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EUROPEAN CENTRAL BANK

EUROSYSTEM

ANNUAL REPORT 2011

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ABBREVIATIONS

COUNTRIES

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

OTHERS

BIS	Bank for International Settlements
CPI	Consumer Price Index
EBA	European Banking Authority
ECB	European Central Bank
EEA	European Economic Area
EIOPA	European Insurance and Occupational Pensions Authority
EMU	Economic and Monetary Union
ESA 95	European System of Accounts 1995
ESCB	European System of Central Banks
ESMA	European Securities and Markets Authority
EU	European Union
EUR	euro
GDP	gross domestic product
HICP	Harmonised Index of Consumer Prices
ILO	International Labour Organization
IMF	International Monetary Fund
MFI	monetary financial institution
NCB	national central bank
OECD	Organisation for Economic Co-operation and Development
PPI	Producer Price Index

In accordance with EU practice, the EU Member States are listed in this report using the alphabetical order of the country names in the national languages.

Unless stated otherwise, all references in this report to Treaty article numbers reflect the numbering in effect since the Treaty of Lisbon entered into force on 1 December 2009.

FOREWORD

2011 was an exceptional year with challenging economic and financial conditions. Within this context, the European Central Bank consistently provided an anchor of stability and confidence. This was evidenced by the fact that medium to longer-term inflation expectations remained firmly anchored in line with the Governing Council's aim of keeping inflation rates below, but close to, 2% over the medium term – a remarkable success in the light of adverse developments and a sign of the high degree of credibility of the ECB's monetary policy.

Throughout 2011 price developments were significantly influenced by energy and commodity price increases, which led to elevated levels of inflation. Overall, average annual HICP inflation was 2.7%. In the earlier part of the year, economic recovery in the euro area continued, supported by global growth and strengthening domestic demand. At the same time, headline inflation rates rose significantly in early 2011 and the balance of risks to the inflation outlook, as indicated by the economic analysis, shifted to the upside. The underlying pace of monetary expansion gradually recovered, while monetary liquidity was ample and could have accommodated upward price pressures. In order to ensure that price stability was maintained, the Governing Council raised the key ECB interest rates in April and July 2011 by 25 basis points on each occasion, after having kept them at very low levels for almost two years.

From mid-July tensions in financial markets intensified, fuelled mainly by market participants' concerns about the evolution of public finances in several euro area countries. The resulting tighter financial conditions and deteriorating economic confidence, together with lower global demand, dampened euro area economic activity in the second half of 2011. Real GDP increased by 1.4% overall in 2011. High financial market uncertainty, together with deleveraging pressures on banks, also affected money growth, which diminished towards the end of 2011. The underlying pace of monetary expansion remained subdued. In view of this, the Governing Council reduced the key ECB interest rates in November and December by a total of 50 basis points.

Risks to euro area financial stability increased considerably in the course of 2011 as the sovereign debt crisis and its impact on the banking sector worsened. Particularly in the second half of the year, contagion effects in larger euro area countries gathered strength amid rising headwinds from the interplay between vulnerable public finances and the financial sector. This was accompanied by weakening macroeconomic growth prospects, especially towards the end of the year. Euro area bank funding pressures increased markedly in several market segments, including unsecured term funding and short-term US dollar funding. This led to a strengthening of bank deleveraging pressures in late 2011, suggesting a risk of adverse implications for credit availability. Deleveraging pressures stemming from short to medium-term bank funding challenges were appropriately contained by timely central bank action.

As financial market tensions adversely affected the monetary policy transmission mechanism, the Governing Council adopted a range of non-standard monetary policy measures as of August 2011. These included the reactivation of the Securities Markets Programme, the launch of a second covered bond purchase programme and measures to provide liquidity in foreign currencies. Furthermore, the Eurosystem decided to maintain the fixed rate full allotment procedure in all refinancing operations until at least the end of June 2012. In December the Governing Council adopted additional enhanced credit support measures, including the conduct of two longer-term refinancing operations with a three-year maturity, increased collateral availability and a reduction in the reserve ratio to 1%. The main purpose of these measures was to mitigate the effects of strains in financial markets on the supply of credit to households and businesses by ensuring that banks were not liquidity-constrained.

The broad-based increase in financial stability risks revealed a clear need for bold and decisive action both within and outside the euro area. The package of measures announced or adopted by the European Council and the euro area Heads of State or Government addressed several key areas, with the aim of restoring euro area financial stability. The central elements of the package included a new fiscal compact and the strengthening of stabilisation tools for the euro area, including a more effective European Financial Stability Facility, the swifter implementation of the European Stability Mechanism and measures to address the unique challenges faced in Greece.

On 27 January 2012 the Heads of State or Government agreed on the fiscal compact in the form of the Treaty on Stability, Coordination and Governance in the Economic and Monetary Union. The Treaty promotes the strengthening of the existing fiscal framework, notably through the anchoring in national legislation of a structural balanced budget rule, which is to be verified by the European Court of Justice. Observed deviations from the rule and the related cumulative impact on government debt will be corrected automatically. If effectively implemented and enforced, this new fiscal rule should improve the sustainability of public finances in the euro area.

Regarding the banking sector, the European Banking Authority and national supervisors adopted measures to ensure a durable strengthening of the capital of EU banks on the basis of an EU-wide stress-testing exercise concluded in July. To address the funding needs of banks, access to term funding was facilitated through the reintroduction of state funding guarantee schemes, which was coordinated at the EU level in terms of access and conditions.

During 2011 the regulatory reform agenda maintained its momentum. An important step towards addressing the risks to the global financial system was the adoption by the G20 of an integrated set of policy measures regarding systemically important financial institutions. The ECB fully supports these new international standards, which are designed to address the negative externalities and moral hazard posed by global systemically important institutions. They are a necessary step to reduce the likelihood and severity of financial instability and bailouts. The ECB, as a member of the Financial Stability Board, actively contributed to this work.

Another important theme was the follow-up work on revising and finalising certain elements of the new capital and liquidity standards (Basel III). The ECB also contributed to the implementation of the Basel III standards in Europe and welcomed the European Commission's proposal made on 20 July 2011 for a directive and regulation which will transpose the Basel III framework into EU law. In its opinion, published on 27 January 2012, the ECB fully supported the strong commitment of the EU to implementing international standards and agreements in the field of financial regulation, while taking into consideration, where relevant, certain specific features of the EU financial and legal system.

2011 was the first year of existence of the European Systemic Risk Board (ESRB) – the EU macro-prudential oversight body in charge of identifying and assessing systemic risks, and issuing warnings and recommendations. The ECB ensures the Secretariat of the ESRB. In 2011 the ESRB started to have regular exchanges of views on systemic risks to the EU financial system; a key issue in this respect has been the interaction between the creditworthiness of European sovereigns, the increasing difficulty of banks in raising funding, and weakening economic growth. The ESRB adopted three public recommendations, on: i) lending in foreign currencies; ii) US dollar-denominated funding of credit institutions; and iii) the macro-prudential mandate of national authorities. It is now working on setting up the relevant follow-up mechanism, in line with the "act or explain" regime. Finally, the ESRB worked throughout the year to develop the basis for macro-prudential policy in the EU; to this end, it reviewed the macro-prudential aspects of proposed EU legislation – in particular on banks' capital requirements and on market infrastructure – and shared its macro-prudential concerns with the EU's legislative bodies.

The ECB continued to contribute to the key policy and regulatory initiatives aimed at enhancing the stability of financial market infrastructures, including legislative initiatives at the EU level. The ECB also contributed to the work of the Committee on Payment and Settlement Systems and the International Organization of Securities Commissions, in particular the principles for financial market infrastructures and work in the field of OTC derivatives market infrastructure. Furthermore, in May 2011 the Governing Council approved the mandate for the European Forum on the Security of Retail Payments. Finally, throughout 2011 an extensive preliminary review of the available documentation concerning the TARGET2-Securities design took place, involving all relevant authorities.

In the field of central bank services, the Eurosystem operates the large-value payment system TARGET2. The single platform of TARGET2 facilitates the real-time gross settlement of transactions in euro and enables 24 EU central banks and their respective user communities to benefit from the same comprehensive and advanced services. Substantial progress was made in 2011 on the Eurosystem's programme for a new multi-currency securities settlement solution called TARGET2-Securities (T2S). After more than two years of negotiations, the legal documentation was approved by the Governing Council, paving the way for central securities depositories and the Eurosystem to enter into a contract with each other in 2012. The negotiations with the non-euro area central banks that would like to make their currencies available to T2S for the settlement of securities transactions were also concluded. There were also positive developments on technical matters, notably the publication of the user detailed functional specifications and the selection of the network service providers. Work also progressed on forthcoming enhancements to Eurosystem collateral management services, namely the removal of the repatriation requirement and the support of cross-border tri-party collateral management services within the correspondent central banking model.

Turning to organisational issues, the ECB had 1,440.5 full-time equivalent permanent positions at the end of 2011, compared with 1,421.5 positions at the end of 2010. The increase was mainly due to increased business requirements as a result of the financial crisis. The members of staff of the ECB come from all 27 EU Member States and are recruited by means of open selection campaigns to fill vacancies published on the ECB's website. In line with the ECB's mobility policy, 237 members of staff moved internally to other positions in 2011, while six members of staff were seconded to other organisations for external work experience and 54 were granted unpaid leave to study or take up employment with another organisation, or for personal reasons. The continuous acquisition and development of skills and competencies by all members of staff remained a cornerstone of

the ECB's human resources strategy. The main developments in the area of HR policies included the introduction of more family-friendly rules on working time and leave, the establishment of an Occupational Safety and Health Committee and the introduction of coaching services for staff.

Construction work for the new ECB premises progressed in 2011 in line with the set time schedule and within the allotted budget. The construction of the double office tower ran at an average pace of one floor every six days. The date of completion for the new premises remains unchanged and is scheduled for the end of 2013.

Regarding its financial accounts, the ECB earned a surplus of €1.89 billion in 2011, compared with a surplus of €1.33 billion in 2010. The Governing Council decided to transfer, as at 31 December 2011, an amount of €1.17 billion to the provision for foreign exchange rate, interest rate, credit and gold price risks, thereby increasing it to its ceiling of €6.36 billion, which was the value of the ECB's capital paid up by the euro area NCBs as at that date. The ECB's net profit for 2011, following the transfer to the provision, was €728 million. This amount was distributed to the euro area NCBs in proportion to their paid-up shares in the ECB's capital.

Frankfurt am Main, March 2012

Mario Draghi

View of the new ECB premises from the east. The new ECB premises, which are being built according to the design of COOP HIMMELB(L)AU, are due to be completed by the end of 2013. The ensemble will consist of three main building elements, namely the double office tower, the Grossmarkthalle and the entrance building.

CHAPTER I

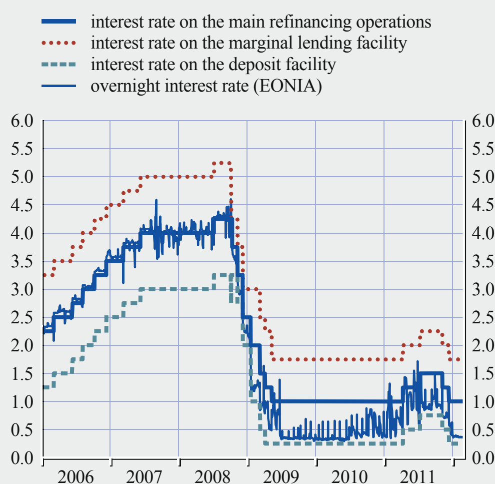
ECONOMIC DEVELOPMENTS AND MONETARY POLICY

1 MONETARY POLICY DECISIONS

The Eurosystem was again faced with an extremely demanding situation in 2011. Up until the summer of 2011 inflationary pressures increased on account of rising commodity prices, which could have triggered a broad-based inflationary process amid an economic recovery. Risks to the inflation outlook at the policy-relevant horizon, as identified by the economic analysis, shifted to the upside. Moreover, while the monetary analysis indicated that the underlying pace of monetary expansion was moderate, monetary liquidity was ample and might have facilitated the accommodation of price pressures. To contain these risks, the Governing Council raised the key ECB interest rates in two steps in April and July by a total of 50 basis points. In the second half of the year the intensification of financial market tensions exerted a significant dampening impact on euro area economic activity. To ensure the maintenance of price stability, the Governing Council cut the key ECB rates by 50 basis points in two steps in November and December. At the end of 2011 the interest rate on the main refinancing operations stood at 1.00%, the rate on the deposit facility at 0.25% and the rate on the marginal lending facility at 1.75% (see Chart 1).

Chart 1 ECB interest rates and the overnight interest rate

(percentages per annum; daily data)



Sources: ECB, Bloomberg and Thomson Reuters.

The high levels of financial market tension from the summer onwards had the potential to hamper the transmission of the monetary policy signal to the economy. To ensure a smooth and homogeneous transmission, the ECB decided on a number of non-standard monetary policy measures between August and December 2011 (see Box 1).

Box 1

NON-STANDARD MEASURES IN 2011[1]

Significant deteriorations in several financial market segments in the euro area led the ECB to introduce a number of non-standard monetary policy measures in the second half of 2011. Government bond market tensions which had been broadly confined to Greece, Ireland and Portugal increasingly spread to Italy and Spain, and then also to other euro area countries (see chart). These developments reflected, among other things, fiscal sustainability issues, especially with regard to certain euro area countries, concerns regarding the global economic outlook, and uncertainty about the modalities of European financial support for the euro area countries most affected by the sovereign debt crisis, including the possibility of private sector involvement. The severe stress observed in sovereign bond markets in the second half of 2011 also affected the euro area money market.

1 More information on the ECB's response to the financial crisis in the second half of 2011 can be found in the boxes entitled "Financial markets in early August 2011 and the ECB's monetary policy measures", *Monthly Bulletin*, ECB, September 2011, and "Additional non-standard monetary policy measures decided by the Governing Council on 8 December 2011", *Monthly Bulletin*, ECB, December 2011.

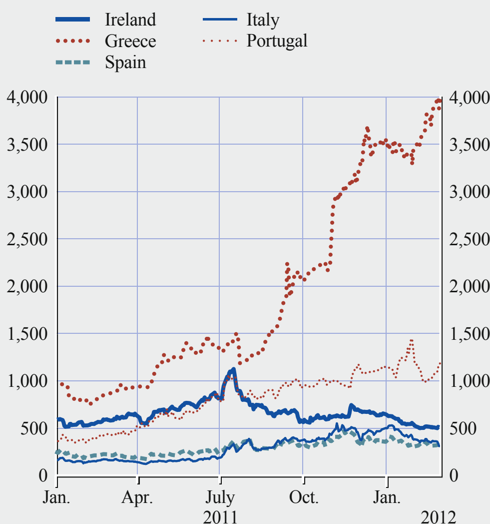
These developments led the Governing Council of the ECB to adopt a number of non-standard monetary policy measures as of August 2011, aimed at preventing disruptive financial market developments like those observed after the default of Lehman Brothers in September 2008. Without such measures, market developments might have had adverse consequences for the transmission of monetary policy impulses – and thus ultimately for the maintenance of price stability in the euro area as a whole over the medium term.

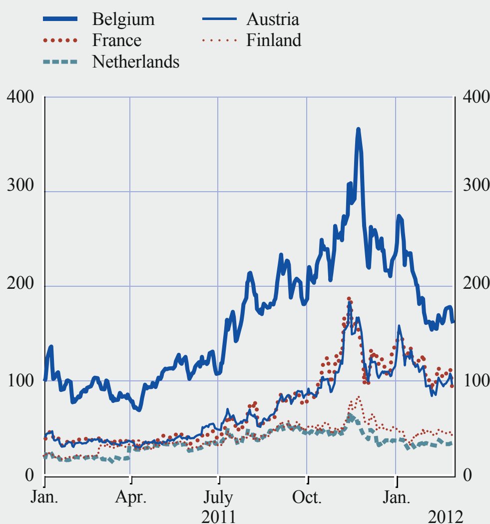
In August 2011 the Governing Council announced that the Eurosystem would continue to provide liquidity to banks through fixed rate tender procedures with full allotment until at least early 2012. Furthermore, a longer-term refinancing operation with a maturity of approximately six months was introduced.

In addition, the ECB announced that it would reactivate the Securities Markets Programme (SMP). This programme, introduced in May 2010, seeks to support the transmission of monetary policy decisions in the context of dysfunctioning in segments of the financial markets, with a view to ensuring price stability for the euro area as a whole. No purchases had been made under the programme since the end of March 2011, but significant risks arose as of August of some government debt securities markets becoming dysfunctional and tensions spreading to other markets. The materialisation of these risks would have had a severe impact on access to finance in the euro area economy. In taking the decision to resume the SMP interventions, the Governing Council took note – among other things – of euro area governments' commitment to meeting their fiscal targets and of announcements by some governments concerning measures and reforms to be adopted in the areas of fiscal and structural policies. The modalities of the SMP remained unchanged: purchases of government bonds by the Eurosystem are strictly limited to secondary markets; the liquidity-providing effects of SMP bond purchases are fully sterilised by means of specific liquidity-absorbing operations; and the SMP, like all other non-standard monetary policy measures, is temporary in nature. At the end of 2011 the outstanding amount of bonds settled under the SMP as reported on the Eurosystem's balance sheet stood at €211.4 billion.

Government bond spreads

(basis points)





Source: Thomson Reuters.
Notes: Spreads reflect yields on ten-year government bonds minus the yield on a ten-year German government bond. No comparable data are available for the euro area countries not shown in the chart.

On 15 September, following US dollar funding pressures, the Governing Council announced three US dollar liquidity-providing operations with a maturity of approximately three months covering the end of the year, a measure decided on in coordination with other major central banks. These operations took the form of repurchase agreements against eligible collateral.

On 6 October two additional longer-term refinancing operations were announced: one in October 2011 with a maturity of approximately 12 months, and one in December 2011 with a maturity of approximately 13 months. The Governing Council also indicated in October that fixed rate tender procedures with full allotment would continue to be used for all refinancing operations allotted until at least the end of the first half of 2012. These measures were taken with the aim of supporting bank funding, thus encouraging banks to continue lending to households and non-financial corporations. In addition, a new covered bond purchase programme was announced, allowing the Eurosystem to purchase covered bonds with an intended value of €40 billion in the primary and secondary markets between November 2011 and October 2012. At the end of 2011 the outstanding amount of bonds settled under this programme stood at €3.1 billion.

On 30 November the ECB announced coordinated action with other central banks to enhance their capacity to provide liquidity support to the global financial system through liquidity swap arrangements. In addition, the pricing on the existing temporary US dollar liquidity swap arrangements was lowered by 50 basis points. The purpose of this action was ultimately to mitigate the effects of strains in financial markets on the supply of credit to households and businesses.

On 8 December the Governing Council announced additional enhanced credit support measures to support bank lending and liquidity in the euro area money market. In particular, it decided to conduct two longer-term refinancing operations with a three-year maturity, with the option of early repayment after one year. Collateral availability was increased by reducing the rating threshold for certain asset-backed securities and by allowing NCBs to temporarily accept as collateral additional performing credit claims (i.e. bank loans) that satisfy specific eligibility criteria. In addition, the reserve ratio was reduced from 2% to 1%. Finally, the fine-tuning operations carried out on the last day of each maintenance period were discontinued. The first three-year longer-term refinancing operation, conducted on 21 December 2011, provided €489.2 billion to banks, while the second one, conducted on 29 February 2012, provided €529.5 billion.

Following real GDP growth of 1.8% in 2010, economic activity continued to expand in 2011, but at a somewhat slower rate. The quarterly real GDP growth rate in the first quarter of 2011 was strong, but this was partly due to special factors such as a bounce-back in construction activity, which had been low owing to adverse weather conditions towards the end of 2010. As these special factors ceased to play a role, quarterly real GDP growth declined notably in the second quarter, also reflecting the adverse effects resulting from the Japanese earthquake. In the second half of the year real GDP growth was very weak.

Inflation stood at elevated levels throughout the year, averaging 2.7% in 2011, up from 1.6% in 2010. As regards the monthly profile of annual HICP inflation, the rate gradually increased from 2.3% in January to a peak of 3.0% from September to November, before edging down to 2.7% in December, reflecting mainly developments in energy and other commodity prices. Medium and long-term inflation expectations remained firmly anchored at levels consistent with the Governing Council's aim of keeping inflation rates below, but close to, 2% in the medium term.

After relatively low M3 growth of 1.7% in 2010, the pace of monetary expansion in the euro area gradually increased in the first three quarters of 2011, reaching 2.9% in annual terms in September 2011. However, financial market tensions and pressures on banks to adjust their balance sheets – particularly in relation to capital requirements – dampened monetary dynamics in the autumn, leading to a decline in the annual rate of growth of M3 to 1.5% in December. The monthly profile of M3 growth in 2011 was significantly affected by interbank transactions conducted via central counterparties, which are part of the money-holding sector. Overall, the underlying pace of monetary expansion was moderate throughout the year.

RISING INFLATIONARY PRESSURES IN THE FIRST PART OF 2011

Looking at monetary policy decisions in 2011 in more detail, the euro area economy began the year with a positive underlying growth momentum and broadly balanced risks amid elevated uncertainty. It was expected that euro area exports would be supported by the expansion in the world economy. Private sector demand was also seen to be making an increasing contribution to growth, in the light of favourable levels of business confidence, the accommodative monetary policy stance and the measures adopted to improve the functioning of the financial system. These expectations were also reflected in the March 2011 ECB staff macroeconomic projections, which foresaw annual real GDP growth in a range between 1.3% and 2.1% in 2011 and between 0.8% and 2.8% in 2012.

At the same time, there was evidence of upward pressure on overall inflation, mainly owing to commodity prices, which was also discernible in the earlier stages of the production process. Given the favourable underlying growth momentum, this could have triggered second-round effects and more broad-based inflationary pressures. The March 2011 ECB staff macroeconomic projections foresaw annual HICP inflation in a range between 2.0% and 2.6% for 2011 and between 1.0% and 2.4% for 2012, which was an upward shift compared with the December 2010 Eurosystem staff macroeconomic projections, mainly owing to higher energy and food prices.

Consequently, the Governing Council noted in March that the risks to the medium-term outlook for price stability were on the upside, having considered the risks to be broadly balanced but likely to be moving to the upside in the first two months of 2011. In this context, the Governing Council stressed its preparedness to act in a firm and timely manner to ensure that upside risks to price stability over the medium term did not materialise. These risks related, in particular, to stronger than assumed increases in commodity prices, but also to greater than assumed increases in indirect taxes and administered prices, owing to the need for fiscal consolidation in the coming years, as well as to higher than expected domestic price pressures in the context of the ongoing recovery in activity.

