7	1.8	8.2
	2.0		510		10		1010	015	0017	517	110	0.2

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

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>

## 1. Outstanding amounts and annual growth rates

(outstanding amounts as end-of-period)

	Total		MI	Is	Financial corporations	s 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 Oct.	5,917.6	103.0	1.0	1,024.6	2.0	623.9	0.9	4,269.1	0.8
Nov.	5,972.2	103.1	0.8	1,031.8	2.0	613.7	0.8	4,326.8	0.6
Dec.	6,190.9	103.2	0.9	1,063.9	2.4	633.3	0.7	4,493.7	0.5
2007 Jan.	6,369.9	103.3	0.9	1,123.5	2.4	646.3	0.7	4,600.2	0.6
Feb.	6,283.9	103.4	1.0	1,092.8	2.8	637.9	0.9	4,553.2	0.6
Mar.	6,510.1	103.5	1.0	1,111.4	2.2	649.3	0.9	4,749.4	0.7
Apr.	6,760.5	103.7	1.1	1,168.6	2.2	675.6	0.9	4,916.3	0.8
May	7,040.4	103.7	1.1	1,174.5	2.1	688.9	0.9	5,177.0	0.8
June	6,961.9	104.0	1.3	1,128.7	2.1	677.2	1.0	5,156.0	1.1
July	6,731.4	104.2	1.3	1,099.8	1.7	608.9	1.0	5,022.6	1.2
Aug.	6,618.1	104.1	1.2	1,060.2	1.6	583.8	1.0	4,974.0	1.2
Sep.	6,682.0	104.2	1.2	1,048.8	1.9	597.3	0.7	5,035.9	1.1
Oct.	6,936.7	104.5	1.4	1,072.8	1.3	629.3	3.3	5,234.7	1.2
Nov.	6,622.4	104.5	1.4	1,032.7	1.1	579.2	3.2	5,010.5	1.2
Dec.	6,579.3	104.5	1.4	1,017.2	1.1	579.0	2.9	4,983.1	1.2
2008 Jan. Feb. Mar. Apr. June July Aug. Sep. Oct.	5,756.8 5,811.0 5,557.5 5,738.4 5,719.1 5,070.6 4,962.2 4,988.9 4,419.8 3,734.3	$104.6 \\ 104.7 \\ 104.7 \\ 104.6 \\ 104.7 \\ 104.8 \\ 104.8 \\ 104.9 \\ 105.2$	$1.3 \\ 1.2 \\ 1.2 \\ 0.9 \\ 0.6 \\ 0.6 \\ 0.7 $	887.9 858.2 858.5 858.5 835.2 768.9 663.2 689.5 663.5 610.1 450.0	0.8 0.5 1.1 1.3 1.8 1.8 2.8 2.8 2.8 3.7 4.2	497.4 492.4 501.3 519.4 497.1 435.8 428.2 438.4 382.2 280.3	2.7 2.6 2.4 2.3 2.4 2.4 2.5 2.6 2.6 2.6 2.8	4,371.5 4,460.5 4,197.6 4,383.7 4,453.1 3,971.6 3,844.5 3,886.9 3,427.5 3,004.0	$\begin{array}{c} 1.2\\ 1.2\\ 1.0\\ 0.7\\ 0.6\\ 0.1\\ 0.0\\ 0.1\\ 0.0\\ -0.1\end{array}$

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 Gross issues Redemptions Net issue				MFIs	Financial corporations other than			er than MFIs			
	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 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	0.4	0.4	0.0	3.0	1.6	1.4
Dec.	8.9	3.8	5.1	0.9	0.3	0.6	0.5	0.0	0.5	7.5	3.4	4.0
2007 Jan.	11.3	3.9	7.4	4.0	0.1	3.8	0.4	0.0	0.4	6.9	3.8	3.2
Feb.	8.5	2.0	6.5	5.0	0.0	5.0	0.9	0.0	0.9	2.7	2.0	0.6
Mar.	3.1	1.7	1.4	0.2	0.0	0.2	0.6	0.3	0.2	2.3	1.4	0.9
Apr.	13.8	0.4	13.4	0.1	0.3	-0.2	0.3	0.0	0.3	13.4	0.2	13.2
May	7.0	1.9	5.2	0.1	0.0	0.1	0.8	0.0	0.8	6.1	1.9	4.2
June	21.9	1.6	20.4	1.1	0.0	1.1	0.7	0.0	0.7	20.2	1.6	18.6
July	13.1	1.8	11.3	1.2	0.0	1.2	1.3	0.3	1.0	10.7	1.5	9.1
Aug.	2.4	6.6	-4.2	0.0	0.1	-0.1	1.0	1.4	-0.5	1.4	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	-0.6
Oct.	27.1	8.0	19.1	0.2	3.2	-3.0	16.1	0.5	15.5	10.8	4.3	6.5
Nov.	6.8	3.3	3.5	0.9	0.0	0.9	1.0	1.3	-0.3	4.9	2.0	2.9
Dec.	9.4	4.6	4.8	0.9	0.0	0.9	0.7	2.2	-1.5	7.9	2.5	5.4
2008 Jan.	3.6	1.4	2.2	0.1	0.0	0.1	0.4	0.7	-0.3	3.0	0.7	2.3
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.	6.3	5.8	0.4	5.9	0.0	5.9	0.0	0.5	-0.4	0.4	5.4	-5.0
Apr.	2.0	3.0	-1.0	1.1	0.0	1.1	0.1	0.5	-0.3	0.8	2.5	-1.7
May	7.3	5.9	1.4	4.1	0.1	4.1	1.5	0.3	1.2	1.7	5.6	-3.9
June	3.9	4.8	-0.9	1.3	0.0	1.3	0.5	0.1	0.4	2.1	4.7	-2.6
July	12.7	3.4	9.4	6.7	0.0	6.7	1.5	0.5	1.0	4.5	2.9	1.6
Aug.	1.5	1.5	0.0	0.3	0.0	0.3	0.1	0.0	0.1	1.1	1.5	-0.5
Sep.	7.8	2.8	5.0	7.0	0.0	7.0	0.0	0.1	-0.1	0.8	2.8	-1.9
Oct.	12.8	0.6	12.2	1.4	0.0	1.4	10.7	0.0	10.7	0.8	0.6	0.1

# 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.



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

			Deposits fr	om households	5		Depos	its from non-fi	nancial corpor	ations	Repos
	Overnight <sup>2)</sup>	Wit	h agreed matur	ity	Redeemable a	t notice <sup>2),3)</sup>	Overnight <sup>2)</sup>	Wit	h agreed matur	ity	
		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 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	4.64	4.00
May	1.23	4.32	4.27	3.17	2.73	3.84	2.07	4.26	4.68	4.48	4.03
June	1.24	4.43	4.62	3.28	2.74	3.88	2.06	4.28	4.72	4.01	4.11
July	1.26	4.61	4.83	3.37	2.81	3.94	2.14	4.46	5.06	4.57	4.26
Aug.	1.29	4.59	4.84	3.45	2.87	3.98	2.17	4.46	5.34	4.55	4.30
Sep.	1.32	4.65	4.85	3.35	2.97	4.01	2.20	4.52	5.19	4.67	4.27
Oct.	1.34	4.77	4.85	3.56	3.01	4.12	2.20	4.25	5.05	4.55	3.66
Nov.	1.29	4.27	4.68	3.70	3.02	4.20	1.98	3.55	4.59	4.36	3.19

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

	Bank overdrafts <sup>2)</sup>		Consumer	credit			Lending f	or house pu	rchase		Other lending by initial rate fixation		
		By initi	al rate fixatio	on	Annual	I	By initial rate	fixation		Annual	, i i i i i i i i i i i i i i i i i i i		
		Floating rate and up to 1 year	Over 1 and up to 5 years	Over 5 years	percentage rate of charge <sup>4)</sup>	Floating rate and up to 1 year	Over 1 and up to 5 years	Over 5 and up to 10 years	Over 10 years	percentage rate of charge <sup>4)</sup>	Floating rate and up to 1 year	Over 1 and up to 5 years	Over 5 years
	1	1 2 3 4 10.46 8.05 6.02 8.17 8.2		5	6	7	8	9	10	11	12	13	
2007 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	8.12	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	8.55	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	8.43	7.05	8.42	8.56	5.20	4.89	4.96	5.11	5.28	5.65	5.79	5.46
Apr.	10.53	8.33	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	8.70	7.02	8.44	8.64	5.34	4.96	4.98	5.13	5.36	5.99	5.87	5.59
June	10.63	8.61	6.94	8.44	8.57	5.48	5.11	5.08	5.20	5.46	6.03	6.12	5.67
July	10.66	8.82	7.15	8.58	8.80	5.67	5.27	5.22	5.34	5.62	6.08	6.21	5.82
Aug.	10.77	8.86	7.22	8.69	8.95	5.77	5.37	5.29	5.26	5.69	6.05	6.28	5.70
Sep.	10.80	8.77	7.20	8.70	8.86	5.80	5.43	5.28	5.37	5.71	6.24	6.36	5.77
Oct.	10.83	8.89	7.23	8.70	8.93	5.84	5.39	5.28	5.37	5.69	6.37	6.26	5.80
Nov.	10.80	9.00	7.17	8.68	8.92	5.62	5.33	5.22	5.27	5.60	5.85	6.16	5.60

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

	Bank overdrafts <sup>2)</sup>		s up to EUR 1 million itial rate fixation	n	Other loans over EUR 1 million by initial rate fixation				
		Floating rate and up to 1 year	Over 1 and up to 5 years	Over 5 years	Floating rate and up to 1 year	Over 1 and up to 5 years	Over 5 years		
	1	2	3	4	5	6	7		
2007 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	6.67	6.16	6.09	5.43	5.35	5.68	5.52		
July	6.74	6.26	6.29	5.53	5.45	5.82	5.55		
Aug.	6.77	6.27	6.34	5.49	5.45	5.60	5.56		
Sep.	6.92	6.34	6.37	5.64	5.62	5.84	5.63		
Oct.	6.89	6.52	6.35	5.57	5.59	5.75	5.07		
Nov.	6.66	6.04	6.10	5.39	4.87	5.05	5.01		

Source: ECB.

Data refer to the changing composition of the euro area. For further information, see the General notes.
 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. 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 4) 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)

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

		Depos	sits from househo	olds		Deposits from	n non-financial co	rporations	Repos
	Overnight 1)	With agreed	maturity	Redeemable	at notice 1),2)	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 Dec.	1.18	3.95	3.03	2.57	3.68	1.95	4.33	4.16	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	4.23	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	4.47	4.31	4.12
July	1.26	4.31	3.07	2.81	3.94	2.14	4.59	4.39	4.24
Aug.	1.29	4.38	3.09	2.87	3.98	2.17	4.65	4.38	4.23
Sep.	1.32	4.45	3.11	2.97	4.01	2.20	4.73	4.44	4.32
Oct.	1.34	4.54	3.08	3.01	4.12	2.20	4.68	4.45	4.06
Nov.	1.29	4.51	3.11	3.02	4.20	1.98	4.44	4.42	3.95

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

			Loans to h		Loans to non-financial corporations				
	Lendir	ng for house purch with maturity	ase,	Consume	er credit and other with maturity	loans,		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 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	5.68	4.89	5.07	9.11	7.29	6.35	6.18	5.68	5.39
July			5.11	9.19	7.34	6.37	6.25	5.76	5.44
Aug.	5.78 4.95 5.11			9.26	7.38	6.41	6.28	5.79	5.46
Sep.	5.79 5.02 5.14			9.38	7.47	6.47	6.39	5.90	5.54
Oct.	5.81 5.05 5.17			17 9.45 7.48			6.43	5.99	5.58
Nov.	5.74	4.99	5.16	9.24	7.51	6.47	6.17	5.81	5.51

# C21 New deposits with agreed maturity







# C22 New loans at floating rate and up to I year initial rate fixation (percentages per annum excluding charges; period average

- to households for consumption
- to households for house purchase
- to non-financial corporations, up to EUR 1 million



Source: ECB.



				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)
2006 2007 2008	1 2.83 3.87 3.87	2.94 4.08 4.28	3.08 4.28 4.64	4 3.23 4.35 4.73	5 3.44 4.45 4.83	6 5.20 5.30 2.93	7 0.30 0.79 0.93
2007 Q4 2008 Q1 Q2 Q3 Q4	3.95 4.05 4.00 4.25 3.17	4.37 4.23 4.41 4.54 3.92	4.72 4.48 4.86 4.98 4.24	4.70 4.48 4.93 5.18 4.31	4.68 4.48 5.05 5.37 4.38	5.03 3.29 2.75 2.91 2.77	0.96 0.92 0.92 0.90 0.96
2007 Dec. 2008 Jan. Feb. Mar.	3.88 4.02 4.03 4.09	4.71 4.20 4.18 4.30	4.85 4.48 4.36 4.60	4.82 4.50 4.36 4.59	4.79 4.50 4.35 4.59	4.98 3.92 3.09 2.78	0.99 0.89 0.90 0.97
Apr. May June July	3.99 4.01 4.01 4.19 4.30	4.37 4.39 4.47 4.47 4.49	4.78 4.86 4.94 4.96 4.97	4.80 4.90 5.09 5.15 5.16	4.82 4.99 5.36 5.39 5.32	2.79 2.69 2.77 2.79 2.81	0.92 0.92 0.92 0.92 0.92 0.89
Aug. Sep. Oct. Nov. Dec.	4.50 4.27 3.82 3.15 2.49	4.49 4.66 4.83 3.84 2.99	4.97 5.02 5.11 4.24 3.29	5.22 5.18 4.29 3.37	5.32 5.38 5.25 4.35 3.45	2.81 3.12 4.06 2.28 1.83	0.89 0.91 1.04 0.91 0.92



Source: ECB.

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

1) 2)



# **4.7 Euro area yield curves** <sup>I)</sup> (AAA-rated euro area central govern

				Spot rate	es			Insta	antaneous forv	ward rates		
	3 months	1 year	2 years	5 years	7 years	10 years 6	10 years - 3 months (spread) 7	10 years - 2 years (spread) 8	1 year 9	2 years	5 years	10 years 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
Aug.	4.24	4.20	4.13	4.11	4.19	4.34	0.10	0.21	4.13	4.02	4.26	4.82
Sep.	3.71	3.60	3.59	3.88	4.09	4.34	0.63	0.75	3.52	3.67	4.45	5.00
Oct.	2.52	2.86	2.68	3.58	3.95	4.25	1.74	1.58	2.27	2.99	4.80	4.97
Nov.	2.00	2.10	2.38	3.16	3.49	3.77	1.78	1.40	2.33	2.97	4.16	4.48
Dec.	1.75	1.85	2.14	2.95	3.32	3.69	1.94	1.55	2.09	2.76	4.04	4.60



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 av

	Bench	ımark			Dow Jo	ones EUR(	O STOXX i Main indus						United States	Japan
	Broad	50	Basic materials	Consumer services	Consumer goods	Oil & gas		Industrials	Technology	Utilities	Telecom. I	Health care	Standard & Poor's 500	Nikkei 225
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
2006 2007 2008	357.3 416.4 313.7	3,795.4 4,315.8 3,319.5	402.3 543.8 480.4	205.0 235.4 169.3	293.7 366.5 290.7	419.8 449.6 380.9	370.3 408.3 265.0	391.3 488.4 350.9	345.3 383.4 282.5	440.0 561.4 502.0	416.8 492.7 431.5	530.2 519.2 411.5	1,310.5 1,476.5 1,220.7	16,124.0 16,984.4 12,151.6
2007 Q4 2008 Q1 Q2 Q3 Q4	417.8 361.8 355.9 309.7 228.7	4,377.9 3,809.4 3,705.6 3,278.8 2,497.7	567.3 520.9 576.2 506.0 320.7	228.3 194.0 185.0 162.2 136.5	383.8 327.1 317.8 282.2 236.9	455.7 412.0 442.8 382.8 287.6	381.2 318.1 313.7 260.5 169.3	484.1 413.3 408.2 345.7 238.1	406.3 339.2 306.5 285.6 200.0	620.0 573.3 557.1 494.8 384.7	544.8 490.1 437.7 412.4 387.0	509.2 454.4 427.1 407.4 358.1	1,494.6 1,351.7 1,371.7 1,252.7 910.9	16,002.5 13,372.6 13,818.3 12,758.7 8,700.4
2007 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	15,520.0
2008 Jan. Feb. Mar. Apr. May June July Aug. Sep. Oct. Nov. Dec.	380.2 360.6 342.9 359.6 367.1 340.2 311.9 316.1 301.3 241.5 225.0 219.0	4,042.1 3,776.6 3,587.3 3,768.1 3,812.8 3,527.8 3,298.7 3,346.0 3,193.7 2,627.3 2,452.9 2,407.0	529.7 520.7 511.4 553.9 588.9 586.2 529.0 513.7 474.6 342.1 315.2 304.0	202.3 194.0 184.7 189.3 189.2 176.1 158.2 167.1 161.8 135.6 136.2 137.8	338.7 323.8 317.6 324.6 328.2 299.6 272.7 287.0 287.4 249.1 237.6 224.2	431.4 407.6 395.2 423.2 462.5 442.6 401.5 388.1 358.2 287.9 294.8 281.0	339.7 311.9 300.8 326.5 325.8 287.6 260.0 266.0 255.8 195.0 159.0 152.5	426.3 417.7 394.7 406.2 424.3 393.5 348.6 356.6 332.2 245.1 229.5 238.7	351.2 356.2 308.9 312.8 313.2 292.8 281.7 304.4 271.8 212.8 197.7 189.4	602.9 573.9 540.2 550.2 557.2 553.8 513.7 504.4 465.8 392.4 393.6 369.2	528.4 493.2 444.9 449.3 447.5 415.3 412.7 411.2 413.2 378.2 386.0 396.6	492.9 452.6 414.1 429.6 436.3 414.7 418.1 403.0 400.6 363.7 361.7 349.4	1,380.3 1,354.6 1,317.5 1,370.5 1,402.0 1,341.3 1,257.6 1,281.5 1,220.0 968.8 883.3 877.2	13,953.4 13,522.6 12,586.6 13,382.1 14,000.2 14,084.6 13,153.0 12,989.4 12,126.2 9,080.5 8,502.7 8,492.1

**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

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

			Total			7	Fotal (s.a., p	ercentage chai	ıge on previou	s period)			o item: red prices <sup>2)</sup>
	Index 2005 = 100		Total Total excl. unprocessed food and energy	Goods	Services	Total	Processed food	Unprocessed food	Non-energy industrial goods	Energy (n.s.a.)	Services	Total HICP excluding administered prices	Administered prices
% of total 3)	100.0	100.0	82.6	59.1	40.9	100.0	11.9	7.6	29.8	9.8	40.9	88.8	11.2
	1	2	3	4	5	6	7	8	9	10	11	12	13
2005 2006 2007 2008	100.0 102.2 104.4 107.8	2.2 2.2 2.1 3.3	1.5 1.5 2.0 2.4	2.1 2.3 1.9 3.8	2.3 2.0 2.5 2.6	- - -			- - -	- - -	- - -	2.1 2.1 2.1 3.3	2.5 2.7 2.1 3.0
2007 Q4 2008 Q1 Q2 Q3 Q4	105.7 106.4 108.1 108.4 108.2	2.9 3.4 3.6 3.8 2.3	2.3 2.5 2.5 2.5 2.2	3.2 3.9 4.5 4.7 2.1	2.5 2.6 2.4 2.6 2.6	1.0 1.0 1.1 0.7 -0.5	2.6 2.1 1.1 0.9 0.2	1.2 0.5 1.1 1.0 0.3	0.3 0.2 0.2 0.1 0.4	2.9 3.4 6.0 2.1 -8.7	0.6 0.7 0.6 0.7 0.6	3.0 3.5 3.7 3.9 2.1	1.9 2.5 2.7 3.3 3.4
2008 July Aug. Sep. Oct. Nov. Dec.	108.5 108.3 108.5 108.6 108.0 107.9	4.0 3.8 3.6 3.2 2.1 1.6	2.5 2.6 2.5 2.4 2.2 2.1	5.1 4.6 4.4 3.5 1.8 0.9	2.6 2.7 2.6 2.6 2.6 2.6	0.3 -0.1 0.1 -0.1 -0.4 -0.4	0.4 0.3 0.1 0.1 0.0 0.0	0.7 -0.4 0.2 0.5 -0.2 0.1	-0.2 0.3 0.2 0.2 0.0 0.0	1.3 -3.0 -0.4 -2.9 -4.9 -4.7	0.2 0.3 0.0 0.2 0.2 0.2	4.2 3.9 3.7 3.1 2.0 1.3	3.2 3.3 3.4 3.4 3.4 3.4 3.4

			Goods	5			Services					
	Food (incl. al	coholic beverage	es and tobacco)		Industrial good	s	Hous	ing	Transport	Communication	Recreation and	
	Total	Processed food	Unprocessed food	Total	Non-energy industrial goods	Energy		Rents			personal	
% of total 3)	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
2005 2006 2007 2008	1.6 2.4 2.8 5.1	2.0 2.1 2.8 6.1	0.8 2.8 3.0 3.5	2.4 2.3 1.4 3.1	0.3 0.6 1.0 0.8	10.1 7.7 2.6 10.3	2.6 2.5 2.7 2.3	2.0 2.1 2.0 1.9	2.7 2.5 2.6 3.9		2.3 2.3 2.9 3.2	3.1 2.3 3.2 2.5
2007 Q4 2008 Q1 Q2 Q3 Q4	3.9 5.2 5.7 5.6 3.8	4.5 6.4 6.9 6.7 4.3	3.1 3.5 3.7 3.9 3.0	2.8 3.2 3.9 4.2 1.2	1.0 0.8 0.8 0.7 0.9	8.1 10.7 13.6 15.1 2.1	2.7 2.5 2.3 2.3 2.2	2.0 1.9 1.9 1.9 1.9	2.6 3.1 3.6 4.4 4.5	-2.5	3.0 3.2 3.0 3.4 3.3	3.2 3.2 2.2 2.3 2.2
2008 July Aug. Sep. Oct. Nov. Dec.	6.1 5.6 5.2 4.4 3.7 3.3	7.2 6.8 6.2 5.1 4.2 3.5	4.4 3.7 3.6 3.4 2.8 2.8	4.6 4.2 4.0 3.1 0.8 -0.3	0.5 0.7 0.9 1.0 0.9 0.8	17.1 14.6 13.5 9.6 0.7 -3.7	2.3 2.2 2.3 2.3 2.2 2.2 2.2	1.9 1.9 1.9 1.9 1.8 1.8	4.1 4.8 4.5 4.6 4.4 4.5	-2.2 -2.5 -2.6 -2.2 -2.1 -1.8	3.4 3.5 3.3 3.3 3.4 3.2	2.2 2.3 2.3 2.3 2.3 2.2 2.1

Sources: Eurostat and ECB calculations.

 Data refer to the changing composition of the euro area. For further information, see the General notes.
 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 influences. compilation of this indicator.Referring to the index period 2008.



## 2. Industry, construction and residential property prices

				Construct- ion <sup>1)</sup>	Residential property							
	Total (index	Т	otal		Industry ex	cluding con	struction	and energy		Energy		prices <sup>2</sup>
	2000 = 100)	[	Manu- facturing	Total	Intermediate goods	Capital goods		Consumer ge	oods			
			8		0		Total	Durable	Non-durable			
% of total 3)	100.0	100.0	89.5	82.4	31.6	21.2	29.6	4.0	25.6	17.6		
	1	2	3	4	5	6	7	8	9	10	11	12
2004	105.8	2.3	2.6	2.0	3.5	0.7	1.3	0.7	1.4	4.0	4.1	7.2
2005	110.1	4.1	3.2	1.9	2.9	1.4	1.1	1.3	1.1	13.6	2.8	7.6
2006	115.8	5.1	3.4	2.8	4.8	1.4	1.7	1.6	1.7	13.3	4.1	6.4
2007	119.1	2.8	3.1	3.2	4.8	1.8	2.4	1.9	2.4	1.7	4.0	4.2
2007 Q3	119.3	2.1	2.7	3.0	4.3	1.6	2.4	1.8	2.5	-0.7	3.7	-
Q4	121.2	4.0	4.5	3.2	3.7	1.5	3.7	1.9	3.9	7.0	3.3	3.7 <sup>4)</sup>
2008 Q1	123.6	5.4	5.4	3.6	4.2	1.5	4.4	2.3	4.8	11.7	3.1	-
Q2	127.0	7.1	6.3	3.8	4.5	1.8	4.5	2.3	4.8	18.0	4.0	2.5 4)
Q3	129.5	8.5	6.5	4.3	5.9	2.2	3.8	2.5	4.0	22.7		-
2008 June	128.3	8.0	6.9	4.0	4.9	2.0	4.5	2.3	4.8	21.5	-	-
July	130.0	9.2	7.3	4.4	5.8	2.1	4.3	2.5	4.5	25.0	-	-
Aug.	129.4	8.5	6.6	4.3	6.0	2.2	3.9	2.4	4.1	22.7	-	-
Sep.	129.1	7.9	5.5	4.1	5.8	2.3	3.3	2.5	3.4	20.4	-	-
Oct.	128.0	6.3 3.3	3.4	3.2 2.3	4.3 2.7	2.2 2.2	2.7 2.0	2.7 2.5	2.7 1.9	15.9 6.3	-	-
Nov.	125.6	3.3	0.6	2.3	2.7	2.2	2.0	2.5	1.9	6.3	-	-

## 3. Commodity prices and gross domestic product deflators

	Oil prices <sup>5)</sup> (EUR per		Non	-energy co	mmodity ]	prices		GDP deflators							
	barrel)	Impo	ort-weig	hted 6)	Use	-weighte	ed 7)	Total (s.a. index	s.a. index				Exports <sup>8)</sup>	Imports <sup>8)</sup>	
		Total	Food	Non-food	Total	Food	Non-food	2000 = 100)		Total	Private consump- tion	Government consump- tion	Gross fixed capital formation		
% of total 3)		100.0	35.2	64.8	100.0	44.3	55.7								
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
2005 2006 2007 2008	44.6 52.9 52.8 65.9	11.5 27.5 7.5 1.6	0.9 5.8 14.4 18.2	17.4 37.8 5.1 -5.0	9.3 24.6 5.1 -1.5	2.5 5.9 9.4 9.7	14.8 38.0 2.7 -8.1	111.6 113.7 116.3	2.0 1.9 2.3	2.3 2.4 2.2	2.1 2.2 2.2	2.4 2.0 1.6	2.5 2.9 2.7	2.4 2.7 1.5	3.3 3.9 1.3
2007 Q4 2008 Q1 Q2 Q3 Q4	61.0 64.2 78.5 77.6 43.5	-2.2 8.1 2.2 6.3 -10.9	22.9 36.6 32.5 16.1 -7.8	-10.9 -1.8 -8.1 2.2 -12.3	-2.9 7.2 -0.3 0.8 -14.3	17.8 31.6 20.3 4.3 -12.9	-13.6 -5.3 -10.7 -1.4 -15.3	117.1 117.8 118.7 119.3	2.3 2.1 2.2 2.3	2.9 2.9 3.2 3.3	2.8 3.1 3.4 3.5	2.3 2.1 3.2 2.4	2.6 2.4 2.5 2.9	1.5 2.3 2.5 3.1	2.8 4.3 4.9 5.6
2008 July Aug. Sep. Oct. Nov. Dec.	85.3 77.0 70.0 55.2 43.1 32.1	6.9 7.5 4.7 -7.1 -7.9 -17.7	25.3 17.4 6.3 -5.1 -4.5 -13.5	-0.4 3.3 3.9 -7.9 -9.5 -19.9	1.7 2.4 -1.8 -11.4 -10.4 -21.0	12.2 7.1 -5.5 -12.6 -7.4 -18.3	-4.4 -0.6 0.8 -10.6 -12.5 -23.1	- - - - -		- - - -			- - - -	- - - -	

Sources: Eurostat, ECB calculations based on Eurostat data (column 6 in Table 2 in Section 5.1 and columns 8-15 in Table 3 in Section 5.1), ECB calculations based on Thomson Financial Datastream data (column 1 in Table 3 in Section 5.1) and ECB calculations (column 12 in Table 2 in Section 5.1 and columns 2-7 in Table 3 in Section 5.1).

Input prices for residential buildings.
 Experimental data based on non-harmonised national sources (see the ECB website for further details).
 In 2000.

4) 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. 5) Brent Blend (for one-month forward delivery).

6)

Refers to prices expressed in euro. Weighted according to the structure of euro area imports in the period 2004-06. Refers to prices expressed in euro. Weighted according to euro area domestic demand (domestic production plus imports minus exports) in the period 2004-06. Experimental data 7) (see the ECB website for details).

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



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

(seasonally adjusted)	
-----------------------	--

	Total (index	Total	By economic activity									
	2000 = 100)		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				
	1	2	3	4	5	6	7	8				
				Ŭ	nit labour costs	1)						
2004	107.6	0.8	-11.1	-1.2	3.1	-0.1	2.4	2.1				
2005	108.9	1.2	8.7	-1.1	3.0	1.4	2.0	1.9				
2006	109.9	1.0	3.2	-0.3	3.3	0.0	2.6	2.0				
2007	111.8	1.7	0.2	-0.3	3.6	1.5	2.5	2.2				
2007 Q3	111.8	1.6	0.2	-1.0	4.6	2.0	2.3	2.1				
Q4	112.9	2.6	0.4	0.2	4.0	2.8	3.0	2.9				
2008 Q1	113.6	2.6	0.8	1.3	2.0	2.5	3.8	2.9				
Q2	115.2	3.2	-0.6	2.0	2.3	3.7	2.8	4.7				
Q3	115.8	3.6	-0.8	4.7	2.0	5.1	3.0	2.8				
				Comp	ensation per em	ployee						
2004	110.0	2.1	1.6	3.0	2.9	1.4	1.7	2.3				
2005	112.1	1.9	2.2	1.8	2.0	2.1	2.4	1.8				
2006	114.6	2.2	3.1	3.5	3.4	1.5	2.3	1.5				
2007	117.4	2.5	2.2	2.8	3.1	2.2	2.1	2.4				
2007 Q3	117.6	2.3	2.0	2.4	2.9	2.4	1.8	2.3 3.2				
Q4	118.8	2.9	2.5	3.2	3.4	2.2	2.5	3.2				
2008 Q1	119.9	3.0	3.8	3.5	4.4	2.4	2.9	2.8				
Q2	121.1	3.4	3.9	2.8	5.2	2.7	2.6	4.3				
Q3	121.7	3.5	3.7	3.4	5.1	4.2	3.1	2.8				
				La	bour productivit							
2004	102.2	1.3	14.2	4.2	-0.2	1.5	-0.7	0.3				
2005	103.0	0.7	-5.9	2.9	-0.9	0.7	0.4	-0.1				
2006	104.2	1.2	-0.2	3.9	0.1	1.5	-0.2	-0.6				
2007	105.1	0.8	2.0	3.2	-0.6	0.8	-0.4	0.3				
2007 Q3	105.2	0.7	1.8	3.4	-1.6	0.4	-0.4	0.2				
Q4	105.2	0.3	2.1	2.9	-0.6	-0.5	-0.5	0.3				
2008 Q1	105.5	0.5	2.9	2.1	2.4	0.0	-0.9	-0.1				
Q2	105.2	0.2	4.6	0.8	2.8	-0.9	-0.3	-0.4				
Q3	105.0	-0.1	4.5	-1.3	3.0	-0.9	0.1	0.0				

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

	Total (s.a. index	(s.a. index		component	By sele	vity	Memo: indicator	
	2000 = 100)		Wages and salaries	Employers' social contributions	Mining, manufacturing and energy	Construction	Services	of negotiated wages <sup>4)</sup>
% of total 5)	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	2.6	2.5	3.2	2.9	2.7	2.3	2.1
2005 2006	116.3 119.1	2.4 2.5	2.5 2.7	2.2 2.1	2.4	2.0	2.4	2.1
2008	119.1 122.3	2.5	2.7	2.1 2.3	3.4 2.6	1.6 3.1	2.1 2.6	2.3 2.2
2007 Q3 Q4	122.6 123.7	2.5 2.9	2.6 3.1	2.2 2.2	2.1 2.9	3.5 4.0	2.5 2.7	2.2 2.1
2008 Q1	124.7	3.5	3.6	2.9	4.1	4.1	3.0	2.9
Q2	125.7	2.8	2.7	2.8	2.9	3.9	2.5	2.8
Q3	127.0	4.0	3.8	4.4	3.8	4.3	4.0	3.4

 Q5
 121.0
 4.0
 5.8
 4.4
 5.8
 4.5
 4.0
 3.4

 Sources: Eurostat, ECB calculations based on Eurostat data (Table 4 in Section 5.1 and column 7 in Table 5 in Section 5.1) and ECB calculations (column 8 in Table 5 in Section 5.1).
 1)
 Compensation (at current prices) per employee divided by value added (volumes) per person employed.
 2)
 Value added (volumes) per person employed.

 3)
 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.
 4)

 4)
 Experimental data (see the ECB website for further details).
 5)
 In 2000.



# 1. GDP and expenditure components

					GDP				
	Total		D	omestic demand			Exter	mal balance 1)	
		Total	Private consumption	Government consumption	Gross fixed capital formation	Changes in inventories 2)	Total	Exports 1)	Imports <sup>1)</sup>
	1	2	3	4	5	6	7	8	9
			Curr	ent prices (EUR bill	ions, seasonally ad	ljusted)			
2004	7,807.8	7,650.9	4,470.3	1,594.5	1,578.3	7.8	156.9	2,863.5	2,706.7
2005 2006	8,104.5 8,508.4	7,981.8 8,404.0	4,644.5 4,843.5	1,657.6 1,723.6	1,673.6 1,823.1	6.2 13.8	122.7 104.4	3,083.7 3,435.2	2,961.0 3.330.7
2006	8,508.4 8,931.3	8,404.0 8,793.2	4,843.5 5,030.4	1,723.0	1,823.1	21.4	104.4	3,435.2 3,693.0	3,554.8
2007 Q3	2.246.8	2,213.5	1.265.0	449.0	489.9	9.6	33.3	935.5	902.1
2007 Q3 04	2,262.8	2,231.9	1,279.1	453.9	498.1	0.8	30.9	942.3	911.4
2008 Q1	2,291.9	2,263.0	1,289.0	457.6	508.5	7.7	28.9	968.1	939.2
Q2 Q3	2,305.0 2,311.8	2,278.6 2,301.9	1,298.5 1,309.5	468.3 470.0	508.2 508.0	3.6 14.3	26.4 9.9	974.9 983.6	948.5 973.6
Q3	2,511.8	2,301.9	1,309.3			14.5	9.9	985.0	975.0
2007	100.0	00.5	56.0		ge of GDP	0.0			
2007	100.0	98.5	56.3	20.0	21.8	0.2	1.5	-	-
			Chain-linked vol	umes (prices of the					
				quarter-on-quarter	. 0 0	es			
2007 Q3	0.6	0.7	0.4	0.5	1.0 1.0	-	-	1.9	2.2
Q4 2008 Q1	0.3 0.7	0.0 0.6	0.2 0.0	0.3 0.3	1.0	-	-	0.4 1.6	-0.3 1.5
2000 Q2	-0.2	-0.3	-0.2	0.8	-0.9	-	-	-0.1	-0.4
Q3	-0.2	0.4	0.0	0.7	-0.6	-	-	0.0	1.4
				annual perce	ntage changes				
2004	2.1	1.9	1.6	1.6	2.3	-	-	7.4	7.0
2005 2006	1.7	1.9 2.7	1.7	1.5	3.2	-	-	5.0	5.6
2006 2007	2.9 2.6	2.7 2.4	2.0 1.6	1.9 2.3	5.5 4.3	-	-	8.3 5.9	8.2 5.4
2007 O3	2.6	2.2	1.8	2.4	3.6			7.2	6.3
2007 Q3 04	2.0	2.1	1.3	2.1	3.2	_	_	3.9	3.8
2008 Q1	2.1	1.7	1.3	1.4	3.7	-	-	5.2	4.2
Q2	1.4	1.0	0.4	2.0	2.5	-	-	3.9	3.0
Q3	0.6	0.7	0.0	2.2	0.8	-	-	2.0	2.2
2007.00	0.6		•	• •	0 0 0	DP in percentage poi			
2007 Q3 Q4	0.6 0.3	0.7 0.0	0.2 0.1	0.1 0.1	0.2 0.2	0.1 -0.3	-0.1 0.3	-	-
2008 Q4	0.3	0.0	0.1	0.1	0.2	-0.5	0.3	-	
2000 Q2	-0.2	-0.3	-0.1	0.2	-0.2	-0.2	0.1	-	-
Q3	-0.2	0.4	0.0	0.1	-0.1	0.4	-0.6	-	-
			contributions to	annual percentage o	changes of GDP in	percentage points			
2004	2.1	1.9	0.9	0.3	0.5	0.2	0.3	-	-
2005	1.7 2.9	1.8	1.0	0.3	0.7	-0.1	-0.1	-	-
2006 2007	2.9	2.7 2.3	1.1 0.9	0.4 0.5	1.1 0.9	0.0 0.1	0.2 0.3	-	_
2007 2007 Q3	2.6	2.3	1.0	0.5	0.8	-0.1	0.4		
2007 Q3 Q4	2.0	2.2	0.7	0.3	0.8	-0.1 0.2	0.4	_	_
2008 Q1	2.1	1.6	0.7	0.3	0.8	-0.1	0.4	-	-
Q2	1.4	1.0	0.2	0.4	0.5	-0.2	0.4	-	-
Q3	0.6	0.7	0.0	0.4	0.2	0.1	-0.1	-	-

Sources: Eurostat and ECB calculations.
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.
Including acquisitions less disposals of valuables.
Annual data are not adjusted for the variations in the number of working days.



# 2. Value added by economic activity

			Gross va	lue added (basic pr	ices)			Taxes less subsidies on
	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	products
	1	2	3	4 EUR billions, season	5	6	7	8
2004 2005 2006 2007	7,010.8 7,263.8 7,598.3 7,978.4	154.4 142.7 139.6 149.6	1,434.5 1,471.9 1,540.0 1,616.5	412.4 439.6 476.2 516.0	1,492.0 1,530.7 1,593.1 1,655.6	1,916.7 2,015.6 2,130.9 2,252.2	1,600.8 1,663.4 1,718.5 1,788.4	796.9 840.7 910.1 952.9
2007 Q3 Q4 2008 Q1 Q2 Q3	2,008.2 2,026.3 2,051.4 2,068.4 2,075.0	38.1 38.7 39.8 39.6 39.0	407.4 409.5 415.9 416.6 411.5	129.5 132.3 136.3 136.4 136.8	417.1 418.7 423.7 424.1 427.8	567.2 573.1 579.4 587.0 594.0	448.8 454.0 456.2 464.7 466.0	238.6 236.5 240.4 236.6 236.8
			perc	entage of value adde	ed			
2007	100.0	1.9	20.3	6.5	20.8	28.2	22.4	-
		Chain-1	linked volumes (price	es of the previous ye	ar, seasonally adjusted	d <sup>1)</sup> )		
			quarter-on	-quarter percentage	changes			
2007 Q3 Q4 2008 Q1 Q2 Q3	0.6 0.5 0.5 -0.1 -0.2	-0.8 1.3 1.7 0.2 -0.6	1.1 0.5 0.2 -0.6 -1.3	-0.1 0.9 2.6 -1.8 -1.3	0.5 0.1 0.6 -0.5 -0.2	0.7 0.6 0.6 0.6 0.2	$0.4 \\ 0.4 \\ 0.1 \\ 0.5 \\ 0.6$	0.7 -0.7 1.7 -1.3 0.0
				al percentage chang				
2004	2.3	12.0	2.8	1.1	2.8	1.6	1.5	0.8
2005 2006 2007	1.7 2.8 2.9	-6.5 -2.0 0.8	1.7 3.5 3.4	1.8 2.7 3.3	1.4 3.1 2.6	2.8 3.7 3.7	1.4 1.3 1.7	1.7 3.3 0.6
2007 Q3 Q4 2008 Q1 Q2 Q3	2.8 2.5 2.3 1.6 0.7	0.4 0.7 1.5 2.3 2.5	3.6 3.2 2.6 1.2 -1.1	2.2 1.7 2.8 1.5 0.2	2.7 1.7 2.3 0.8 0.0	3.5 3.4 2.7 2.5 2.0	1.7 1.8 1.2 1.3 1.5	1.2 -0.8 0.5 0.4 -0.3
		contributions to	quarter-on-quarter p	ercentage changes of	of value added in perc	entage points		
2007 Q3 Q4 2008 Q1 Q2 Q3	0.6 0.5 0.5 -0.1 -0.2	0.0 0.0 0.0 0.0 0.0	0.2 0.1 0.0 -0.1 -0.3	0.0 0.1 0.2 -0.1 -0.1	0.1 0.0 0.1 -0.1 -0.1	0.2 0.2 0.2 0.2 0.1	0.1 0.1 0.0 0.1 0.1	-
		contributio	ons to annual percent	age changes of valu	e added in percentage	e points		
2004 2005 2006 2007	2.3 1.7 2.8 2.9	0.3 -0.1 0.0 0.0	0.6 0.4 0.7 0.7	0.1 0.1 0.2 0.2	0.6 0.3 0.7 0.6	0.4 0.8 1.0 1.0	0.4 0.3 0.3 0.4	-
2007 Q3 Q4 2008 Q1 Q2 Q3	2.8 2.5 2.3 1.6 0.7	0.0 0.0 0.0 0.0 0.0 0.0	0.7 0.6 0.5 0.3 -0.2	0.1 0.1 0.2 0.1 0.0	0.6 0.4 0.5 0.2 0.0	1.0 1.0 0.8 0.7 0.6	0.4 0.4 0.3 0.3 0.3	

Sources: Eurostat and ECB calculations. 1) Annual data are not adjusted for the variations in the number of working days.



### **3. Industrial production**

	Total	Industry excluding construction										
		Total (s.a. index	Te	otal		Industry ex	cluding con	struction ar	nd energy		Energy	
		(3.a. mdex) = 100)	[	Manu- facturing	Total	Intermediate goods	Capital goods	(	Consumer go	ods		
				ineturing		20045	20045	Total	Durable	Non-durable		
% of total 1)	100.0	82.8	82.8	74.8	73.7	29.9	22.2	21.6	3.6	18.0	9.0	17.2
	1	2	3	4	5	6	7	8	9	10	11	12
2005	1.4	104.0	1.4	1.5	1.2	0.9	3.0	0.5	-0.7	0.7	1.4	0.7
2006 2007	4.0 3.5	108.2 111.9	4.0 3.4	4.4 4.0	4.4 3.7	4.9 3.9	5.9 6.0	2.5 2.3	4.4 1.1	2.2 2.5	0.7 -0.6	3.9 3.2
2007 Q4	2.6	113.6	3.0	2.6	2.0	1.9	5.3	0.6	-2.7	1.2	5.5	-0.5
2007 Q4 2008 Q1	2.0	113.0	2.5	2.0	2.0	1.9	5.0	0.8	-2.7	0.6	4.4	-0.3
2000 Q1 Q2	0.7	112.1	1.1	1.3	1.0	0.5	4.0	-1.2	-2.6	-0.9	1.6	-2.3
Q3	-1.8	110.4	-1.5	-1.6	-2.0	-2.0	-0.1	-2.8	-6.1	-2.3	0.3	-3.4
2008 June	-0.7	111.1	-0.4	-0.4	-0.7	-0.9	1.7	-1.2	-4.1	-0.7	-1.0	-2.8
July	-1.4	110.6	-1.1	-1.2	-1.3	-1.7	-0.1	-1.5	-5.3	-0.8	0.3	-3.4
Aug.	-1.0	111.3	-0.6	-0.9	-1.4	0.1	0.8	-3.6	-6.1	-3.2	0.4	-2.9
Sep.	-2.7	109.3	-2.5	-2.6	-3.1	-3.9	-0.8	-3.4	-6.8	-2.8	0.1	-3.7
Oct.	-5.5	107.6	-5.7	-5.9	-6.1	-7.9	-5.4	-3.8	-8.9	-2.9	-1.5	-4.3
Nov.	•	105.9	-7.7	-7.9	-8.4	-11.2	-8.0	-3.8	-10.3	-2.7	-3.6	•
				month-a	on-month p	ercentage change	es (s.a.)					
2008 June	-0.3	-	-0.3	-0.3	-0.2	-0.5	-0.5	0.6	0.3	0.7	0.4	-0.8
July	-0.3	-	-0.4	-0.5	-0.5	-0.6	-0.6	-0.3	-1.1	-0.1	0.8	-0.1
Aug.	0.5	-	0.7	0.6	0.7	1.1	1.2	-0.2	0.8	-0.4	1.2	0.0
Sep.	-1.6	-	-1.8	-1.9	-2.2	-3.1	-1.9	-1.0	-2.5	-0.8	-0.5	-0.8
Oct.	-1.3	-	-1.6	-1.7	-1.7	-2.4	-2.3	-0.2	-1.8	0.0	-0.4	-0.1
Nov.		-	-1.6	-1.7	-1.8	-2.8	-1.8	-0.3	-2.4	0.1	-1.5	

# 4. Industrial new orders and turnover, retail sales and new passenger car registrations

	Industrial ne	ew orders	Industrial t	Industrial turnover Retail sales								New passen registrat	
	Manufactu (current p		Manufac (current p		Current prices			Constant	t prices			. registrati	<b>UII</b> 5
	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	Total (s.a., thousands) <sup>3)</sup>	Total
% of total 1)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	43.7	56.3	10.6	14.8		
	1	2	3	4	5	6	7	8	9	10	11	12	13
2005 2006 2007	109.2 119.3 128.9	3.9 9.3 8.3	110.8 119.3 126.6	3.6 7.7 6.3	2.3 2.9 2.4	106.8 108.5 109.5	1.4 1.5 0.9	0.8 0.3 -0.3	1.8 2.5 1.8	2.6 2.7 3.2	$1.4 \\ 4.4 \\ 2.0$	942 973 965	1.5 3.3 -0.9
2007 Q4 2008 Q1 Q2 Q3	132.3 130.7 128.2 124.9	8.3 3.7 0.1 -1.3	127.9 131.6 132.3 131.0	5.2 4.4 6.3 3.9	2.1 3.1 1.9 2.1	109.2 108.9 108.0 108.1	-0.3 -0.2 -1.6 -1.4	-0.8 -1.5 -2.4 -2.1	0.1 0.6 -1.0 -0.9	0.2 0.1 -2.4 -1.0	-1.3 -1.4 -2.3 -3.5	978 941 905 891	-0.8 -1.5 -4.9 -9.0
2008 June July Aug. Sep. Oct. Nov.	125.9 128.5 126.4 119.8 113.7	-6.7 3.2 -6.6 -1.6 -15.4	132.8 131.9 132.4 128.6 125.3	4.1 6.3 -2.3 6.7 -2.6	0.9 2.0 2.0 2.4 0.3 0.6	107.6 108.0 108.1 108.3 107.2 107.8	-3.2 -1.5 -1.7 -1.1 -2.3 -1.5	-4.2 -2.2 -2.1 -1.8 -2.3 -1.3	-2.5 -0.9 -1.6 -0.4 -2.3 -1.5	-3.2 0.1 -2.9 -0.4 -2.5	-4.8 -3.1 -4.0 -3.5 -4.1	881 883 923 868 841 803	-8.9 -8.7 -6.1 -11.5 -14.6 -18.4
					month-on-m	onth percentag	e changes	(s.a.)					
2008 June July Aug. Sep. Oct. Nov.		-0.2 2.0 -1.6 -5.3 -5.1	- - - - -	1.2 -0.7 0.4 -2.9 -2.6	-0.6 0.5 0.2 0.3 -1.1 0.5	- - - - -	-0.8 0.3 0.1 0.2 -1.0 0.6	-0.7 -0.2 0.4 0.4 -0.8 0.5	-0.8 0.6 0.0 0.2 -1.1 0.6	-2.8 2.3 -1.7 2.6 -3.2	-1.7 1.1 -0.3 -0.8 -0.5	- - - -	-2.3 0.2 4.5 -6.0 -3.1 -4.4

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.