A cross-check of the outcome of the economic analysis with the signals from the monetary analysis suggested that the underlying pace of monetary expansion was still moderate. At the same time, the low level of money and credit growth had thus far led to an only partial unwinding of the large amounts of monetary liquidity accumulated in the economy prior to the period of financial tensions. This had the potential to facilitate the accommodation of price pressures emerging at the time in commodity markets as a result of strong world economic growth and ample liquidity related to expansionary monetary policies at the global level.

In the light of the upside risks to price stability identified in the economic analysis, and in order to ensure the firm anchoring of inflation expectations at levels consistent with price stability, the Governing Council decided to increase the key ECB interest rates by 25 basis points at its meeting on 7 April 2011, having kept them unchanged at historically low levels for

almost two years. It was considered paramount to ensure that the rise in HICP inflation did not lead to second-round effects and thereby give rise to broad-based inflationary pressures over the medium term. Given the low interest rates across the entire maturity spectrum, the stance of monetary policy remained accommodative, thereby continuously lending considerable support to economic activity and job creation.

Moving further into the second quarter, some weakening of economic activity was expected, following a strong rise in euro area real GDP in the first quarter, but the underlying momentum of economic activity in the euro area was assessed to be still in place. The strong first quarter of 2011 led to an upward revision of the real GDP growth projection for 2011 in the June 2011 Eurosystem staff macroeconomic projections to a range of between 1.5% and 2.3%, with a broadly unchanged range for 2012. Upward pressure from commodity prices on inflation persisted, also in the earlier stages of the production process. This was reflected in an upward revision to the range for annual HICP inflation in the June 2011 Eurosystem staff macroeconomic projections to between 2.5% and 2.7% for 2011, while the range for 2012 narrowed by comparison with the March 2011 ECB staff macroeconomic projections, to between 1.1% and 2.3%. Notwithstanding some short-term volatility, M3 growth continued to edge up over the second quarter, and the annual growth rate of loans to the private sector also strengthened slightly over this period, suggesting that the underlying pace of monetary expansion was gradually recovering. At the same time, monetary liquidity remained ample, with the potential to accommodate price pressures in the euro area.

In the light of these developments, the Governing Council decided to increase the key ECB interest rates by 25 basis points at its meeting on 7 July 2011. Furthermore, the Governing Council took the view that monetary policy remained accommodative, given the low interest rates across the entire maturity spectrum.

THE INTENSIFICATION OF THE SOVEREIGN DEBT CRISIS FROM AUGUST 2011

Macroeconomic conditions in the euro area deteriorated from the summer of 2011, with increasing tensions in euro area government bond markets being mainly related to market participants' concerns about several factors. These included the global growth outlook, the sustainability of public finances in some euro area countries and what was generally perceived to be an inadequate response by governments to the sovereign debt crisis. Bond spreads in some sovereign bond markets in the euro area jumped to levels not seen since 1999. Other markets, notably the money market, were also affected.

This had a clear adverse impact on financing conditions and economic sentiment, which – along with a moderation in global growth dynamics and the process of balance sheet adjustment in the financial and non-financial sectors – dampened the underlying growth momentum in the euro area in the fourth quarter of 2011 and beyond. As a consequence, real GDP growth expectations for 2012 were gradually revised down in the course of autumn 2011. While the September 2011 ECB staff macroeconomic projections still foresaw annual real GDP growth in a range between 0.4% and 2.2% for 2012, the December 2011 Eurosystem staff macroeconomic projections put growth in a much lower range of between -0.4% and 1.0%. In the view of the Governing Council, there were substantial downside risks to the economic outlook for the euro area in an environment of high uncertainty.

While inflation continued to stand at elevated levels in the second half of 2011, it was expected that it would fall below 2% over the course of 2012, as cost, wage and price pressures in the euro area should moderate in an environment of weaker euro area and global growth. The December 2011 Eurosystem staff macroeconomic projections foresaw annual HICP inflation in a range between 1.5% and 2.5% for 2012 and between 0.8% and 2.2% for 2013. The range for 2012 was somewhat

higher than that in the September 2011 ECB staff macroeconomic projections, which saw inflation in a range of between 1.2% and 2.2% for 2012. This upward shift reflected higher oil prices in euro terms and a larger contribution from indirect taxes, which more than compensated for the dampening effect from lower activity. Risks to the inflation outlook were assessed to be broadly balanced.

Heightened uncertainty in financial markets also affected monetary developments, with a weakening in M3 growth observed towards end-2011. This was accompanied by signs of less favourable credit developments, in particular with respect to lending to the non-financial private sector. Given that credit supply effects can manifest themselves with lags, close scrutiny of credit developments was deemed warranted. Overall, the underlying pace of monetary and credit expansion remained moderate.

The Governing Council decided to reduce the key ECB interest rates by 25 basis points at its meetings on 3 November and 8 December 2011. This was assessed to be essential in order to ensure a firm anchoring of inflation expectations in the euro area in line with the Governing Council's aim of maintaining inflation rates below, but close to, 2% over the medium term.

2 MONETARY, FINANCIAL AND ECONOMIC DEVELOPMENTS

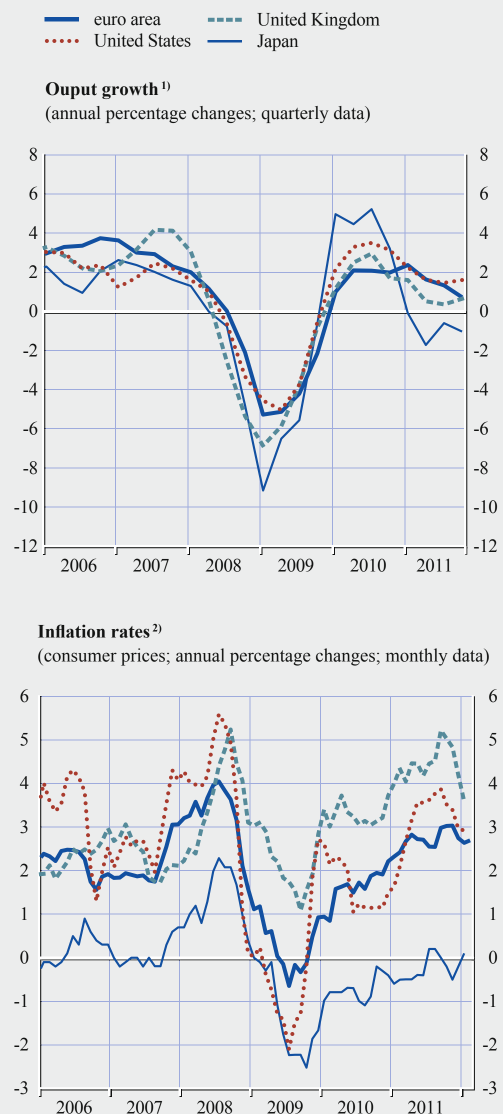
2.1 THE GLOBAL MACROECONOMIC ENVIRONMENT

GLOBAL GROWTH MOMENTUM SLOWED IN 2011

In early 2011 survey indicators signalled that the firming of momentum in global economic growth which had occurred over the final quarter of 2010 was continuing into the first quarter of 2011, with the Purchasing Managers' Index (PMI) for global all-industry output reaching a post-financial-crisis peak of 59.4 in February. However, a series of unforeseen, adverse events caused the global economy to lose some momentum in the course of the first half of 2011. The Great East Japan Earthquake not only had a direct impact on Japanese economic activity but also spilled over to the rest of the world through the disruption of global supply chains. In addition, rising commodity prices had a dampening effect on real incomes in the major advanced economies. The divergence in growth patterns continued, not only between advanced and emerging economies but also among advanced economies. In emerging economies, growth remained relatively robust, albeit with some moderation in the latter part of the year, which helped to alleviate the build-up of overheating pressures. In advanced economies, the continuing repair of public and private sector balance sheets as well as the persistent weaknesses in labour and housing markets continued to restrain growth (see Chart 2). Notwithstanding differences in labour market developments across advanced economies, unemployment in the OECD area remained stubbornly high.

During the second half of 2011 business and consumer sentiment continued to deteriorate, in an environment of heightened uncertainty and increased financial market stress, amid the escalation of the sovereign debt crisis in the euro area and the drawn-out discussions on the US debt ceiling. These developments to some extent offset the positive impetus from the unwinding of supply disruptions that had followed the Japanese earthquake in March. Overall, the underlying growth momentum of the global economy weakened. By the end of the year, however, data releases and survey indicators were both indicating tentative signs of a stabilisation of activity in the global economy.

Chart 2 Main developments in major advanced economies



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

Consistent with the developments in global economic activity, a rebound in the volume of world merchandise trade over the final quarter of 2010 continued into the first quarter of 2011. In the second quarter disruptions to global supply chains caused by the natural disasters in Japan led to a contraction in world trade for the first time since mid-2009. While the slowdown was broad-based across regions, the most pronounced decline in exports occurred in Japan and the newly industrialised countries in Asia. Although the unwinding of the supply-chain disruptions supported global trade in the third quarter of 2011, world trade dynamics were – in line with global activity – weak in the second half of the year. The floods in Thailand also had a negative impact on trade. By the end of the year, however, the global PMI for new export orders suggested some stabilisation in global trade.

Regarding price developments, the annual inflation rate in advanced economies gradually increased over the course of 2011 before experiencing a slight decline in the final quarter. Overall, underlying inflationary pressures in advanced economies remained relatively contained. In OECD countries, average headline consumer price inflation stood at 2.9% in 2011, up from 1.9% in 2010. Average consumer price inflation excluding food and energy stood at 1.7%, compared with 1.3% in 2010. In emerging economies, annual inflation rates experienced modest declines in the fourth quarter of 2011, which prompted some central banks to halt their monetary tightening cycles. However, underlying inflationary pressures persisted.

UNITED STATES

The US economy continued to recover in 2011, but at a slower pace than in 2010. Real GDP expanded by 1.7%, compared with 3.0% a year earlier. Growth in the first half of 2011 was sluggish, as it was affected by lower government expenditure at both the federal and state levels and by the temporary adverse external factors mentioned previously. In the second half of the year the economy gained momentum as private consumption posted gains, despite low consumer confidence and weak growth in disposable income. Non-residential investment continued to add substantially to growth, sustained by strong corporate profits and an environment of very low interest rates. Furthermore, residential investment appears to have bottomed out, and contributed positively to GDP growth from the second quarter of 2011. In net terms, trade made a minor positive contribution to growth. The current account deficit stood at about 3.2% of GDP in the first three quarters of 2011 (almost unchanged from 2010). Regarding the labour market, the pace of employment growth was insufficient to recover the job losses recorded during 2008 and 2009 and to bring down markedly the unemployment rate, which averaged 8.9% in 2011, compared with 9.6% in 2010.

Despite the slack in product and labour markets, headline inflation was elevated during 2011, owing, in particular, to rising food and energy costs. Annual CPI inflation in 2011 was 3.1%, up from 1.6% the year before. Excluding food and energy, CPI inflation averaged 1.7%, up from 1% the previous year, thus reversing the downward trend that had started with the economic downturn in 2008.

The Federal Open Market Committee (FOMC) of the Federal Reserve System kept its target for the federal funds rate unchanged within a range of 0% to 0.25% throughout 2011, citing low rates of resource utilisation and a subdued outlook for inflation over the medium term. As regards the outlook for the federal funds rate, the FOMC became more explicit in its August statement, stating that the anticipated economic conditions would be likely to warrant exceptionally low levels for the rate "at least through mid-2013", having previously referred to "an extended period". In June 2011 the FOMC completed a programme to purchase USD 600 billion of longer-term Treasury securities which it had started in November 2010. In view of slow economic growth and continuing weaknesses in the labour market, the FOMC decided in September 2011 to extend the average maturity of its holdings of securities with the dual aim of putting downward pressure on longer-term interest

rates and helping to make broader financial conditions more accommodative.

As regards fiscal policy, the federal budget deficit narrowed slightly to 8.7% of GDP in 2011, from 9.0% in the previous year. This led to a further increase in the level of federal debt held by the public, to 68% of GDP at the end of 2011 (compared with 63% at the end of 2010). In mid-2011, after heightened tensions arising from political disagreement and the risk of government default, a bipartisan agreement was reached to increase the limit on US debt, subject to a deficit reduction programme worth approximately USD 2.1 trillion over ten years. However, there were still major disagreements between parties over the measures necessary to reduce the deficit, which added to the uncertainty surrounding the global outlook.

JAPAN

Japan's growth pattern in 2011 was strongly affected by the earthquake in March and the ensuing nuclear disaster. In the immediate aftermath of this, production and exports declined sharply and domestic private demand weakened considerably. This led to a pronounced decline in real GDP in the first half of 2011. Supply constraints caused by the earthquake eased faster than initially expected, leading to a rebound of economic activity in the third quarter. In the last quarter of the year, however, real GDP contracted again, reflecting a weakening of global demand and the disruption to Asian trade caused by the floods in Thailand. Weak exports, partly due to the appreciation of the yen, together with increasing imports of raw materials following the earthquake led to the first annual deficit in the trade balance since 1980. The economy continued to face a deflationary environment. CPI inflation remained negative throughout most of 2011.

Following the disasters, the Bank of Japan immediately provided short-term emergency liquidity, increased its asset purchase programme and introduced a lending support programme for financial institutions in the afflicted areas. Throughout 2011 the Bank of Japan maintained an accommodative monetary stance in order to stimulate the economy and fight deflation, keeping its target for the uncollateralised overnight call rate between 0.0% and 0.1%. Furthermore, the Japanese authorities carried out sporadic interventions in foreign exchange markets with the aim of preventing a rapid appreciation of the yen. As regards fiscal policy, the government approved four supplementary budgets amounting to a total of JPY 20.7 trillion (about 4.4% of GDP), aimed to a large extent at supporting immediate help and reconstruction efforts.

EMERGING ASIA

Economic growth in emerging Asia decelerated in 2011, following an exceptionally strong expansion the year before. Export growth declined significantly in the second half of the year, amid the moderation in global growth. Furthermore, concerns about the global outlook fuelled financial market volatility and triggered sizeable capital outflows from the region towards the end of the year. Nonetheless, domestic demand – while moderating on account of the gradual withdrawal of policy stimuli – remained robust. Annual GDP growth was 7.3%, close to its long-term average.

Inflationary pressures in the region remained strong in 2011. Inflation rates increased in the first two quarters, initially because of a rise in food and other commodity prices, but the increase subsequently became more broadly based. In the third quarter, however, inflation peaked, as both imported inflation and domestic demand pressures eased. In the light of easing inflation, combined with the less favourable growth outlook, central banks in the fourth quarter halted the monetary tightening cycle they had begun in the second half of 2010. However, although overheating pressures lessened significantly, they had not fully disappeared by the end of the year.

As regards the Chinese economy, real GDP growth declined from 10.3% in 2010 to 9.2% in 2011. Growth was mainly driven by domestic demand, whereas the contribution of net exports

turned negative. Domestic demand was fuelled by ample liquidity built up in previous years. Construction was sustained by the government's social housing programme of 2011, which set out to provide 36 million new housing units by the end of 2015. Inflation remained elevated during the year, driven mainly by high commodity prices and adverse domestic supply shocks to food items, but eased to 3.1% by the end of the year. Owing to a deteriorating economic outlook, the authorities cut the reserve requirement ratio for banks by half a percentage point in December 2011 and implemented fiscal and monetary measures to support small and medium-sized enterprises. Export growth declined significantly in the second half of the year, mainly as a result of weaker global growth. Import growth held up relatively well, supported by robust domestic demand. As a result, the trade surplus narrowed to USD 155 billion in 2011 from USD 181 billion in the previous year. The renminbi appreciated in nominal effective terms by 5.5% in 2011. By the end of 2011 China's foreign exchange reserves had reached USD 3.2 trillion.

LATIN AMERICA

Economic activity in Latin America continued to expand at a solid pace in the first half of 2011, albeit a slower one than in 2010. For the region as a whole, year-on-year growth stood at 4.9% in the first half of 2011, compared with 6.3% in 2010. Slower expansion of domestic demand – on account of the tightening monetary policy stance in most countries of the region – was the main factor behind the decline in real GDP growth. This was partly offset by the less negative contribution from external demand. Private consumption continued to be the main engine of growth, as labour market conditions remained favourable and lending standards eased. Investment was, however, the most dynamic component of domestic demand. Looking at country-specific developments, the commodity-exporting countries in particular continued to be the most dynamic. The solid growth performance in the Latin American region, coupled with rising food prices, resulted in a widespread increase in inflationary pressures. Headline inflation stood at 6.7% in the first half of 2011 (0.3 percentage point higher than in 2010), which prompted several central banks to increase their policy rates during this period.

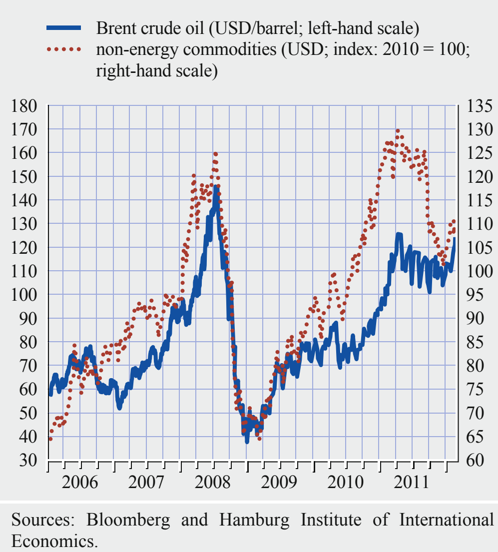
In the second half of 2011 external conditions deteriorated rapidly as financial market tensions worsened and the prospects for the global economic recovery were revised significantly downwards. Against this backdrop, there was a significant reversal of capital flows out of Latin America, which resulted in strong exchange rate depreciations and a worsening of financial indicators, such as stock prices and sovereign spreads. These developments also led to a further weakening of economic activity across most countries of the region, while inflationary pressures remained elevated. Monetary policy tightening paused in most countries in the region, reflecting the increased uncertainty. In Brazil, the central bank cut its key policy rate by 150 basis points in the second half of 2011, following an overall increase of 175 basis points during the first half of the year.

DEVELOPMENTS IN COMMODITY PRICES WERE MIXED IN 2011

The price of Brent crude oil was on average USD 111 per barrel in 2011, 38% above the average in 2010. The rise in the annual average was the biggest since 2005. Having risen sharply to a peak of USD 126 per barrel on 2 May 2011, oil prices then declined to USD 108 per barrel at the end of December 2011, compared with USD 93 per barrel in early January 2011.

The sharp upward trend in oil prices that had started in September 2010 continued until early May 2011 – closely resembling the surge in oil prices that occurred between 2007 and mid-2008. The increase was supported by a pick-up in global oil demand and by the severe disruption to the oil supply from Libya amid the political turmoil in that region. Moreover, non-OPEC oil supply outages that were stronger than expected further exacerbated the already tight situation in terms of supply and demand which persisted throughout most of the

Chart 3 Main developments in commodity prices



Sources: Bloomberg and Hamburg Institute of International Economics.

year. This was the main reason why oil prices proved to be resilient in the second half of 2011 despite a slowdown in global growth. Towards the turn of the year, oil prices were supported by mounting concerns relating to a possible major disruption to the oil supply from Iran.

By contrast, the prices of non-energy commodities, in particular non-ferrous metals, decreased substantially during 2011 (see Chart 3), mostly reflecting uncertainty about the global economic outlook and relatively accommodative supply-side conditions. In aggregate terms, non-energy commodity prices (denominated in US dollars) were about 15% lower towards the end of 2011 than at the beginning of the year.

THE EFFECTIVE EXCHANGE RATE OF THE EURO DECLINED MODERATELY DURING THE YEAR AMID ELEVATED VOLATILITY

Euro exchange rate developments in 2011 largely reflected evolving market perceptions of the euro area's economic outlook and of the fiscal prospects of its member countries relative to those of other major economies. The moderate depreciation of the euro was therefore characterised, as in the preceding year, by elevated levels of implied volatility (see Chart 4). In the period up to April 2011 the euro broadly appreciated, but thereafter commenced a downward trend that steepened during late summer. This trend was halted in October, when the euro appreciated markedly against the US dollar and the Japanese yen amid temporarily declining volatility. The euro's subsequent weakening against these currencies was partly offset by a strengthening against other currencies, particularly those of central and eastern European economies. As a result, the nominal effective exchange rate of the euro, as measured against the currencies of 20 of the euro area's most important trading partners, declined by 2.2% over the year (see Chart 5). By the end of 2011, in nominal effective terms, the euro stood 4.0% below its average level in 2010 and close to its average level since 1999.

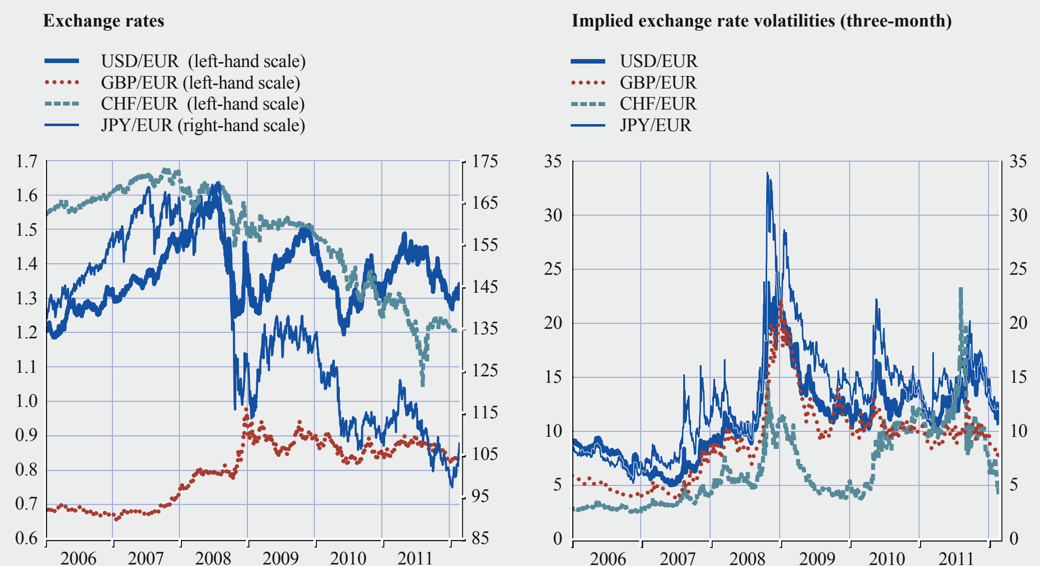
Following an appreciation in the period up to April 2011, the euro depreciated overall against the US dollar in the second half of the year. This reflected changing perceptions of the outlook for public finances in some euro area countries and in the United States, as well as movements in yield differentials between the two economies. On 30 December 2011 the euro traded at USD 1.29, which was 3.2% lower than at the beginning of 2011 and 2.4% below its average in 2010.