Includes manufacturing industries working mainly on the basis of orders, representing 62.6% of total manufacturing in 2000.
 Annual and quarterly figures are averages of monthly figures in the period concerned.



### 5. Business and Consumer Surveys

	Economic sentiment		Man	ufacturing inc	lustry		indicator				
	indicator <sup>2)</sup> (long-term		lustrial confid	lence indicator		Capacity utilisation 3)	Total <sup>4)</sup>	Financial situation	Economic situation	Unemployment situation	Savings over next
	average = 100)	Total <sup>4)</sup>	Order books	Stocks of finished products	Production expectations	(percentages)		over next 12 months	over next 12 months	over next 12 months	12 months
	1	2	3	4	5	6	7	8	9	10	11
2005	97.4	-7	-17	11	6	81.2	-14	-4	-15	28	-9
2006	106.3	2	0	6	13	83.3	-9	-3	-9	15	-9
2007	108.4	4	5	5	13	84.2	-5	-2	-4	5	-8
2008	89.9	-9	-15	11	-2	•	-18	-10	-25	23	-14
2007 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	88.5	-10	-15	12	-2	82.3	-19	-12	-28	23	-15
Q4	74.0	-25	-36	18	-22		-26	-11	-34	44	-15
2008 July	89.5	-8	-13	11	1	82.9	-20	-13	-30	20	-16
Aug.	88.5	-9	-13	12	-3	-	-19	-12	-28	23	-14
Sep.	87.5	-12	-20	13	-4	-	-19	-11	-26	24	-15
Oct.	80.0	-18	-26	15	-13	81.6	-24	-12	-33	34	-15
Nov.	74.9	-25	-36	17	-22	-	-25	-11	-32	44	-15
Dec.	67.1	-33	-47	22	-30	-	-30	-11	-39	55	-14

	Construction confidence indicator			Reta	ail trade confi	lence 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
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
2008	-14	-21	-7	-7	-6	16	1	2	-5	4	7
2007 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	-14	-21	-7	-9	-10	17	-1	1	-7	3	6
Q4	-24	-31	-16	-15	-16	17	-13	-12	-20	-9	-6
2008 July	-14	-23	-6	-9	-10	17	1	1	-8	4	7
Aug.	-13	-20	-6	-10	-8	19	-4	1	-7	4	5
Sep.	-16	-22	-10	-8	-11	14	0	0	-7	2	6
Oct.	-20	-27	-14	-13	-14	17	-9	-7	-13	-4	-3
Nov.	-24	-32	-16	-13	-11	15	-12 -17	-12	-21	-8	-/
Dec.	-27	-35	-20	-19	-22	18	-1/	-17	-27	-15	-10

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, 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>

# 1. Employment

	Whole economy		By employment status									
	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 2)	100.0	100.0	85.0	15.0	3.9	17.1	7.7	25.4	15.8	30.0		
	1	2	3	4	5	6	7	8	9	10		
2004 2005 2006 2007	138.451 139.779 142.055 144.634	0.8 1.0 1.6 1.8	$0.7 \\ 1.1 \\ 1.8 \\ 2.0$	1.4 0.4 0.7 0.8	-2.0 -0.7 -1.8 -1.2	-1.4 -1.1 -0.3 0.3	1.3 2.7 2.6 3.9	1.3 0.7 1.6 1.8	2.4 2.4 3.9 4.1	1.3 1.5 1.9 1.4		
2007 Q3 Q4 2008 Q1 Q2 Q3	145.030 145.454 145.961 146.205 146.109	1.9 1.8 1.7 1.3 0.8	2.0 2.0 1.8 1.5 1.1	1.5 0.5 0.6 0.0 -0.8	-1.4 -1.6 -1.4 -2.3 -2.1	0.2 0.2 0.5 0.4 0.1	3.6 2.4 0.8 -1.2 -2.8	2.3 2.3 2.4 1.8 1.1	3.9 3.9 3.7 2.9 2.1	1.5 1.5 1.2 1.6 1.6		
				quarter	on-quarter per	centage changes (	(s.a.)					
2007 Q3 Q4 2008 Q1 Q2 Q3	0.635 0.424 0.507 0.244 -0.096	0.4 0.3 0.3 0.2 -0.1	0.4 0.5 0.3 0.2 0.0	0.4 -0.8 0.4 -0.2 -0.6	-1.0 -0.4 0.5 -1.2 -0.8	0.0 0.1 0.3 0.1 -0.3	-0.1 0.0 0.0 -1.2 -1.5	0.8 0.1 0.5 0.3 0.0	0.8 0.7 0.9 0.4 -0.1	0.5 0.5 0.1 0.5 0.5		

# 2. Unemployment (seasonally adjusted)

	Tota	al	By age <sup>3)</sup>				By gender 4)			
	Millions	% of labour force			Y	outh	Ν	Iale	F	emale
			Millions	% of labour force	Millions	% of labour force	Millions	% of labour force	Millions	% of labour force
% of total 2)	100.0		78.2		21.8		49.6		50.4	
	1	2	3	4	5	6	7	8	9	10
2004 2005 2006 2007	13.094 13.285 12.514 11.357	8.8 8.8 8.3 7.4	10.156 10.342 9.779 8.880	7.7 7.8 7.3 6.5	2.938 2.943 2.735 2.477	17.1 17.2 16.2 14.8	6.555 6.699 6.214 5.587	7.9 8.0 7.4 6.6	6.539 6.586 6.301 5.770	9.9 9.9 9.3 8.4
2007 Q3 Q4 2008 Q1 Q2 Q3	11.317 11.135 11.150 11.419 11.637	7.4 7.2 7.2 7.4 7.5	8.835 8.695 8.703 8.887 9.058	6.5 6.3 6.3 6.4 6.5	2.482 2.441 2.447 2.533 2.579	14.7 14.6 14.5 15.1 15.4	5.585 5.489 5.497 5.703 5.932	6.6 6.5 6.5 6.7 6.9	5.732 5.647 5.653 5.716 5.705	8.3 8.2 8.2 8.2 8.2 8.2
2008 June July Aug. Sep. Oct. Nov.	11.505 11.538 11.614 11.758 11.978 12.180	7.4 7.4 7.5 7.6 7.7 7.8	8.956 8.994 9.051 9.128 9.265 9.405	6.5 6.5 6.6 6.7 6.8	2.549 2.544 2.563 2.630 2.712 2.775	15.2 15.2 15.3 15.7 16.1 16.4	5.775 5.840 5.916 6.039 6.213 6.384	6.8 6.8 6.9 7.1 7.2 7.4	5.730 5.697 5.698 5.719 5.765 5.796	8.2 8.2 8.2 8.2 8.2 8.2 8.2 8.3

Source: Eurostat.

Data for employment refer to persons and are based on the ESA 95. Data for unemployment refer to persons and follow ILO recommendations.
 In 2006.
 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.
 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>

#### 1. Euro area - revenue

	Total					Curre	nt revenue					Capital	Memo: fiscal	
		Г	Direct			Indirect		Social			Sales		Capital	
			taxes	Households	Corporations	taxes	Received by EU	contributions	Employers I	Employees			taxes	
							institutions							
	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	13.6	0.5	15.6	8.1	4.7	2.2	0.2	0.3	41.7
2002	45.2	44.9	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	15.8	8.2	4.6	2.1	0.6	0.5	41.2
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	2.7	13.7	0.3	15.4	8.1	4.5	2.2	0.5	0.3	41.0
2006	45.5	45.1	12.1	8.8	3.0	13.9	0.3	15.3	8.1	4.5	2.1	0.3	0.3	41.6
2007	45.6	45.3	12.5	9.0	3.2	13.8	0.3	15.2	8.0	4.4	2.1	0.3	0.3	41.8

### 2. Euro area - expenditure

	Total				Current o	expenditure						Memo: primary		
		Total	Compensation	Intermediate	Interest	Current					Investment	Capital		expenditure <sup>3</sup>
			of	consumption		transfers	Social	Subsidies				transfers	Paid by EU	
			employees				payments		Paid by EU				institutions	
									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	47.8	44.0	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	4.0	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	1.5	0.1	44.4
2005	47.4	43.5	10.4	5.0	3.0	25.1	22.3	1.7	0.5	3.9	2.5	1.4	0.1	44.4
2006	46.8	42.9	10.2	5.0	2.9	24.8	22.1	1.7	0.5	3.8	2.5	1.4	0.0	43.8
2007	46.2	42.4	10.0	5.0	3.0	24.4	21.7	1.6	0.4	3.9	2.5	1.3	0.0	43.3

# 3. Euro area - deficit/surplus, primary deficit/surplus and government consumption

		Deficit (	-)/surplu	Deficit (-)/surplus (+) Total Central State Local So					0	Government	consumption <sup>4)</sup>			
	Total	Central	State	Local	Social	surplus (+)	Total						Collective	Individual
		gov.	gov.	gov.	security	• • • • •		Compensation	Intermediate	Transfers	Consumption	Sales	consumption	consumption
		-	-		funds			of employees	consumption	in kind		(minus)	-	-
										via market	1			
		2			_		-			producers			10	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1999	-1.4	-1.7	-0.1	0.1	0.4	2.6	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	-1.9	-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	-3.0	-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	20.4	10.4	5.0	5.2	1.9	2.2	8.1	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	-1.2	0.0	0.0	0.5	2.3	20.1	10.0	5.0	5.2	1.9	2.1	7.9	12.2

# 4. Euro area countries – deficit (-)/surplus (+)<sup>5)</sup>

	<b>BE</b> 1	<b>DE</b> 2	<b>IE</b> 3	GR 4	<b>ES</b> 5	<b>FR</b> 6	<b>IT</b> 7	<b>CY</b> 8	<b>LU</b> 9	<b>MT</b> 10	<b>NL</b> 11	<b>AT</b> 12	<b>PT</b> 13	<b>SI</b> 14	<b>SK</b> 15	<b>FI</b> 16
2004	-0.2	-3.8	1.4	-7.5	-0.3	-3.6	-3.5	-4.1	-1.2	-4.7	-1.7	-4.4	-3.4	-2.2	-2.3	2.4
2005	-2.6	-3.3	1.7	-5.1	1.0	-2.9	-4.3	-2.4	-0.1	-2.8	-0.3	-1.5	-6.1	-1.4	-2.8	2.9
2006 2007	0.3 -0.3	-1.5 -0.2	3.0 0.2	-2.8 -3.5	2.0 2.2	-2.4 -2.7	-3.4 -1.6	-1.2 3.5	1.3 3.2	-2.3 -1.8	0.6 0.3	-1.5 -0.4	-3.9 -2.6	-1.2 0.5	-3.5 -1.9	4.1 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.

The fiscal burden comprises taxes and social contributions.
 Comprises total expenditure minus interest expenditure.
 Corresponds to final consumption expenditure (P.3) of general government in the ESA 95.
 Includes proceeds from the sale of UMTS licences and settlements under swaps and forward rate agreements.



# 1. Euro area - by financial instrument and sector of the holder

	Total		Financial in	struments						
		Currency and	Loans	Short-term securities	Long-term securities		Domestic c	ereditors <sup>2)</sup>		Other creditors <sup>3)</sup>
		deposits				Total	MFIs	Other financial corporations	Other sectors	
	1	2	3	4	5	6	7	8	9	10
1998	72.9	2.8	15.2	5.3	49.6	52.5	26.5	14.5	11.4	20.4
1999	72.0	2.9	14.4	4.3	50.5	48.8	25.4	13.8	9.7	23.2
2000	69.3	2.7	13.1	3.7	49.7	44.2	22.0	12.4	9.7	25.1
2001	68.2	2.8	12.4	4.0	49.1	42.0	20.6	11.1	10.3	26.2
2002	68.1	2.7	11.8	4.5	49.0	40.1	19.4	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	29.8
2004	69.6	2.2	12.0	5.0	50.5	37.5	18.4	10.8	8.2	32.1
2005	70.2	2.4	11.8	4.7	51.3	35.4	17.2	11.2	7.0	34.8
2006	68.5	2.5	11.4	4.1	50.4	33.8	17.6	9.4	6.8	34.7
2007	66.3	2.2	10.8	4.3	49.0	32.6	17.0	8.7	6.9	33.7

# 2. Euro area - by issuer, maturity and currency denomination

	Total		Issued by <sup>4)</sup>				riginal matu	rity	R	esidual maturi	ty	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	
	1	2	3	4	5	6	7	8	9	10	11	12	13	
1998	72.9	61.2	6.1	5.2	0.3	8.2	64.7	8.0	15.5	26.3	31.0	71.1	1.8	
1999	72.0	60.5	6.0	5.1	0.4	7.3	64.7	7.0	13.6	27.8	30.7	70.0	2.0	
2000	69.3	58.1	5.9	4.9	0.4	6.5	62.8	6.3	13.4	27.8	28.1	67.5	1.8	
2001	68.2	57.1	6.1	4.7	0.4	7.0	61.2	5.3	13.7	26.6	27.9	66.7	1.5	
2002	68.1	56.7	6.3	4.7	0.4	7.6	60.4	5.2	15.5	25.3	27.2	66.8	1.3	
2003	69.2	57.0	6.5	5.0	0.6	7.8	61.4	5.1	14.9	26.0	28.3	68.3	0.9	
2004	69.6	57.4	6.6	5.1	0.4	7.8	61.7	4.8	14.9	26.2	28.5	68.7	0.9	
2005	70.2	57.7	6.7	5.2	0.5	7.9	62.3	4.7	14.9	25.6	29.7	69.2	1.0	
2006	68.5	56.0	6.5	5.4	0.5	7.5	61.0	4.5	14.5	24.1	29.9	67.8	0.7	
2007	66.3	54.2	6.3	5.3	0.6	7.5	58.8	4.2	14.2	22.6	29.5	65.8	0.5	

# 3. Euro area countries

	<b>BE</b>	<b>DE</b>	<b>IE</b>	<b>GR</b>	<b>ES</b>	FR	<b>IT</b>	<b>CY</b>	LU	<b>MT</b>	<b>NL</b>	<b>AT</b>	<b>PT</b>	<b>SI</b>	<b>SK</b>	<b>FI</b>
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
2004	94.3	65.6	29.4	98.6	46.2	64.9	103.8	70.2	6.3	72.1	52.4	64.8	58.3	27.2	41.4	44.1
2005	92.1	67.8	27.3	98.8	43.0	66.4	105.9	69.1	6.1	69.9	51.8	63.7	63.6	27.0	34.2	41.3
2006	87.8	67.6	24.7	95.9	39.6	63.6	106.9	64.6	6.6	63.8	47.4	62.0	64.7	26.7	30.4	39.2
2007	83.9	65.1	24.8	94.8	36.2	63.9	104.1	59.5	7.0	62.2	45.7	59.5	63.6	23.4	29.4	35.1

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

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.
Excludes debt held by general government in the country whose government has issued it.
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 1)

# 1. Euro area - by source, financial instrument and sector of the holder

	Total		Source of change					instruments	5	Holders				
	-	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	Other creditors <sup>7)</sup>	
	1	2	3	4	5	6	7	8	9	10	11	12	13	
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	1.8	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	0.8	3.9	
2006	1.5	1.4	0.1	0.0	0.0	0.2	0.2	-0.4	1.5	0.1	1.2	-1.3	1.5	
2007	1.1	1.1	0.0	0.0	0.0	-0.1	-0.1	0.4	0.9	0.4	0.3	-0.2	0.7	

# 2. Euro area - deficit-debt adjustment

		Deficit (-) / surplus (+) <sup>8)</sup>		Deficit-debt adjustment <sup>9)</sup> Total         Transactions in main financial assets held by general government         Valuation         Other											
	ucor	surprus (1)	Total		Transactio	ons in main	n financial asse	ts held by gen	neral government	i	Valuation		Other changes in	Other <sup>10)</sup>	
				Total Currency Loans Securities <sup>11</sup> Shares and rate											
					and			other	Privatisations	Equity		effects			
					deposits			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	-0.8	0.0	0.4	0.3	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	1.8	-1.9	0.0	-0.5	-0.6	0.1	0.1	-0.1	-0.3	0.1	-0.1	0.0	0.1	0.6	
2002	2.1	-2.6	-0.5	0.1	0.1	0.0	0.0	0.0	-0.3	0.1	-0.5	-0.1	0.0	0.0	
2003	3.1	-3.1	0.0	0.1	0.1	0.0	0.0	0.1	-0.2	0.1	-0.2	-0.1	0.0	0.1	
2004	3.1	-3.0	0.1	0.2	0.2	0.0	0.1	0.0	-0.5	0.2	-0.1	0.0	0.0	0.0	
2005	3.1	-2.6	0.5	0.7	0.4	0.1	0.2	0.1	-0.3	0.2	0.0	0.0	0.0	-0.2	
2006	1.5	-1.3	0.2	0.3	0.3	-0.2	0.3	-0.1	-0.3	0.1	0.1	0.0	0.0	-0.2	
2007	1.1	-0.6	0.5	0.6	0.2	0.0	0.2	0.1	-0.2	0.2	0.0	0.0	0.0	-0.1	

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. [debt(t) - debt(t-1)] ÷ 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). 1)

2)

3)

4) Includes, in particular, the impact of the reclassification of units and certain types of debt assumption.

5) The difference between the changes in the aggregated debt, resulting from the aggregation of countries' debt, and the aggregation of countries' change in debt is due to variations in the exchange rates used for aggregation before 2001.

Holders resident in the country whose government has issued the debt. 6) 7)

Includes residents of euro area countries other than the country whose government has issued the debt.

Including proceeds from sales of UMTS licences. 8)

9) The difference between the annual change in gross nominal consolidated debt and the deficit as a percentage of GDP.

10) Mainly composed of transactions in other assets and liabilities (trade credits, other receivables/payables and financial derivatives).

11) 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 re	venue	Memo: fiscal
			Direct taxes	Indirect taxes	Social contributions	Sales	Property income		Capital taxes	burden <sup>2)</sup>
	1	2	3	4	5	6	7	8	9	10
2002 Q3 Q4	43.5 49.0	43.1 48.4	11.2 13.4	12.8 14.1	15.5 16.2	1.9 2.9	0.7 0.9	0.4 0.6	0.3 0.3	39.7 44.0
2003 Q1	41.9	41.4	9.8	12.8	15.5	1.7	0.7	0.5	0.2	38.4
Q2	46.0	44.6	12.0	12.9	15.7	2.0	1.4	1.4	1.2	41.7
Q3	42.6	42.1	10.8	12.5	15.5	1.9	0.6	0.5	0.2	39.0
Q4	49.3	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 Q3	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	13.0	14.3	16.2	2.9	0.7	1.0	0.4	43.9
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	39.4
Q4	49.2	48.4	13.4	14.3	16.1	2.9	0.8	0.8	0.3	44.0
2006 Q1	42.4	41.9	10.2	13.3	15.1	1.7	0.8	0.5	0.3	38.9
Q2	45.7	45.2	12.4	13.6	15.1	2.0	1.3	0.5	0.3	41.4
Q3	43.6 49.5	43.2 48.9	11.5	12.9 14.3	15.2 15.9	1.9 2.9	0.8 0.8	0.5 0.6	0.3 0.3	39.9
Q4			14.1							44.6
2007 Q1	42.2	41.8	10.3	13.4	14.8	1.7	0.8	0.4	0.3	38.8
Q2	46.2	45.8	13.0	13.6	15.0	2.0	1.4	0.4	0.3	41.9
Q3 Q4	43.8 49.7	43.3 49.2	12.1 14.5	12.8 14.2	15.0 15.8	1.9 2.9	0.8 0.9	0.5 0.5	0.3 0.3	40.1 44.8
2008 Q1	42.3	41.9	10.6	13.0	14.9	1.7	0.8	0.4	0.2	38.7
Q2	45.5	45.1	12.9	13.0	15.0	1.9	1.5	0.4	0.3	41.2
Q3	43.2	42.8	11.8	12.4	15.1	1.9	0.8	0.4	0.3	39.6

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

	Total			Curren	t expendi	ture			Capit	tal expenditu	ire	Deficit (-)/ surplus (+)	Primary deficit (-)/
	-	Total	Compensation of employees	Intermediate consumption	Interest	Current transfers	Social benefits	Subsidies		Investment	Capital transfers	Surprus (1)	surplus (+)
	1	2	3	4	5	6	7	8	9	10	11	12	13
2002 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	46.4	11.1	5.6	3.3	26.4	22.7	1.6	4.4	2.8	1.6	-1.8	1.6
2003 Q1	46.8	43.3	10.3	4.6	3.5	25.0	21.5	1.3	3.5	1.9	1.6	-5.0	-1.5
Q2	47.1	43.6	10.4	4.7	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	51.2	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	3.2	25.0	21.4	1.2	3.4	1.9	1.5	-5.1	-1.9
Q2	46.6	43.2	10.4	4.8	3.3	24.8	21.4	1.3	3.4	2.3	1.1	-1.6	1.6
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	4.6	3.1	25.2	21.4	1.2	3.7	1.9	1.8	-4.9	-1.8
Q2	46.1	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	3.0	24.7	21.3	1.2	3.4	2.5	1.0	-2.6	0.4
Q4	50.6	45.8	11.1	5.8	2.8	26.1	22.5	1.3	4.8	3.1	1.6	-1.4	1.4
2006 Q1	45.3	42.2	10.0	4.6	2.9	24.7	21.1	1.1	3.1	1.9	1.2	-2.9	0.0
Q2	45.5	42.3	10.2	4.9	3.1	24.1	21.1	1.1	3.2	2.3	0.9	0.2	3.3
Q3	45.4	42.0	9.8	4.7	2.9	24.5	21.1	1.2	3.4	2.5	1.0	-1.7	1.2
Q4	50.4	45.1	10.7	5.8	2.7	25.9	22.3	1.3	5.3	3.2	2.2	-0.9	1.8
2007 Q1	44.4	41.3	9.8	4.6	3.0	23.9	20.5	1.1	3.1	2.0	1.2	-2.2	0.7
Q2	44.8	41.6	9.9	4.8	3.2	23.7	20.7	1.1	3.2	2.3	0.8	1.4	4.6
Q3	45.1	41.4	9.6	4.7	3.0	24.0	20.8	1.2	3.7	2.5	1.2	-1.3	1.7
Q4	50.2	45.1	10.7	5.7	2.8	25.9	22.1	1.4	5.1	3.3	1.8	-0.5	2.3
2008 Q1	44.5	41.3	9.8	4.6	2.9	24.1	20.5	1.2	3.2	2.0	1.1	-2.2	0.7
Q2	45.1	41.8	10.1	4.9	3.1	23.7	20.6	1.1	3.3	2.4	1.0	0.4	3.5
Q3	45.6	42.1	9.7	4.9	3.1	24.3	21.1	1.2	3.5	2.5	1.0	-2.4	0.8

Source: ECB calculations based on Eurostat and national data.