The euro also depreciated against the Japanese yen and the pound sterling over the course of 2011. On 30 December 2011 the euro stood at JPY 100.20, which was 7.8% lower than at the beginning of the year and 13.9% below its 2010 average. On the same day it stood at GBP 0.84, which was 3.0% below its level at the beginning of the year and 2.7% lower than its average level in 2010.

The exchange rate of the euro against the Swiss franc fluctuated substantially in 2011, reaching a historical low in August but thereafter appreciating until early September, when the Swiss National Bank unilaterally announced a minimum exchange rate of CHF 1.20.

Chart 4 Patterns in exchange rates and implied volatilities

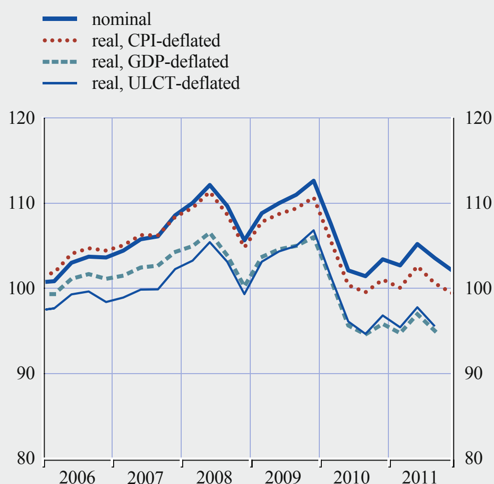
(daily data)



Sources: Bloomberg and ECB.
Note: The latest observation is for 2 March 2012.

Chart 5 Euro nominal and real effective exchange rates (EER-20)[1)]

(quarterly data; index: Q1 1999 = 100)



Source: ECB.
1) An upward movement of the EER-20 indices represents an appreciation of the euro. The latest observations are for the fourth quarter of 2011 for "nominal" and "real, CPI-deflated" and the third quarter of 2011 for "real, GDP-deflated" and "real, ULCT-deflated" and are partly based on estimates. ULCT stands for unit labour costs of the total economy.

On 30 December 2011 the euro stood at CHF 1.22, which was 2.8% below its level at the beginning of the year and 12.0% below its average level in 2010.

Regarding other major currencies, the euro depreciated during 2011 against the Australian dollar (by 3.1%), the Canadian dollar (by 0.8%) and the Norwegian krone (by 0.6%). It also depreciated against the Asian currencies that are linked to the US dollar – including the Chinese renminbi (by 7.5%) and the Hong Kong dollar (by 3.2%) – but was unchanged vis-à-vis the Korean won.

The real effective exchange rates of the euro based on different cost and price measures increased during the first half of 2011 and thereafter depreciated to levels close to those prevailing at the end of 2010 (see Chart 5). The real effective CPI-deflated exchange rate was, on average, weaker in 2011 than in the preceding year and, by the end of 2011, close to its average since 1999.

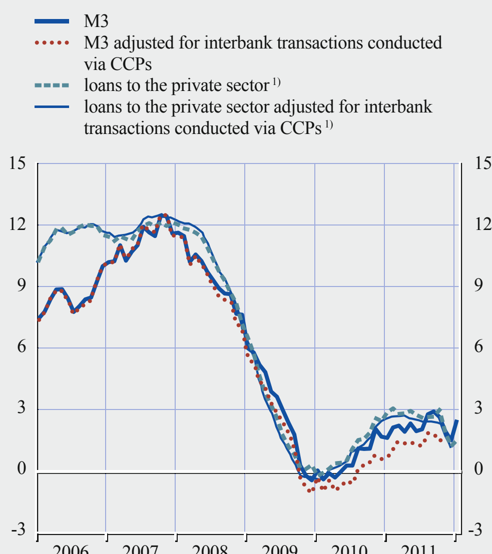
2.2 MONETARY AND FINANCIAL DEVELOPMENTS

MONETARY GROWTH REMAINED MODERATE

Having recovered from the muted developments observed in early 2010, broad money growth remained at moderate levels in 2011. The annual growth rate of M3, which had stood at 1.7% in December 2010, remained stable at around 2% in the first half of 2011, in line with the moderate growth in aggregate demand. The heightened financial market tensions and economic uncertainty that characterised the second half of the year encouraged portfolio shifts both into and out of monetary assets. This resulted in a considerable increase in the short-term volatility of the annual growth rate of M3 (which reached 2.9% in September 2011, before declining to stand at 1.5% in December, and then recovered to stand at 2.5% in January 2012). Transactions (mainly interbank transactions) conducted via central counterparties (CCPs), which are part of the money-holding sector, also added to the increased volatility of monthly data on money and credit (see Chart 6).

Chart 6 M3 and loans to the private sector

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



Source: ECB.
1) Adjusted for loan sales and securitisation activity.

The annual growth rate of loans to the private sector (adjusted for the impact of loan sales and securitisation activity) was also affected by such factors. Accordingly, having hovered above 2.5% for most of 2011, it declined markedly towards the end of the year (standing at 1.2% in December, down from 2.4% in December 2010). Data on lending for January 2012 suggest that the risk of credit being severely curtailed declined. In this respect, the non-standard measures adopted by the Governing Council of the ECB in early December – particularly the three-year LTROs – alleviated the funding pressures faced by MFIs (see Box 1 for a description of these measures). Overall, looking beyond short-term volatility, developments in money and credit indicate that the pace of underlying monetary expansion was moderate in 2011.

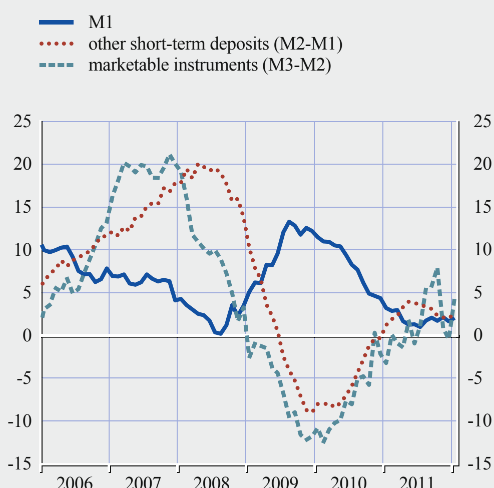
PORTFOLIO CONSIDERATIONS WERE THE KEY DRIVER OF DEVELOPMENTS IN COMPONENTS OF M3

Portfolio considerations relating to the interest rates paid on the various instruments contained in M3 drove developments in the main components of M3 in the first half of 2011. The spread between the interest rates paid on overnight deposits and other short-term deposits widened in that period, encouraging the money-holding sector to allocate funds to other short-term deposits. As financial market tensions intensified and economic uncertainty increased, late summer saw considerable portfolio shifts away from riskier assets and into M3. The preference shown for liquidity, combined with the fact that the spread between the interest rates paid on overnight deposits and other short-term deposits had stopped widening by that time (and had even decreased slightly), helps to explain why most of these inflows for M3 were allocated to overnight deposits (see Charts 7 and 8).

The annual growth rate of marketable instruments, which increased to -0.5% in December 2011, up from -2.3% in December 2010, displayed a high degree of volatility in the course of the year. This less negative

Chart 7 Main components of M3

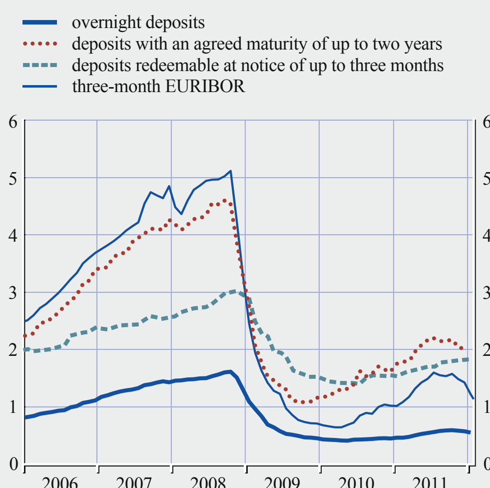
(annual percentage changes; adjusted for seasonal and calendar effects)



Source: ECB.

Chart 8 MFI interest rates on short-term deposits and a money market interest rate

(percentages per annum)



Source: ECB.

growth rate was explained by the slight increase observed in the holdings of short-term MFI debt securities and the fact that the somewhat reduced annual outflow for money market fund shares/units was fully offset by an annual inflow of a similar size for repurchase agreements. The high degree of month-on-month volatility was, to a large extent, due to flows of repurchase agreements. As in 2010, inflows for this instrument largely reflected increased reliance on secured interbank transactions conducted via CCPs, which have the advantage of reducing banks' counterparty risk. From the perspective of monetary data, such transactions consist of two legs: i) a loan from the lending MFI to the CCP; and ii) a repurchase agreement between the borrowing MFI and the CCP.

Given the volatility inherent in interbank transactions, the fact that secured interbank lending conducted via CCPs has increased in the course of the financial crisis – especially since the collapse of Lehman Brothers – has translated into higher levels of volatility in the related monetary series (see also the sections on sectoral money holdings and loan developments below). Accordingly, the negative flows observed for repurchase agreements in late 2011 on account of this type of transaction – which reflected the intensification of sovereign debt-related tensions in a number of euro area countries and the reduction seen in interbank lending as a result of the strong correlation between sovereign risk and bank risk – were a key driver of monetary dynamics during that period.

VOLATILITY IN HEADLINE M3 LARGELY REFLECTED THE DEPOSIT HOLDINGS OF OFIs

The annual growth rate of M3 deposits – which comprise short-term deposits and repurchase agreements and represent the broadest monetary aggregate for which reliable information is available at the sectoral level – declined to 1.1% in December 2011, down from 3.1% in December 2010. However, developments in M3 deposits were driven largely by the contribution made by non-monetary financial intermediaries other than insurance corporations and pension funds (referred to as "other financial institutions" or "OFIs"). The annual growth rate of OFIs' holdings of M3 deposits, which had stood at 10.4% in December 2010, fluctuated between 6% and 12% for most of the year, before declining to stand at 3.4% and 0.9% in November

and December 2011 respectively. It then recovered to stand at 5.7% in January 2012. This high degree of volatility is explained mainly by interbank transactions conducted via CCPs (as CCPs form part of the OFI sector) and the fact that, in late 2011, institutional investors reduced their holdings of M3 deposits as tensions in financial markets and concerns regarding bank risk intensified. In fact, OFIs' money holdings tend to display a high degree of correlation with asset prices. (See Box 2 for an analysis of the role played by money and credit developments in asset price imbalances.[1])

In the first half of 2011 the annual growth rate of M3 deposits held by households continued the modest recovery observed as of mid-2010. It then stabilised at levels slightly above 2%, before declining to stand at 1.4% in December 2011 as a result of a large monthly outflow. That was then reversed in January 2012 following the implementation of further non-standard monetary policy measures. Households' holdings make up the majority of M3 deposits and are the most closely related to consumer prices. By contrast with developments in households' M3 deposits, the annual growth rate of the holdings of non-financial corporations declined in 2011, especially in the second half of the year. This was potentially related to a preference for internal (rather than external) sources of funding.

1 See also the article entitled "The interplay of financial intermediaries and its impact on monetary analysis", *Monthly Bulletin*, ECB, January 2012.

Box 2

MONEY AND CREDIT AS EARLY WARNING INDICATORS OF ASSET PRICE MISALIGNMENTS

Asset markets are playing an increasingly important role in many economies, and policy-makers have become far more aware that sizeable changes and corrections in asset prices may lead to financial – and ultimately macroeconomic – instability. Central banks, therefore, have an interest in reducing the risks to price stability that arise from such developments. Recent research suggests that money and credit indicators can be particularly helpful in predicting boom and bust cycles in asset prices. This provides a further reason for central banks to monitor such variables closely.[1]

Detecting asset price booms and busts

Designing an early warning system for asset price imbalances can be divided into three steps. The first step consists in defining asset price misalignments (e.g. in terms of deviations from historical trends or in terms of their economic consequences). In the literature, many approaches have been used to define such misalignments, ranging from purely statistical methods to more model-based methods.[2] In practice, given the uncertainties surrounding the correct identification of such episodes in real time, a cross-check of the results stemming from the various methods is warranted. The second step involves selecting appropriate leading indicators and designing models to link the indicators to the misalignment period. The third and final step is an assessment of the predictive performance of each indicator over a sample period and/or across a panel of countries. The usefulness of an indicator is typically assessed by comparing the number of false alarms with the number of correct signals given by the indicator. A number of different (and complementary) methods have been used in the literature to predict asset price misalignments, and two of them have recently been applied in ECB studies.

1 For more details, see the article entitled "Asset price bubbles and monetary policy", *Monthly Bulletin*, ECB, April 2005.
2 See the article entitled "Asset price bubbles and monetary policy revisited", *Monthly Bulletin*, ECB, November 2010.

The first is the "signalling" method, in which a signal is issued warning of a boom or bust within a given period whenever the selected indicator breaches a threshold. The second is the "discrete choice" method, which uses probit/logit regression techniques to evaluate an indicator's ability to predict either a boom or a bust by estimating the probability of such an episode occurring within a given time frame. A warning signal is issued when this probability exceeds a certain threshold.

The role of money and credit as early warning indicators

A crucial aspect of the functioning of early warning indicators is the selection of indicator variables which, according to historical regularities, exhibit unusual behaviour prior to booms and busts. Money and credit developments stand out in this regard, as a number of theoretical channels link these variables to asset prices and, ultimately, consumer prices. First of all, asset prices affect money demand as part of a broader portfolio allocation problem, whereby the returns on various assets influence monetary holdings. Moreover, credit developments could be influenced by asset price dynamics, including those generated by means of certain self-reinforcing mechanisms. For example, during asset price booms the balance sheet positions of financial and non-financial corporations improve and the value of collateral increases, allowing banks to extend further credit to fund firms' investment. Banks' leverage ratios fall as asset prices rise, allowing them to issue new liabilities.[3] The additional funds held by financial and non-financial corporations may, in part, be invested in booming assets, which would lead to further asset price increases. In this respect, the "financial accelerator" can also be of relevance. Indeed, firms and households may be constrained in their borrowing because of asymmetric information in credit markets, and the lower their net worth, the tighter the constraints will be, given that there is less collateral available to secure loans.[4]

At the same time, the causality might also run in the opposite direction. For example, rising demand for assets stemming from increasingly leveraged investment positions may, in a world with financial frictions, increase asset prices.[5] Furthermore, high levels of money holdings might point to large amounts of liquidity being invested in instruments potentially yielding greater returns, which could then fuel a bubble once a trend has been triggered and herding behaviour has set in. At the heart of this could be a real portfolio balance effect on the part of non-monetary financial intermediaries other than insurance corporations and pension funds: excessive amounts of liquidity on their balance sheets would trigger a desire for portfolio reallocation, increasing the shares of other assets. Another potential link between money and credit, on the one hand, and asset prices, on the other, is the "risk-taking" channel of monetary transmission. While low interest rates are usually associated with strong money growth, they have also been found to trigger the loosening of credit standards, which could, in turn, allow greater leveraging in investment, thereby potentially increasing asset prices.

Indeed, looking at empirical regularities, boom and bust cycles in asset markets seem, historically, to have been closely associated with large fluctuations in money and credit aggregates, particularly in periods of either: i) asset price busts, or ii) asset price booms that end in financial distress.[6] One robust finding across a number of recent studies is that various measures of excessive credit creation are good leading indicators of a build-up of financial imbalances in the economy.

3 See Adrian, T. and Shin, H.S., "Liquidity and leverage", *Staff Reports*, No 328, Federal Reserve Bank of New York, 2008.
4 See Bernanke, B., Gertler, M. and Gilchrist, S., "The financial accelerator in a quantitative business cycle framework", *NBER Working Paper Series*, No 6455, National Bureau of Economic Research, 1998.
5 See Allen, F. and Gale, D., "Bubbles and crises", *Economic Journal*, Vol. 110, 2000, pp. 236-255.
6 See Fisher, I., *Booms and depressions*, Adelphi, New York, 1932; and Kindleberger, C., *Manias, panics and crashes: a history of financial crises*, John Wiley, New York, 1978. Additional support as regards the consequences that excessive credit growth may have on the creation of bubbles can be found in the early work of the Austrian School.

There is also some evidence that money possesses good indicator properties for asset price booms and busts, as it represents a summary indicator of bank balance sheets.[7]

Predicting boom and bust cycles in asset prices

Recent studies by ECB staff analyse the emergence of booms and busts in asset markets. One study, by Alessi and Detken,[8] is based on the use of a signalling method to detect (high-cost) asset price booms, the latter being defined as booms which are followed by a three-year period in which real GDP growth is at least 3 percentage points weaker than potential growth. The results reveal that the global private credit gap and global M1 gap are the best early warning indicators of such episodes.

Two other studies, by Gerdesmeier, Reimers and Roffia, make use of probit models which estimate the probability of an asset price boom or bust within the following two years.[9] A boom (bust) occurs when a composite asset price indicator (calculated as a weighted average of stock and house price indices) increases (declines) above (below) a specific threshold. The binary boom/bust variable is then given a value of one if a boom/bust occurs within the next eight quarters. Probit equations are tested for a panel of 17 OECD countries. The final specification for booms incorporates both the credit growth and house price growth gaps and the investment-to-GDP ratio, together with changes in stock markets and real GDP (with the last two being replaced by changes in nominal long-term interest rates in the case of busts).

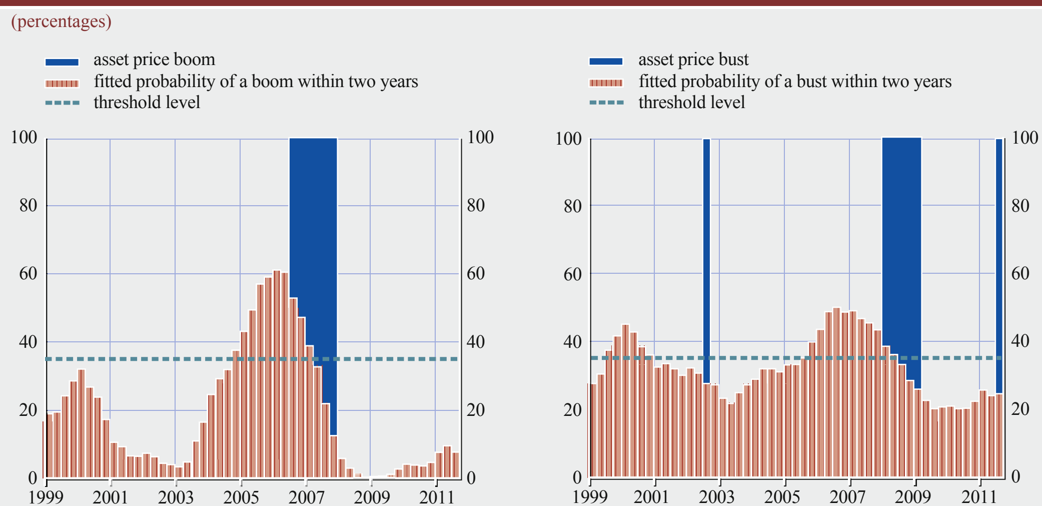
7 See "Lessons for monetary policy from asset price fluctuations", Chapter 3, *World Economic Outlook*, IMF, Washington DC, October 2009; Detken, C. and Smets, F., "Asset price booms and monetary policy", in Siebert, H. (ed.), *Macroeconomic Policies in the World Economy*, Springer, Berlin, 2004; Adalid, R. and Detken, C., "Liquidity shocks and asset price boom/bust cycles", *Working Paper Series*, No 732, ECB, 2007; Borio, C. and Lowe, P., "Asset prices, financial and monetary stability: exploring the nexus", *BIS Working Papers*, No 114, BIS, Basel, July 2002; and Helbling, T. and Terrones, M., "When bubbles burst", Chapter 2, *World Economic Outlook*, IMF, Washington DC, April 2003.

8 See Alessi, L. and Detken, C., "'Real time' early warning indicators for costly asset price boom/bust cycles: a role for global liquidity", *Working Paper Series*, No 1039, ECB, 2009.

9 See Gerdesmeier, D., Reimers, H.-E. and Roffia, B., "Asset price misalignments and the role of money and credit", *International Finance*, Vol. 13, 2010, pp. 377-407; and Gerdesmeier, D., Reimers, H.-E. and Roffia, B., "Early warning indicators for asset price booms", *Review of Economics & Finance*, Vol. 3, 2011, pp. 1-20.

Chart A Probability of an asset price boom or bust in the euro area within the following two years

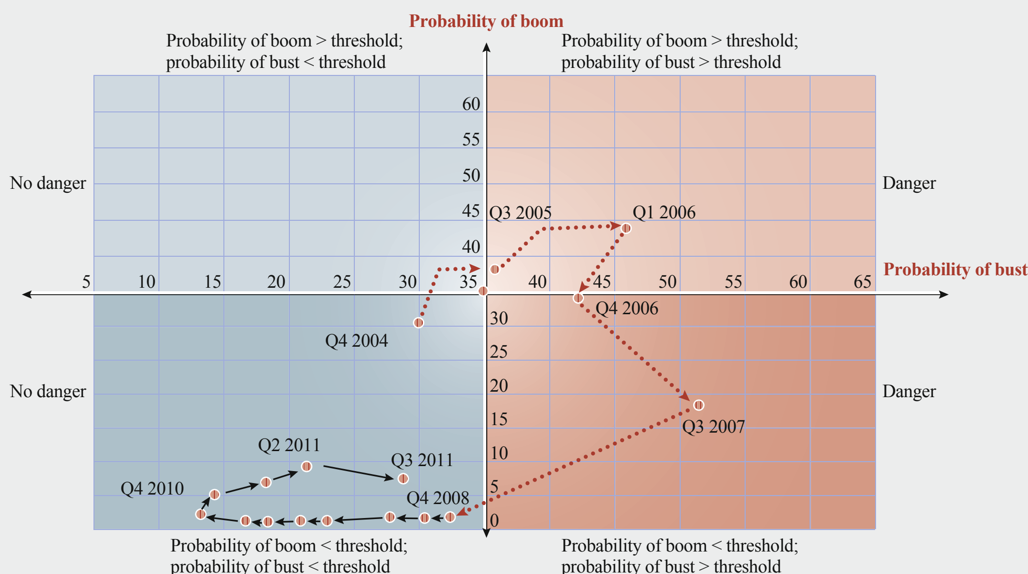
(percentages)



Source: ECB (see the papers referred to in footnote 9).

Chart B Assessment of the risk of booms and busts in the euro area

(percentages)



Source: ECB staff estimates.
Note: The calculation was performed for each quarter in real time in the period for which black arrows are used, but only for selected quarters (in "pseudo"-real time) in the period for which red dotted arrows are used.

These results can be used to assess the possible emergence of booms and busts in asset markets in the euro area. First, recent developments in the global credit gap, the domestic credit growth and house price growth gaps and the investment-to-GDP ratio do not seem to give any particular indication of a forthcoming boom or bust at the euro area level. Second, the probit boom and bust models are estimated using the latest available data and the fitted probability is calculated (see Chart A). The results indicate that the probability of a forthcoming bust increased further to stand at 28% in the third quarter of 2011, albeit remaining below the 35% threshold. At the same time, the probability of a forthcoming boom remains fairly low, at around 10%.

This quantitative information is also provided in graphical form in Chart B. The vertical and horizontal axes indicate the probabilities of booms and busts respectively, with the origin representing the 35% threshold. The four quadrants represent the various possible combinations in terms of the probabilities of booms and busts. Current developments continue to place the euro area in the bottom-left quadrant, which is characterised by a probability of either a boom or a bust occurring in the next two years below the respective thresholds. However, the probability of a bust seems to have been increasing in the past few quarters, thus approaching the situation depicted in the bottom-right quadrant.

Overall assessment

Overall, recent ECB staff studies show that it is possible to identify early warning indicators for individual countries and groups of countries which perform reasonably well. These studies also implicitly confirm that leverage is one of the key indicators for predicting high-cost boom and

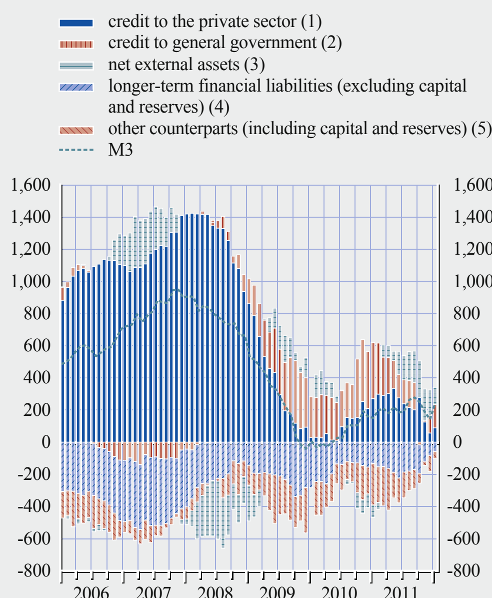
bust cycles in asset prices. The signals obtained from such indicators should be regarded as just one element in the information set used by decision-makers to assess risks to macroeconomic stability and the potential consequences as regards risks to price stability.

THE ANNUAL GROWTH RATE OF CREDIT TO THE PRIVATE SECTOR DECLINED

As regards the counterparts of M3, the annual growth rate of MFI credit to euro area residents declined to 1.4% in December 2011, down from 3.4% in December 2010 (see Chart 9). This reflected a strong decline in the annual growth rate of credit to general government and a moderation in the annual growth rate of credit to the private sector. The decline in the annual growth rate of credit to general government was attributable to developments in loans, the annual growth rate of which declined gradually for most of 2011, falling clearly into negative territory in the fourth quarter of the year, mainly reflecting a sizeable base effect (relating to the transfer of assets to a "bad bank" scheme in October 2010).[2] By contrast, the annual growth rate of debt securities ended the year slightly above the level observed at the end of 2010, reflecting positive flows in the second half of the year. Such inflows, however, almost entirely reflected purchases of government securities conducted under the Securities Markets Programme. By contrast, exposure to such securities on the part of MFIs other than the Eurosystem remained broadly unchanged.

Chart 9 Counterparts of M3

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



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

The growth profile of credit to the private sector mirrors that of loans, which is the main component of this aggregate. However, its annual growth rate (which stood at 0.4% in December 2011, down from 1.6% in December 2010) remained slightly below that of loans to the private sector, reflecting negative annual growth in MFI holdings of both i) private sector debt securities other than shares, and ii) shares and other equity. The contraction observed in MFIs' holdings of these instruments is likely to have reflected deleveraging by euro area MFIs by means of the reduction of their holdings of riskier assets, as well as low levels of securitisation activity.

The annual growth rate of MFI loans to the private sector (adjusted for sales and securitisation) declined markedly towards the end of 2011 (standing at 1.2% in December, down from 2.4% in December 2010), after standing above 2.5% for most of the year (see Chart 6). This profile is consistent with economic activity and financial market developments in the course of 2011, although the decline – which occurred entirely in the last two months of the year, primarily in December – was particularly concentrated in loans to non-financial corporations. This notwithstanding, the

2 For further details, see the box entitled "Revisiting the impact of asset transfers to 'bad banks' on MFI credit to the euro area private sector", *Monthly Bulletin*, ECB, January 2011.

flow of loans to the non-financial private sector (i.e. households and non-financial corporations) remained the key driver of the annual flow of loans to the private sector. Loans to OFIs increased further in 2011 as a percentage of total MFI loans to the private sector. As in the previous year, this mainly reflected MFIs' increased preference for secured interbank trading conducted via CCPs. As with monetary aggregates, the volatility inherent in this type of transaction resulted in higher levels of volatility both for loans to OFIs and – on the basis of the share of such loans in each individual series – for other credit aggregates.

As regards loans to the non-financial private sector, the annual growth rate of loans to households (adjusted for sales and securitisation), which stood at 3.1% in December 2010, remained broadly unchanged in the first half of 2011. It then gradually declined in the second half of the year, standing at 1.9% in December 2011. This was broadly in line with the weakening in economic activity and the deteriorating prospects for the housing market, although supply factors also played a role. (For more details on lending to households, see the section on household borrowing later in this chapter.) The annual growth rate of loans to non-financial corporations (adjusted for sales and securitisation) stood at 1.2% at the end of 2011, up from 1.0% in December 2010. This masked, however, a moderately hump-shaped growth profile, skewed towards the end of the year, resulting from marked monthly net redemptions in November and – especially – December. The weakening of the economic environment and the deterioration in business expectations were the primary factors explaining the relatively modest level of corporate borrowing in 2011. However, other factors may also have been at work. On the demand side, firms' indebtedness remained relatively high by historical standards. In trying to control their debt levels, firms will have been reluctant to take on additional loans and will instead have made greater use of funds available internally. Developments in non-financial corporations' holdings of M3 deposits support this view. On the supply side, the funding pressures faced by euro area credit institutions worsened noticeably in the second half of 2011 and were exacerbated in the last two months of the year by the intensification of the sovereign debt crisis, as well as increased estimates of credit institutions' capital shortfall. Overall, while there was a certain degree of cross-country heterogeneity, data for January 2012 showed that the strong net redemptions seen for loans in December 2011 did not continue.

Of the other counterparts of M3, the annual growth rate of MFI longer-term financial liabilities (excluding capital and reserves) held by the money-holding sector declined to 1.6% in December 2011, down from 3.1% at the end of 2010, having displayed a pattern similar to that of loans to the private sector in the course of the year. Issuance of longer-term securities was relatively limited and weakened towards the end of 2011, reflecting the funding pressures faced by euro area credit institutions.

Finally, the net external asset position of euro area MFIs increased by €162 billion in 2011, having declined by €85 billion in 2010. The bulk of the increase occurred in the first half of the year, which saw positive flows for assets and minor outflows for liabilities. In the second half of the year MFIs reduced their external liabilities at a faster pace, which was offset by a similar reduction in external assets, partly reflecting the withdrawal of deposits by non-residents, as well as the shifting of funds outside the euro area by institutional investors. In 2011 the net external asset position of euro area MFIs played a crucial role as a counterpart to changes in M3, especially in the second half of the year. (For further details, see Box 3.)

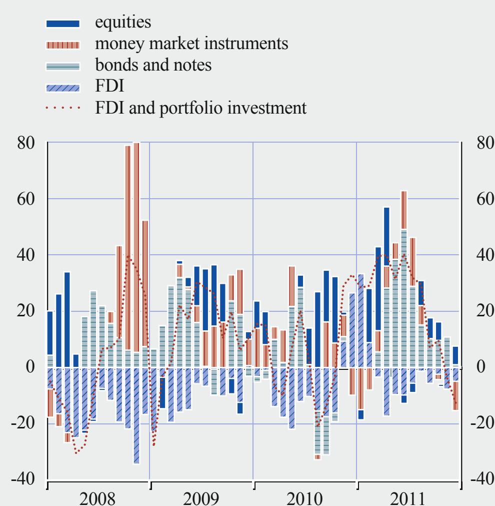
Box 3

RECENT DEVELOPMENTS IN THE EURO AREA FINANCIAL ACCOUNT

Net inflows in the euro area financial account increased in the 12-month period to December 2011. The main driver was net inflows in combined direct and portfolio investment, which increased to €223.7 billion from €98.1 billion a year earlier. This was the result of higher net inflows in portfolio investment, which were only partly offset by somewhat higher net outflows in foreign direct investment. At the same time, net outflows in other investment expanded.

Main items of the financial account

(net flows; EUR billions; three-month moving averages; monthly data)



Source: ECB.
Notes: FDI stands for foreign direct investment. The latest observation is for December 2011.

Quarterly developments in portfolio investment were relatively volatile, with abrupt changes in market sentiment and investment behaviour. Specifically, net inflows in portfolio investment increased substantially in the first half of 2011. In the first quarter this increase was mostly due to higher purchases of euro area equity securities by foreign investors and reduced investment by euro area investors in foreign equities. Net inflows in debt securities were stable. In the second quarter of 2011, by contrast, the higher net inflows in portfolio investment were mainly the result of significant purchases of euro area debt securities by foreign investors and, albeit to a lesser extent, a moderation in euro area investment in foreign debt securities (see chart). Foreign demand for debt securities issued by the non-MFI sectors of some euro area countries was relatively robust, which seems to reflect safe-haven flows amid falling global growth expectations. At the same time, foreign investors sold euro area equity securities. Taken together, these developments seem to indicate that foreign investors reshuffled their portfolios, reducing exposure to equity securities and increasing investment in highly liquid and highly rated debt securities. Moreover, since a large share of these portfolio investment inflows in the euro area reflect transactions involving the non-MFI sector, they contributed positively to the liquidity available in the euro area, as can be observed in MFIs' net external asset position.[1]

Looking at the second half of 2011, net inflows in debt securities declined substantially in the third quarter and shifted to net outflows in the fourth quarter, while net inflows were recorded in equity securities in both quarters. There was mutual disinvestment in portfolio investment, in which foreign investors became net sellers of euro area securities and euro area investors became

1 To the extent that they are settled via resident banks, transactions carried out by the money-holding sector have an impact on the external assets and liabilities of the banking sector, which is one of the counterparts of M3. The money-holding sector comprises households, non-financial corporations, non-monetary financial intermediaries, and general government other than central government. For more information on the monetary presentation of the balance of payments, see Bê Duc, L., Mayerlen, F. and Sola, P., "The monetary presentation of the euro area balance of payments", *Occasional Paper Series*, No 96, ECB, September 2008. See also the article entitled "The external dimension of monetary analysis", *Monthly Bulletin,* ECB, August 2008.

net sellers of foreign securities. A further intensification of financial market tensions and increased concerns regarding the sovereign debt crisis generated a heightened level of risk aversion. The latter, in turn, seems to have triggered home bias on the part of investors and flight-to-safety flows. Among euro area investors, the MFI sector increased its net sales of foreign securities, which is consistent with the ongoing efforts to restructure balance sheets. This increase in net sales could also have been a way of mobilising funds in a context of net sales of euro area MFI securities by foreign investors. The retrenchment was particularly strong for debt securities – both bonds and money market instruments – indicating a reversal of previous foreign investment patterns.

MONEY MARKET CONDITIONS WERE AFFECTED BY RENEWED TENSIONS IN EURO AREA GOVERNMENT BOND MARKETS

In the first half of 2011 conditions in euro area money markets temporarily improved, resulting in a gradual decline in excess liquidity (as measured by the volumes deposited with the Eurosystem). This was, however, followed by a sharp deterioration in the second half of 2011, triggered by the intensification of the sovereign debt crisis. The renewed tensions in the government bond markets of certain euro area countries in August 2011 led to an increase in perceived liquidity and credit risk, with adverse effects on the monetary policy transmission mechanism. With the aim of addressing the malfunctioning of securities markets and restoring an appropriate transmission mechanism for monetary policy, the Eurosystem reactivated its Securities Markets Programme and expanded its set of non-standard measures. Box 1 describes the non-standard measures employed in 2011, which were essential in limiting contagion as regards money market rates. Box 4 shows how, when the functioning of the money market is impaired, the accommodation of banks' liquidity needs by the Eurosystem is reflected in NCBs' accumulation of large positions in the TARGET2 payment system.

Box 4

TARGET2 BALANCES IN THE EUROSYSTEM IN A CONTEXT OF IMPAIRED MONEY MARKETS

When a bank makes a payment to a bank in another country through the payment system TARGET2[1], the transaction is settled in central bank money, which changes the banks' current account balances at their respective central banks. The settlement of such cross-border payments between banks in the euro area in TARGET2 thus results in intra-Eurosystem balances. These balances are automatically aggregated and, at the end of each day, netted out throughout the Eurosystem, leaving each NCB with a single net bilateral position vis-à-vis the ECB. As a result, some NCBs have a TARGET2 claim and others a TARGET2 liability vis-à-vis the ECB.

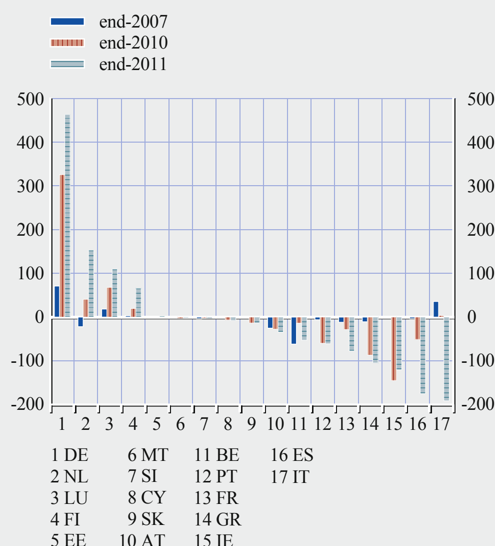
Before the financial and sovereign debt crisis, the NCBs' TARGET2 claims and liabilities were relatively stable. This is because the cross-border payment flows tended to be broadly balanced across euro area countries. A country's banking system could compensate payment outflows associated with net imports of goods and services or the acquisition of assets from other euro area countries with inflows, notably by raising funds in the cross-border interbank market.

1 TARGET2 is the Eurosystem's real-time gross settlement system (see Section 2 of Chapter 2). It allows commercial banks in Europe to conduct their payment transactions in euro on a shared platform and is used to settle central bank operations in the euro area.

With the crisis, TARGET2 liabilities have increased sizeably for some NCBs (see Chart A). This is because their banking systems have faced payment outflows in euro which have not been matched by payment inflows in euro, even taking into account public money inflows (including in the form of EU-IMF loans, which eventually end up in the banking systems). This has been the case for Ireland, Greece and Portugal, and more recently also for other countries. Access to the interbank money market has become dramatically impaired and cross-border loans to some banking systems have dried up, while previously received loans need to be repaid. In addition, funding tensions for banks have been exacerbated in some countries by retail deposit withdrawals by the private sector.

Chart A TARGET2 balances of euro area NCBs

(EUR billions)



Source: NCBs.

However, the money which a bank can use to conduct a payment needs to be offset by a compensating inflow. In a context of impaired interbank money markets and of the non-standard monetary policy measures introduced by the ECB as a result, compensation comes from central bank liquidity: a bank can borrow from its central bank provided it has adequate collateral. This has been reflected in an exceptional increase in Eurosystem liquidity provision during the crisis (see Chart B). The imbalanced cross-border payment flows imply that the banking systems in some countries need more central bank liquidity than those that have commercial bank inflows. As a result, the distribution of liquidity provision throughout the Eurosystem is uneven: some NCBs provide more liquidity in net terms than others (in relation to the size of their countries' banking systems). Those NCBs that provide more liquidity in net terms are thus also those that have TARGET2 liabilities vis-à-vis the ECB. Conversely, the NCBs that provide less liquidity in net terms are also those that have TARGET2 claims vis-à-vis the ECB (see Chart C): their banking systems have net payment inflows from the other euro area countries. The provision of central bank liquidity to these banking systems is not constrained; the TARGET2 claim is instead a sign of ample availability of bank liquidity in these banking systems.

Chart B Liquidity provision in Eurosystem monetary policy operations to euro area counterparties

(EUR billions; end-of-month data)

Source: ECB.
Note: The latest observation is for end-December 2011.

The large increase in the TARGET2 liabilities of some countries' NCBs during the financial

Chart C Stylised balance sheets of NCBs with negative, positive and neutral TARGET2 balances

NCB with a negative TARGET2 balance

Assets	Liabilities
Lending operations	Banknotes
	CAs and deposits
Other (including financial assets)	**TARGET2 liability**
	Other

NCB with a positive TARGET2 balance

Assets	Liabilities
Lending operations	Banknotes
TARGET2 claim	CAs and deposits
Other (including financial assets)	Other

NCB with a neutral TARGET2 balance

Assets	Liabilities
Lending operations	Banknotes
Other (including financial assets)	CAs and deposits
	Other

Source: ECB.
Notes: These are stylised representations of the balance sheets of NCBs and do not reflect actual data.
On the assets side, the "Other" category includes, in particular, financial assets, gold reserves and potential intra-Eurosystem claims that relate to lower issuance of banknotes relative to the NCB's share in the ECB's capital.
On the liabilities side, "Banknotes" corresponds to banknotes in circulation (proportionate to the NCB's share in the ECB's capital). The category "CAs and deposits" corresponds to the banks' liquidity holdings in current accounts (CAs) at their respective NCBs, essentially to comply with the minimum reserve requirements, as well as their deposits in the deposit facility and liquidity held in the form of fixed-term deposits. The "Other" category includes capital and reserves, provisions and revaluation accounts, and other liabilities (including liabilities to euro area residents such as government deposits, and intra-Eurosystem liabilities that are related to higher issuance of banknotes relative to the NCB's share in the ECB's capital, which are sizeable only in the middle panel).

crisis is thus a reflection of funding tensions in those countries' banking systems and the Eurosystem's accommodation of the ensuing liquidity needs. Accordingly, the very high level of net cross-border payment flows reflects the extraordinary support provided by the Eurosystem to ensure the effectiveness of the single monetary policy. Ensuring that solvent banks are not liquidity-constrained in their funding has been a key feature of the Eurosystem's non-standard measures (see Box 1). This contributes to the effective transmission of monetary policy to the wider euro area economy, and thereby to maintaining price stability in the euro area over the medium term.

In Monetary Union, the risk that the Eurosystem central banks (that is, the ECB and the euro area NCBs) face relates to the conduct of monetary policy operations itself, not to the associated TARGET2 balances. A central bank always faces counterparty risk when implementing monetary policy. However, such risk is mitigated by a risk management framework. For the provision of central bank liquidity to banks, this includes the requirement of adequate collateral valued at market prices and subject to haircuts. In addition to pledging collateral, the banks remain fully responsible for the borrowing they obtain from the Eurosystem (see Section 1 of Chapter 2). The residual risk that may emerge despite risk mitigation measures is, as a rule, shared among the euro area NCBs in accordance with their respective shares in the ECB's capital and is not related to the TARGET2 positions of individual central banks.

The claims or liabilities that relate to TARGET2 are regularly published by all Eurosystem central banks as part of their balance sheets. As far as the consolidated balance sheet of the Eurosystem is concerned, intra-Eurosystem balances (such as those related to TARGET2) are not reflected since their sum is zero. However, the sums of the TARGET2 liabilities and of the TARGET2 claims of euro area NCBs are documented in Section 6.2 of the "Notes on the Balance Sheet".

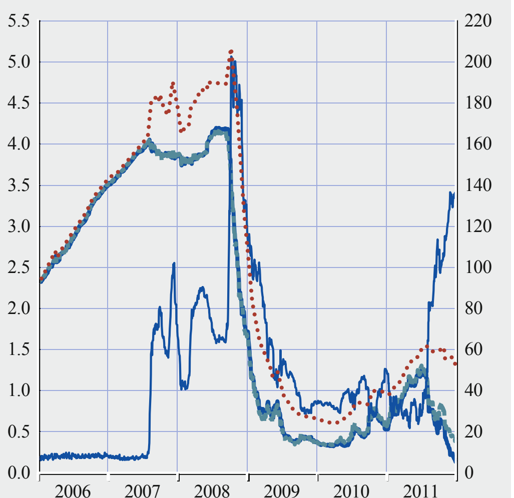
Chart 10 shows developments in an unsecured interest rate (the three-month EURIBOR) and secured interest rates (the three-month EUREPO and overnight index swap rate) in 2011. All money market interest rates increased steadily in the first half of the year. When tensions in euro area sovereign debt markets reintensified in the second half of 2011, the spread between secured and unsecured money market rates widened sharply again. Heightened counterparty risk and the fact that activity in term money markets remained limited were the most likely explanations for these developments.

Looking at very short-term money market rates, developments in the EONIA in 2011 largely reflected the fact that the Eurosystem continued the generous liquidity support provided to euro area banks since October 2008. In April and July the Governing Council of the ECB increased the key ECB interest rates by a total of 50 basis points. In the first half of the year, as excess liquidity declined, the EONIA moved closer to the rate on the main refinancing operations, although it displayed some volatility (see Chart 11). As in the second half of 2010, with levels of excess liquidity declining, the EONIA tended to follow a more pronounced pattern within each individual maintenance period, standing at higher levels at the beginning of the maintenance period, before gradually declining towards the end. This pattern is generally attributable to banks preferring to fulfil their reserve requirements early in the maintenance period, behaviour that has been observed since the turmoil began in August 2007.

In the second half of the year, as the reintensification of the euro area sovereign debt crisis led banks to again demand large amounts of liquidity, the EONIA remained well below the fixed rate in the Eurosystem's main refinancing operations and longer-term refinancing operations and close to the rate on the deposit facility. The Governing Council decided to cut the key ECB interest

Chart 10 Three-month EUREPO, EURIBOR and overnight index swap rates

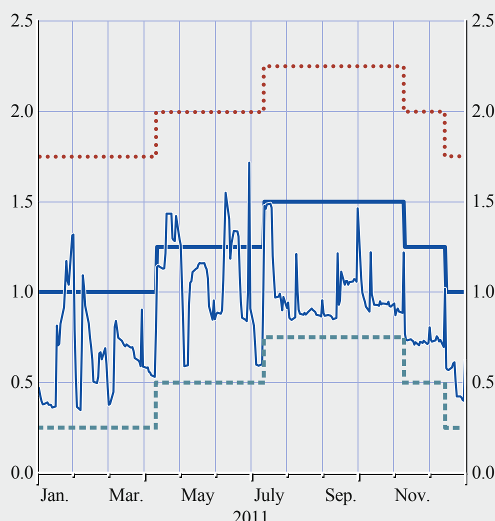
(percentages per annum; spread in basis points; daily data)



Sources: ECB, Bloomberg and Thomson Reuters.