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 1)

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

	Total		Financial in	struments	
	1	Currency and deposits 2	Loans 3	Short-term securities	Long-term securities 5
2005 Q4	70.2	2.4	11.8	4.7	51.3
2006 Q1	70.5	2.5	11.7	4.9	51.3
Q2	70.6	2.5	11.6	4.9	51.6
Q3	70.1	2.5	11.6	4.7	51.2
Q4	68.5	2.5	11.4	4.1	50.4
2007 Q1	68.8	2.4	11.5	4.8	50.1
Q2	68.9	2.2	11.2	5.1	50.4
Q3	68.0	2.1	11.1	5.2	49.6
Q4	66.3	2.2	10.8	4.3	49.0
2008 Q1	67.2	2.2	11.1	5.0	49.0
Q2	67.5	2.1	11.0	5.0	49.3
Q3	67.5	2.1	10.9	5.6	48.9
· · · · · · · · · · · · · · · · · · ·					

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

	Change in debt	Deficit (-)/ surplus (+)				Deficit-de	bt adjustment				Memo: Borrowing
			Total	Transacti	ons in main fina	ncial assets he	ld by general go	vernment	Valuation effects and other changes	Other	requirement
				Total	Currency and deposits	Loans	Securities	Shares and other equity			
	1	2	3	4	5	6	7	8 8	9	10	11
2005 Q4	-0.6	-1.4	-2.0	-0.4	0.0	0.0	-0.3	-0.1	0.0	-1.5	-0.6
2006 Q1	4.8	-2.9	1.9	1.2	1.0	0.1	0.6	-0.5	-0.4	1.0	5.1
Q2	3.3	0.2	3.5	3.2	2.5	0.0	0.4	0.2	0.6	-0.3	2.6
Q3	1.2	-1.7	-0.5	-0.8	-0.7	-0.1	0.2	-0.1	0.2	0.1	1.0
Q4	-2.8	-0.9	-3.7	-2.2	-1.4	-0.6	-0.2	-0.2	-0.1	-1.4	-2.7
2007 Q1	4.9	-2.2	2.7	2.1	1.0	0.1	0.6	0.3	-0.2	0.8	5.1
Q2	3.6	1.4	5.1	4.8	4.1	0.0	0.5	0.2	0.1	0.2	3.6
Q3	-0.4	-1.3	-1.8	-1.6	-2.1	0.2	0.4	0.0	0.0	-0.2	-0.4
Q4	-3.4	-0.5	-3.9	-2.9	-2.2	-0.1	-0.6	0.0	-0.1	-0.9	-3.3
2008 Q1	6.1	-2.2	3.9	2.2	1.9	0.0	0.1	0.3	0.0	1.7	6.2
Q2	3.8	0.4	4.1	2.4	2.0	0.2	0.1	0.0	0.1	1.7	3.7
Q3	2.0	-2.4	-0.4	-0.7	-1.6	0.1	0.2	0.6	0.5	-0.1	1.5

### **C28 Deficit, borrowing requirement and change in debt** (four-quarter moving sum as a percentage of GDP)









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)

		Cu	rrent accou	ınt		Capital	Net lending/			Financial	account			Errors and
	Total	Goods	Services	Income	Current transfers	account	borrowing to/from rest of the world (columns 1+6)	Total	Direct investment	Portfolio investment	Financial derivatives	Other investment	Reserve assets	omissions
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
2005	13.0	47.0	38.2	1.4	-73.5	11.4	24.4	10.8	-207.4	129.2	-17.3	88.6	17.7	-35.2
2006	8.5	19.8	44.1	23.8	-79.2	9.3	17.9	137.8	-156.7	290.4	3.0	1.9	-0.9	-155.6
2007	37.8	57.5	53.2	11.1	-84.0	14.0	51.8	29.4	-90.4	137.7	-53.9	41.1	-5.1	-81.3
2007 Q3	17.3	17.7	17.8	7.6	-25.9	1.7	19.0	104.8	-34.1	46.7	-15.3	111.9	-4.4	-123.8
Q4	10.6	10.3	11.2	9.4	-20.3	5.2	15.8	-73.2	25.0	-73.2	-19.1	-10.6	4.7	57.4
2008 Q1	-8.6	-1.5	11.9	8.0	-26.9	6.1	-2.4	-4.4	-107.1	73.8	-21.0	55.0	-5.1	6.8
Q2	-24.4	6.2	15.7	-29.2	-17.1	3.0	-21.4	87.2	-49.2	34.3	-9.1	111.1	0.0	-65.7
Q3	-9.1	-5.9	15.6	3.9	-22.7	2.0	-7.1	-41.1	-40.5	17.4	-1.0	-19.2	2.2	48.2
2007 Oct.	4.4	7.3	4.4	2.8	-10.2	1.2	5.6	-46.8	31.6	-48.2	-2.7	-27.6	0.0	41.2
Nov.	2.6	5.1	3.4	0.7	-6.6	0.9	3.5	-0.8	4.5	0.9	-11.2	4.8	0.2	-2.7
Dec.	3.7	-2.1	3.4	5.8	-3.5	3.0	6.7	-25.6	-11.1	-25.9	-5.3	12.2	4.5	18.9
2008 Jan.	-15.0	-8.1	3.5	0.0	-10.4	2.5	-12.4	5.5	-64.2	58.7	-26.9	44.2	-6.4	7.0
Feb.	9.8	4.8	4.5	4.8	-4.4	2.4	12.2	-25.3	-21.4	0.3	2.5	-11.3	4.5	13.1
Mar.	-3.3	1.8	3.8	3.1	-12.1	1.2	-2.2	15.4	-21.6	14.8	3.4	22.1	-3.2	-13.3
Apr.	-4.9	5.4	4.4	-6.9	-7.8	0.7	-4.3	29.8	-22.6	-16.9	-2.8	75.2	-3.3	-25.5
May	-21.8	-1.8	4.9	-19.7	-5.1	1.8	-20.0	43.6	-7.0	10.2	-9.9	47.5	2.7	-23.7
June	2.2	2.6	6.5	-2.6	-4.2	0.5	2.8	13.8	-19.6	41.0	3.5	-11.6	0.5	-16.6
July	1.1	2.3	6.4	-0.1	-7.5	0.9	2.0	-5.7	-12.3	-8.8	2.0	15.1	-1.7	3.7
Aug.	-6.0	-5.2	4.6	1.9	-7.3	0.5	-5.5	-29.6	-9.8	-18.2	-5.9	1.8	2.4	35.1
Sep.	-4.2	-2.9	4.6	2.1	-7.9	0.5	-3.7	-5.8	-18.5	44.5	2.8	-36.1	1.4	9.5
Oct.	-4.8	2.3	2.7	1.2	-11.1	0.0	-4.8	75.3	-14.1	121.7	24.0	-47.8	-8.6	-70.4
		210					nth cumulated			12117	2110		010	
2008 Oct.	-40.7	4.0	52.7	-9.6	-87.8	15.1	-25.6	90.5	-217.5	222.3	-23.5	116.0	-6.8	-64.9

## **C30 B.o.p. current account balance** (EUR billions)



Source: ECB.

1) The sign convention is explained in the general notes.



External transactions and positions

### 7.2 Current and capital accounts (EUR billions; transactions)

### 1. Summary current and capital accounts

						Currer	nt account	t						Capital ac	count
		Total		Goo	ds	Servio	ces	Incom	ne		Current t	ransfers			
	Credit	Debit	Net	Credit	Debit	Credit	Debit	Credit	Debit	Cre	dit	De	bit	Credit	Debit
	1	2	3	4	5	6	7	8	9	10	Workers remit- tances 11	12	Workers remit- tances 13	14	15
2005 2006 2007	2,098.1 2,422.9 2,685.8	2,085.0 2,414.4 2,648.0	13.0 8.5 37.8	1,221.9 1,391.5 1,506.7	1,174.9 1,371.7 1,449.2	403.8 438.8 488.3	365.6 394.7 435.1	387.1 504.0 601.8	385.7 480.2 590.7	85.2 88.7 89.0	5.0 5.3 6.3	158.7 167.8 173.0	14.5 17.2 20.2	24.4 23.9 25.9	13.0 14.5 11.9
2007 Q3 Q4 2008 Q1 Q2 Q3	675.6 702.8 684.7 710.3 695.1	658.3 692.2 693.2 734.8 704.2	17.3 10.6 -8.6 -24.4 -9.1	377.0 394.0 389.0 403.6 398.9	359.3 383.7 390.5 397.4 404.8	133.7 126.2 115.7 125.7 136.0	115.8 115.0 103.9 109.9 120.4	148.9 156.0 153.6 159.4 145.8	141.3 146.6 145.6 188.7 142.0	16.0 26.6 26.4 21.7 14.4	1.7 1.6 1.5 1.5	41.9 46.9 53.3 38.8 37.1	5.2 5.5 5.0 5.2	4.5 8.7 9.0 7.3 4.7	2.9 3.5 2.9 4.2 2.7
2008 Aug. Sep. Oct.	215.8 238.7 239.2	221.8 242.9 244.0	-6.0 -4.2 -4.8	119.8 138.1 143.1	125.0 141.0 140.8	44.8 44.6 43.9	40.2 40.0 41.1	46.8 50.6 47.5	44.9 48.5 46.3	4.4 5.4 4.7	•	11.7 13.3 15.7	- - -	1.5 1.4 0.9	0.9 0.9 0.9
							nally adjus								
2007 Q3 Q4 2008 Q1 Q2 Q3	684.6 680.5 700.7 703.4 698.9	674.3 684.0 707.3 710.2 716.0	10.2 -3.5 -6.6 -6.8 -17.1	385.1 379.5 396.9 400.0 403.8	368.2 373.5 390.8 396.3 410.8	124.3 125.4 125.9 125.6 126.0	109.9 112.0 109.9 112.4 114.0	155.8 154.5 155.6 153.2 151.5	153.4 154.4 158.4 156.1 153.4	19.4 21.1 22.2 24.6 17.6		42.8 44.1 48.2 45.4 37.9			
2008 May June July Aug. Sep. Oct.	234.6 231.5 232.5 235.7 230.6 227.9	238.3 236.9 235.5 241.1 239.4 234.3	-3.7 -5.4 -3.0 -5.3 -8.8 -6.4	132.0 132.8 135.1 137.1 131.6 130.5	132.2 134.1 135.5 138.9 136.3 129.5	41.8 41.6 41.0 43.0 42.0 41.9	37.5 37.7 36.2 38.3 39.6 39.1	53.4 49.1 50.5 50.7 50.2 49.8	54.6 49.9 51.1 52.0 50.2 50.2	7.3 8.0 5.9 5.0 6.7 5.8		14.0 15.1 12.7 11.8 13.3 15.5			- - - - - - -

**C31 B.o.p. goods** (EUR billions, seasonally

**C32 B.o.p. services** (EUR billions, seasonally adjusted; three-month moving average)





Source: ECB.

ECB Monthly Bulletin January 2009

## 7.2 Current and capital accounts (EUR billions)

### 2. Income account

(transactions)

	Compen of empl								Investmer	nt income						
	Credit	Debit	Tot	al			Direct in	rvestment				Portfolio i	nvestment		Other inve	stment
			Credit	Debit	Equit		ity		Det	ot	Equ	ity	Deb	t	Credit	Debit
					Cı	edit	D	ebit	Credit	Debit	Credit	Debit	Credit	Debit		
					ſ		[	Reinv.								
	1	2	3	4	5	earnings 6	7	earnings 8	9	10	11	12	13	14	15	16
2005	16.2	9.5	370.9	376.2	147.3	40.2	106.2	-13.3	16.0	16.8	31.5	70.2	82.3	80.9	93.8	102.1
2006	16.8	10.0	487.1	470.2	186.2	44.2	108.2	34.5	20.5	20.0	39.6	99.6	103.5	91.0	137.4	151.4
2007	17.6	10.5	584.3	580.2	210.4	81.2	127.5	34.7	25.9	23.4	45.5	116.5	118.7	114.4	183.8	198.3
2007 Q2	4.3	2.6	153.1	173.6	57.7	13.9	37.4	6.8	6.6	6.2	15.3	53.5	28.7	28.0	44.8	48.5
Q3	4.3	3.2	144.6	138.1	49.5	24.0	28.9	14.5	6.2	5.5	11.0	24.1	30.1	28.5	47.8	51.1
Q4	4.6	2.7	151.4	143.9	52.9	16.5	30.8	5.4	7.3	6.3	9.2	20.7	32.0	32.4	50.0	53.6
2008 Q1	4.6	2.0	149.0	143.6	53.6	25.9	30.2	14.3	6.6	6.0	9.6	20.9	31.4	33.3	47.9	53.2
Q2	4.3	2.7	155.1	186.0	55.1	16.9	35.6	8.4	7.5	6.5	14.3	58.2	31.5	32.7	46.7	53.1

## **3. Geographical breakdown** (cumulated transactions)

	Total	Eu	ropean U	<b>nion 27</b> (	outside th	ie euro are	a)	Brazil	Canada	China	India	Japan	Russia	Switzer- land	United States	Other
2007 Q3 to		Total	Den- mark	Sweden	United Kingdom	Other EU countries	EU insti- tutions									
2008 Q2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
		I				II		Cı	redits							
Current account	2,773.5	1,036.5	59.2	86.6	540.4	289.4	60.9	37.5	37.9	84.7	32.3	56.4	95.0	183.1	409.8	800.2
Goods	1,563.6	561.3	35.7	55.9	240.8	228.9	0.0	19.9	18.5	64.4	24.2	33.5	73.4	88.6	194.2	485.6
Services	501.3	179.3	12.4	13.6	118.4	29.4	5.5	6.2	6.8	15.6	6.2	10.8	12.7	49.0	80.1	134.6
Income	617.9	228.9	10.4	15.6	167.8	28.2	6.8	11.2	12.0	4.4	1.8	11.7	8.7	39.4	128.9	170.9
Investment income	600.0	222.4	10.3	15.5	165.6	28.0	3.0	11.2	11.9	4.4	1.8	11.6	8.6	32.7	127.4	168.0
Current transfers	90.7	67.0	0.7	1.4	13.4	2.9	48.5	0.2	0.7	0.3	0.1	0.4	0.2	6.1	6.7	9.0
Capital account	29.5	26.0	0.0	0.1	0.9	0.1	24.9	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.7	1.3
								Γ	Debits							
Current account	2,778.6	934.1	47.2	84.7	470.0	226.7	105.6	-	29.9	-	-	102.1	-	176.3	367.7	-
Goods	1,530.9	441.9	29.0	52.2	179.4	181.4	0.0	26.5	13.2	168.6	19.6	55.9	101.2	76.6	138.5	489.0
Services	444.7	139.2	9.1	10.8	88.6	30.6	0.2	4.8	7.0	11.0	4.3	8.0	9.1	38.0	89.4	133.8
Income	622.1	238.2	8.5	20.3	190.7	10.5	8.2	-	7.8	-	-	37.8	-	55.9	133.6	-
Investment income	611.5	231.9	8.4	20.2	189.2	5.8	8.2	-	7.7	-	-	37.7	-	55.3	132.6	-
Current transfers	180.8	114.8	0.7	1.4	11.3	4.2	97.1	1.5	1.8	2.5	0.6	0.4	0.6	5.8	6.2	46.6
Capital account	13.5	2.6	0.0	0.1	1.4	0.3	0.7	0.2	1.1	0.1	0.2	0.1	0.1	0.6	1.4	7.3
									Net							
Current account	-5.1	102.4	12.0	1.9	70.5	62.7	-44.7	-	8.1	-	-	-45.7	-	6.8	42.1	-
Goods	32.7	119.4	6.8	3.7	61.4	47.5	0.0	-6.5	5.3	-104.2	4.6	-22.4	-27.8	11.9	55.6	-3.4
Services	56.6	40.1	3.3	2.8	29.8	-1.2	5.4	1.4	-0.2	4.6	1.9	2.8	3.6	10.9	-9.3	0.8
Income	-4.2	-9.3	2.0	-4.7	-22.8	17.7	-1.5	-	4.1	-	-	-26.1	-	-16.4	-4.7	-
Investment income	-11.5	-9.4	1.9	-4.7	-23.6	22.2	-5.3	-	4.2	-	-	-26.1	-	-22.7	-5.2	-
Current transfers	-90.1	-47.8	0.0	0.0	2.1	-1.3	-48.6	-1.3	-1.1	-2.2	-0.6	-0.1	-0.3	0.3	0.5	-37.5
Capital account	16.0	23.4	0.0	-0.1	-0.5	-0.2	24.2	-0.1	-1.0	0.0	-0.2	-0.1	0.0	-0.2	0.3	-6.0
Source: ECB.																



## 7.3 Financial account (EUR billions and annual growth rat

#### 1. Summary financial account

I. Summary	financial	account												
		Total <sup>1)</sup>		as	Total a % of GD	P		rect tment		tfolio tment	Net financial derivatives	Otl invest		Reserve assets
	Assets	Liabilities	Net	Assets	Liabilities	Net	Assets	Liabilities	Assets	Liabilities	uerivatives	Assets	Liabilities	
	1	2	3	4	5 Outstanding	6	7 ternational	8	9	10	11	12	13	14
2004	8,609.6	9,507.7	-898.1	110.1	121.6	-11.5	2,276.0	2,229.8	3,043.1	4,078.8	-37.3	3,046.9	3,199.1	281.0
2005 2006	10,795.0 12,272.5	11,593.7 13,292.9	-798.7 -1,020.4	133.1 144.3	143.0 156.3	-9.8 -12.0	2,800.9 3,143.7	2,438.7 2,721.3	3,883.8 4,370.2	5,107.9 5,864.9	-21.4 -20.9	3,809.2 4,451.8	4,047.1 4,706.8	322.5 327.7
2007	13,773.8	14,904.4	-1,130.7	154.3	166.9	-12.7	3,542.2	3,084.5	4,653.3	6,339.5	-10.3	5,241.2	5,480.5	347.4
2008 Q1 Q2	13,732.4 13,773.0	14,836.7 14,820.6	-1,104.3 -1,047.6	152.4 151.3	164.7 162.8	-12.3 -11.5	3,613.0 3,644.5	3,074.5 3,048.8	4,352.1 4,484.8	6,078.9 6,072.1	8.1 4.5	5,402.8 5,285.4	5,683.3 5,699.6	356.3 353.9
						Changes to c								
2004 2005 2006 2007	748.0 2,185.4 1,477.5 1,501.3	878.1 2,086.0 1,699.2 1,611.5	-130.2 99.4 -221.7 -110.2	9.6 26.9 17.4 16.8	11.2 25.7 20.0 18.1	-1.7 1.2 -2.6 -1.2	106.5 524.9 342.8 398.5	145.6 208.9 282.5 363.2	387.4 840.7 486.4 283.1	492.7 1,029.0 757.0 474.6	-17.3 15.9 0.5 10.7	297.1 762.3 642.6 789.4	239.8 848.0 659.7 773.7	-25.7 41.5 5.2 19.7
2008 Q1	-41.4	-67.8	26.4	-1.8	-3.0	1.2	70.8	-10.0	-301.2	-260.6	18.4	161.7	202.8	9.0
Q2	40.7	-16.1	56.7	1.8	-0.7	2.4 Tr	31.5 ansactions	-25.7	132.7	-6.7	-3.6	-117.5	16.3	-2.5
2004	821.2	794.2	27.0	10.5	10.2	0.3	169.6	88.6	346.2	417.7	8.5	309.4	287.9	-12.5
2005 2006	1,330.7 1,686.4	1,341.4 1,824.1	-10.8 -137.8	16.4 19.8	16.5 21.4	-0.1 -1.6	359.8 415.6	152.3 258.9	414.4 533.9	543.6 824.2	17.3 -3.0	556.8 739.1	645.5 741.0	-17.7 0.9
2007	1,873.1	1,902.5	-29.4	21.0	21.3	-0.3	455.3	364.9	440.6	578.3	53.9	918.3	959.3	5.1
2008 Q1 Q2 Q3	537.8 59.5 97.8	533.4 146.7 56.7	4.4 -87.2 41.1	23.9 2.6 4.3	23.7 6.3 2.5	0.2 -3.8 1.8	151.6 24.9 71.7	44.4 -24.2 31.2	69.4 137.6 -49.8	143.2 172.0 -32.3	21.0 9.1 1.0	290.8 -112.1 77.0	345.8 -1.0 57.8	5.1 0.0 -2.2
2008 June July	-85.4 55.3	-71.6 49.6	-13.8 5.7				30.4 25.6	10.8 13.3	20.7 19.2	61.7 10.4	-3.5 -2.0	-132.4 10.9	-144.1 25.9	-0.5 1.7
Aug.	25.2	-4.4	29.6				11.0	1.2	17.9	-0.3	5.9	-7.2	-5.3	-2.4
Sep. Oct.	17.3 -88.3	11.5 -13.0	5.8 -75.3	:	•	•	35.2 18.0	16.7 3.9	-86.9 -131.0	-42.4 -9.3	-2.8 -24.0	73.3 40.2	37.2 -7.6	-1.4 8.6
							er changes							
2004 2005	-73.3 854.7	83.9 744.6	-157.2 110.1	-0.9 10.5	1.1 9.2	-2.0 1.4	-63.1 165.1	57.0 56.6	41.3 426.3	75.0 485.4	-25.8 -1.4	-12.4 205.5	-48.1 202.5	-13.3 59.2
2006	-208.9	-125.0	-84.0	-2.5	-1.5	-1.0	-72.8	23.6	-47.5	-67.2	3.5	-96.5	-81.4	4.3
2007	-371.8	-291.0	-80.8	-4.2	-3.3 Other (	-0.9 hanges due	-56.8 to exchang	-1.7 e rate chan	-157.5 ges	-103.7	-43.2	-128.9	-185.6	14.6
2004	-174.7	-97.2	-77.5	-2.2	-1.2	-1.0	-37.3	8.9	-66.7	-52.8		-61.4	-53.3	-9.3
2005 2006	389.8 -346.4	210.0 -203.8	179.8 -142.6	4.8 -4.1	2.6 -2.4	2.2 -1.7	90.2 -73.2	-22.2 14.2	153.4 -152.8	118.2 -116.8		127.5 -105.2	114.0 -101.1	18.7 -15.2
2000	-534.8	-238.8	-296.0	-6.0	-2.7	-3.3	-114.3	33.6	-222.3	-125.8		-183.3	-146.5	-14.9
						her changes								
2004 2005	113.1 304.8	222.1 333.8	-109.0 -29.0	1.4 3.8	2.8 4.1	-1.4 -0.4	34.4 67.0	26.4 51.4	107.5 197.1	195.7 282.4	-25.8 -1.4	•	•	-3.1 42.1
2006 2007	319.1 179.4	296.3 -63.3	22.8 242.8	3.8 2.0	3.5 -0.7	0.3 2.7	67.7 32.3	41.7	231.7 158.7	254.6 -76.3	3.5			16.2 31.7
2007	1/9.4	-03.3	242.0	2.0		r changes a		13.0 adjustment		-70.5	-43.2	•	•	51.7
2004	-11.6	-40.9	29.3	-0.1	-0.5	0.4	-60.3	21.7	0.4	-67.8		49.1	5.2	-0.8
2005 2006	159.4 -181.3	200.8 -217.5	-41.4 36.3	2.0 -2.1	2.5 -2.6	-0.5 0.4	8.0 -67.3	27.4 -32.3	75.7 -126.3	84.8 -205.0		77.9 8.6	88.5 19.8	-2.2 3.7
2007	-16.1	11.1	-27.2	-0.2	0.1	-0.3	25.2	-48.3	-93.8	98.5		54.4	-39.1	-1.9
2004	10.3	9.1			Gro	owth rates o	f outstandir 7.8	ng amounts 4.2	12.8	11.5		11.2	9.7	-4.1
2005	14.9	13.7	-	:	:	:	15.2	6.8	13.1	12.8	:	17.7	19.6	-5.8
2006 2007	15.8 15.3	15.9 14.2	-	:	:	:	14.9 14.5	10.6 13.4	14.0 10.1	16.3 9.8	:	19.5 20.7	18.4 20.4	0.2 1.6
2008 Q1	13.7	12.8	-				15.5	11.3	8.0	7.6		17.2	20.4	2.6
Q2 Q3	9.8 7.5	9.8 6.7	-	•	•	•	11.6 10.2	7.8 6.0	7.8 5.7	7.0 5.0		9.8 6.9	14.7 9.1	1.4 -0.6

Source: ECB. 1) Net financial derivatives are included in assets.