Chart 11 ECB interest rates and the overnight interest rate

(percentages per annum; daily data)



Sources: ECB, Bloomberg and Thomson Reuters.

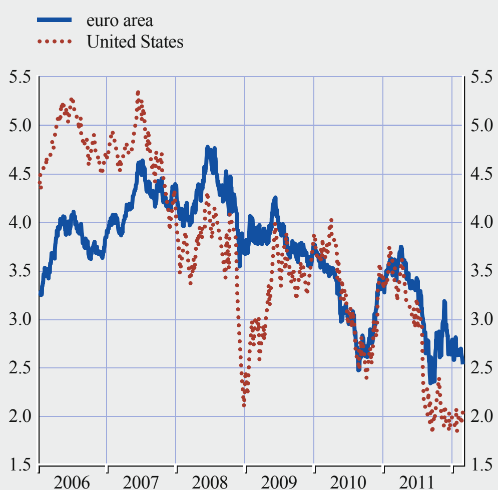
rates by 25 basis points in both November and December. Throughout 2011 occasional spikes were observed in the EONIA at the end of maintenance periods and at the end of cash management periods (e.g. at the end of the year).

EURO AREA GOVERNMENT BOND MARKETS FACED INCREASING TENSIONS IN 2011

AAA-rated long-term government bond yields generally declined in 2011, both in the euro area and in the United States. From around 3.3%, where they had stood in both regions at the beginning of January, they fell to 2.0% in the United States and to 2.6% in the euro area at the end of December (see Chart 12).

Chart 12 Ten-year government bond yields

(percentages per annum; daily data: 1 January 2006 to 2 March 2012)



Sources: Thomson Reuters and ECB.
Note: The euro area ten-year yield includes only countries rated AAA by Fitch.

In the first three quarters of 2011 euro area and US ten-year government bond yields moved broadly in tandem, continuing a trend that had started around mid-2010. In the remainder of the year, however, yields in the two areas tended to diverge, primarily because those in the euro area reflected rapid swings in market sentiment that were, in turn, related mainly to developments in the sovereign debt crisis.

With respect to how government bond yields moved during 2011, two distinct phases can be identified. In January and February, euro area and US ten-year government bond yields rose as economic releases continued to signal a solid economic recovery. In the euro area, market sentiment provided additional support, reflecting the improvement of conditions in the sovereign debt markets of countries facing fiscal tensions that resulted from expectations regarding an extension of the scope and size of the European Financial Stability Facility (EFSF). In the United States, government bond markets found additional support in the tax plans announced by the US Administration in December 2010.

The second phase started in March, when the upward trend in government bond yields came to a halt in both the euro area and the United States, paving the way for a prolonged period of decline. The trend reversal was triggered by political tensions in northern Africa and the Middle East, and by the earthquake in Japan, which led to general flight-to-safety investment flows into, above all, US dollar and euro-denominated assets. Some of the decline in yields was also due to a less positive assessment of growth in the United States, amid a tightening of monetary policy in China and declining commodity prices, which market participants tended to associate with signs of a slowdown in the world economy. In the euro area, the reintensification of the tensions in the sovereign debt markets and rising concerns about a possible restructuring of Greece's sovereign debt fostered a decline in yields in AAA-rated countries against the background of high liquidity premia.

As from July the sovereign debt crisis in the euro area moved beyond smaller economies and began to spread to some large countries as well. This caused AAA-rated ten-year government bond yields to decline further in the wake of an intensification of flight-to-safety purchases of bonds. Despite an increase in market uncertainty in early August, sparked by a downgrading of US sovereign debt by

one of the three main rating agencies and the discussions on the US government debt ceiling, the decline in yields in connection with flight-to-safety phenomena continued, as further evidence pointed to a weakening economic outlook and markets re-assessed the future path of short-term interest rates.

In the final quarter of the year yields on AAA-rated ten-year euro area government bonds rose moderately to peak at slightly above 3% at the end of November, but thereafter fell to around 2.7% by the end of the year. In the United States, by contrast, the yields on corresponding bonds continued to decline, by around 20 basis points to 2%, as a consequence both of the persistently high appetite of international investors for US dollar-denominated assets and of the announcement by the Federal Open Market Committee that it would extend the average maturity of its holdings of Treasury securities. The increase in the yields on AAA-rated euro area bonds in this part of the year can be attributed to diverging dynamics in individual AAA-rated euro area countries. Whereas German and French government bond yields developed along similar lines in the first three quarters of 2011, they started to diverge in October, reflecting increasing differences in perceptions of sovereign risk. This was particularly noticeable in the first half of November, when German bond yields continued to decline, in line with developments in the United States, while yields on French bonds rose considerably.

A key feature of the euro area government bond markets in 2011 was the diverging development in yields across countries as a consequence of either their respective credit rating or the markets' perceptions of the individual countries' fiscal fundamentals. Overall, falling long-term yields in some AAA-rated euro area countries and rising yields in lower-rated euro area countries could be taken as an indication that the risk gap between the two groups of countries was perceived to be widening. However, the positive co-movements in sovereign credit default swap (CDS) premia between all euro area countries provide evidence that sovereign debt was perceived to have become riskier in the euro area as a whole, although to a varying extent (see Box 5).

Box 5

TURBULENCE IN THE EURO AREA SOVEREIGN DEBT MARKETS AND SPILLOVERS TO THE FINANCIAL SECTOR IN 2011

Following the introduction of the euro in 1999, the yields paid on long-term government debt markets moved in line with one another across euro area countries, and their levels converged overall. The related and progressive increase in pair-wise correlations between yields reflected market perceptions that risks were broadly similar across countries and that country risks evolved along almost parallel lines. However, the financial turbulence that erupted in summer 2007 and intensified with the bankruptcy of Lehman Brothers around one year later led to significant changes in this pattern. In fact, since the summer of 2007 correlations between ten-year sovereign bond yields within the euro area have diverged, with market perceptions about country-specific fiscal fundamentals representing the key driver behind this development. Beyond sovereign bond markets, the heightened risk perceptions prevailing since summer 2007 also affected the financial sector, to an extent that varied considerably across the euro area countries. This box briefly reviews the changes in the relationships within euro area sovereign bond markets, as well as those that took place in the relationship between the sovereign debt markets and the financial sector.

Until mid-2007 divergences across both government bond yields and sovereign credit default swap (CDS) premia within the euro area were negligible. Since then, however, gaps have started to emerge and have reached unprecedented levels, especially for those countries that experienced acute fiscal problems, namely Ireland, Portugal and Greece, although the phenomenon has been observed in a larger number of euro area countries since 2010.

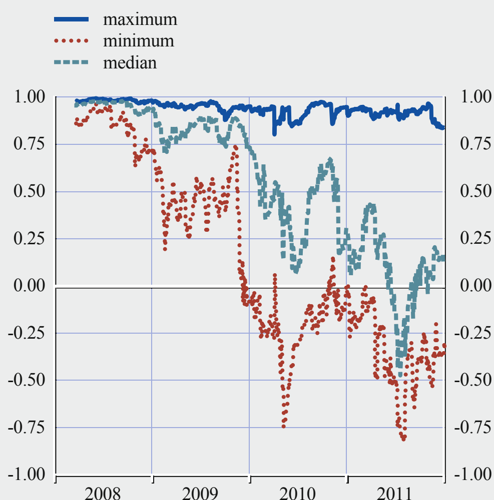
The changes in the cross-country linkages between sovereign bond yields and sovereign CDS premia can be shown effectively by using time-varying correlations based on the estimation of an econometric model.[1] Chart A presents the range (computable as the maximum less the minimum) and the median of the bilateral correlations of the yields on ten-year sovereign bonds to the German ten-year bond yield, while Chart B shows the corresponding range and median of the bilateral correlations of CDS premia in the same set of countries to the Greek five-year CDS premium.[2] Overall, the two charts provide evidence that, although yield correlations moved into negative territory in late 2009, those for CDSs remained generally positive, despite noticeable swings and a trend decline since 2010. At the heart of the divergent development of the two sets of correlations lies the fact that CDSs are mainly measures of default risk, while bond yields are also affected by variations in the preference for liquidity exhibited by market

1 Time-varying correlations are computed via a multivariate Garch model. While they could, in principle, also be based on correlations between the rates of change in the yields and the CDSs that are computed over time windows of a pre-defined length, the model-based estimation is preferred, as the time window over which correlations are computed is optimally chosen by the model itself and as the resulting correlations can be interpreted more as "local correlations" (i.e. referred to the latest points in the sample over which the estimation is performed), rather than as average correlations in the given sample.

2 With 11 time series, each correlation matrix is composed of 55 time series, which cannot be presented within a simple chart. To overcome this difficulty, quantiles of the 55 bilateral correlations are computed for each day in the sample, namely the 5th and 95th quantiles, as well as the median. In this way, the large set of time series of correlation coefficients is synthesised by three time series only.

Chart A Maximum, minimum and median values of the bilateral correlations to the German ten-year bond yield

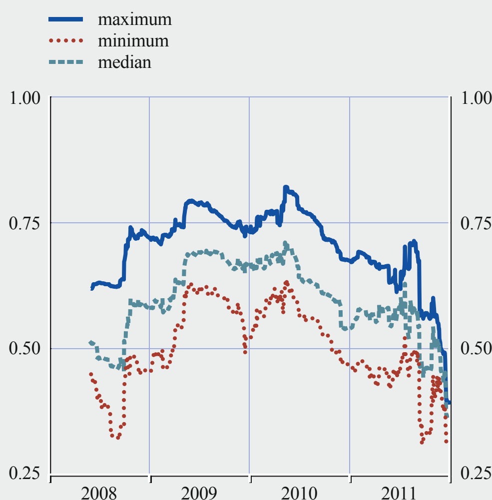
(daily data; 24 March 2008 to 6 January 2012)



Sources: Thomson Reuters and ECB.
Note: The maximum, minimum and median on each day are computed on the basis of the ten bilateral correlations of the German bond yield to the ten-year bond yields in Belgium, Ireland, Greece, Spain, France, Italy, the Netherlands, Austria, Portugal and Finland.

Chart B Maximum, minimum and median values of the bilateral correlations to the Greek five-year CDS premium

(daily data: 2 June 2008 to 6 January 2012)



Sources: Thomson Reuters and ECB.
Note: The maximum, minimum and median on each day are computed on the basis of the ten bilateral correlations of the Greek five-year CDS premium to the five-year premium for CDSs in Belgium, Germany, Ireland, Spain, France, Italy, the Netherlands, Austria, Portugal and Finland.

participants, which have played a key role throughout the recent financial market tensions. In fact, as fiscal strains became more intense and widespread within the euro area, investors tended to allocate money primarily to those bond markets that were perceived to be relatively more liquid and relatively safer, with the German bond market featuring prominently among them. The appearance of negative correlations between government bond yields in the euro area should therefore not be interpreted solely as a sign that credit risk declined for some countries while it increased for others. In fact, the decreasing but generally still positive bilateral correlations between euro area sovereign CDS premia and the CDS premium paid on Greek public debt since mid-2010 indicate that sovereign risks within the euro area were interdependent, although to different degrees.

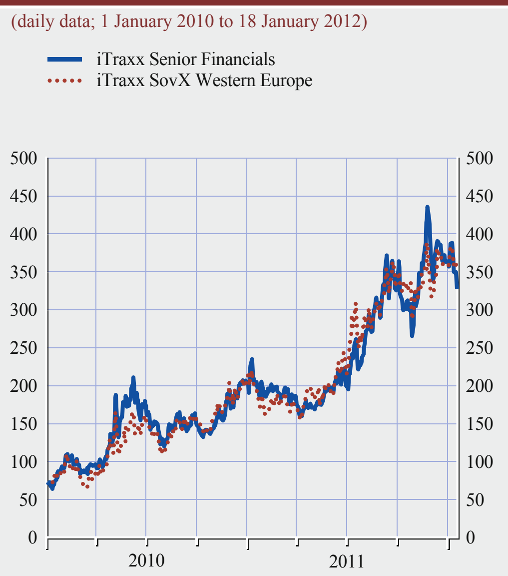
Turning to the interaction of risks between the sovereign and the financial sector, several channels have played a role. First, the exposure of the euro area banking systems to sovereign risk has been a source of direct risk transmission. Second, the interconnected network of financial institutions and the complexity of their cross-exposures may have caused some financial institutions to be indirectly exposed to sovereign risk. Third, the market perception that, in the event of a banking system failure, public intervention would entail fiscal costs and heightened sovereign default risk.

To illustrate these interactions, Chart C shows developments in two five-year maturity iTraxx indices, namely iTraxx SovX Western Europe and iTraxx Senior Financials.[3] While the first is an aggregation of sovereign CDSs at the euro area level, the second considers the

3 iTraxx SovX Western Europe is an index contract based on western European CDS premia for a given maturity. iTraxx Senior Financials is an index contract based on the senior tranche CDS premia for a given maturity of 25 major financial institutions in the euro area. The detailed composition of these indices can be found on the Markit website.

Chart C Five-year iTraxx SovX Western Europe and iTraxx Senior Financials indices

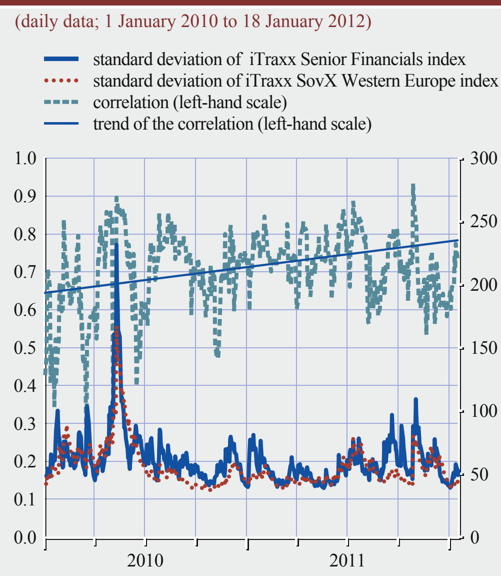
(daily data; 1 January 2010 to 18 January 2012)



Source: Bloomberg.

Chart D Time-varying standard deviations and correlation of selected iTraxx indices

(daily data; 1 January 2010 to 18 January 2012)



Sources: Bloomberg and ECB.
Notes: The right-hand axis is expressed in annualised percentages. The time-varying standard deviations and the time-varying correlation are computed through bivariate Garch models for the rates of change of the two iTraxx indices.

CDSs for 25 major euro area financial institutions (senior tranches). Although these financial institutions are supposedly largely unaffected by developments in sovereign risk, given that they have widely diversified portfolios, their risk of default, as priced by CDSs, increased together with the risk of sovereign default, especially between March and October 2011. Time-varying correlations between these two CDS indices, as well as their respective volatilities, have tended to edge up since April 2011 (see Chart D). From August 2011, following the re-activation of the Securities Markets Programme and the outcome of the EU summit of 21 July, the correlation tended to decline, although in the first few days of 2012 it spiked back towards the levels prevailing at the end of August. The overall upward trend in the correlation underlined the increased risk of credit event crises occurring jointly in the sovereign and the financial sectors, via an increasing exposure of the financial system to sovereign risks.

The ten-year government bond yield differentials vis-à-vis the corresponding German bond yield started to increase in Greece, Ireland and Portugal in March, triggered by the downgrading of sovereign debt in these countries, and continued to rise in April and May as the need to restructure the Greek public debt attracted broader attention (see the chart in Box 1). In early June 2011 spreads in Greece, Ireland and Portugal stood more than 500 basis points higher, on average, than in May 2010, when the tensions in sovereign debt markets had first intensified. As of June 2011 debt-related tensions started to affect larger countries, in particular Italy and Spain, against the background of discussions on, and uncertainty about, the resolution of the euro area sovereign debt crisis. Towards the end of the year, after having peaked in the last week of November, ten-year bond yield spreads vis-à-vis corresponding German bond yields narrowed significantly. This was due to improvements in market sentiment ahead of the meeting of the euro area Heads of State or Government on 9 December, as well as to the reduction of the key ECB interest rates and the additional non-standard monetary policy measures. In addition, the actions taken by a number of central banks in major economic areas to enhance their capacity to support liquidity in the global financial system contributed to easing the tensions in the sovereign debt markets.

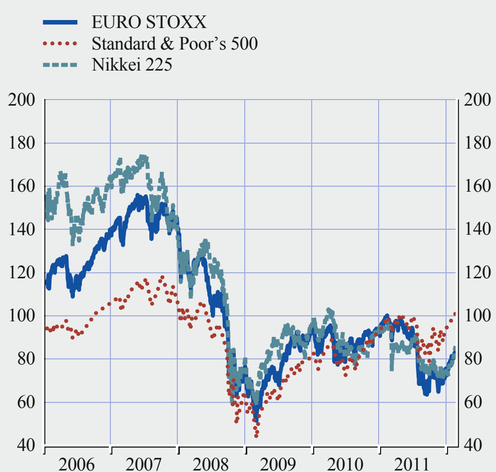
After having risen moderately in the first three months of 2011, real yields began to decline in reflection of higher geopolitical risks and a worsening global outlook. In early June the yield on five-year inflation-linked euro area government bonds had dropped to as low as 0.5%, while that on ten-year bonds stood at 1.2%. Thereafter, the decline in real yields accelerated further, as evidenced by the fact that five-year and ten-year spot real yields stood at 0.2% and 0.8% respectively in December. Overall, the decline in real yields over the year was consistent with the evidence of a deterioration in the economic outlook and generally took place in a context of broadly stable inflation expectations. At the end of 2011 the five-year forward break-even inflation rate five years ahead stood at 2.4%, 10 basis points higher than a year earlier, with similar indications stemming from inflation swap contracts

EURO AREA EQUITY PRICES DECLINED SHARPLY IN 2011

All in all, equity prices in the euro area dropped by around 20% in 2011, while those in the United States remained broadly stable over the same period (see Chart 13). At the same time, broad equity indices declined by 7% in the United Kingdom and by 19% in Japan. The more marked decline of the euro area index relative to its US counterpart in 2011 was due primarily to developments in the second half of the year and largely reflected a worsening of the euro area sovereign debt crisis, as well as lower growth in earnings in the euro area.

Chart 13 Major stock market indices

(indices rebased to 100 on 4 January 2011; daily data: 1 January 2006 to 2 March 2012)



Source: Thomson Reuters.

In late 2010 and the first three months of 2011, equity indices in the euro area and the United States increased on the back of releases of favourable economic data, positive earnings announcements and a slight rebound in risk appetite. Overall, the Dow Jones EURO STOXX index and the Standard & Poor's 500 index gained 9% and 12% respectively between the end of November 2010 and the end of March 2011. In the euro area, stock prices in the financial sector recorded larger gains than the composite index in this period, rising by around 15%. At the same time, prices in the industrial and in the oil and gas sectors also rose significantly against the background of the favourable economic growth momentum.

In April 2011 the positive trend in equity prices came to a halt, mainly as a result of political tensions in northern Africa and the Middle East, the actual and expected consequences of the earthquake in Japan and more acute tensions in euro area sovereign debt markets. Later, in the course of the second quarter of the year, equity prices declined moderately in both the United States and the euro area, as market participants started to discount the implications of a re-assessment of the outlook for global growth.

The downturn in equity prices picked up pace in the third quarter, reflecting the negative market reaction to the downgrading of US sovereign debt by one of the major rating agencies, as well as rising uncertainty about the extent to which the euro area sovereign debt crisis would spread. Overall, the Dow Jones EURO STOXX index declined by around 23% in the three months to the end of September, while the Standard & Poor's 500 index lost 14%. At the same time, euro area financial stocks dropped by around 30% relative to end-May, with utilities and industrial firms likewise recording large losses. Developments in the United States were similar, with financial and industrial stock prices falling by more than 20% over the same period.

Aside from being affected by the aforementioned factors, negative developments in equity prices in the third quarter of 2011 also resulted from data on weak corporate earnings. The annual rate of growth in the actual earnings per share of euro area corporations included in the Dow Jones EURO STOXX index decreased from 29% in May to 20% in August. The expected rate of growth of earnings per share over the short term also decreased from 12% in May to 10% in August.

In the last quarter of the year, notwithstanding an increase in the implied volatility of broad equity indices, significant tensions in a number of market segments and uncertainty about global economic growth, stock prices returned to an upward path on both sides of the Atlantic. In particular, the broad-based Dow Jones EURO STOXX index and the Standard & Poor's 500 index gained around 5% and 10% respectively over the quarter. Throughout this period, changes in market sentiment related to the euro area sovereign debt crisis continued to weigh on euro area stock prices. However, especially in November and December, equities were supported by economic data releases in the United States that were better than expected, by positive developments in market sentiment ahead of the meetings of the euro area Heads of State or Government on 26 October and 9 December, by coordinated actions taken by a number of central banks worldwide to enhance their capacity to provide liquidity support to the global financial

system and by the reductions in the key ECB interest rates, as well as by the adoption of further non-standard monetary policy measures.

Sectoral developments in euro area stock price indices in the final part of the year were mixed, with declines concentrated in the financial, telecommunications and utility sectors, while prices rose in all other sectors, especially in the oil and gas sector. The negative performance of euro area financial stock prices reflected developments in the euro area sovereign debt crisis and their implications for the soundness of the banking sector via its holdings of government bonds, as well as negative rating actions and heightened tensions in banks' funding markets.

HOUSEHOLD BORROWING REMAINED MODERATE

The annual growth rate of total loans to households decreased in 2011, standing at an estimated 1.5% in December, down from 2.5% in December 2010. This was the result of a reduction in the contribution made by loans to households remaining on MFIs' balance sheets (i.e. not adjusted for sales or securitisation), which was almost half of that seen in 2010, while the contribution made by the annual growth rate of loans from non-MFIs registered a sharp increase and turned positive (the annual growth rate of these loans stood at 2.3% in December 2011, up from -2.4% in December 2010). The contrasting developments in MFI and non-MFI loans to households mainly reflect the fact that the bulk of non-MFI loans are accounted for by securitisation flows. Such flows were significant in size in the second half of 2011, following very limited securitisation activity in 2010.

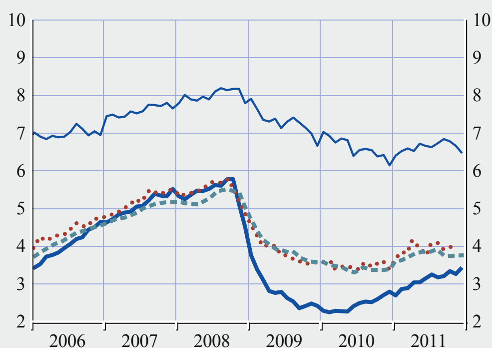
Lending for house purchase remained the main driver of growth in MFI loans to households. The annual growth rate of loans for house purchase (adjusted for loan sales and securitisation), which stood at 3.1% at the end of 2010, remained broadly unchanged in the first half of the year, before gradually declining in the second half, standing at 1.9% in December 2011. The growth profile of lending to households for house purchase is likely to have reflected both supply and demand factors. The weakening observed in economic activity and the deteriorating prospects for the housing market were identified in the euro area bank lending survey as the main drivers of the substantial decline seen in net demand for housing loans, particularly in the second half of the year. On the supply side, the survey showed an increase in the net percentage of banks reporting the tightening of their credit standards, particularly towards the end of the year. Indeed, despite a decline in market rates, banks' lending rates for loans for house purchase increased moderately in 2011 (rising by an average of 36 basis points), with the largest increases being observed for loans with a floating rate or an initial rate fixation period of up to one year.