## 7.3 Financial account (EUR billions and annual

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

### 2. Direct investment

			By resid	ent units a	broad				B	y non-resid	ent units in	the euro are	ea	
	Total		iity capital vested earn	ings		ther capital ter-company	loans)	Total		quity capita invested ear			Other capita nter-compar	
		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
					Oustanding	amounts (in	ternational	investment j	position)					
2006 2007	3,143.7 3,542.2	2,551.1 2,858.8	219.1 248.4	2,332.0 2,610.3	592.6 683.4	2.3 6.4	590.4 677.1	2,721.3 3,084.5	2,085.7 2,338.4	65.1 68.4	2,020.6 2,270.0	635.5 746.1	9.7 14.9	625.9 731.1
2008 Q1 Q2	3,613.0 3,644.5	2,900.5 2,905.3	250.3 259.4	2,650.2 2,645.9	712.5 739.2	8.4 6.6	704.1 732.6	3,074.5 3,048.8	2,322.1 2,288.2	65.6 64.0	2,256.5 2,224.2	752.4 760.7	14.6 15.2	737.8 745.5
						Tr	ansactions							
2006 2007	415.6 455.3	325.7 354.4	40.2 28.4	285.5 326.1	89.9 100.9	0.0 -0.6	89.9 101.5	258.9 364.9	224.0 250.7	5.7 4.4	218.3 246.4	34.9 114.2	0.0 1.4	34.9 112.7
2008 Q1 Q2 Q3	151.6 24.9 71.7	113.8 1.8 62.8	10.0 8.9 -7.4	103.8 -7.1 70.2	37.8 23.1 8.9	2.3 -1.8 -0.2	35.4 25.0 9.1	44.4 -24.2 31.2	37.9 -27.6 21.9	0.0 -2.2 1.3	37.9 -25.4 20.6	6.6 3.4 9.3	0.1 1.0 1.2	6.4 2.3 8.1
2008 June July Aug. Sep.	30.4 25.6 11.0 35.2	14.6 22.4 18.8 21.7	2.0 -14.2 2.4 4.4	12.7 36.6 16.4 17.3	15.8 3.2 -7.8 13.5	0.0 1.6 -1.2 -0.6	15.8 1.6 -6.6 14.1	10.8 13.3 1.2 16.7	-1.2 7.3 4.6 10.0	-0.9 0.7 0.3 0.3	-0.3 6.7 4.3 9.7	12.0 6.0 -3.4 6.7	0.5 0.9 0.0 0.3	11.5 5.1 -3.4 6.5
Oct.	18.0	13.5	3.0	10.5	4.5	0.0	4.5 owth rates	3.9	3.9	-1.0	4.9	0.0	0.2	-0.2
2006	14.9	14.4	22.1	13.7	17.3	-2.9	17.4	10.6	12.2	9.5	12.3	5.8	-1.0	5.9
2000	14.9	13.9	12.7	14.0	17.0	-88.7	17.4	13.4	12.2	9.5 7.0	12.3	18.0	8.7	18.1
2008 Q1 Q2 Q3	15.5 11.6 10.2	15.0 10.4 9.4	13.9 13.9 2.9	15.1 10.1 10.0	17.2 16.8 13.8	106.6 6.1 12.0	16.8 16.9 13.8	11.3 7.8 6.0	10.7 6.1 4.6	5.6 1.4 1.2	10.9 6.2 4.7	13.2 13.2 10.7	17.2 16.9 23.0	13.1 13.1 10.5

### C33 B.o.p. net direct and portfolio investment (EUR billions)





### 7.3 Financial account (EUR billions and annual growth ra

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

### 3. Portfolio investment assets

	Total			Equit	y						Debt inst	ruments				
								E	Bonds and	notes			Mone	y market in	struments	
		Total	M	FIs	Non	-MFIs	Total	M	FIs	Nor	-MFIs	Total	М	FIs	Non	-MFIs
				Euro- system		General government			Euro- system		General government			Euro- system		General government
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
					0	utstanding an	nounts (int	ernationa	al investm	ent positio	n)					
2006 2007	4,370.2 4,653.3	1,936.0 1,984.2	127.7 145.1	2.8 2.4	1,808.2 1,839.1	37.0 44.6	2,056.7 2,232.5	875.1 937.9	11.2 13.9	1,181.6 1,294.6	14.1 17.0	377.5 436.6	309.9 349.5	9.2 32.6	67.7 87.1	0.2 0.5
2008 Q1 Q2	4,352.1 4,484.8	1,668.4 1,712.7	123.2 121.9	2.7 2.7	1,545.2 1,590.7	38.8 40.1	2,207.3 2,279.2	960.0 996.2	26.2 33.8	$1,247.4 \\ 1,283.0$	17.0 18.4	476.3 492.9	383.9 403.8	28.3 47.7	92.4 89.2	0.8 0.8
							Tra	nsactions	s							
2006 2007	533.9 440.6	153.2 81.1	18.2 36.2	0.0 -0.4	135.0 44.8	6.1 5.4	313.1 283.3	172.8 154.0	2.4 3.5	140.4 129.3	1.1 2.2	67.5 76.2	56.5 67.3	8.0 23.7	11.1 8.8	-0.1 0.3
2008 Q1 Q2 Q3	69.4 137.6 -49.8	-44.4 30.8 -27.4	-40.9 -5.1 -11.7	0.1 0.1 0.1	-3.5 36.0 -15.7	-0.6 0.8 -	39.2 96.0 6.8	29.8 37.0 -3.0	3.4 8.3 0.0	9.4 59.0 9.8	0.5 1.6	74.6 10.8 -29.1	59.2 18.3 -26.7	7.1 20.9 0.1	15.3 -7.5 -2.4	0.1 0.1
2008 June July Aug.	20.7 19.2 17.9	8.1 6.0 -7.1	-9.3 3.7 -4.0	0.0 0.1 0.0	17.4 2.3 -3.1		15.7 1.3 12.6	11.1 -5.6 8.6	2.3 0.2 0.3	4.6 6.9 4.0		-3.1 11.9 12.4	-3.0 15.2 11.4	6.9 0.1 -0.1	-0.1 -3.4 1.0	: : :
Sep. Oct.	-86.9 -131.0	-26.4 -48.7	-11.5 -11.6	0.0 0.0	-14.9 -37.1	•	-7.1 -30.3	-6.0 -13.0	-0.5 -0.2	-1.1 -17.2	•	-53.4 -52.0	-53.3 -30.5	0.1 0.0	-0.1 -21.6	•
								wth rate								
2006 2007	14.0 10.1	9.0 4.1	17.5 29.2	0.9 -13.1	8.4 2.4	22.1 14.0	17.4 13.8	24.3 17.9	26.1 32.5	12.9 10.8	9.4 15.9	21.6 20.5	22.5 22.2	1,019.8 251.2	20.4 12.8	-27.3 173.4
2008 Q1 Q2 Q3	8.0 7.8 5.7	0.6 1.4 -1.1	-18.0 -27.0 -29.3	-4.8 0.6 6.2	1.8 3.7 1.2	9.8 8.0	11.1 10.7 9.4	14.6 11.4 10.3	48.5 83.6 73.2	8.6 10.1 8.9	12.5 20.7	27.7 21.8 17.5	32.8 29.8 24.9	173.5 236.0 163.9	7.5 -7.8 -10.1	-90.0 -93.6 -

### 4. Portfolio investment liabilities

	Total		Equity					Debt instru	ments			
				-		Bonds ar	d notes		Мо	ney market i	nstrument	s
	-	Total	MFIs	Non-MFIs	Total	MFIs	Nor	n-MFIs	Total	MFIs	Nor	-MFIs
	1	2	3	4	5	6	7	General government 8	9	10	11	General government 12
				Outstanding	amounts (inter		stment posi			10		
2006 2007	5,864.9 6,339.5	2,910.7 3,103.1	657.5 754.7	2,253.2 2,348.4	2,655.3 2,916.8	955.2 1,129.5	1,702.4 1,787.2	1,015.4 1,109.3	298.9 319.6	125.8 153.3	173.3 166.2	138.0 142.5
2008 Q1 Q2	6,078.9 6,072.1	2,776.1 2,690.7	733.2 737.2	2,042.9 1,953.5	2,937.6 3,003.8	1,115.7 1,136.2	1,821.8 1,867.6	1,153.6 1,153.0	365.2 377.6	178.2 173.6	187.0 204.0	164.2 172.5
					Tran	sactions						
2006 2007	824.2 578.3	299.9 96.0	94.5 76.1	205.4 19.6	521.6 446.4	212.7 232.6	308.8 213.8	137.3 152.0	2.7 35.9	21.4 37.6	-18.7 -1.8	-19.6 3.2
2008 Q1 Q2 Q3	143.2 172.0 -32.3	46.1 -20.7 -93.0	73.1 17.1 -36.1	-27.0 -37.8 -56.8	78.3 171.8 60.9	23.1 66.9 25.1	55.2 104.9 35.8	65.2 46.4	18.8 20.8 -0.3	4.4 -0.1 -37.9	14.4 21.0 37.6	27.6 11.1
2008 June July Aug. Sep. Oct.	61.7 10.4 -0.3 -42.4 -9.3	-6.0 5.2 -8.9 -89.3 -43.4			48.4 1.1 30.3 29.5 -22.9				19.3 4.1 -21.8 17.4 57.0		- - - -	· · ·
					Grov	th rates						
2006 2007	16.3 9.8	12.2 3.3	17.3 11.3	10.8 0.9	23.1 16.9	25.9 24.6	21.4 12.6	15.1 15.0	0.9 11.8	18.7 30.5	-9.6 0.3	-12.1 3.8
2008 Q1 Q2 Q3	7.6 7.0 5.0	2.2 0.0 -3.7	11.9 11.4 2.4	-1.0 -3.6 -5.8	12.9 14.1 13.8	16.7 16.0 13.6	10.8 13.0 13.9	17.4 16.5	13.5 7.8 5.2	31.5 19.8 -6.7	2.8 1.7 16.2	8.8 3.2

# **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

	Total	1	Eurosystem		(exclu	MFIs ding Eurosy	vstem)		Gene govern				Other so	ectors	
	-	Total	Loans/ currency and	Other assets	Total	Loans/ currency and	Other assets	[	Trade credits	Loans/c and de	posits		Trade credits	and d	currency eposits
	1	2	deposits 3	4	5	deposits 6	7	8	9	10	Currency and deposits 11	12	13	14	Currency and deposits 15
				(	Outstanding	g amounts (ii	nternationa	l investmer	nt position)						
2006 2007	4,451.8 5,241.2	13.4 38.2	12.6 37.6	0.7 0.7	2,941.2 3,350.5	2,878.3 3,279.1	62.8 71.4	119.6 106.7	14.2 12.7	57.8 47.7	15.4 13.5	1,377.7 1,745.7		1,062.7 1,388.4	395.8 441.9
2008 Q1 Q2	5,402.8 5,285.4	46.4 36.7	46.1 36.4	0.3 0.3	3,463.3 3,363.4	3,393.8 3,287.2	69.6 76.2	99.3 105.6	12.5 12.4	41.5 47.4	11.2 17.0	1,793.8 1,779.7		$1,417.8 \\ 1,388.3$	453.7 407.8
							ransactions								
2006 2007	739.1 918.3	-8.7 21.9	-8.7 22.0	$0.0 \\ 0.0$	521.9 555.0	516.1 547.6	5.8 7.4	-7.2 -7.6	-5.2 -1.4	-2.7 -7.1	3.1 -2.0	233.1 348.9	6.3 13.5	211.5 293.5	30.9 37.5
2008 Q1 Q2 Q3	290.8 -112.1 77.0	9.3 -9.4 -1.9	9.3 -9.4	0.0 0.0	218.5 -105.2 82.2	214.4 -106.1 -	4.1 0.9	-4.9 6.2 -8.5	-0.3 -0.4	-4.9 5.9 -	-1.3 5.6 -8.5	67.9 -3.7 5.2	6.4 11.0 -	34.5 -22.0	12.8 -47.8 -1.4
2008 June July Aug.	-132.4 10.9 -7.2	-2.5 -0.6 -1.2			-124.1 7.1 1.6			1.0 -8.9 -1.2			0.8 -9.3 -0.2	-6.8 13.3 -6.4	•	•	-19.9 4.9 -3.1
Sep. Oct.	73.3 40.2	-0.1 -6.4	•	:	73.4 25.1		•	1.6 0.3		:	1.0 -2.8	-1.7 21.2		:	-3.3 14.9
-						G	rowth rates								
2006 2007	19.5 20.7	-39.4 165.6	-40.8 174.8	3.1 -3.4	21.1 19.0	21.3 19.1	10.5 11.7	-5.6 -6.4	-26.1 -9.8	-4.6 -12.4	24.4 -13.1	20.0 25.2	3.4 7.3	24.5 27.4	8.6 9.5
2008 Q1 Q2 Q3	17.2 9.8 6.9	113.1 29.0 4.5	116.8 30.0	-4.8 -4.1 -	15.6 7.5 7.6	15.5 7.5	18.3 6.2	-4.5 -12.1 -5.7	-10.3 -10.0	-9.7 -23.1	17.7 -34.1 -33.2	20.8 16.2 6.3	7.8 12.5	21.8 16.1	2.0 -9.3 -11.2

### 6. Other investment liabilities

	Total		Eurosyste	m	(exclu	MFIs ding Euros	ystem)			neral rnment			Other s	ectors	
		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
					Out	standing am	ounts (interi	national inv	estment po	osition)					
2006 2007	4,706.8 5,480.5	115.9 201.2	115.6 201.0	0.2 0.2	3,483.9 3,938.2	3,429.5 3,871.1	54.4 67.1	50.7 50.9	$\begin{array}{c} 0.0\\ 0.0\end{array}$	46.6 45.7	4.1 5.2	1,056.2 1,290.2	146.1 157.6	818.3 1,023.2	91.8 109.4
2008 Q1 Q2	5,683.3 5,699.6	217.3 258.9	216.9 258.6	0.4 0.3	4,101.6 4,082.1	4,032.5 4,010.3	69.0 71.9	49.8 48.6	$\begin{array}{c} 0.0\\ 0.0\end{array}$	46.5 45.6	3.2 3.1	1,314.6 1,310.0	157.4 166.3	1,043.9 1,035.4	113.3 108.3
							Trans	actions							
2006 2007	741.0 959.3	20.4 91.4	20.4 91.4	0.0 0.0	497.0 635.8	490.6 631.0	6.4 4.8	1.9 -1.2	0.0 0.0	2.1 -2.0	-0.1 0.8	221.7 233.4	12.7 9.7	197.2 227.5	11.8 -3.9
2008 Q1 Q2 Q3	345.8 -1.0 57.8	21.3 41.3 106.2	21.2 41.5	0.2 -0.1	283.7 -25.3 -29.9	281.1 -23.2	2.7 -2.1	-1.0 -0.6 2.9	0.0 0.0	0.9 -1.4 -	-1.9 0.7	41.7 -16.4 -21.4	3.3 6.3	34.9 -15.8	3.6 -6.9
2008 June July Aug. Sep. Oct.	-144.1 25.9 -5.3 37.2 -7.6	6.2 -1.2 2.0 105.5 131.6			-145.4 15.1 1.8 -46.9 -180.8			0.3 2.6 -1.7 2.0 6.8	- - - -	- - - -	- - - - -	-5.2 9.4 -7.4 -23.4 34.9			: : : :
							Grow	th rates							
2006 2007	18.4 20.4	22.7 79.6	22.7 79.8	5.7 -6.9	16.2 18.4	16.2 18.5	13.3 8.8	4.0 -2.3	-24.1 29.4	4.7 -4.2	-3.2 16.4	26.9 21.6	9.5 6.7	31.6 27.9	17.5 -2.3
2008 Q1 Q2 Q3	20.4 14.7 9.1	70.9 72.6 126.6	71.1 72.7	15.6 -6.3	17.8 11.8 7.1	17.9 11.9 -	10.8 3.1	-6.3 -8.7 -8.6	21.2 26.7	-5.7 -7.0 -	-15.3 -24.5	24.2 18.1 0.8	10.3 10.4	31.0 23.1	-4.8 -8.8 -



**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							N	ſemo
															Assets	Liabilities
	Total	Monet	ary gold	Special drawing	Reserve position				Foreig	ı exchang	e			Other claims	Claims on euro	Predetermined short-term
		In EUR billions	In fine troy ounces	rights	in the IMF	Total	Currency deposit			Sec	urities		Financial derivatives		area residents in	net drains in
			(millions)				With monetary authorities and the BIS	With banks	Total	Equity	and	Money market instruments			foreign currency	foreign currency
	1	1     2     3     4     5     6     7     8     9     10     11     12     13       Outstanding amounts (international investment position)											14	15	16	
					Ou	tstandir	ng amounts (in	ternation	al invest	ment posi	tion)					
2004 2005 2006	281.0 320.1 325.8	125.4 163.4 176.3	389.998 375.861 365.213	3.9 4.3 4.6	18.6 10.6 5.2	133.0 141.7 139.7	12.5 12.6 6.3	25.5 21.4 22.5	94.7 107.9 110.7	0.5 0.6 0.5	56.6 69.4 79.3	37.6 38.0 30.8	0.4 -0.2 0.3	$\begin{array}{c} 0.0 \\ 0.0 \\ 0.0 \end{array}$	19.1 25.6 24.6	-12.8 -17.9 -21.5
2007 Q4 2008 Q1 Q2	347.4 356.3 353.9	201.0 208.4 207.9	353.688 353.060 352.314	4.6 4.3 4.3	3.6 3.4 4.0	138.2 140.1 137.7	7.2 6.6 7.4	22.0 26.8 24.1	108.5 105.9 105.6	0.4 0.5 0.5	87.8 89.8 89.9	20.3 15.6 15.2	0.5 0.9 0.6	0.0 0.1 0.0	44.1 36.7 59.4	-38.5 -37.3 -59.2
2008 Sep. Oct. Nov.	370.9 368.0 393.4	216.8 200.5 223.8	350.634 350.021 349.718	4.6 5.0 5.0	4.0 4.3 7.1	145.4 158.3 157.5	11.6 9.9 9.1	18.1 18.3 12.8	117.8 137.5 139.1		- -	- - -	-2.1 -7.4 -3.5	$0.0 \\ 0.0 \\ 0.0$	188.9 254.4 255.1	-185.3 -250.8 -245.5
							Tra	ansaction	s							
2005 2006 2007	-17.7 0.9 5.1	-3.9 -4.2 -3.2	-	0.2 0.5 0.3	-8.6 -5.2 -0.9	-5.4 9.8 8.8	-0.2 -6.1 1.0	-6.8 2.4 1.6	1.6 13.6 6.2	$0.0 \\ 0.0 \\ 0.0$	4.8 19.3 14.5	-3.2 -5.7 -8.3	0.0 0.0 0.0	$0.0 \\ 0.0 \\ 0.0$	- -	
2008 Q1 Q2 Q3	5.1 0.0 -2.2	-0.6 -0.4		-0.3 0.0	0.0 0.7	5.9 -0.2	-0.7 0.7	5.7 -2.9	0.9 2.0	0.1 0.0	6.1 1.7	-5.3 0.3	0.1 -0.1	0.1 -0.1	-	
							Gr	owth rate	s							
2005 2006 2007	-5.8 0.2 1.6	-2.8 -2.4 -1.7	-	4.4 11.6 7.3	-44.7 -48.8 -18.2	-3.8 7.2 6.3	-2.0 -48.4 15.0	-23.7 10.6 6.2	1.6 13.1 5.7	2.2 0.0 1.1	6.9 28.4 18.5	-7.9 -15.3 -27.5	20.5 -73.2 -59.1	-	-	
2008 Q1 Q2 Q3	2.6 1.4 -0.6	-1.8 -1.4 -	- -	0.4 -2.4	-3.3 2.7	8.5 5.3	33.2 27.2	9.3 -3.6 -	7.3 6.4	406.6 165.8	18.3 17.3	-33.3 -33.7	-43.6 -45.0	-	-	-