The annual growth rate of consumer credit remained negative in 2011, declining somewhat to stand at -2.0% in December, down from -1.2% in December 2010. The weakness in consumer credit was due largely to demand factors and was in line with the results of consumer surveys, particularly as regards consumers' limited willingness to purchase "big-ticket" items. Subdued growth in households' real disposable income and the fact that levels of household indebtedness remain very high are likely to have weighed on demand for

Chart 14 Interest rates for lending to households and non-financial corporations

(percentages per annum; excluding charges; rates on new business)

- short-term rates for lending to non-financial corporations
- long-term rates for lending to non-financial corporations
- rates for loans to households for house purchase
- rates for loans to households for consumer credit



Source: ECB.

consumer credit. The bank lending survey reported both declining demand and the tightening of credit standards for this type of loan. Banks' lending rates for consumer credit increased by an average of 32 basis points in 2011, partially reversing the decline observed in 2010 (see Chart 14).

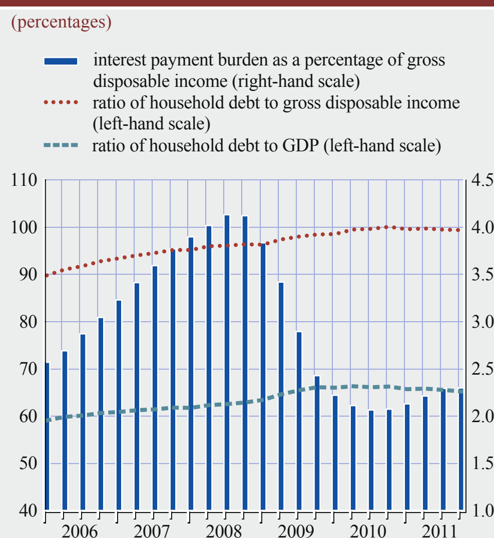
HOUSEHOLD INDEBTEDNESS DECLINED SLIGHTLY, BUT REMAINED HIGH

2011 saw the outstanding debt of euro area households increase moderately (rising by an estimated 1.5%) in nominal terms. However, it was outpaced by increases in nominal income, whether measured by gross disposable income or GDP. As a result, households' indebtedness ratios are estimated to have declined marginally in 2011 compared with the levels recorded at the end of 2010 (falling from 100.1% to 99.4% relative to gross disposable income, and falling from 66.3% to 65.2% relative to GDP; see Chart 15). Households' interest payment burden (i.e. interest payments as a percentage of gross disposable income) increased slightly in 2011, mainly reflecting the moderate increase observed in banks' lending rates.

THE COST OF EXTERNAL FINANCING FOR NON-FINANCIAL CORPORATIONS REMAINED CONTAINED IN 2011

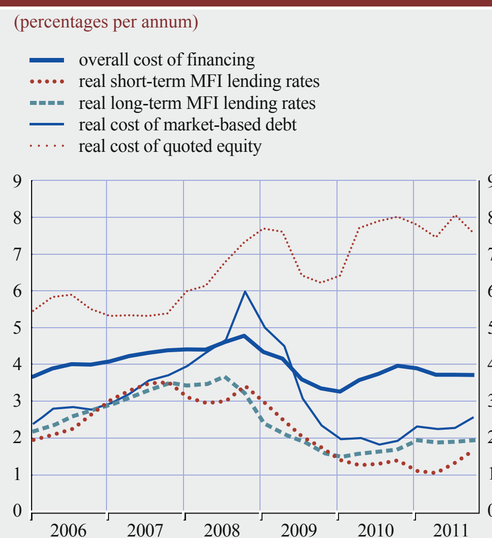
The real cost of external financing for non-financial corporations at the end of 2011 declined slightly in comparison with the end of 2010. After having receded in the first half of the year, the overall real cost of external financing was broadly unchanged in the second half, amid heightened tensions in financial markets related to the sovereign debt crisis. The aggregate developments conceal some differences across sources of financing. The real cost of both debt issuance and short-term bank lending increased significantly in the second half of 2011, while bank lending rates at long maturities remained broadly unchanged throughout the year and the real cost of equity hovered around historical highs (see Chart 16). All in all, the real cost of external financing in 2011 remained contained at just below the historical average.

Chart 15 Household debt and interest payments



Sources: ECB and Eurostat.
Notes: Household debt comprises total loans to households from all institutional sectors, including the rest of the world. Interest payments do not include the full financing costs paid by households, as they exclude the fees for financial services. Data for the last quarter shown have been partly estimated.

Chart 16 Real cost of the external financing of euro area non-financial corporations



Sources: ECB, Thomson Reuters, Merrill Lynch and Consensus Economics Forecasts.
Notes: The real cost of the external financing of non-financial corporations is calculated as a weighted average of the cost of bank lending, the cost of debt securities and the cost of equity, based on their respective amounts outstanding and deflated by inflation expectations (see Box 4, *Monthly Bulletin*, ECB, March 2005).

Regarding the cost of bank-based financing, real short-term MFI lending rates rose from around 1.4% in December 2010 to 1.7% at the end of 2011. Bank lending rates at short maturities largely reflected developments in money market rates. The three-month EURIBOR increased by around 40 basis points between the end of 2010 and the end of 2011. Developments in short-term lending rates may also have reflected the deteriorating creditworthiness of corporations in some jurisdictions and tensions in bank funding conditions. Overall, the spread in the euro area between short-term MFI lending rates and the three-month money market rate remained broadly stable throughout the first three quarters of 2011, before increasing in the last quarter. In the case of long maturities, both real and nominal MFI lending rates edged up by around 20 basis points in the first quarter of 2011, and remained largely unchanged thereafter. Spreads between long-term bank lending rates and yields on AAA-rated long-term government bonds narrowed at the beginning of 2011 before widening in the course of the year, primarily reflecting fluctuations in government bond yields owing to safe-haven flows into Germany.

The developments in MFI lending rates recorded in 2011 may not have fully reflected the reintensification of financial market tensions during the second half of the year. According to the euro area bank lending survey, a significant deterioration in banks' access to market funding and in their liquidity positions was recorded in the second half of 2011, and this contributed to a substantial tightening of credit standards on loans to the private sector.

The real cost of market-based debt financing rose by around 70 basis points between December 2010 and December 2011, while still remaining at rather favourable levels by historical standards. The bulk of this increase was recorded in the second half of 2011, against the backdrop of tensions in sovereign bond markets spreading to other financial market segments. With financial investors shifting towards more liquid and safer assets, corporate bond spreads (measured as the difference between yields on corporate bonds and yields on euro area long-term government bonds) increased somewhat across all rating categories, although the rise was more pronounced for high-yield bonds.

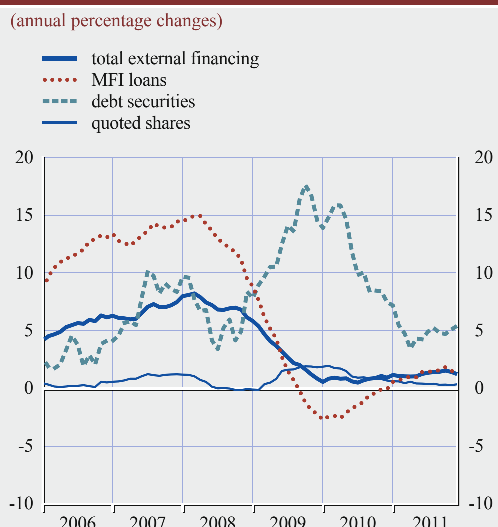
The real cost of issuing quoted equity fluctuated somewhat throughout the year, and stood in December 2011 around 50 basis points lower than in the same month of 2010. On average, the real cost of equity remained close to historical peaks in 2011.

MODERATE RECOURSE TO EXTERNAL FINANCING IN 2011

The annual growth rate of external financing of euro area non-financial corporations remained broadly unchanged at moderate levels in 2011, as the continuing levelling-off in MFI loans was largely counterbalanced by the declining issuance of market-based debt and persistently subdued issuance of quoted shares (see Chart 17). This process of reintermediation, which began in early 2010, seems to have come to a halt in the second half of 2011, against the background of an overall moderate recourse to external financing.

Chart 17 External financing of non-financial corporations broken down by instrument

(annual percentage changes)



Source: ECB.
Note: Quoted shares are euro-denominated.

More specifically, following the marked contraction experienced between 2008 and 2010, the normalisation of bank financing of the corporate sector was concentrated mainly in the area of short-term lending. On average in 2011, the annual growth rate of short-term loans (i.e. loans with a fixed initial maturity of less than one year) bounced back by around 10 percentage points in comparison with the previous year, while the annual growth rate of long-term loans (i.e. loans with a fixed initial maturity in excess of five years) declined slightly. Turning to market-based financing, on average the annual growth rate of debt securities issuance in 2011 remained markedly below the rate recorded in 2010. At the same time, issuance of quoted shares remained contained and tended to decrease further in 2011.

The relatively low overall demand for external financing may be partly due to tight credit conditions and weakening economic activity in the second half of the year. According to the euro area bank lending survey, in the first two quarters of 2011 demand for corporate loans was stimulated by an increased need to finance investments and inventories, but it receded again in the second half of the year. The availability of internal funds may also explain the moderate dynamics of external financing, in particular for large and medium-sized firms. Indeed, based on financial statements from listed non-financial corporations, in the first three quarters of 2011, profitability – as measured by the ratio of net income to sales – remained high at around the levels which prevailed in 2010. Thanks in particular to still robust external trade during the first half of 2011, firms' net sales continued to rise, albeit at a slower pace than in the previous year. As regards small firms, ECB surveys on the access to finance of small and medium-sized enterprises in the euro area portrayed a bleaker picture with weak earning conditions up to the third quarter of 2011, which may have deteriorated even further in the last quarter.[3]

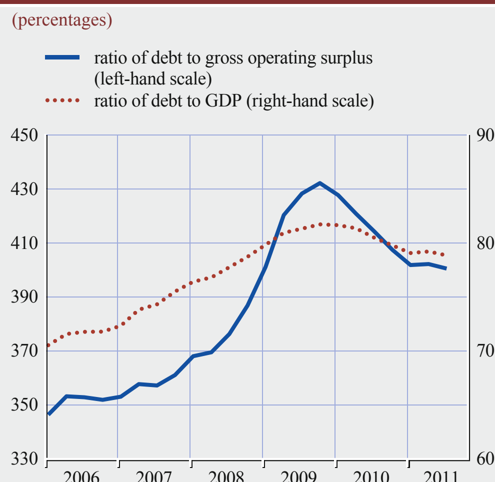
CORPORATE INDEBTEDNESS STABILISED IN 2011

In the context of a moderation in economic activity, and on the basis of aggregate data, corporate profits moderated somewhat in the first half of 2011 compared with the end of 2010. However, over the same period, an overall cautious dividend policy led to a stabilisation of the saving ratio of the euro area non-financial corporate sector at rather high levels. As a result, with fixed capital investment largely financed from high internally generated funds, the financing gap (broadly speaking, the extent to which non-financial corporations need to have recourse to external sources of finance to fund their investment) remained at moderate levels in the first half of 2011. Over the same period, however, the normalisation of loan demand from enterprises implied a slightly higher recourse to external financing on the part of the corporate sector. As a consequence, the first half of 2011 marked a pause in the downward trend of corporate indebtedness

3 See, for example, the report entitled "Survey on the access to finance of small and medium-sized enterprises in the euro area – April to September 2011", ECB, December 2011.

Chart 18 Debt ratios of non-financial corporations

(percentages)



Sources: ECB, Eurostat and ECB calculations.
Notes: Debt is reported on the basis of the quarterly European sector accounts. It includes loans, debt securities issued and pension fund reserves. Information up to the third quarter of 2011 is included.

recorded throughout 2010 (see Chart 18). More specifically, over the first three quarters the debt-to-GDP ratio and the ratio of debt to gross operating surplus remained broadly stable at around 79% and 400% respectively. Although firms have been improving their financial position and balance sheet condition since the end of 2009, debt ratios remain high by historical standards. As a result, the euro area corporate sector is still vulnerable to the risk of higher external financing costs or subdued economic activity.

2.3 PRICE AND COST DEVELOPMENTS

In 2011 headline HICP inflation increased to 2.7%, on average, from 0.3% in 2009 and 1.6% in 2010. From the end of 2010 annual inflation rates remained clearly above 2%, driven mainly by the strong annual growth rates of energy and food prices stemming from surges in global commodity prices. In some euro area economies, increases in indirect taxes and administered prices also contributed to higher HICP inflation rates.

As suggested by developments in industrial producer prices and survey data, external price pressures were particularly strong throughout the first half of 2011, owing to the rise in prices for oil and other commodities. Thereafter these pressures appeared to ease, largely as a result of a moderation in commodity prices.

Reflecting the improvement in labour market conditions in the first half of the year, labour costs increased gradually in 2011. Wage growth rose markedly, but did not reach the level observed in 2008. Owing to a significant slowdown in activity from the second quarter of 2011, annual labour productivity grew at a lower rate than in 2010. Consequently, unit labour costs surged, having been in negative territory for the whole of 2010.

In an environment of higher inflation in 2011, consumers' inflation perceptions and short-term expectations continued to rise from their very low levels of 2009. By contrast, long-term inflation expectations, as measured by surveys, were very stable.

HICP INFLATION REMAINED CLEARLY ABOVE 2% DURING 2011

Commodity prices were a major driver of euro area inflation in 2011. They fell sharply during the global downturn that followed the collapse of Lehman Brothers in 2008, but had returned to their previous peak levels by early 2011. Box 6 compares the commodity price surges in 2011 and 2008, as well as the impact that they had on euro area HICP inflation.

Box 6

COMMODITY PRICE DEVELOPMENTS AND HICP INFLATION IN THE EURO AREA: A COMPARISON OF THE 2008 AND 2011 SURGES

Commodity prices were a major determinant of euro area inflation in 2011. The sharp fall in these prices during the global downturn that followed the bankruptcy of Lehman Brothers was quickly reversed, and in early 2011 commodity prices stood close to their previous peak levels. Against this background, this box contrasts the surge in commodity prices in 2011 with that in 2008 and considers the impact on HICP inflation in the euro area.

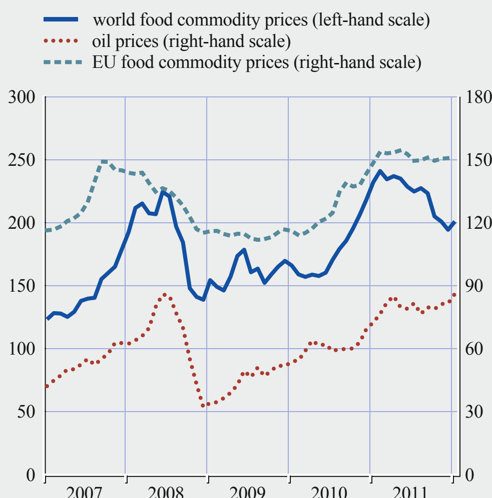
Commodity prices

The commodity prices with the most direct impact on consumer price inflation are those for oil and food.[1] Their developments are determined to a large extent by the global economic cycle, and both

1 Industrial raw material prices do not show up directly in consumer prices and are therefore not discussed in this box.

Chart A Commodity price developments

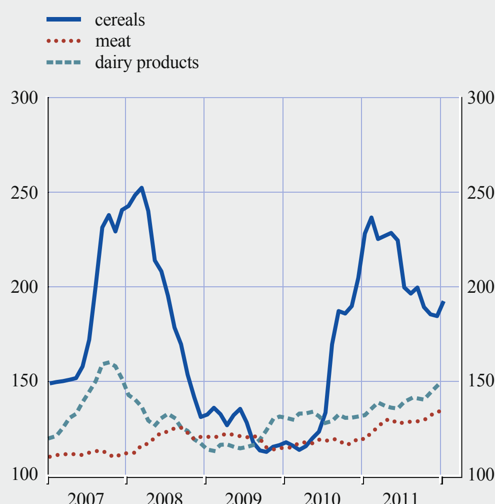
(food price indices: 2005 = 100; oil prices in euro)



Sources: Hamburg Institute of International Economics, European Commission's Directorate-General for Agriculture and Rural Development, and ECB calculations.

Chart B EU food commodity price developments

(index: 2005 = 100)



Source: European Commission's Directorate-General for Agriculture and Rural Development.

the 2008 and 2011 surges reflected in particular buoyant demand from strongly growing emerging economies. At the same time, oil and food commodity prices were affected by idiosyncratic influences on the supply side, such as geopolitical tensions or extreme weather conditions in commodity-producing countries. A common feature across the two periods under review is that such supply disruptions occurred at a time when demand was already very strong. In 2008 the ensuing tightness in the oil market was additionally aggravated by concerns about relatively low inventory levels.

In the case of oil prices, the peak of the 2011 surge was lower than that of the 2008 surge when measured in US dollar terms, but was at approximately the same level when measured in euro terms, at €85 per barrel (see Chart A). In the case of food commodity prices measured in euro terms, the peak reached during the 2011 surge was higher than that during the 2008 surge. In both periods prices were driven by strong demand from emerging market economies for high-protein foods, such as meat and dairy products, and from industrialised countries for grains and oilseeds in the context of fast-growing biofuel production. However, as global supply conditions had had some time to adapt, the strong demand triggered by such changes in diet or energy policy may have had less of an impact in 2011.

When looking at food commodity prices, it should be borne in mind that, in the case of the euro area, the EU's Common Agricultural Policy plays an important role in the transmission of food price shocks. While the prices determined in the context of this policy also saw a higher peak in the 2011 surge than in that in 2008, the difference was less pronounced than in the case of international commodity prices. It is important to note that aggregate EU food commodity prices conceal very different developments in certain categories (see Chart B). For example, in the case of cereals and dairy products, prices in 2011 did not reach the levels recorded in 2008, while for the aggregate they were higher. Moreover, the respective price peaks also occurred at somewhat

different times. For instance, in the case of dairy products, prices had already peaked at the end of 2007, while meat prices did not peak until early 2009. Such differences are important, as the structure of the pass-through from commodity prices to consumer prices varies across food items.

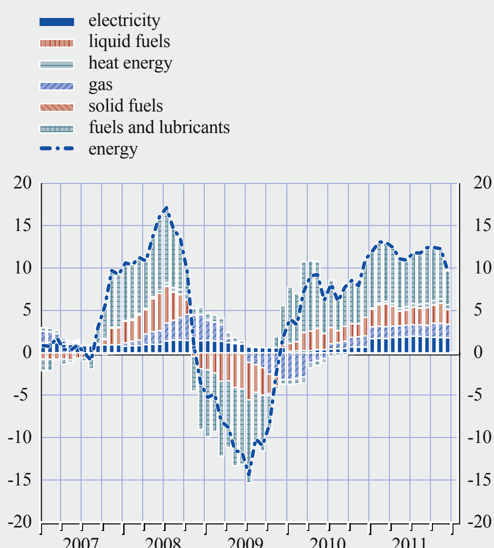
Impact on HICP inflation

The fastest and most noticeable impact of commodity price increases on HICP inflation is through their direct effect on consumer prices for energy and food. Indeed, when commodity prices peaked in mid-2008 and early 2011, these two components accounted for around 60% of the high levels of euro area HICP inflation observed.

Energy price inflation in early 2011 was around 12%, slightly lower than the average rates observed in mid-2008 (see Chart C). Oil price movements have an almost immediate effect on fuel prices within the HICP energy component, in particular those for personal transport equipment. As a result, and in view of their weight, fuel prices accounted for most of the level and pattern of energy price inflation in the two periods under review. Taxes had a stronger upward impact during the 2011 surge, but this was counterbalanced by the fact that refining margins were less than half of those seen in 2008. Gas and electricity prices are not affected immediately by oil price movements, instead tending to react with a lag of a couple of months. Differences between the 2008 and 2011 inflation peaks relate primarily to the relative contributions of these two energy price components: gas prices made a stronger contribution in 2008, while electricity prices made a stronger contribution in 2011. A possible reason for the smaller role of gas prices in 2011 is the gradual development of spot markets in recent years, which may have dampened the impact of index-linked gas prices. The higher contribution of electricity prices in 2011 appears to be largely related to higher prices for renewable resources and changes in taxes.

Chart C Contributions to energy price inflation

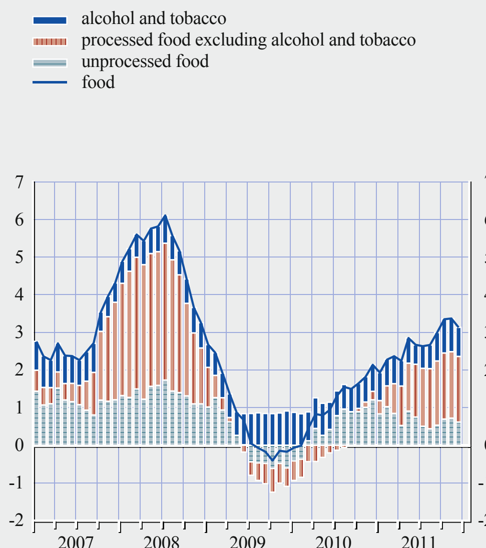
(percentage points; annual percentage changes)



Sources: Eurostat and ECB calculations.

Chart D Contributions to food price inflation

(percentage points; annual percentage changes)



Sources: Eurostat and ECB calculations.

By contrast with energy price inflation, annual food price inflation reached lower levels in 2011 than in 2008. In fact, at levels of around 3%, food price inflation in 2011 was roughly half of that in 2008 (see Chart D). Food commodity price movements, as well as regional supply conditions, have a direct and almost immediate effect on unprocessed food prices. The contribution of unprocessed food prices to overall food price inflation was broadly the same in 2011 and 2008, although there were differences in certain sub-components, such as meat and vegetables. The bulk of the difference between the 2011 and 2008 peaks in food price inflation is accounted for by processed food prices (excluding alcohol and tobacco), where the impact of commodity prices works indirectly through producer prices.