7.3 Financial account (EUR billions; outstanding amounts at end of period, transactions during period)

### 8. Geographical breakdown

	Total	1	European	Union 2'	7 (outside (	the euro ar	ea)	Canada	China	Japan	Switzer- land	United States	<b>Offshore</b> financial	Internat. organisa-	Other countries
		Total	Denmark	Sweden	United Kingdom		EU institutions					Juitto	centres	tions	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
2007					(	Outstanding	amounts (in	nternation	al invest	ment pos	sition)				
Direct investment	457.7	-77.0	-3.7	-32.7	-277.5	237.2	-0.3	23.7	27.1	-10.8	113.1	-66.7	-37.3	-0.2	485.7
Abroad	3,542.2	1,302.0	37.1	82.5	916.1	266.2	0.0	91.6	30.7	69.1	350.1	684.4	391.6	0.0	622.6
Equity/reinvested earnings	2,858.8	1,027.4	32.3	55.2	709.9	230.0	0.0	67.8	24.1	57.8	292.5	525.9	366.1	0.0	497.3
Other capital	683.4	274.7	4.9	27.3	206.2	36.3	0.0	23.8	6.6	11.4	57.6	158.6	25.5	0.0	125.3
In the euro area	3,084.5	/	40.8	115.2	1,193.6	29.0	0.3	67.9	3.7	79.9	236.9	751.1	428.8	0.2	136.9
Equity/reinvested earnings	2,338.4	1,124.2	33.4	93.6	987.8	9.2	0.2	56.6	0.9	65.7	181.3	552.1	267.6	0.0	90.0
Other capital	746.1	254.8	7.4	21.6	205.8	19.9	0.1	11.3	2.7	14.3	55.6	199.0	161.2	0.2	46.9
Portfolio investment assets	4,653.3	1,374.6	68.2	139.3	995.2	101.4	70.5	82.5	42.0	241.9	132.3	1,489.3	630.2	26.8	633.8
Equity	1,984.2	415.2	11.4	45.9	335.3	22.0	0.5	20.2	39.5	141.6	115.7	634.9	285.3	0.9	330.9
Debt instruments	2,669.0	959.4	56.8	93.4	659.9	79.4	70.0	62.3	2.5	100.2	16.6	854.4	344.9	25.9	302.8
Bonds and notes	2,232.5	784.2	52.7	78.2	505.4	78.5	69.4	58.6	2.2	63.5	12.9	710.7	303.1	24.8	272.5
Money market instruments	436.6	175.2	4.0	15.1	154.5	0.8	0.7	3.6	0.3	36.7	3.8	143.8	41.8	1.1	30.4
Other investment	-239.3	-152.6	-155.4	-8.7	121.7	54.4	-164.6	-66.0	-45.2	-31.5	-54.7	-73.1	-91.2	-23.3	298.3
Assets	5,241.2	2,581.4	104.4	72.2	2,241.7	152.3	10.8	23.5	35.0	81.3	266.1	838.0	516.8	57.5	841.7
General government	106.7	21.6	0.8	0.1	10.3	1.2	9.2	0.0	1.8	0.2	0.1	3.1	1.4	38.3	40.4
MFIs	3,388.7	1,924.7	86.7	52.1	1,663.2	121.9	0.8	15.0	15.3	45.0	157.5	409.6	353.5	18.7	449.4
Other sectors	1,745.7	635.2	16.9	20.0	568.2	29.2	0.9	8.5	17.9	36.1	108.5	425.3	161.9	0.5	351.9
Liabilities	5,480.5	2,734.0	259.8	80.9	2,120.0	97.9	175.5	89.5	80.2	112.8	320.7	911.0	608.0	80.8	543.4
General government	50.9	28.4	0.0	0.3	2.4	0.0	25.6	0.0	0.0	0.5	0.8	6.3	0.3	11.5	3.1
MFIs	4,139.4	2,142.0	249.6	58.3	1,659.9	72.4	101.8	81.5	62.2	89.0	247.6	525.1	523.7	66.7	401.7
Other sectors	1,290.2	563.6	10.2	22.3	457.7	25.5	48.0	8.0	18.0	23.3	72.3	379.7	84.0	2.6	138.6
2007 Q3 to 2008 Q2							Cumulated	l transacti	ons						
Direct investment	165.4	25.6	2.8	-3.1	7.2	18.7	0.0	-7.2	5.0	6.4	34.3	-18.3	54.9	0.0	64.8
Abroad	389.6	61.2	3.0	-2.2	34.3	26.1	0.0	-3.4	4.6	13.4	43.7	70.3	100.8	0.0	99.1
Equity/reinvested earnings	282.5	33.2	1.9	-2.9	18.3	15.9	0.0	-4.4	2.6	5.1	25.6	61.5	92.2	0.0	66.7
Other capital	107.2	28.0	1.2	0.6	16.0	10.2	0.0	1.0	1.9	8.4	18.1	8.8	8.6	0.0	32.4
In the euro area	224.2	35.6	0.2	0.8	27.2	7.3	0.0	3.9	-0.4	7.1	9.4	88.6	45.9	0.0	34.3
Equity/reinvested earnings	135.9	32.9	-0.8	-1.6	34.6	0.7	0.0	1.4	0.1	9.3	4.7	46.1	28.4	0.0	13.0
Other capital	88.3	2.7	1.0	2.5	-7.4	6.6	0.0	2.5	-0.5	-2.2	4.7	42.5	17.4	0.0	21.3
Portfolio investment assets	345.1	116.1	-0.6	1.7	102.4	8.8	3.7	11.8	-0.4	21.2	-18.8	86.6	17.2	1.1	110.3
Equity	24.5	-3.4	-1.2	-3.9	0.3	1.1	0.1	4.0	-1.4	-23.3	-18.9	7.6	32.6	-0.2	27.4
Debt instruments	320.6	119.5	0.6	5.6	102.1	7.7	3.6	7.8	0.9	44.5	0.1	79.0	-15.4	1.3	82.9
Bonds and notes	227.9	69.8	0.8	1.0	58.5	7.1	2.4	8.5	0.4	6.8	1.3	59.2	-5.9	1.3	86.5
Money market instruments	92.7	49.8	-0.2	4.6	43.6	0.6	1.2	-0.7	0.5	37.7	-1.2	19.8	-9.5	0.0	-3.6
Other investment	-267.4	-252.0	55.1	3.9	-358.2	50.7	-3.4	0.5	20.3	0.4	-62.8	-165.0	60.6	30.4	100.1
Assets	491.9	24.7	26.4	4.7	-78.6	66.0	6.2	5.0	5.2	14.8	-42.8	189.2	132.9	9.7	153.2
General government	-15.7	-12.0	-1.4	0.1	-11.4	-0.5	1.1	-0.2	0.0	0.0	0.0	0.1	0.0	0.8	-4.4
MFIs	256.6	4.5	27.1	4.9	-95.0	62.6	4.9	4.6	1.3	17.0	-45.8	50.5	102.1	8.9	113.4
Other sectors	251.1	32.1	0.6	-0.3	27.8	3.8	0.1	0.6	3.9	-2.2	3.0	138.6	30.8	0.0	44.1
Liabilities	759.3	276.6	-28.7	0.8	279.6	15.3	9.6	4.5	-15.1	14.4	20.0	354.2	72.2	-20.7	53.2
General government	-4.7	-2.7	0.0	0.0	-1.9	0.0	-0.7	0.0	0.0	0.0	0.1	-0.6	0.1	-1.1	-0.5
MFIs	558.9	259.9	-29.4	-1.6	274.9	9.9	6.1	5.1	-15.8	16.1	9.8	213.9	58.2	-19.6	31.4
Other sectors	205.0	19.4	0.7	2.4	6.7	5.4	4.3	-0.5	0.8	-1.7	10.2	140.8	14.0	0.0	22.2



External transactions and positions

			<b>B.</b> c	o.p. items bal	ancing trans	actions in the ex	ternal cour	terpart of M3				Memo: Transactions		
	Current and capital	Direct inv	estment	Ро	ortfolio invest	tment	Other in	nvestment	Financial derivatives	Errors and	Total of	in the external		
	accounts balance	By resident	By non- resident	Assets	Lia	bilities	Assets	Liabilities	denradives	omissions	columns 1 to 10	counterpart of M3		
		units abroad (non-MFIs)	units in the euro area	Non-MFIs	Equity <sup>2)</sup>	Debt instruments 3)	Non-MFIs	Non-MFIs						
	1	2	3	4	5	6	7	8	9	10	11	12		
2005 2006 2007	24.7 19.8 53.2	-344.2 -381.6 -428.5	153.6 264.2 363.4	-266.4 -286.6 -184.1	212.6 239.7 50.3	265.4 469.7 399.5	-155.8 -225.9 -341.3	151.0 223.7 232.3	-17.3 3.2 -54.1	-30.4 -150.5 -77.6	-6.7 175.6 13.2	-0.1 200.3 14.1		
2007 Q3 Q4 2008 Q1	18.8 17.3 -2.4	-94.6 -107.6 -139.2	78.1 126.1 44.3	-51.2 -19.4 -21.3	1.7 -40.8 4.8	58.8 33.2 75.3	-130.7 -39.2 -63.0	176.2 0.4 40.7	-15.4 -19.2 -21.0	-118.8 61.9 6.8	-77.1 12.7 -75.0	-67.2 -6.6 -84.7		
Q2 Q3	-21.4 -7.1	-17.9 -79.3	-25.3 30.0	-87.5 8.4	-36.8 -88.9	166.1 96.2	-2.4 3.3	-17.0 -18.5	-9.1 -1.0	-65.7 48.2	-117.0 -8.8	-126.9 28.5		
2007 Oct. Nov. Dec.	5.9 3.9 7.4	-43.1 -41.3 -23.2	63.4 49.0 13.7	-12.5 -1.2 -5.6	-24.8 -7.9 -8.1	7.7 55.5 -30.1	-26.2 -15.9 2.9	3.6 3.4 -6.6	-2.7 -11.2 -5.3	42.4 -0.9 20.4	13.8 33.5 -34.6	11.9 28.6 -47.1		
2008 Jan. Feb. Mar.	-12.4 12.2 -2.2	-86.5 -34.1 -18.6	28.3 15.8 0.2	6.4 -4.6 -23.0	-9.7 18.9 -4.4	52.8 4.2 18.3	0.2 -36.1 -27.0	26.6 -9.3 23.4	-26.9 2.5 3.4	7.0 13.1 -13.3	-14.2 -17.4 -43.4	-18.1 -18.3 -48.2		
Apr. May June	-4.3 -20.0 2.8	21.8 -11.3 -28.4	-40.1 4.5 10.4	-21.1 -44.5 -21.9	-43.1 -1.1 7.4	53.3 48.1 64.7	-0.1 -8.2 5.8	-12.3 0.2 -4.9	-2.8 -9.9 3.5	-25.5 -23.7 -16.6	-74.2 -65.6 22.7	-72.2 -70.1 15.4		
July Aug. Sep. Oct.	2.0 -5.5 -3.7 -4.8	-38.2 -9.7 -31.4 -15.0	12.4 1.2 16.4 3.7	-5.8 -1.9 16.1 75.9	-9.5 -26.6 -52.9 -42.9	5.5 7.3 83.4 59.0	-4.4 7.6 0.1 -21.5	12.1 -9.1 -21.4 41.6	2.0 -5.9 2.8 24.0	3.7 35.1 9.5 -70.4	-20.1 -7.6 18.9 49.7	-1.3 -6.7 36.6 55.1		
	-4.0	-15.0	5.7	13.9		h cumulated tran		41.0	24.0	-70.4	49.7	55.1		
2008 Oct.	-24.5	-315.9	115.5	-31.3	-179.9	422.0	-96.6	43.6	-23.5	-61.6	-152.2	-146.4		

### 7.4 Monetary presentation of the balance of payments $^{1)}$

C34 Main b.o.p. transactions underlying the developments in MFI net external assets <sup>1)</sup> (EUR billions; 12-month cumulated transactions)

- current and capital accounts balance . .
- direct and portfolio equity investment abroad by non-MFIs



portfolio investment liabilities in the form of debt instruments<sup>3)</sup>

Source: ECB.

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

Excluding money market fund shares/units.
 Excluding debt securities with a maturity of up to two years issued by euro area MFIs.



MFI net external assets

### 7.5 Trade in goods

#### 1. Values and volumes by product group<sup>1)</sup>

(seasonally adjusted, unless otherwise indicated)

	Total (	n.s.a.)		E	xports (f.o	o.b.)				Impor	rts (c.i.f.)		
				Tota	1		Memo:		Tota	1		Memo:	
	Exports	Imports	Γ	Intermediate	Capital	Consumption	Manufactures		Intermediate	Capital	Consumption	Manufactures	Oil
	1	2	3	4	5	6	7	8	9	10	11	12	13
				Values	(EUR bill	ions; annual per	centage changes	s for colum	ns 1 and 2)				
2005 2006 2007	7.8 11.7 8.6	13.4 13.7 6.4	1,237.7 1,384.7 1,504.4	604.5 686.9 740.6	271.2 296.5 327.2	328.6 365.1 396.0	1,068.3 1,183.0 1,277.1	1,226.2 1,396.9 1,483.1	724.1 857.3 905.2	210.3 216.4 231.9	272.9 304.3 326.2	846.5 943.9 1,016.7	187.0 224.6 225.4
2007 Q4 2008 Q1 Q2 Q3	5.6 6.9 8.3 5.2	7.8 8.5 10.8 11.9	382.8 396.2 398.2 400.7	188.8 196.1 198.6 199.6	82.9 84.2 84.0 84.4	100.5 104.2 103.2 101.7	322.7 332.8 333.5 331.2	382.0 396.2 401.4 416.7	236.4 248.5 255.9 265.5	57.5 57.6 55.0 56.5	83.0 82.4 82.6 82.9	253.3 257.7 255.8 260.2	65.1 70.2 75.2 84.6
2008 May June July Aug. Sep. Oct.	3.5 4.7 9.4 -3.1 8.7 0.6	6.6 10.4 14.8 5.7 14.9 3.0	130.3 131.2 135.0 131.7 134.1 130.7	64.7 65.4 67.7 66.0 65.9	27.4 27.8 28.5 26.7 29.2	33.6 33.7 34.6 32.8 34.3	109.2 110.9 110.9 110.4 109.9 108.4	131.5 134.4 141.0 137.2 138.5 132.1	84.3 86.0 90.0 87.7 87.8	18.0 18.0 19.4 18.3 18.8	27.2 27.4 27.9 27.2 27.9	84.6 85.7 86.8 87.0 86.4 84.6	24.3 27.0 30.6 28.1 25.8
				Volume ind	lices (200	0 = 100; annual	percentage char	iges for col					
2005 2006 2007	4.7 7.9 6.3	4.9 6.0 4.9	123.5 133.5 141.8	122.7 133.7 139.6	130.8 140.3 152.7	121.7 131.2 140.5	124.6 134.4 142.3	114.0 121.0 126.7	110.3 117.9 120.8	124.8 128.4 141.5	121.8 131.2 139.7	117.0 126.1 134.7	110.6 110.0 108.4
2007 Q4 2008 Q1 Q2 Q3	3.5 4.0 5.8 1.0	2.1 -1.8 -1.3 -3.7	144.0 146.6 146.4 144.6	142.0 144.0 143.6 140.9	154.9 154.6 155.1 154.0	142.7 146.4 145.2 141.5	144.3 147.5 148.0 144.6	127.0 126.1 123.6 121.1	120.4 120.2 117.0 113.2	141.2 139.8 135.3 137.2	141.8 139.0 141.8 137.6	135.1 135.4 135.0 132.9	108.4 109.7 103.0 106.8
2008 May June July Aug. Sep. Oct.	1.8 1.4 5.2 -6.8 4.1	-5.2 -3.7 -1.8 -9.9 0.4	144.4 143.0 145.8 143.0 144.9	140.8 140.2 143.1 139.8 139.8	152.4 153.4 155.6 147.4 159.2	143.2 140.7 143.8 138.1 142.6	146.5 146.6 145.2 145.2 143.5	121.9 120.4 121.9 119.2 122.3	116.0 112.9 113.3 111.2 115.0	133.2 132.4 142.8 133.3 135.4	141.2 140.2 139.7 136.2 137.0	134.3 134.6 134.1 133.5 131.2	100.4 101.4 108.2 106.1 106.0

### 2. Prices 2)

(annual percentage changes, unless otherwise indicated)

		Indus	trial producer	export pi	rices (f.o.b.)	3)				Industrial im	port price	es (c.i.f.)		
	Total (index			Total			Memo: Manufac-	Total (index			Total			Memo: Manufac-
	2005 = 100)		Intermediate goods	Capital goods		Energy	turing	2005 = 100)		Intermediate goods	Capital goods		Energy	turing
% of total	100.0	100.0	32.2	44.2	20.4	3.2	99.5	100.0	100.0	28.4	27.6	23.7	20.4	81.2
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
2006 2007	102.1 103.6	2.1 1.4	3.9 2.8	0.1 1.3	1.1 1.3	17.4 2.8	2.0 1.5	107.3 108.4	7.3 1.0	7.2 2.5	-1.3 -2.5	1.4 0.4	21.0 2.2	2.7 0.4
2008 Q1 Q2 Q3	105.0 106.1 107.3	2.0 2.4 3.3	1.3 1.7 3.0	0.5 0.2 0.6	2.3 2.8 2.7	32.8 30.6 33.6	1.8 2.3 3.1	113.9 119.7 121.6	8.7 11.1 11.3	0.8 0.6 3.1	-2.7 -2.8 -2.7	1.1 1.0 1.5	39.1 46.8 41.9	0.9 1.0 1.8
2008 June July Aug. Sep. Oct. Nov.	106.7 107.5 107.1 107.2 106.7 105.7	2.8 3.5 3.2 3.3 2.9 1.6	2.2 3.0 2.9 3.2 3.2 2.1	-0.2 0.6 0.4 0.9 1.4 1.8	2.7 2.7 2.9 2.5 3.2 3.3	35.2 38.1 34.6 28.1 8.1 -14.6	2.6 3.2 2.9 3.1 2.7 1.6	122.9 123.9 121.8 119.1 114.6 110.2	13.3 13.2 12.1 8.6 3.7 -1.8	1.3 2.0 3.3 4.1 3.4 1.9	-2.5 -2.7 -2.9 -2.3 -1.5 -0.4	1.0 1.1 1.5 1.9 3.2 4.0	52.9 50.9 46.3 28.9 9.2 -10.1	1.6 1.8 1.9 1.5 0.5

Source: Eurostat.

1) Product groups according to the classification by Broad Economic Categories. Unlike the product groups shown in Table 2, intermediate and consumption product groups include agricultural and energy products.

2) Product groups according to the classification of Main Industrial Groupings. Unlike the product groups shown in Table 1, intermediate and consumer goods do not include energy products, and agricultural goods are not covered. Manufacturing has a different composition compared with the data shown in columns 7 and 12 of Table 1. Data shown are price indices which follow the pure price change for a basket of products and are not simple ratios of the value and volume data shown in Table 1, which are affected by changes in the composition and quality of traded goods. These indices differ from the GDP deflators for imports and exports (shown in Table 3 in Section 5.1) mainly because the latter include all goods and services and cover cross-border trade within the euro area.

3) Industrial producer export prices refer to direct transactions between domestic producers and non-domestic customers. Contrary to the data shown for values and volumes in Table 1, exports from wholesalers and re-exports are not covered.



External transactions and positions

## 7.5 Trade in goods (EUR billions, unless

### 3. Geographical breakdown

C	Total	European	Union 27 (	outside the	euro area)	Russia	Switzer- land	Turkey	United States		Asia		Africa	Latin America	Other countries
		Denmark	Sweden	United Kingdom	Other EU countries		lanu		States	[	China	Japan		America	countries
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
							Exports (	f.o.b.)							
2004 2005 2006 2007	1,144.3 1,237.7 1,384.7 1,504.4	25.8 29.0 31.7 33.8	42.1 45.2 49.9 55.2	204.5 203.3 216.8 229.0	133.9 153.2 189.9 221.4	35.9 43.5 55.2 67.1	66.6 70.7 77.3 82.1	31.8 34.7 38.8 41.0	172.7 185.1 199.8 195.0	225.7 244.2 271.7 296.3	40.4 43.3 53.7 60.3	33.3 34.2 34.6 34.3	64.5 73.4 77.7 87.5	40.7 46.9 54.4 61.6	100.1 108.5 121.5 134.5
2007 Q2 Q3 Q4	370.8 382.7 382.8	8.4 8.5 8.5	13.8 14.2 13.7	55.8 58.8 57.7	54.1 56.8 57.5	16.6 17.3 17.6	20.0 20.7 20.9	9.9 10.3 10.6	48.7 49.3 47.5	73.0 75.3 76.1	14.7 15.6 15.7	8.8 8.5 8.3	21.5 22.2 22.4	15.5 15.6 15.6	33.6 33.7 34.6
2008 Q1 Q2 Q3	396.2 398.2 400.7	8.8 8.9 9.0	13.9 14.1 13.9	57.4 57.5 56.0	60.2 61.1 62.3	19.4 19.6 20.1	21.0 22.1 21.7	11.9 11.2 10.8	49.0 47.0 46.2	78.8 78.1 76.7	16.8 16.9 16.0	8.5 8.5 8.2	24.0 24.9 26.6	16.1 16.5 18.0	35.7 37.2 39.4
2008 May June July Aug. Sep. Oct.	130.3 131.2 135.0 131.7 134.1 130.7	3.0 3.0 3.0 3.0 3.0 3.0	4.7 4.7 4.7 4.6 4.6	18.6 18.8 19.0 18.6 18.4	20.0 20.3 20.8 20.6 21.0	6.5 6.6 6.8 6.6 6.7 6.6	7.3 7.3 7.2 7.2 7.2 7.3	3.6 3.6 3.8 3.5 3.5 3.2	15.0 15.5 15.1 15.4 15.7 14.8	25.8 25.9 25.8 25.4 25.6 25.6	5.5 5.6 5.6 5.2 5.2 5.2	2.8 2.8 2.8 2.7 2.7 2.7	8.2 8.5 8.8 8.9 8.9 8.9	5.5 5.6 6.0 5.8 6.2 6.3	12.0 11.3 13.9 12.2 13.2
							share of to								
2007	100.0	2.2	3.7	15.2	14.7	4.5	5.5 Imports (	2.7	13.0	19.7	4.0	2.3	5.8	4.1	8.9
2004 2005 2006 2007	1,075.0 1,226.2 1,396.9 1,483.1	25.4 26.5 28.6 28.5	39.8 42.3 47.9 52.0	144.8 153.2 167.2 168.6	115.5 127.8 152.3 174.7	56.6 76.2 95.6 97.9	53.3 58.1 62.3 67.2	23.2 25.5 29.4 32.4	113.4 119.8 125.9 131.6	309.1 363.5 418.6 450.5	92.4 118.1 144.5 171.2	54.1 53.2 57.0 58.7	72.9 96.0 110.5 114.2	45.2 53.8 66.2 75.1	75.7 83.4 92.6 90.4
2007 Q2 Q3 Q4	363.1 376.1 382.0	7.2 7.4 6.9	12.9 13.0 13.3	42.0 43.0 42.7	42.8 45.0 45.2	24.0 23.7 27.4	16.5 17.2 16.5	7.9 8.2 8.4	32.1 33.2 32.7	109.2 114.8 114.3	40.4 44.5 43.5	14.5 14.9 14.5	27.4 28.1 31.6	18.3 18.9 19.7	22.8 23.7 23.4
2008 Q1 Q2 Q3	396.2 401.4 416.7	7.2 7.7 8.0	13.8 13.2 13.1	43.6 41.5 42.0	47.6 48.4 49.0	28.0 29.2 32.1	17.0 17.4 17.8	8.3 8.4 8.2	34.2 33.8 34.6	117.7 117.5 122.8	43.8 44.2 47.6	14.9 14.3 14.4	34.3 36.7 37.6	19.8 20.6 20.8	24.6 27.0 30.5
2008 May June July Aug. Sep. Oct.	131.5 134.4 141.0 137.2 138.5 132.1	2.6 2.4 3.0 2.4 2.6	4.4 4.3 4.4 4.4 4.4	13.5 13.8 14.0 14.1 13.9	15.9 16.0 16.1 16.6 16.3	9.8 9.4 11.6 10.1 10.5 8.9	5.6 5.9 6.1 5.8 5.9 5.9	2.8 2.8 2.8 2.7 2.7 2.7	11.1 11.4 12.0 11.1 11.4 10.9	38.4 39.6 41.3 41.1 40.5 39.8	14.7 14.8 15.7 16.0 15.9 16.0	4.6 4.7 4.8 4.9 4.7 4.5	11.7 12.5 12.5 13.0 12.1 10.6	6.9 6.7 6.8 7.0 7.0 6.9	8.6 9.5 10.5 8.9 11.1
2007	100.0	1.9	3.5	11.4	11.0		share of tot	al imports 2.2	8.9	20.4	11.5	4.0	7.7	5.1	6.1
2007	100.0	1.9	3.3	11.4	11.8	6.6	4.5 Balan		6.9	30.4	11.5	4.0	1.1	5.1	0.1
2004 2005 2006 2007	69.2 11.5 -12.2 21.3	0.4 2.5 3.2 5.3	2.3 2.9 2.0 3.3	59.6 50.0 49.7 60.4	18.4 25.4 37.6 46.7	-20.7 -32.7 -40.4 -30.8	13.3 12.7 15.0 14.9	8.6 9.2 9.4 8.6	59.3 65.2 73.9 63.5	-83.4 -119.3 -146.8 -154.2	-52.0 -74.8 -90.8 -110.9	-20.8 -19.1 -22.4 -24.5	-8.4 -22.6 -32.7 -26.8	-4.5 -6.9 -11.9 -13.5	24.4 25.0 29.0 44.1
2007 Q2 Q3 Q4	7.7 6.6 0.7	1.2 1.2 1.7	0.9 1.2 0.5	13.8 15.8 15.0	11.3 11.9 12.3	-7.4 -6.4 -9.8	3.5 3.5 4.4	2.0 2.1 2.3	16.6 16.1 14.8	-36.2 -39.4 -38.2	-25.7 -28.9 -27.8	-5.7 -6.3 -6.3	-5.9 -5.9 -9.2	-2.8 -3.3 -4.2	10.8 10.0 11.3
2008 Q1 Q2 Q3	0.0 -3.3 -16.0	1.6 1.2 1.0	0.1 0.9 0.8	13.8 16.0 14.0	12.6 12.7 13.3	-8.6 -9.5 -12.0	4.0 4.6 3.9	3.6 2.8 2.6	14.8 13.2 11.6	-38.9 -39.4 -46.1	-27.0 -27.3 -31.6	-6.4 -5.8 -6.2	-10.3 -11.8 -11.1	-3.7 -4.1 -2.8	11.1 10.2 8.9
2008 May June July Aug. Sep. Oct.	-1.2 -3.2 -6.1 -5.5 -4.4 -1.3	$\begin{array}{c} 0.4 \\ 0.6 \\ 0.0 \\ 0.6 \\ 0.4 \end{array}$	0.3 0.4 0.3 0.2 0.2	5.0 4.9 5.0 4.5 4.5	4.1 4.3 4.7 4.0 4.7	-3.3 -2.8 -4.8 -3.5 -3.8 -2.3	1.7 1.4 1.1 1.4 1.4 1.3	0.8 0.8 1.0 0.8 0.8 0.5	3.9 4.1 3.1 4.3 4.2 3.9	-12.6 -13.7 -15.5 -15.7 -14.9 -14.3	-9.2 -9.2 -10.1 -10.8 -10.7 -10.5	-1.8 -1.9 -2.0 -2.2 -2.0 -1.8	-3.6 -3.9 -3.6 -4.2 -3.2 -1.8	-1.5 -1.2 -0.8 -1.2 -0.8 -0.6	3.4 1.8 3.5 3.3 2.1

Oct. Source: Eurostat.





### **EXCHANGE RATES**

## 8.1 Effective exchange rates <sup>1</sup>) (period averages; index 1999 Q1=100)

			<b>EER-22</b>				<b>EER-42</b>	
	Nominal	Real CPI	Real PPI	Real GDP deflator	Real ULCM	Real ULCT	Nominal	Real CPI
	1	2	3	4	5	6	7	8
2006 2007 2008	103.6 107.7 112.7	104.6 108.3 112.7	103.0 106.9 110.0	102.1 106.0	102.5 105.3	100.7 103.9	110.0 114.2 119.7	103.4 106.6 110.4
2007 Q4 2008 Q1 Q2 Q3 Q4	110.5 112.7 115.7 113.7 108.8	111.2 113.2 115.6 113.2 109.0	109.7 111.5 113.2 110.3 105.0	108.6 111.0 114.1 112.2	107.6 110.6 114.1 112.0	106.5 108.7 112.3 110.3	117.0 119.4 122.6 120.4 116.4	109.0 110.8 113.2 110.6 107.1
2007 Dec.	111.2	111.7	110.1	-	-	-	117.6	109.4
2008 Jan. Feb. Mar.	112.0 111.8 114.6	112.3 111.9 115.0	110.5 110.5 112.9	-	-	-	118.3 118.2 121.5	109.9 109.5 112.8
Apr. May	116.0 115.5	116.1 115.5	114.0 113.0	-	-	-	123.1 122.4	113.8 113.0
June July Aug.	115.4 115.8 113.5	115.4 115.5 113.2	112.4 112.4 110.1	-	-	-	122.4 122.8 120.0	112.9 113.0 110.3
Sep. Oct. Nov.	111.6 107.6 106.8	111.2 107.4 106.6	108.0 103.7 102.3	-	-	-	118.3 115.1 114.2	108.6 105.7 104.9
Dec.	112.0	112.3	107.5	-	-	-	119.9	110.4
			% change versi	is previous month				
2008 Dec.	4.9	5.4	5.1	-	-	-	5.0	5.2
			0	rus previous year				
2008 Dec.	0.7	0.5	-2.4	-	-	-	2.0	0.9

### **C35 Effective exchange rates** (monthly averages; index 1999 Q1=100)

## **C36 Bilateral exchange rates** (monthly averages; index 1999 Q1=100)

USD/EUR

JPY/EUR

. . . .





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

	Danish krone	Swedish krona	Pound sterling do	US Japano Ilar y	ese Swiss en franc	South Korean won		Singapore dollar	Canadian dollar	Norwegian krone	Australian dollar
	1	2	3	4	5 6	7	8	9	10	11	12
2006 2007 2008	7.4591 7.4506 7.4560	9.2501	0.68173 1.2 0.68434 1.3 0.79628 1.4		25 1.6427	1,272.99	10.6912	1.9941 2.0636 2.0762	1.4237 1.4678 1.5594	8.0472 8.0165 8.2237	1.6668 1.6348 1.7416
2008 Q2 Q3 Q4	7.4599 7.4592 7.4512	9.4738	0.79286 1.5 0.79504 1.5 0.83907 1.3	050 161.	83 1.6115	1,600.93	11.7372	2.1346 2.1010 1.9588	1.5769 1.5650 1.5916	7.9401 8.0604 8.9328	1.6559 1.6955 1.9606
2008 June July Aug. Sep. Oct. Nov. Dec.	7.4586 7.4599 7.4595 7.4583 7.4545 7.4485 7.4485 7.4503	9.4566 9.3984 9.5637 9.8506 10.1275	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	770         168.           975         163.           370         153.           322         133.           732         123.	45         1.6193           63         1.6212           20         1.5942           52         1.5194           28         1.5162	1,604.58 1,566.23 1,630.26	12.3004 11.6932 11.1905 10.3368 9.8687	2.1278 2.1438 2.1024 2.0549 1.9666 1.9183 1.9888	$\begin{array}{c} 1.5803 \\ 1.5974 \\ 1.5765 \\ 1.5201 \\ 1.5646 \\ 1.5509 \\ 1.6600 \end{array}$	7.9915 8.0487 7.9723 8.1566 8.5928 8.8094 9.4228	1.6343 1.6386 1.6961 1.7543 1.9345 1.9381 2.0105
				%	change versus	previous month					
2008 Dec.	0.0	6.2	8.9	5.6 -0	.6 1.5	3.8	5.6	3.7	7.0	7.0	3.7
				%	change versu	s previous year					
2008 Dec.	-0.1	14.0	25.5	-7.7 -25	-7.2	36.4	-8.3	-5.8	13.5	17.6	20.4
	Czech koruna	-	Latvian lats	Lithuanian litas	Hungarian forint	Polish zloty	Slovak I koruna	Bulgarian lev	New Roma- nian leu	Croatian kuna	New Turkish lira
	13	14	15	16	17	18	19	20	21	22	23
2006 2007 2008	28.342 27.766 24.946	15.6466	0.6962 0.7001 0.7027	3.4528 3.4528 3.4528	264.26 251.35 251.51	3.8959 3.7837 3.5121	37.234 33.775 31.262	1.9558 1.9558 1.9558	3.5258 3.3353 3.6826	7.3247 7.3376 7.2239	1.8090 1.7865 1.9064
2008 Q2 Q3 Q4	24.830 24.093 25.344	15.6466	0.6997 0.7045 0.7090	3.4528 3.4528 3.4528	248.04 236.07 263.36	3.4070 3.3081 3.7658	31.403 30.312 30.350	1.9558 1.9558 1.9558	3.6521 3.5768 3.8165	7.2556 7.1827 7.1752	1.9717 1.8235 2.0261
2008 June July Aug. Sep. Oct. Nov. Dec.	24.316 23.528 24.287 24.497 24.768 25.193 26.120	15.6466 15.6466 15.6466 15.6466 15.6466	0.7032 0.7035 0.7039 0.7060 0.7093 0.7092 0.7084	3.4528 3.4528 3.4528 3.4528 3.4528 3.4528 3.4528 3.4528	242.42 231.82 235.88 240.68 260.15 265.32 265.02	3.3736 3.2591 3.2920 3.3747 3.5767 3.7326 4.0044	30.322 30.319 30.334 30.283 30.459 30.385 30.196	1.9558 1.9558 1.9558 1.9558 1.9558 1.9558 1.9558 1.9558	3.6556 3.5764 3.5271 3.6248 3.7479 3.7838 3.9227	7.2469 7.2297 7.1947 7.1223 7.1639 7.1366 7.2245	1.9206 1.9128 1.7669 1.7843 1.9612 2.0342 2.0894

				% cha	nge versus pr	evious month	ı				
2008 Dec.	3.7	0.0	-0.1	0.0	-0.1	7.3	-0.6	0.0	3.7	1.2	2.7
				% cha	ange versus p	revious year					
2008 Dec.	-0.7	0.0	1.6	0.0	4.7	11.2	-9.6	0.0	11.0	-1.3	21.5

	Brazilian real <sup>1)</sup>	Chinese yuan renminbi	Icelandic krona	Indonesian rupiah	Malaysian ringgit	Mexican peso <sup>1)</sup>	New Zealand dollar	Philippine peso	Russian rouble	South African rand	Thai baht
	24	25	26	27	28	29	30	31	32	33	34
2006 2007 2008	2.7333 2.6594 2.6737	10.0096 10.4178 10.2236	87.76 87.63 146.25	11,512.37 12,528.33 14,165.16	4.6044 4.7076 4.8893	13.6936 14.9743 16.2911	1.9373 1.8627 2.0770	64.379 63.026 65.172	34.1117 35.0183 36.4207	8.5312 9.6596 12.0590	47.594 44.214 48.475
2008 Q2 Q3 Q4	2.5882 2.4986 3.0102	10.8687 10.2969 9.0155	119.09 125.69 264.12	14,460.45 13,868.99 14,469.21	5.0183 5.0209 4.6798	16.2919 15.5214 17.1856	2.0129 2.1094 2.2829	67.174 68.422 63.653	36.9108 36.4917 35.9649	12.1648 11.7055 13.0786	50.437 50.959 45.904
2008 June July Aug. Sep. Oct. Nov. Dec.	2.5185 2.5097 2.4103 2.5712 2.9112 2.8967 3.2266	10.7287 10.7809 10.2609 9.8252 9.1071 8.6950 9.2205	123.28 123.61 122.07 131.33 274.64 242.95 290.00	$\begin{array}{c} 14,445.41\\ 14,442.77\\ 13,700.21\\ 13,430.23\\ 13,283.63\\ 14,984.85\\ 15,276.62\end{array}$	5.0666 5.1258 4.9843 4.9461 4.6895 4.5682 4.7755	16.0617 16.1119 15.1269 15.2805 16.8177 16.6735 18.0764	2.0424 2.0900 2.1097 2.1293 2.1891 2.2554 2.4119	68.903 70.694 67.307 67.113 63.882 62.496 64.505	36.7723 36.8261 36.2502 36.3727 35.2144 34.7964 37.8999	12.3467 12.0328 11.4680 11.5899 12.9341 12.8785 13.4275	51.649 52.821 50.697 49.264 45.872 44.677 47.107
	% change versus previous month										
2008 Dec.	11.4	6.0	19.4	1.9	4.5	8.4	6.9	3.2	8.9	4.3	5.4
% change versus previous year											
2008 Dec.	23.9	-14.2	219.3	12.2	-1.7	14.3	27.4	6.5	5.9	34.8	6.7

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

#### 1. Economic and financial developments

	Bulgaria	Czech Republic	Denmark	Estonia	Latvia	Lithuania	Hungary	Poland	Romania	Sweden	United Kingdom	
	1	2	3	4	5 HICP	6	7	8	9	10	11	
2007	7.6	3.0	1.7	6.7	10.1	5.8	7.9	2.6	4.9	1.7	2.3	
2008	12.0	6.3	3.6	10.6	15.3	11.1	6.0	4.2	7.9	3.3		
2008 Q2 Q3	14.0 12.5	6.7 6.5	3.7 4.6	11.5 11.0	17.5 15.6	12.3 12.0	6.8 6.3	4.3 4.4	8.6 8.2	3.6 4.0	3.4 4.8	
Q4	9.0	4.4	3.0	8.7	11.9	9.4	4.2	3.6	6.9	2.7		
2008 Aug. Sep.	11.8 11.4	6.2 6.4	4.8 4.5	11.1 10.8	15.6 14.7	12.2 11.3	6.4 5.6	4.4 4.1	8.1 7.3	4.1 4.2	4.7 5.2	
Oct.	11.2	5.7	3.8	10.1	13.7	10.7	5.1	4.0	7.4	3.4	4.5	
Nov. Dec.	8.8 7.2	4.1 3.3	2.8 2.4	8.5 7.5	11.6 10.4	9.2 8.5	4.1 3.4	3.6 3.3	6.8 6.4	2.4 2.1	4.1	
	7.2         5.5         2.4         7.5         10.4         6.5         5.4         5.5         0.4         2.1           General government deficit (-)/surplus (+) as a % of GDP											
2005	1.9	-3.6	5.2	1.5	-0.4	-0.5	-7.8	-4.3	-1.2	2.4	-3.4	
2006 2007	3.0 0.1	-2.7 -1.0	5.1 4.9	2.9 2.7	-0.2 0.1	-0.4 -1.2	-9.3 -5.0	-3.8 -2.0	-2.2 -2.6	2.3 3.6	-2.7 -2.8	
				General gover	mment gross	debt as a % of (	GDP					
2005	29.2	29.8	36.4	4.5	12.4	18.4	61.7	47.1	15.8	50.9	42.3	
2006 2007	22.7 18.2	29.6 28.9	30.5 26.2	4.3 3.5	10.7 9.5	18.0 17.0	65.6 65.8	47.7 44.9	12.4 12.9	45.9 40.4	43.4 44.2	
			Long-ter	m government b	ond yield as a	a % per annum,	period average					
2008 July	5.17 5.17	4.90 4.47	4.78 4.49	-	6.57 6.60	5.49 5.47	8.11 7.77	6.45 6.11	7.28 8.20	4.37 4.11	5.00 4.67	
Aug. Sep.	5.17	4.42	4.37	-	6.60	5.45	7.99	5.89	8.32	3.90	4.58	
Oct. Nov.	5.17 6.00	4.53 4.52	4.43 4.06	-	6.60 7.60	5.40 8.16	9.57 9.41	6.35 6.23	8.27 8.38	3.57 3.34	4.52 4.14	
Dec.	7.76	4.30	3.50	-	9.03	9.00	8.31	5.70	8.38	2.67	3.37	
				month interest ra								
2008 July Aug.	7.19 7.31	4.11 3.81	5.38 5.38	6.37 6.35	6.23 6.26	5.77 5.75	8.99 8.33	6.62 6.52	11.41 12.11	5.09 5.12	5.83 5.77	
Sep.	7.32	3.81	5.42	6.34	6.35	5.80	8.62	6.56	13.00	5.33	5.91	
Oct. Nov.	7.69 7.89	4.19 4.24	5.99 6.08	6.69 7.25	10.03 12.19	7.00 7.86	8.95	6.80 6.74	18.21 15.24	5.27 4.50	6.13 4.45	
Dec.	7.74	3.89	5.29	7.84	13.94	9.20	11.18	6.38	14.70	2.75	3.20	
2006	(2)	( )	2.2	10.4	Real GD		4.1	( )	7.0	1.2	2.0	
2006 2007	6.3 6.2	6.8 6.0	3.3 1.6	10.4 6.3	12.2 10.3	7.8 8.9	4.1 1.1	6.2 6.7	7.9 6.0	4.2 2.5	2.8 3.0	
2008 Q1	7.0	4.9	-0.7	0.2	5.1	7.0	1.1	6.1	8.2 9.3	1.7	2.6	
Q2 Q3	7.1 6.8	4.6 4.2	0.6 -1.3	-1.1 -3.5	-0.9 -4.7	5.3 2.8	1.6 1.0	5.8 5.6	9.3 9.1	0.7 0.3	1.7 0.3	
				Current and capi								
2006	-17.1	-2.3	2.9	-14.6	-21.3	-9.5	-7.1	-2.1	-10.5	7.8	-3.3	
2007 2008 Q1	-20.6	-1.2	-2.3	-16.9	-21.8	-12.8	-5.1 -3.4	-3.6	-12.9	8.4	-2.6	
Ō2	-27.6	-4.7	3.4	-9.6	-12.5	-15.1	-6.8	-4.1	-14.7	5.0	-1.8	
Q3	-13.8	-3.2	0.0	-6.6	-11.7	-8.4	-8.7	-3.9	-10.3	8.1	-2.0	
2006	4.4	1.2	2.2	8.7	Unit labour 15.6	10.2	1.3	0.1	4.9	-0.4	2.2	
2007	14.2	3.1	4.2	19.8	25.0	10.2	4.9	3.1	14.6	4.7	1.3	
2008 Q1	16.8	4.9	7.1	19.4	23.6	10.9	-	-	-	2.2	1.3	
Q2 Q3	17.7 13.0	3.3 2.3	3.8	15.2 19.6	20.4 25.1	11.4 12.0	-	-	-	0.8 2.2	1.5 1.8	
	Standardised unemployment rate as a % of labour force (s.a.)											
2006 2007	9.0 6.9	7.2 5.3	3.9 3.8	5.9 4.6	6.8 6.0	5.6 4.3	7.5 7.4	13.9 9.6	7.3 6.4	7.0 6.1	5.4 5.3	
2007 2008 Q1	6.2	4.5	3.8	4.6	6.3	4.5	7.4	7.8	5.7	5.9	5.2	
Q2	5.9	4.5	3.2	4.5	6.2	4.8	7.7	7.3	5.7	5.8	5.4	
Q3 2008 July	5.3	4.3	3.3 3.2	6.3 5.7	7.3 6.9	6.1 5.9	7.9	6.8 6.9	5.8 5.8	6.2 5.9	5.8	
Aug.	5.3	4.3	3.3	6.4	7.3	6.3	7.9	6.8	5.8	6.2	5.8	
Sep. Oct.	5.2 5.1	4.3 4.4	3.5 3.8	7.0 7.7	7.7 8.2	6.2 6.3	7.9 8.0	6.6 6.5	5.8	6.4 6.7	5.9	
Nov.	5.1	4.5	4.1	8.3	9.0	7.0	8.3	6.5		7.0		

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



### 9.2 In the United States and Japan

#### 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>	deposit rate <sup>3)</sup>	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 United States	6	7	8	9	10	11
2005 2006 2007 2008	3.4 3.2 2.9	2.2 2.8 2.7	2.9 2.8 2.0	4.2 2.8 1.8	5.1 4.6 4.6 5.8	4.3 5.0 5.7	3.57 5.20 5.30 2.93	4.84 5.41 5.35 4.39	1.2441 1.2556 1.3705 1.4708	-3.3 -2.2 -2.9	49.1 48.5 49.3
2007 Q4 2008 Q1 Q2 Q3 Q4	4.0 4.1 4.4 5.3	$0.9 \\ 0.0 \\ 0.1 \\ 1.4$	2.3 2.5 2.1 0.7	2.5 2.0 -0.3 -3.5	4.8 4.9 5.4 6.1 6.9	5.7 6.3 6.2 5.9	5.03 3.29 2.75 2.91 2.77	5.07 4.48 4.66 4.69 3.71	1.4486 1.4976 1.5622 1.5050 1.3180	-3.2 -4.0 -5.7	49.3 50.4 49.6
2008 Aug. Sep. Oct. Nov. Dec.	5.4 4.9 3.7 1.1		-	-2.3 -6.6 -5.7 -7.3	6.2 6.2 6.6 6.8 7.2	5.3 6.2 7.4 7.6	2.77 2.81 3.12 4.06 2.28 1.83	4.75 4.48 4.46 3.95 2.75	1.3180 1.4975 1.4370 1.3322 1.2732 1.3449		
					Japan						
2005 2006 2007 2008	-0.3 0.2 0.1	-2.1 -0.6 -1.6	1.9 2.0 2.4	1.4 4.5 2.8	4.4 4.1 3.8	1.8 1.0 1.6 2.1	0.06 0.30 0.79 0.93	1.49 1.98 1.89 1.67	136.85 146.02 161.25 152.45	-6.7 -1.4	163.2 159.5
2007 Q4 2008 Q1 Q2 Q3 Q4	0.5 1.0 1.4 2.2	-1.4 0.0 -0.3	2.0 1.4 0.6 -0.3	3.4 2.3 1.0 -1.3	3.8 3.9 4.0 4.1	2.0 2.2 2.0 2.2 1.8	0.96 0.92 0.92 0.90 0.96	1.78 1.61 1.85 1.75 1.46	163.83 157.80 163.35 161.83 126.71	: : : :	: : : :
2008 Aug. Sep. Oct. Nov. Dec.	2.1 2.1 1.7 1.0	- - - -	- - -	-6.9 0.2 -7.1 -16.3	4.2 4.0 3.7 3.9	2.4 2.2 1.8 1.8 1.8	0.89 0.91 1.04 0.91 0.92	1.70 1.71 1.56 1.50 1.33	163.63 153.20 133.52 123.28 122.51		- - - -

C37 Real gross domestic product







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).

Seasonally adjusted. The data for the United States refer to the private non-agricultural business sector. 1)

Average-of-period values; M2 for US, M2+CDs for Japan. Percentages per annum. For further information on 3-month interbank deposit rate, see Section 4.6. For more information, see Section 8.2. 2) 3)

4)

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.





### LIST OF CHARTS

C1	Monetary aggregates	S   2
C2	Counterparts	S12
C3	Components of monetary aggregates	\$13
C4	Components of longer-term financial liabilities	\$13
C5	Loans to financial intermediaries and non-financial corporations	S I 4
C6	Loans to households	S I 5
	Loans to government and non-euro area residents	S I 6
	Total deposits by sector (financial intermediaries)	S   7
	Total deposits and deposits included in M3 by sector (financial intermediaries)	S   7
	Total deposits by sector (non-financial corporations and households)	\$18
	Total deposits and deposits included in M3 by sector (non-financial corporations and households)	\$18
	Deposits by government and non-euro area residents	\$19
	MFI holdings of securities	<b>S20</b>
	Total assets of investment funds	<b>S24</b>
	Total outstanding amounts and gross issues of securities, other than shares, issued by euro area residents	\$35
	Net issues of securities, other than shares, seasonally adjusted and non-seasonally adjusted	\$37
	Annual growth rates of long-term debt securities, by sector of the issuer, in all currencies combined	\$38
	Annual growth rates of short-term debt securities, by sector of the issuer, in all currencies combined	\$39
	Annual growth rates for quoted shares issued by euro area residents	<b>S40</b>
	Gross issues of quoted shares by sector of the issuer	<b>S4</b> I
C21	New deposits with agreed maturity	<b>S43</b>
C22	New loans at floating rate and up to 1 year initial rate fixation	<b>S43</b>
C23	Euro area money market rates	<b>S44</b>
	3-month money market rates	<b>S44</b>
C25	Euro area spot yield curves	S45
C26	Euro area spot rates and spreads	S45
C27	Dow Jones EURO STOXX Broad, Standard & Poor's 500 and Nikkei 225	<b>S46</b>
C28	Deficit, borrowing requirement and change in debt	\$59
C29	Maastricht debt	\$59
C30	B.o.p. current account balance	<b>S60</b>
C31	B.o.p. goods	S 6 1
	B.o.p. services	S 6 1
C33	B.o.p. net direct and portfolio investment	<b>S64</b>
	Main b.o.p. transactions underlying the developments in MFI net external assets	<b>S69</b>
C35	Effective exchange rates	<b>S72</b>
C36	Bilateral exchange rates	<b>S72</b>
	Real gross domestic product	S 7 5
C38	Consumer price indices	S 7 5





### **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) 
$$F_{t}^{M} = (L_{t} - L_{t}) - C_{t}^{M} - E_{t}^{M} - V_{t}^{M}$$

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) under the "Money, banking and financial markets" subsection 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) 
$$a_t = \begin{pmatrix} I_t \\ I_{t-12} \end{pmatrix} \times 100$$

Unless otherwise indicated, the annual growth rates refer to the end of the indicated period. For example, the annual percentage change for the year 2002 is calculated in g) by dividing the index of December 2002 by the index of December 2001.