With regard to processed food prices, their contribution to the inflation peak in early 2011 was only half that recorded during the 2008 peak. In particular, the contributions from dairy products and from bread and cereals were much higher in 2008, which is consistent with the pattern of the corresponding EU commodity prices and the finding that, for dairy products, the pass-through is significantly stronger than for other types of processed food.[2] In 2011 the contributions to processed food price inflation were hence fairly similar across the different sub-components, with the category comprising coffee, tea and cocoa, and that comprising oils and fats contributing almost as much as dairy products. At the same time, a smaller contribution from processed food prices to overall food price inflation in 2011 is likely to reflect the more difficult economic environment over the past few years, which has dampened the pass-through of commodity price pressures.

In conclusion, this box shows that similar developments in oil and food commodity prices in the 2008 and 2011 surges were accompanied by different patterns in the corresponding components of euro area HICP inflation. On the one hand, the peak in energy price inflation in 2011 broadly corresponded to that in 2008 and to the pattern of oil price developments in these years. On the other hand, food price inflation in 2011 was more muted than in 2008, reflecting a more limited pass-through owing to the different structure of disaggregated commodity prices and a generally more difficult environment for pass-through over the past few years. Overall, however, the developments in 2011 are in line with the notion that euro area HICP inflation is highly sensitive to developments in commodity prices, and that direct effects on HICP inflation are largely unavoidable. Therefore, appropriate wage and price-setting behaviour is necessary to avoid the materialisation of second-round effects and a sustained impact on inflation over a medium-term horizon.

2 See Ferrucci, G., Jiménez-Rodríguez, R. and Onorante, L., "Food price pass-through in the euro area: the role of asymmetries and non-linearities", *Working Paper Series*, No 1168, ECB, April 2010.

On the back of high oil prices, the annual rate of change in the energy component of the HICP – constituting 10.4% of the overall HICP – remained in double digits throughout 2011, reaching a 12-month average of 11.9%. This had the strongest impact on the prices of items directly related to oil prices, such as liquid fuels, and fuels and lubricants for personal transport equipment. In addition, there was a marked rise in the prices of electricity, gas and heating fuel.

Mirroring developments in international food commodity prices, HICP food prices increased further, in particular processed food prices, which rose steadily throughout 2011. The average annual rate of change in prices for processed food stood at 3.3% in 2011, which was markedly higher than that for 2010 (0.9%) and 2009 (1.1%). By comparison, unprocessed food prices exhibited a downward trend in 2011, amid some monthly volatility. In annual average terms, unprocessed food prices also increased, but at

Table 1 Price developments

(annual percentage changes, unless otherwise indicated)

	2009	2010	2011	2010 Q4	2011 Q1	2011 Q2	2011 Q3	2011 Q4	2012 Jan.	2012 Feb.
HICP and its components										
Overall index [1]	0.3	1.6	2.7	2.0	2.5	2.8	2.7	2.9	2.6	*2.7*
Energy	-8.1	7.4	11.9	9.2	12.7	11.5	12.0	11.5	9.2	.
Unprocessed food	0.2	1.3	1.8	2.7	2.3	1.9	1.3	1.8	1.6	.
Processed food	1.1	0.9	3.3	1.3	2.1	3.0	3.7	4.2	4.1	.
Non-energy industrial goods	0.6	0.5	0.8	0.8	0.5	1.0	0.4	1.2	0.9	.
Services	2.0	1.4	1.8	1.3	1.6	1.9	2.0	1.9	1.9	.
Other price and cost indicators										
Industrial producer prices	-5.1	2.9	5.9	4.8	6.5	6.3	5.9	5.1	3.7	.
Oil prices (EUR per barrel)	44.6	60.7	79.7	64.4	77.3	81.3	79.3	80.7	86.2	89.7
Non-energy commodity prices	-18.5	44.6	12.2	48.6	42.9	11.6	3.8	-2.5	-4.6	.

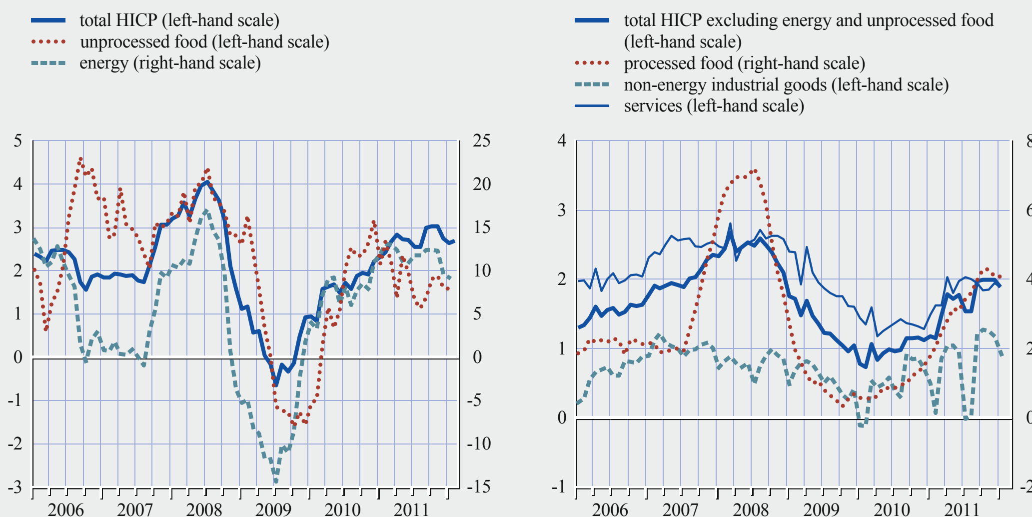
Sources: Eurostat, ECB and ECB calculations based on Thomson Reuters data.
1) HICP inflation in February 2012 refers to Eurostat's flash estimate.

a lower rate than processed food prices (1.8% in 2011, compared with 1.3% in 2010 and 0.2% in 2009).

Excluding energy and food, average HICP inflation was higher in 2011 than in 2010, owing to a number of external and domestic factors. Non-energy industrial goods inflation continued its upward trend, reflecting some pass-through of previous exchange rate depreciation and commodity price increases, as well as hikes in indirect taxes. Furthermore, the annual rates of change in this component were rather volatile on account of the new regulation on the treatment of seasonal products in the HICP, which affected, in particular, the semi-durable goods sub-component (clothing materials, textiles, books, etc.).

Chart 19 Breakdown of HICP inflation: main components

(annual percentage changes; monthly data)



Source: Eurostat.

In line with wage growth developments, services price inflation increased notably in the first half of 2011, before stabilising at around 2% towards the end of the year. This pattern was observable in all the main services sub-components, with the exception of communication services.

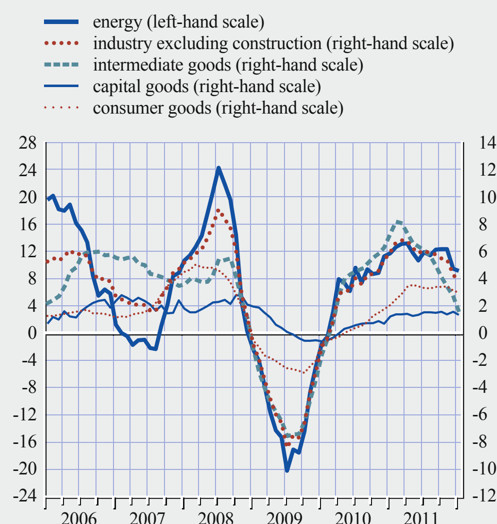
PRODUCER PRICE INFLATION DECREASED IN 2011

Owing primarily to higher global demand for raw materials, supply chain price pressures rose steadily from their trough in the summer of 2009 until mid-2011. As a result, industrial producer price inflation increased in late 2010 and the first half of 2011. Thereafter it declined, mainly reflecting the impact of fluctuations in commodity prices. On average, producer prices in industry (excluding construction) in the euro area grew by 5.9% in 2011, compared with 2.9% in 2010 and a fall of 5.1% in 2009 (see Chart 20). The annual rate of change in producer prices for energy stood at 11.9%, compared with 6.4% in 2010 and a decline of 11.8% in 2009.

Excluding construction and energy, the annual growth rate of industrial producer prices was also higher than in previous years (3.8% in 2011, compared with 1.6% in 2010 and a fall of 2.9% in 2009). The easing in price pressures during the second half of the year was more visible at the earlier stages of the pricing chain (producer prices for intermediate goods) than at the later stages (producer prices for consumer goods).

Chart 20 Breakdown of industrial producer prices

(annual percentage changes; monthly data)



Source: Eurostat.

LABOUR COST INDICATORS INCREASED GRADUALLY IN 2011

Reflecting the improvement in labour market conditions in the first half of the year, labour costs increased gradually in 2011. The annual growth rate of negotiated wages rose steadily over the year, reaching an average of 2.0% in 2011 as a whole, up from 1.7% in 2010 (see Table 2). The gradual pick-up in this indicator, which captures the main component of wages settled in advance through collective agreements, may reflect a lagged reaction of contractual settlements to the improving labour market conditions, which led to a strengthening in

Table 2 Labour cost indicators

(annual percentage changes, unless otherwise indicated)

	2009	2010	2011	2010 Q4	2011 Q1	2011 Q2	2011 Q3	2011 Q4
Negotiated wages	2.6	1.7	2.0	1.6	2.0	1.9	2.1	2.0
Total hourly labour costs	2.7	1.6	.	1.7	2.5	3.2	2.7	.
Compensation per employee	1.4	1.6	.	1.6	2.4	2.5	2.4	.
Memo items								
Labour productivity	-2.5	2.4	.	1.9	2.2	1.3	1.0	.
Unit labour costs	4.0	0.8	.	-0.3	0.2	1.2	1.3	.

Sources: Eurostat, national data and ECB calculations.

the bargaining power of workers. The rise in inflation from the end of 2010 may also have played a role.

The annual growth rate of hourly labour costs also surged in 2011, in contrast to what was witnessed in 2010. The annual growth rate of compensation per employee stood at around 2.4% in the first three quarters of 2011, a markedly higher rate than the average of 1.6% in 2010. As labour productivity growth per employee was significantly lower than compensation per employee, unit labour costs rose sharply.

RESIDENTIAL PROPERTY PRICE INFLATION DECLINED

Euro area residential property prices, which are not included in the HICP, went up by 1.0% year on year in the third quarter of 2011 (1.1% on average in 2010). The growth rate therefore remained well below the average of 4.5% observed between 1999 and 2010 (see Chart 21). In the third quarter of 2011 the euro area residential property price index was 1.1% lower than its peak in the second quarter of 2008.

Chart 21 Residential property price developments in the euro area

(annual percentage changes; annual data)

Source: ECB calculations based on non-harmonised national data.
Note: Data for 2011 include data up to the third quarter.

DEVELOPMENTS IN INFLATION EXPECTATIONS

Data from Consensus Economics, the Euro Zone Barometer and the ECB Survey of Professional Forecasters show that survey-based long-term inflation expectations (five years ahead) were close to 2.0%. Market-based indicators, such as break-even inflation rates derived from inflation-linked bonds and comparable rates extracted from inflation-linked swaps, were also fully consistent with the Governing Council's definition of price stability.

2.4 OUTPUT, DEMAND AND LABOUR MARKET DEVELOPMENTS

DECLINING GROWTH MOMENTUM IN THE COURSE OF 2011

After having recovered in 2010, real GDP growth slowed in 2011. Annual real GDP growth stood at 1.5%, compared with 1.9% in 2010 (see Table 3). The pattern of GDP growth in 2011 was largely influenced by investment and exports. Although the slowdown in growth in the latter half of 2011 was broadly based across its expenditure components, investment and exports had the strongest impact in shaping the growth profile, as these components recorded the most pronounced slowdowns.

In terms of quarter-on-quarter developments, euro area real GDP increased by 0.8% in the first quarter of 2011, compared with 0.3% in the fourth quarter of 2010. Growth in the first quarter was, however, influenced by a number of special factors and, consequently, a marked slowdown in the pace of the recovery was expected for the second quarter, when GDP rose by 0.2% quarter on quarter. Although GDP still grew in the third quarter of 2011 (by 0.1%), there were already signs that previously identified downside risks were materialising. These risks were reflected in deteriorating business and consumer survey results, and included a slowdown in the pace of global demand, as well as unfavourable effects on overall financing conditions resulting from ongoing tensions in euro area sovereign debt

Table 3 Composition of real GDP growth

(percentage changes; seasonally adjusted, unless otherwise indicated)

	Annual rates[1]								Quarterly rates[2]				
	2009	2010	2011	2010 Q4	2011 Q1	2011 Q2	2011 Q3	2011 Q4	2010 Q4	2011 Q1	2011 Q2	2011 Q3	2011 Q4
Real gross domestic product	-4.3	1.9	1.5	2.0	2.4	1.6	1.3	0.7	0.3	0.8	0.2	0.1	-0.3
of which:													
Domestic demand[3]	-3.7	1.1	.	1.5	1.6	0.7	0.4	.	0.2	0.5	-0.2	-0.1	.
Private consumption	-1.2	0.9	.	1.1	0.9	0.2	0.0	.	0.3	0.0	-0.5	0.2	.
Government consumption	2.5	0.6	.	-0.1	0.5	0.1	0.0	.	0.0	0.2	-0.1	-0.1	.
Gross fixed capital formation	-12.0	-0.6	.	1.3	3.6	1.6	1.3	.	-0.4	1.8	-0.1	-0.1	.
Changes in inventories[3), 4)]	-0.9	0.5	.	0.7	0.3	0.3	0.1	.	0.1	0.0	0.2	-0.1	.
Net exports[3]	-0.6	0.8	.	0.5	0.8	0.9	0.9	.	0.1	0.3	0.3	0.2	.
Exports[5]	-12.8	11.5	.	12.0	10.4	6.8	5.8	.	1.5	1.8	1.2	1.2	.
Imports[5]	-11.7	9.7	.	11.2	8.5	4.6	3.7	.	1.3	1.1	0.5	0.8	.
Real gross value added													
of which:													
Industry excluding construction	-13.3	6.6	.	6.7	5.7	4.2	3.5	.	1.3	1.2	0.6	0.3	.
Construction	-6.8	-4.4	.	-2.9	0.7	-0.8	-0.6	.	-1.2	1.4	-0.2	-0.5	.
Services	-1.6	1.4	-	1.3	1.5	1.3	1.0	-	0.2	0.5	0.2	0.1	-

Sources: Eurostat and ECB calculations.
Notes: Annual data are calculated on non-seasonally adjusted data. Eurostat's second release of national accounts for the fourth quarter of 2011 (which includes the expenditure breakdown) took place after the cut-off date for data (2 March 2012).
1) Percentage change compared with the same period a year earlier.
2) Percentage change compared with the previous quarter.
3) As a contribution to real GDP growth; in percentage points.
4) Including acquisitions less disposals of valuables.
5) Imports and exports cover goods and services and include internal cross-border trade in the euro area.

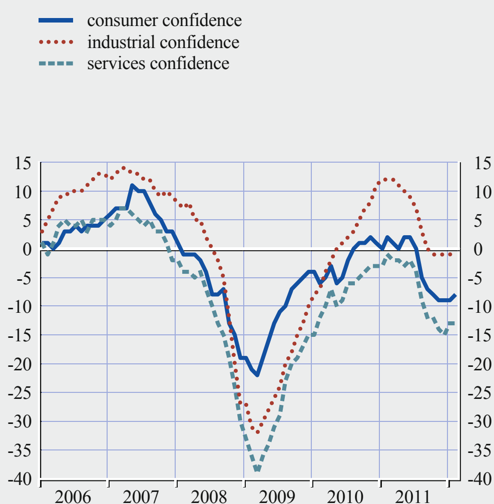
markets. Eurostat's first estimate for the fourth quarter puts quarter-on-quarter growth at -0.3%. No breakdown is available as yet, but the information to hand points towards weak developments in industrial activity (including construction), while the services sector appears to have held up somewhat better.

Growth in private consumption in 2011 was lower than in 2010, when it increased by 0.9%. This slowdown appears to reflect lower growth in consumer spending on retail goods and, to a lesser extent, services. Data on new passenger car registrations indicate that car purchases declined in 2011, albeit not as sharply as in the previous year. The weakness in consumption is consistent with the erosion in real income caused by rising inflation. In contrast, employment rose on average in 2011, providing some support to income growth. Subdued income developments in 2011 are likely to have contributed to the further decline in the savings rate, as households had to dig into their savings. The indicator of consumer confidence, which provides a reasonably good idea of trend developments in consumption, declined sharply during the second half of 2011 following a period of stability in the first half of the year. In December 2011 it stood at the same level as in the autumn of 2009 (see Chart 22).

Growth in total fixed investment was relatively strong in 2011 and thus much higher than in 2010, when investment contracted by 0.6%. However, a large part of this strength is attributable to a very strong first quarter, reflecting buoyant construction investment, particularly in relation to housing. This, in turn, should be seen as a bounce-back after the weakness caused by the unusually cold weather in late 2010 in parts of the euro area. Both construction and non-construction investment growth slowed in the course of 2011.

Chart 22 Confidence indicators

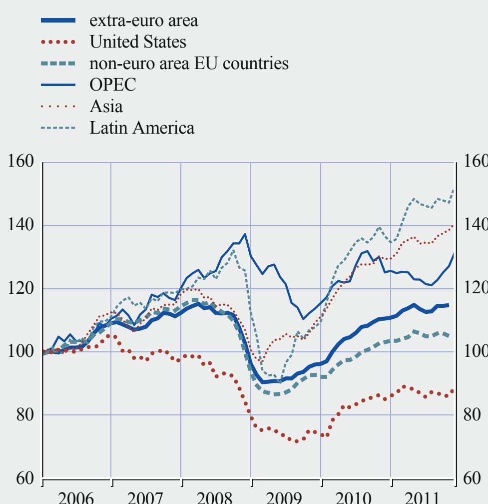
(percentage balances; seasonally adjusted)



Source: European Commission Business and Consumer Surveys.
Note: Data shown are calculated as deviations from the average over the period since January 1985 for consumer and industrial confidence, and since April 1995 for services confidence.

Chart 23 Euro area export volumes to selected trading partners

(indices: Q1 2006 = 100; seasonally adjusted; three-month moving averages)



Source: ECB.
Note: The latest observation is for December 2011 except for the extra-euro area and non-euro area EU countries (November 2011).

Annual growth in government consumption was, in all likelihood, marginally positive in 2011, and thus lower than in 2010, when it grew by 0.6%. If confirmed, this would be the lowest annual rate since 1996. The low growth reflects further fiscal consolidation efforts in a number of countries. These consolidation efforts stem particularly from restraint in the compensation of government employees, which accounts for about half of total government consumption. Other components of government consumption, such as intermediate consumption expenditure, have also been growing only moderately in the light of the consolidation requirements.

The contribution to growth from inventories is likely to have been limited in 2011. This would represent a slowdown in the rate of stock building compared with 2010, when inventories contributed 0.5 percentage point to GDP growth. In line with falling growth and a deteriorating outlook for economic activity, the contribution to overall growth from inventories turned negative in quarter-on-quarter terms in the third quarter of 2011.

Euro area trade continued to recover in the year to the third quarter of 2011. However, the pace of expansion was significantly below the double-digit growth rates seen in the same period a year earlier. Real exports of goods and services increased by 5.8% in the year to the third quarter of 2011, while real imports rose by 3.7%. Throughout this period exports consistently outpaced imports on a quarterly basis. As a result, the contributions to quarterly GDP growth from net exports were positive in each quarter, thereby supporting the recovery in the euro area over this period. Overall, the trade dynamics in the year to the third quarter of 2011 broadly mirrored the uneven expansion of the global economy. Growth in intra-euro area trade and imports from countries outside the euro area were rather subdued as the lingering sovereign debt crisis weighed on euro area demand. Extra-euro area exports were robust, particularly those to Asia and Latin America (see Chart 23), while exports to most advanced economies – including the United States and the United Kingdom – expanded slowly.

The increase in extra-euro area export volumes of goods in the year to the third quarter of 2011 was broad-based across major product categories. By contrast, the moderate increase in import volumes was largely driven by intermediate goods (which are also used as an input for exported products), whereas imports of consumer goods declined, owing to weak private consumption in the euro area. The current account of the euro area as a whole remained close to balance in 2011.

INDUSTRIAL PRODUCTION ROSE FURTHER BEFORE STARTING TO EASE

At the sectoral level, the largest increase in output in 2011 was in the industrial sector. Value added in industry (excluding construction) rose on an annual basis by 4.5% on average during the first three quarters of the year. This compares with an increase of 6.6% in 2010. However, the growth dynamics weakened over the year, in line with the slowdown in GDP. This is also confirmed by the annual rate of change in industrial production (excluding construction), which fell to -1.6% in December 2011, down from almost 7% in January.

Among the components of industrial production (excluding construction), intermediate and capital goods showed the strongest increases in 2011, while production of consumer goods was more muted (see Chart 24). At the same time, production of energy contracted sharply.

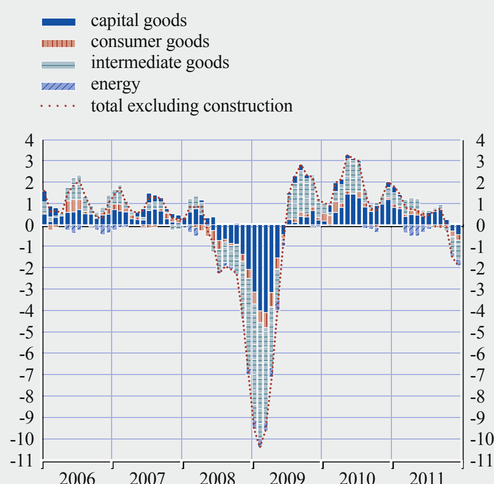
Construction production contracted further in 2011 after a period of protracted slowdown. Following a contraction of 4.4% in 2010, value added in construction declined on average by 0.2% year on year in the first three quarters of 2011. Annual growth of value added in services recorded an average of 1.3% during the same period. This is broadly unchanged from the annual figure for 2010.

LABOUR MARKET IMPROVEMENTS CAME TO A HALT

Employment, which started to recover at the end of 2010, posted positive quarter-on-quarter growth in the first half of 2011. However, employment growth turned negative in the third quarter, when it declined by 0.1% (see Chart 25). Survey data point to continued weakness in the fourth quarter of 2011. From a sectoral perspective, the strongest

Chart 24 Industrial production growth and contributions

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



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

Chart 25 Labour market developments

(quarter-on-quarter growth rate; percentage of the labour force; seasonally adjusted)

Source: Eurostat.

improvement in the year as a whole took place within services. Employment in industry (excluding construction) rose to a lesser extent. Total hours worked rose more strongly than headcount employment in 2011, particularly at the beginning of the year. This should merely be seen as a reversal of the developments witnessed during the downturn, as a large part of the total labour adjustment at the time took place through a reduction in hours worked per person employed, rather than through a reduction in headcount. Box 7 compares labour market developments in the euro area since the start of the financial crisis with those in the United States.