Growth rates for intra-annual periods may be derived by adapting formula g). For example, the month-on-month growth rate  $a_t^M$  may be calculated as:

h) 
$$a_t^M = \begin{pmatrix} I_t \\ I_{t-1} \end{pmatrix} \times 100$$

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) 
$$I_t = I_{t-3} \times \left(1 + \frac{F_t^Q}{L_{t-3}}\right)$$

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), 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 netfinancial 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:

$$\mathbf{j}) \qquad \mathbf{I}_{t} = \mathbf{I}_{t-1} \times \left(1 + \frac{\mathbf{N}_{t}}{\mathbf{L}_{t-1}}\right)$$

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) 
$$a_{t} = \left[\prod_{i=0}^{11} \left(1 + \sum_{t=1}^{N_{t-1}} L_{t-1-i}\right) - 1\right] \times 100$$
  
l) 
$$a_{t} = \left(I_{t} - 1\right) \times 100$$

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) 
$$\left(\frac{0.5I_{t} + \sum_{i=1}^{2} I_{t-i} + 0.5I_{t-3}}{0.5I_{t-12} + \sum_{i=1}^{2} I_{t-i-12} + 0.5I_{t-15}} - 1\right) \times 100$$

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) 
$$\left(\frac{0.5I_{t} + \sum_{i=1}^{11} I_{t-i} + 0.5I_{t-12}}{0.5I_{t-12} + \sum_{i=1}^{11} I_{t-i-12} + 0.5I_{t-24}} - 1\right) \times 100$$

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) 
$$a_{t} = \left[\prod_{i=0}^{5} \left(1 + \frac{N_{t-i}^{M}}{L_{t-1-i}}\right) - 1\right] \times 100$$
  
p)  $a_{t} = \left(\frac{I_{t}}{I_{t-6}} - 1\right) \times 100$ 

**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.



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), under the "Money, banking and financial markets" sub-section.

Technical notes

### **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. 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). 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.

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 14 January 2009.

Unless otherwise indicated, all data series covering observations for 2009 relate to the Euro 16 (the euro area including Slovakia) 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 the respective year of entry into the euro area of Greece (2001), Slovenia (2007), Cyprus (2008), Malta (2008) and Slovakia (2009), calculated from bases covering the year prior to the year of entry, use a series in which the impact of these countries' joining the euro area is taken into account. Historical data referring to the euro area before the entry of Slovakia 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. Data for 2008 refer to the Euro 15, i.e. the Euro 13 plus Cyprus and Malta, and data as of 2009 refer to the Euro 16, i.e. the Euro 15 plus Slovakia.

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, 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. Maintenance periods for minimum reserve requirements start every month 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, and end on the day preceding the corresponding settlement day in the following month. Annual and quarterly observations refer to averages of the last reserve maintenance period of the year/quarter.

Table 1 in Section 1.4 shows the components of the reserve base of credit institutions subject to reserve requirements. The liabilities visà-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.

1 OJ L 356, 30.12.1998, p. 7. 2 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 3.4 (financial balance sheet, quoted shares).

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 issues or redeems shares for cash excluding investments in the issuers' own shares. 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 AAArated 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

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

components, value added by economic activity, industrial production, retail sales and passenger car registrations are adjusted for the variations in the number of working days.

The Harmonised Index of Consumer Prices (HICP) for the euro area (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 20015. 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.

The two non-energy commodity price indices shown in Table 3 in Section 5.1 are compiled with the same commodity coverage but using two different weighting schemes: one based on the respective commodity imports of the euro area (columns 2-4), and the other (columns 5-7) based on estimated euro area domestic demand, or "use", taking into account information on imports, exports and the domestic production of each commodity (ignoring for simplicity inventories, which are assumed to be relatively stable over the observed period). The import-weighted commodity price index is appropriate for analysing external developments, while the use-weighted index is suitable for the specific purpose of analysing international commodity price pressures on euro area inflation. The use-weighted commodity price indices are experimental data. For more details on compilation of the ECB commodity price indices, refer to Box 1 in the December 2008 issue of the Monthly Bulletin.

The labour cost indices (Table 5 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 20037. 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 nonharmonised, 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 3 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.

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.



<sup>7</sup> OJL 169 87 2003 p 32

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 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 government9. 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/

- 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.

OJ L 172, 12.7.2000, p. 3.

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). The annual quality report on the euro area b.o.p./i.i.p., which is based on the Task Force's recommendations, is available on the ECB's website.

The tables in Sections 7.1 and 7.4 follow the sign convention in the IMF Balance of Payments Manual, i.e. surpluses in the current account and in the capital account have a plus sign, while in the financial account a plus sign 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. 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 and corresponds to the basic classes of goods in the System of National Accounts. Manufactured goods (columns 7 and 12) and oil (column 13) are in line with the SITC Rev. 4 definition. The geographical breakdown (Table 3 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 in external trade data.

Industrial import prices and industrial producer export prices (or industrial output prices for the non-domestic market) shown in Table 2 in Section 7.5 were introduced by Regulation (EC) No 1158/2005 of the European Parliament and of the Council of 6 July 2005 amending Council Regulation (EC) No 1165/98, which is the principal legal basis for short-term statistics. The industrial import price index covers industrial products imported from outside the euro area under sections C to E of the Statistical Classification of Products by Activity in the European Economic Community (CPA) and all institutional sectors of the importers except households. governments and non-profit institutions. It reflects the cost, insurance and

freight (c.i.f.) price excluding import duties and taxes, and refers to the actual transactions in euro recorded at the point when ownership of the goods is being transferred. The industrial producer export prices cover all industrial products exported directly by euro area producers to the extra-euro area market under sections C to E of NACE. Exports from wholesalers and re-exports are not covered. The indices reflect the free on board (f.o.b.) price expressed in euro and calculated at the euro area frontiers, including any indirect taxes except VAT and other deductible taxes. Industrial import prices and industrial producer export prices are available by Main Industrial Groupings (MIGs) as defined by Commission Regulation (EC) No 586/2001 (OJ L 86, 27.3.2001, p. 11). For more details, refer to Box 11 in the December 2008 issue of the Monthly Bulletin.

#### **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 thirdmarket 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 noneuro 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'



#### **II 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, 4 SEPTEMBER AND 2 OCTOBER 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.

#### 8 OCTOBER 2008

The Governing Council of the ECB decides to decrease the minimum bid rate on the main refinancing operations by 50 basis points to 3.75%, starting from the operations to be settled on 15 October 2008. In addition, it decides to decrease by 50 basis points the interest

1 The chronology of monetary policy measures taken by the Eurosystem between 1999 and 2006 can be found in the ECB's Annual Report for the respective years.

rates on both the marginal lending facility and the deposit facility, to 4.75% and 2.75% respectively, with immediate effect. Moreover, the Governing Council decides that, as from the operation settled on 15 October, the weekly main refinancing operations will be carried out through a fixed-rate tender procedure with full allotment at the interest rate on the main refinancing operation. Furthermore, as of 9 October, the ECB will reduce the corridor of standing facilities from 200 basis points to 100 basis points around the interest rate on the main refinancing operation. The two measures will remain in place for as long as needed, and at least until the end of the first maintenance period of 2009, on 20 January.

## **I5 OCTOBER 2008**

The Governing Council of the ECB decides to further expand the collateral framework and enhance the provision of liquidity. To do so, the Governing Council decides: (i) to expand the list of assets eligible as collateral in Eurosystem credit operations, with this expansion remaining in force until the end of 2009, (ii) to enhance the provision of longer-term refinancing, with effect from 30 October 2008 and until the end of the first quarter of 2009, and (iii) to provide US dollar liquidity through foreign exchange swaps.

#### 6 NOVEMBER 2008

The Governing Council of the ECB decides to decrease the interest rate on the main refinancing operations by 50 basis points to 3.25%, starting from the operations to be settled on 12 November 2008. In addition, it decides to decrease by 50 basis points the interest rates on both the marginal lending facility and the deposit facility, to 3.75% and 2.75% respectively, with effect from 12 November 2008.

#### **4 DECEMBER 2008**

The Governing Council of the ECB decides to decrease the interest rate on the main refinancing operations of the Eurosystem by 75 basis points to 2.50%, starting from the operations to be settled on 10 December 2008. In addition, it decides to decrease by 75 basis points the interest rates on both the marginal lending and the deposit facility to 3.00% and 2.00% respectively, with effect from 10 December 2008.

#### **18 DECEMBER 2008**

The Governing Council of the ECB decides that the main refinancing operations will continue to be carried out through a fixed rate tender procedure with full allotment beyond the maintenance period ending on 20 January 2009. This measure will be in place for as long as needed, and at least until the last allotment of the third maintenance period in 2009 on 31 March. Moreover, as of 21 January 2009, the corridor of standing facility rates, which on 9 October 2008 was reduced to 100 basis points around the prevailing interest rate of the main refinancing operation, will be be re-widened symmetrically to 200 basis points.

#### **15 JANUARY 2009**

The Governing Council of the ECB decides to decrease the fixed rate on the main refinancing operations by 50 basis points to 2.00%, starting from the operations to be settled on 21 January 2009. In addition, it decides that the interest rates on the marginal lending and the deposit facility will be 3.00% and 1.00% respectively, with effect from 21 January 2009, in line with the decision of 18 December 2008.



## DOCUMENTS PUBLISHED BY THE EUROPEAN CENTRAL BANK SINCE 2008

This list is designed to inform readers about selected documents published by the European Central Bank since January 2008. For Working Papers, the list only refers to publications released between October and December 2008. Unless otherwise indicated, hard copies can be obtained or subscribed to free of charge, stock permitting, by contacting 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 2007", April 2008.

**CONVERGENCE REPORT** "Convergence Report May 2008".

## **MONTHLY BULLETIN SPECIAL EDITION**

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

## **MONTHLY BULLETIN ARTICLES**

"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.

"Ten years of the Stability and Growth Pact", October 2008.

"Cross-border bank mergers & acquisitions and institutional investors", October 2008.

"Monitoring labour cost developments across euro area countries", November 2008.

"Valuing stock markets and the equity risk premium", November 2008.

"Ten years of TARGET and the launch of TARGET2", November 2008.

"Housing wealth and private consumption in the euro area", January 2009.

"Foreign asset accumulation by authorities in emerging markets", January 2009.

## **STATISTICS POCKET BOOK**

Available monthly since August 2003.

### LEGAL WORKING PAPER SERIES

- 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**

- 78 "A framework for assessing global imbalances" by T. Bracke, M. Bussière, M. Fidora and R. Straub, January 2008.
- <sup>79</sup> "The workings of the Eurosystem: monetary policy preparations and decision-making selected issues" by P. Moutot, A. Jung and F. P. Mongelli, January 2008.
- 80 "China's and India's roles in global trade and finance: twin titans for the new millennium?" by M. Bussière and A. Mehl, January 2008.
- 81 "Measuring financial integration in new EU Member States" by M. Baltzer, L. Cappiello, R. A. De Santis and S. Manganelli, March 2008.
- 82 "The sustainability of China's exchange rate policy and capital account liberalisation" by L. Cappiello and G. Ferrucci, March 2008.
- 83 "The predictability of monetary policy" by T. Blattner, M. Catenaro, M. Ehrmann, R. Strauch and J. Turunen, March 2008.
- 84 "Short-term forecasting of GDP using large monthly datasets: a pseudo real-time forecast evaluation exercise" by G. Rünstler, K. Barhoumi, R. Cristadoro, A. Den Reijer, A. Jakaitiene, P. Jelonek, A. Rua, K. Ruth, S. Benk and C. Van Nieuwenhuyze, May 2008.
- 85 "Benchmarking the Lisbon strategy" by D. Ioannou, M. Ferdinandusse, M. Lo Duca and W. Coussens, June 2008.
- 86 "Real convergence and the determinants of growth in EU candidate and potential candidate countries: a panel data approach" by M. M. Borys, É. K. Polgár and A. Zlate, June 2008.
- 87 "Labour supply and employment in the euro area countries: developments and challenges", by a Task Force of the Monetary Policy Committee of the European System of Central Banks, June 2008.
- 88 "Real convergence, financial markets, and the current account emerging Europe versus emerging Asia" by S. Herrmann and A. Winkler, June 2008.
- 89 "An analysis of youth unemployment in the euro area" by R. Gomez-Salvador and N. Leiner-Killinger, June 2008.
- 90 "Wage growth dispersion across the euro area countries: some stylised facts" by M. Andersson, A. Gieseck, B. Pierluigi and N. Vidalis, July 2008.
- 91 "The impact of sovereign wealth funds on global financial markets" by R. Beck and M. Fidora, July 2008.
- 92 "The Gulf Cooperation Council countries: economic structures, recent developments and role in the global economy" by M. Sturm, J. Strasky, P. Adolf and D. Peschel, July 2008.
- 93 "Russia, EU enlargement and the euro" by Z. Polański and A. Winkler, August 2008.
- 94 "The changing role of the exchange rate in a globalised economy" by F. di Mauro, R. Rüffer and I. Bunda, September 2008.
- 95 "Financial stability challenges in candidate countries managing the transition to deeper and more market-oriented financial systems" by the International Relations Committee expert group on financial stability challenges in candidate countries, September 2008.
- 96 "The monetary presentation of the euro area balance of payments" by L. Bê Duc, F. Mayerlen and P. Sola, September 2008.

- 97 "Globalisation and the competitiveness of the euro area" by F. di Mauro and K. Forster, September 2008.
- 98 "Will oil prices decline over the long run?" by R. Kaufmann, P. Karadeloglou and F. di Mauro, October 2008.
- <sup>99</sup> "The ECB and IMF indicators for the macro-prudential analysis of the banking sector: a comparison of the two approaches" by A. M. Agresti, P. Baudino and P. Poloni, November 2008.

#### **RESEARCH BULLETIN**

"Research Bulletin", No 7, June 2008.

#### **WORKING PAPER SERIES**

- 944 "The New Area-Wide Model of the euro area: a micro-founded open-economy model for forecasting and policy analysis" by K. Christoffel, G. Coenen and A. Warne, October 2008.
- 945 "Wage and price dynamics in Portugal" by C. Robalo Marques, October 2008.
- 946 "Macroeconomic adjustment to Monetary Union" by G. Fagan and V. Gaspar, October 2008.
- 947 "Foreign-currency bonds: currency choice and the role of uncovered and covered interest parity" by M. M. Habib and M. Joy, October 2008.
- 948 "Clustering techniques applied to outlier detection of financial market series using a moving window filtering algorithm" by J. M. Puigvert Gutiérrez and J. Fortiana Gregori, October 2008.
- 949 "Short-term forecasts of euro area GDP growth" by E. Angelini, G. Camba-Méndez, D. Giannone, L. Reichlin and G. Rünstler, October 2008.
- 950 "Is forecasting with large models informative? Assessing the role of judgement in macroeconomic forecasts" by R. Mestre and P. McAdam, October 2008.
- 951 "Exchange rate pass-through in the global economy: the role of emerging market economies" by M. Bussière and T. Peltonen, October 2008.
- 952 "How successful is the G7 in managing exchange rates?" by M. Fratzscher, October 2008.
- 953 "Estimating and forecasting the euro area monthly national accounts from a dynamic factor model" by E. Angelini, M. Bańbura and G. Rünstler, October 2008.
- 954 "Fiscal policy responsiveness, persistence and discretion" by A. Afonso, L. Agnello and D. Furceri, October 2008.
- 955 "Monetary policy and stock market boom-bust cycles" by L. Christiano, C. Ilut, R. Motto and M. Rostagno, October 2008.
- 956 "The political economy under Monetary Union: has the euro made a difference?" by M. Fratzscher and L. Stracca, November 2008.
- 957 "Modelling autoregressive conditional skewness and kurtosis with multi-quantile CAViaR" by H. White, T.-H. Kim and S. Manganelli, November 2008.
- 958 "Oil exporters: in search of an external anchor" by M. M. Habib and J. Stráský, November 2008.
- 959 "What drives US current account fluctuations?" by A. Barnett and R. Straub, November 2008.
- 960 "On implications of micro price data for macro models" by B. Maćkowiak and F. Smets, November 2008.
- 961 "Budgetary and external imbalances relationship: a panel data diagnostic" by A. Afonso and C. Rault, November 2008.
- 962 "Optimal monetary policy and the transmission of oil-supply shocks to the euro area under rational expectations" by S. Adjemian and M. Darracq Pariès, November 2008.

- 963 "Public and private sector wages: co-movement and causality" by A. Lamo, J. J. Pérez and L. Schuknecht, November 2008.
- 964 "Do firms provide wage insurance against shocks? Evidence from Hungary" by G. Kátay, November 2008.
- 965 "IMF lending and geopolitics" by J. Reynaud and J. Vauday, November 2008.
- 966 "Large Bayesian VARs" by M. Bańbura, D. Giannone and L. Reichlin, November 2008.
- 967 "Central bank misperceptions and the role of money in interest rate rules" by V. Wieland and G. W. Beck, November 2008.
- 968 "A value at risk analysis of credit default swaps" by B. Raunig and M. Scheicher, November 2008.
- 969 "Comparing and evaluating Bayesian predictive distributions of asset returns" by J. Geweke and G. Amisano, November 2008.
- 970 "Responses to monetary policy shocks in the east and west of Europe" by M. Jarociński, November 2008.
- 971 "Interactions between private and public sector wages" by A. Afonso and P. Gomes, November 2008.
- 972 "Monetary policy and housing prices in an estimated DSGE for the United States and the euro area" by M. Darracq Pariès and A. Notarpietro, November 2008.
- 973 "Do China and oil exporters influence major currency configurations?" by M. Fratzscher and A. Mehl, December 2008.
- 974 "Institutional features of wage bargaining in 23 European countries, the United States and Japan" by P. Du Caju, E. Gautier, D. Momferatou and M. Ward-Warmedinger, December 2008.
- 975 "Early estimates of euro area real GDP growth: a bottom-up approach from the production side" by E. Hahn and F. Skudelny, December 2008.
- 976 "The term structure of interest rates across frequencies" by K. Assenmacher-Wesche and S. Gerlach, December 2008.
- 977 "Predictions of short-term rates and the expectations hypothesis of the term structure of interest rates" by M. Guidolin and D. L. Thornton, December 2008.
- 978 "Measuring monetary policy expectations from financial market instruments" by M. Joyce, J. Relleen and S. Sorensen, December 2008.
- 979 "Futures contract rates as monetary policy forecasts" by G. Ferrero and A. Nobili, December 2008.
- 980 "Extracting market expectations from yield curves augmented by money market interest rates: the case of Japan" by T. Nagano and N. Baba, December 2008.
- 981 "Why the effective price for money exceeds the policy rate in the ECB tenders?" by T. Välimäki, December 2008.
- 982 "Modelling short-term interest rate spreads in the euro money market" by N. Cassola and C. Morana, December 2008.
- 983 "What explains the spread between the euro overnight rate and the ECB's policy rate?" by T. Linzert and S. Schmidt, December 2008.
- 984 "The daily and policy-relevant liquidity effects" by D. L. Thornton, December 2008.
- 985 "Portuguese banks in the euro area market for daily funds" by L. Farinha and V. Gaspar, December 2008.
- 986 "The topology of the federal funds market" by M. L. Bech and E. Atalay, December 2008.
- 987 "Probability of informed trading on the euro overnight market rate: an update" by J. Idier and S. Nardelli, December 2008.
- 988 "The interday and intraday patterns of the overnight market: evidence from an electronic platform" by R. Beaupain and A. Durré, December 2008.



### **OTHER PUBLICATIONS**

"Bond markets and long-term interest rates in non-euro area Member States of the European Union", January 2008 (online only).

"Oversight framework for card payment schemes - standards", January 2008 (online only).

"The role of money – money and monetary policy in the twenty-first century – proceedings of the Fourth ECB Central Banking Conference 2006", February 2008.

"Euro area balance of payments and international investment position statistics – Annual quality report", March 2008 (online only).

"ECB statistics quality framework (SQF)", April 2008 (online only).

"Quality assurance procedures within the ECB statistical function", April 2008 (online only). "ECB statistics – an overview", April 2008 (online only).

"TARGET Annual Report 2007", April 2008 (online only).

"Financial integration in Europe", April 2008.

"Financial Stability Review", June 2008.

Financial Stability Review, June 2008.

"Labour supply and employment in the euro area countries: developments and challenges", June 2008.

"The international role of the euro", July 2008 (online only).

"Payment systems and market infrastructure oversight report", July 2008 (online only).

"Letter from the ECB President to Mr Dimitrios Papadimoulis, Member of the European Parliament", July 2008 (online only).

"Letter from the ECB President to Mr Ashley Mote, Member of the European Parliament", July 2008 (online only).

"Legal framework of the Eurosystem and the ESCB. ECB legal acts and instruments", July 2008. "CCBM2 User Requirements 4.1", July 2008 (online only).

"Simulating financial instability – conference on stress testing and financial crisis simulation exercises, 12-13 July 2007", September 2008.

"New procedure for constructing ECB staff projection ranges", September 2008 (online only). "Commission's draft directive/regulation on credit rating agencies – Eurosystem contribution to

the public consultation", September 2008 (online only).

"Euro money market survey", September 2008 (online only).

"EU banking structures", October 2008 (online only).

"Letter from the ECB President to Mr Mario Borghezio, Member of the European Parliament", October 2008 (online only).

"Letter from the ECB President to Mr Ashley Mote, Member of the European Parliament", October 2008 (online only).

"A strategic vision for statistics: challenges for the next 10 years – Fourth ECB Conference on Statistics, 24 and 25 April 2008", November 2008.

"The implementation of monetary policy in the euro area: General documentation on Eurosystem monetary policy instruments and procedures", November 2008.

"The Eurosystem policy principles on the location and operation of infrastructures settling euro-denominated payment transactions: specification of 'legally and operationally located in the euro area'", November 2008 (online only).

"Single Euro Payments Area – sixth progress report", November 2008 (online only).

"EU banks' liquidity stress-testing and contingency funding plans", November 2008 (online only).

"Government finance statistics guide", December 2008 (online only).

"Financial Stability Review", December 2008.

"Covered bonds in the EU financial system", December 2008 (online only).

"The incentive structure of the 'originate and distribute' model", December 2008 (online only).

"Recommendations of the Governing Council of the European Central Bank on the pricing of recapitalisations", December 2008 (online only).

"Recommendations of the Governing Council of the European Central Bank on government guarantees for bank debt", December 2008 (online only).

"Commercial property markets – financial stability risks, recent developments and EU banks' exposures", December 2008 (online only).

"Correspondent central banking model (CCBM) – procedures for Eurosystem counterparties", December 2008 (online only).

## **INFORMATION BROCHURES**

"The European Central Bank, the Eurosystem, the European System of Central Banks", 2nd edition, April 2008.

"Price Stability – why is it important for you?", June 2008.

"A single currency - an integrated market infrastructure", September 2008.





# 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).

**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 the 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.

**Capital accounts:** part of the system of national (or euro area) accounts consisting of the change in net worth that is due to net saving, net capital transfers and net acquisitions of non-financial assets.

**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 or per hour worked:** 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 or by the total number of employees' hours worked.

**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. the 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.

**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 nominal EER indices for the euro are calculated against two groups of trading partners: the EER-21 (comprising the 11 non-euro area EU Member States and 10 trading partners outside the EU) and the EER-41 (composed of the EER-21 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 transactions between residents and non-residents in direct investment, portfolio investment, other investment, financial derivatives and reserve assets.

**Financial accounts:** part of the system of national (or euro area) accounts showing the financial positions (stocks or balance sheets), financial transactions and other changes of the different institutional sectors of an economy by type of financial asset.

**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 the development 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.



**Investment funds (except money market funds):** financial institutions that pool capital raised from the public and invest it in financial and non-financial assets. See also **MFIs**.

**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 recently taken 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 rates at the main refinancing operations, on the marginal lending facility and 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 (volume) 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 moneyissuing 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, i.e. funds that invest in short-term and low-risk instruments usually with a maturity of one year or less.

**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  $4\frac{1}{2}$ %.

**Reserve requirement:** the minimum amount of reserves a credit institution is required to hold with the Eurosystem over a predefined maintenance period. Compliance with the requirement



is determined on the basis of the average of the daily balances in the reserve accounts over the maintenance period.

**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 (volume) 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 sufficiently homogenous debt securities with 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.