Box 7

LABOUR ADJUSTMENT IN THE EURO AREA AND THE UNITED STATES SINCE THE CRISIS

The onset of the financial crisis – and the ensuing contraction in economic activity – had a major impact on labour markets in the euro area and the United States, resulting in sharp contractions in employment and notable increases in unemployment (see Chart A). While recent data show that the overall declines in activity were fairly similar in both economies, with peak-to-trough declines in real GDP of roughly 5%, the labour market adjustment appears to have been somewhat sharper and more substantial in the United States than in the euro area.[1] This is, to some extent, due to the higher concentration of activity losses in labour-intensive sectors (such as construction and finance) in the United States and to more intensive labour hoarding in the euro area. This box focuses on the adjustment of labour input in the euro area and the United States since the onset of the crisis, and highlights the main differences in the adjustment process.

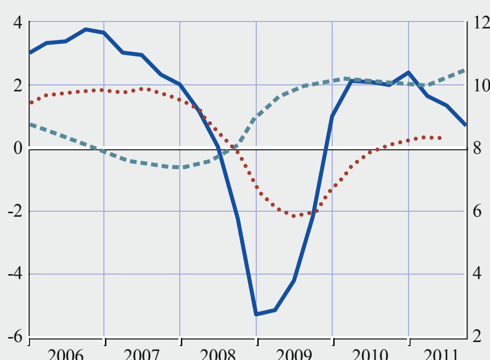
1 For information on methodological differences in employment data for the euro area and the United States, see the article entitled "Comparability of statistics for the euro area, the United States and Japan", *Monthly Bulletin*, ECB, April 2005.

Chart A GDP, employment and unemployment developments in the euro area and the United States

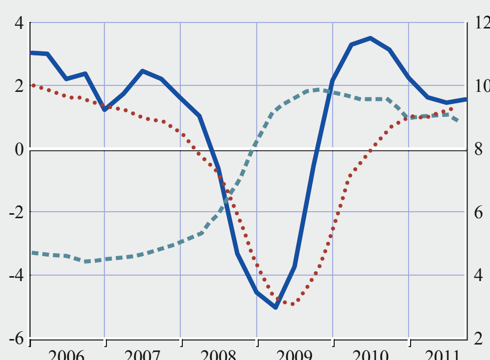
(year-on-year percentage changes; unemployment rate as a percentage of the civilian labour force)

GDP (left-hand scale)
employment (left-hand scale)
unemployment rate (right-hand scale)

a) Euro area



b) United States



Sources: Eurostat, US Bureau of Economic Analysis and Bureau of Labor Statistics, and ECB calculations.
Note: The latest observations are for Q4 2011, except for euro area employment (Q3 2011).

Labour market dynamics since the crisis

Chart B synchronises the cyclical adjustments seen in the two economies in relation to the first quarter-on-quarter contraction in GDP in 2008 so as to highlight the differences in the adjustment paths and mechanisms undertaken across the two economies.

The onset of the recession (point "0" in each of the components of Chart B) precipitated a very strong decline in total hours worked across both economies as firms adjusted labour input in the light of declining orders and falling demand for output. In the United States, the downturn in activity triggered a rapid adjustment in employment and, consequently, an increase in the unemployment rate, a process that continued until early 2010. In the euro area, by contrast, employment and unemployment were, to a certain extent, cushioned from the full impact of the strong fall in GDP by a fairly strong reliance on adjustment in hours worked per person. While stronger employment protection legislation in the euro area is likely to have played a role in dampening some of the labour market adjustment, part

Chart B Developments in employment, hours worked and unemployment in the euro area and the United States

(quarter-on-quarter percentage changes; quarter-on-quarter percentage point changes in the civilian unemployment rate)

Sources: Eurostat, OECD, US Bureau of Labor Statistics and ECB staff calculations.
Notes: 0 on the x-axis represents the first quarter of GDP contraction in each economy (Q1 2008 in the United States; Q2 2008 in the euro area). The latest observations are for Q4 2011, except for the euro area employment and hours series, which end in Q3 2011.

of the smaller employment adjustment is undoubtedly also due to the shortened working hour schemes (often government-supported) which were widely used in many countries (most notably, Belgium, Germany and Italy).

Over the course of the recession, euro area headcount employment fell by some 3.8 million (i.e. 2.6%), while more than 8 million jobs (roughly 6%) were lost in the United States. The different reactions for employment and hours in the two economies led to a much slower increase in registered unemployment in the euro area, albeit from a markedly higher initial level and despite rather different labour supply dynamics.[2] Specifically, over the course of the crisis, the euro area unemployment rate rose from just under 7.4% in the first quarter of 2008 to 10.2% in the second quarter of 2010. In the United States, meanwhile, the unemployment rate rose from 4.4% on the eve of the crisis to peak at 10% in the final quarter of 2009.

The labour market gained momentum slightly more quickly in the euro area than in the United States

Since the recession – and despite the more muted adjustment seen over the course of the crisis – euro area labour markets seem to have responded slightly more quickly to the rebound in activity than those of the United States, with both hours worked (particularly hours per person) and employment returning to positive growth somewhat faster in the euro area than in the United States, despite a more rapid rebound in US activity. In part, this may reflect a slightly more protracted contraction in the United States than in the euro area, where the recession lasted an additional quarter. However, it also reflects the somewhat more intensive use of the incumbent labour force in the United States following the rebound in activity, which led to a sharp surge in US labour productivity in the aftermath of the recession.[3]

Until the middle of 2011 labour market conditions showed signs of improvement in both economies, with hours and employment starting to expand – albeit gradually – and unemployment declining somewhat. Overall, euro area employment has increased by roughly 900,000 jobs (i.e. 0.6%) since the trough was reached, while around 2 million jobs (1.5%) have been created in the United States. To some extent, the lower employment creation seen in the euro area in the post-crisis period is a natural consequence of the higher degree of labour hoarding seen over the course of the recession. Consequently, the euro area unemployment rate remained high in the aftermath of the recession, rising to 10.4% in the fourth quarter of 2011. In the United States, meanwhile, the unemployment rate declined by almost 1 percentage point to 8.7% in the same quarter.

Rising long-term unemployment on both sides of the Atlantic

The increase in the duration of unemployment since the onset of the crisis is a common feature on both sides of the Atlantic. Longer unemployment spells may lead to a strong deterioration in both human capital and labour market attachment, which in turn may lead to harmful

2 In the euro area, labour force growth largely stagnated following the onset of the recession. This can be attributed almost equally to a slowdown in both population and participation growth. In the United States, by contrast, the labour force contracted by around 0.5%, largely owing to a strong decline in the participation rate, while population growth slowed only slightly.

3 See the box entitled "Recent sectoral productivity developments in the euro area and the United States", *Monthly Bulletin*, ECB, December 2011.

consequences for the long-run growth potential of an economy. Typically, the share of long-term unemployment is much lower in the United States than in the euro area, with the share of those unemployed for over six months generally peaking at around 25% in the aftermath of the recession in the United States, compared with around 65% of the total in the euro area. However, the share has increased considerably in the United States in the latest recession and has stood at over 40% since the beginning of 2010, although this is still 20 percentage points lower than in the euro area. In part, this rise is undoubtedly due to the severity of the recession and the lack of new employment possibilities in a still depressed US labour market, but it may also be partly related to the entitlement period for unemployment benefits being extended from 26 weeks to 99 weeks since June 2008.[4] Meanwhile, the persistent gap in long-term unemployment rates is likely to reflect wider institutional differences affecting European and US labour markets.

The recent recession took a heavy toll on labour markets on both sides of the Atlantic, with labour utilisation rates still some way short of their pre-crisis levels. The deterioration in the labour market was particularly large in the United States. Employment growth is likely to remain subdued for some time to come in both the euro area and the United States. Longer-term improvements to euro area labour markets are likely to depend heavily on the ability to restructure further so as to foster innovation and the implementation of efficient working practices, thereby enhancing employment in the longer term. Further reforms may be needed in the euro area to help ease labour market transitions, particularly for young entrants to the labour force, who have so far been disproportionately hit by the crisis, as well as for the growing ranks of long-term unemployed.

4 It is widely accepted that extending the entitlement period for unemployment benefits lengthens the duration of job searches, though estimates vary considerably. Focusing on the recent episode, Daly, Hobijn and Valletta conclude that the fact that the maximum payment duration of US unemployment insurance has been extended considerably is likely to have contributed only modestly to the increased unemployment durations seen in the United States since 2008 (see Daly, M., Hobijn, B. and Valletta, R., "The recent evolution of the natural rate of employment", *Federal Reserve Bank of San Francisco Working Paper*, No 2011-05, September 2011). For this episode, the large employment declines seen in some sectors and the resultant mismatch in worker attributes versus openings, as well as reduced geographical mobility owing to the bursting of the US housing bubble, are all likely to have been more important contributors.

As labour market developments tend to lag behind overall cyclical developments, employment growth in 2011 was stronger than in 2010. This, combined with a slowdown in GDP growth, implies that productivity growth per person employed declined in 2011. Annual productivity growth declined from 2.2% in the first quarter of 2011 to 1.0% in the third quarter. The decline in productivity growth was broadly based across sectors. Growth in overall productivity measured by hours worked also declined, albeit to a lesser extent.

After bottoming out in April 2011, the unemployment rate edged upwards again, exceeding its previous peak of May 2010 (see Chart 25). In December 2011 the unemployment rate stood at 10.6%, up 0.7 percentage point from its trough in April.

2.5 FISCAL DEVELOPMENTS

In the euro area, the financial and economic crisis has evolved into a sovereign debt crisis, with severe implications for confidence. In the light of market concerns over the banking sector and heightened uncertainty regarding the macroeconomic outlook, confidence in government debt sustainability weakened and government bond yields rose significantly in many countries. The crisis has also affected government financial assets and liabilities (for more details, see Box 8).

Box 8

GOVERNMENT FINANCIAL ASSETS AND LIABILITIES IN THE EURO AREA

The sustainability of government debt has become a prominent issue for both financial markets and policy-makers. From a solvency perspective, i.e. when assessing the sustainability of government debt, it is important to take both government liabilities and government assets into account. This box argues that focusing only on gross government debt may provide an incomplete picture, since to some extent assets represent a buffer, and governments could in principle sell their assets to redeem debt. Moreover, in some cases, the increase in government liabilities is associated with a simultaneous increase in government assets, for example when debt-financed capital is injected into a private financial institution.

In this respect, financial assets are the most relevant counterpart to financial liabilities. Non-financial assets owned by the government are normally of a much higher value than financial assets. However, they are difficult to value and may be less liquid, and comparable data are scarce. The degree of liquidity, i.e. the ease with which the government could sell or liquidate financial or non-financial assets, is a key aspect. Indeed, the value of government financial assets may vary over time depending on financial market conditions, and a perceived urgent need to sell assets may limit the yield. In particular, the value of financial assets acquired in the context of a financial crisis is often difficult to assess. Moreover, privatisation of public companies can take time, and a part of the government's assets could be held by public pension funds and correspond to these funds' liabilities vis-à-vis their contributors. These reservations suggest that great care is required in calculating net government financial positions, as government financial assets and liabilities tend to have different characteristics, and a full netting-out may not be justified.[1] Furthermore, due consideration of off-balance-sheet assets and liabilities is required when assessing potential risks to the sustainability of public finances. Owing to the problems related to calculating government assets, it is necessary to be particularly cautious when undertaking a cross-country comparison of net government fiscal positions.

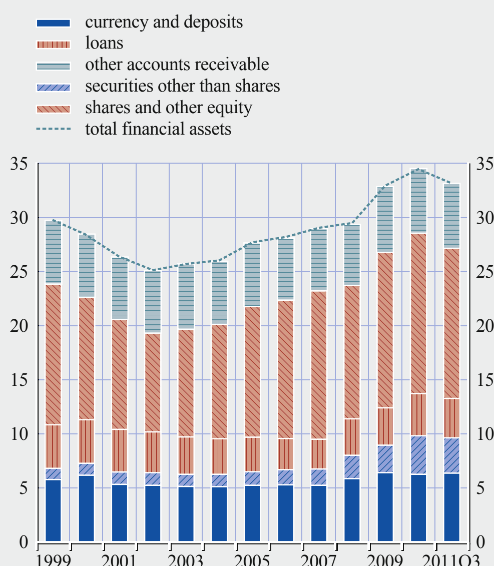
Government financial liabilities include loans received by government, debt securities issued by government and other instruments, such as financial derivatives. Government financial assets include currency and deposits, loans granted by government, securities other than shares, shares and other equity, and other accounts receivable. As these instruments appear on the (general) government balance sheet of the national accounts, they are recorded at market value, in line with the ESA 95.

Governments in the euro area have steadily accumulated financial assets (see Chart A). In the third quarter of 2011 the market value of total financial assets held by governments in the euro area, on a consolidated basis, stood at 33.3% of GDP. For the euro area as a whole the market value of government financial assets represented more than one-third of the market value of government liabilities, which stood at 92.9% of GDP in the same period (see Chart B). Between the outbreak of the financial crisis in autumn 2008 and the third quarter of 2011 governments had acquired financial assets amounting to about 4.2% of GDP. Over that period, the increase in securities other than shares reflected the net purchases by euro area governments of securities issued by financial institutions and, in the case of Germany, this largely reflected the acquisition of assets in relation to the establishment

1 For more details, see Hartwig Lojsch, D., Rodríguez-Vives, M. and Slavík, M., "The size and composition of government debt in the euro area", *Occasional Paper Series*, No 132, ECB, October 2011.

Chart A Composition of euro area government financial assets

(as a percentage of GDP)



Source: ECB calculations (based on Eurostat and national data).

Chart B Government financial assets and liabilities in the euro area

(as a percentage of GDP)

Source: ECB calculations (based on Eurostat and national data).

of FMS Wertmanagement, a public liquidation agency classified within the general government sector. The increase in currency and deposits reflects the reinforcement of cash reserves owing to liquidity buffers that were built up during the financial crisis, but may also include currency and deposits held by public liquidation agencies. Likewise, the growth in shares and other equity reflects capital injections in ailing financial institutions in many countries[2], or portfolio investments, particularly by asset-rich social security funds.

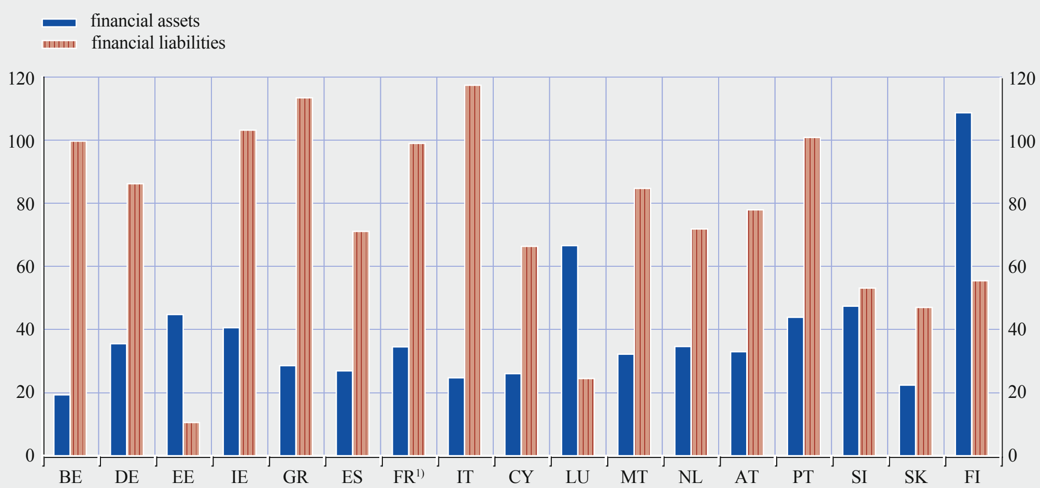
Data for the third quarter of 2011 illustrated in Chart C show that the majority of euro area countries accumulated financial assets with market values well above 20% of GDP. In particular, Estonia, Ireland, Portugal and Slovenia had assets worth over 40% of GDP by the end of the third quarter in 2011, while Finland and Luxembourg, which are traditionally asset-rich countries, had financial assets of around 111% and 68% of GDP respectively. The market values of government financial liabilities ranged from 11% of GDP in Estonia to 121% of GDP in Italy in the same period.

All in all, government financial assets are a helpful complementary indicator for the analysis of government solvency. The availability of government financial assets may in principle play a significant role in reducing gross government debt, but this should not, in itself, be a motivation for privatisation. The privatisation of certain government assets should instead be guided by its contribution to improving overall economic efficiency and long-run economic growth perspectives. In some cases, this improvement would require privatisation to be accompanied by regulatory reform guaranteeing a competitive environment. In addition, it should be borne in mind that privatisation receipts might be contained in the current weak macroeconomic environment,

2 In the case of Ireland, it reflects capital injections in Anglo Irish Bank, Allied Irish Bank and the Bank of Ireland; in the case of the Netherlands, the recapitalisation of Fortis, ABN AMRO and ING; and in the case of Belgium, the recapitalisation of Fortis, Dexia and KBC.

Chart C Government financial assets and liabilities in euro area countries in the third quarter of 2011

(as a percentage of GDP)



Source: ECB calculations (based on Eurostat and national data).
Note: The stock data in quarter *t* are expressed as a percentage of the sum of GDP in *t* and the previous three quarters.
1) Data for France refer to the fourth quarter of 2010.

limiting their positive impact on fiscal sustainability. At the same time, as government financial assets and liabilities tend to have different characteristics, a focus only on net government debt could be misleading. In particular, assumptions on the prices, marketability or liquidity of government assets need to be made. As stipulated in the Stability and Growth Pact, the concept of gross government debt recorded at nominal value remains the cornerstone for the purpose of fiscal surveillance in the EU.

The crisis has shown that ensuring sound public finances is a prerequisite for overall macroeconomic and financial stability, as well as for the smooth functioning of Monetary Union. In response to the sovereign debt crisis and negative spillover effects, in order to restore credibility, several countries, including the most affected, implemented fiscal consolidation and structural reform measures, and strengthened their domestic budgetary frameworks. Moreover, following the adoption of the strengthened EU framework of economic governance, a number of steps to further improve fiscal governance have been taken at the European level.

FISCAL CONSOLIDATION IN 2011

According to the European Commission's autumn 2011 economic forecast, the aggregate general government deficit for the euro area fell significantly to 4.1% of GDP in 2011, from 6.2% of GDP in 2010 (see Table 4). The reduction in the budget deficit was driven both by consolidation measures (notably cuts in government investment and employment, as well as increases in indirect taxes) and some favourable revenue developments stemming from more supportive cyclical conditions. Total government revenue and total government expenditure stood at 45.3% of GDP and 49.4% of GDP respectively in 2011, after having reached 44.7% and 50.9% in the previous year.

According to the European Commission's autumn 2011 economic forecast, the euro area average gross general government debt-to-GDP ratio increased further, from 85.6% in 2010 to 88.0% in 2011, as a result of high deficits. The debt ratios were above the reference value of 60% of GDP at the end of 2011 in 12 out of 17 euro area countries.

Table 4 Fiscal positions in the euro area and euro area countries

(as a percentage of GDP)

	General government surplus (+)/deficit (-)				General government gross debt			
	European Commission forecast			Stability programme	European Commission forecast			Stability programme
	2009	2010	2011	2011	2009	2010	2011	2011
Belgium	-5.8	-4.1	-3.6	-3.6	95.9	96.2	97.2	97.5
Germany	-3.2	-4.3	-1.3	-2.5	74.4	83.2	81.7	82.0
Estonia	-2.0	0.2	0.8	-0.4	7.2	6.7	5.8	6.0
Ireland	-14.2	-31.3	-10.3	-10.6	65.2	94.9	108.1	-
Greece	-15.8	-10.6	-8.9	-7.8	129.3	144.9	162.8	-
Spain	-11.2	-9.3	-6.6	-6.0	53.8	61.0	69.6	67.3
France	-7.5	-7.1	-5.8	-5.7	79.0	82.3	85.4	84.6
Italy	-5.4	-4.6	-4.0	-3.9	115.5	118.4	120.5	-
Cyprus	-6.1	-5.3	-6.7	-4.0	58.5	61.5	64.9	61.6
Luxembourg	-0.9	-1.1	-0.6	-1.0	14.8	19.1	19.5	17.5
Malta	-3.7	-3.6	-3.0	-2.8	67.8	69.0	69.6	67.8
Netherlands	-5.6	-5.1	-4.3	-3.7	60.8	62.9	64.2	64.5
Austria	-4.1	-4.4	-3.4	-3.9	69.5	71.8	72.2	73.6
Portugal	-10.1	-9.8	-5.8	-5.9	83.0	93.3	101.6	101.7
Slovenia	-6.1	-5.8	-5.7	-5.5	35.3	38.8	45.5	43.3
Slovakia	-8.0	-7.7	-5.8	-4.9	35.5	41.0	44.5	44.1
Finland	-2.5	-2.5	-1.0	-0.9	43.3	48.3	49.1	50.1
Euro area	-6.4	-6.2	-4.1	-4.3	79.8	85.6	88.0	-

Sources: European Commission's autumn 2011 economic forecast, April 2011 update of the stability programmes and ECB calculations.
Notes: Data are based on ESA 95 definitions. The European Commission's autumn 2011 economic forecast was used for comparability across countries and because the fiscal outcomes for 2011 produced by Eurostat were not available at the time of writing. The EU-IMF financial assistance programme targets are reported for Ireland, Greece and Portugal, while the September 2011 revised targets are reported for Italy.

The European Commission's autumn 2011 fiscal forecasts were, for some countries, more favourable than the plans presented in the April 2011 updated stability programmes (see Table 4). However, in most countries, the deficits were higher than expected. This was the case, in particular, for Greece, Spain, Cyprus, the Netherlands and Slovakia. Regarding the countries covered by an EU-IMF financial assistance programme, Greece and Ireland faced particularly severe budgetary imbalances in 2011, while the fiscal situation in Portugal improved noticeably in the same period, partly reflecting a significant temporary transaction. The following brief review of recent budgetary developments is limited to those countries covered by an EU-IMF financial assistance programme.

EU-IMF PROGRAMME COUNTRIES

In Greece, structural reform fatigue, government instability and worse than expected economic conditions negatively affected the outcome of the EU-IMF financial assistance programme. The European Commission's autumn 2011 economic forecast points to a deficit of 8.9% of GDP in 2011. The expected non-compliance with the 2011 deficit target (7.8% of GDP) was due to worse than expected macroeconomic developments, delayed implementation of the fiscal measures and structural reforms, as well as the changes to the agreed design of the measures that lowered their deficit-reducing potential and may also have further dampened domestic demand. Fiscal sustainability in Greece should be restored through a mix of additional consolidation measures and voluntary private sector involvement in reducing the government debt burden. In June and October 2011 the Greek government specified additional consolidation measures of more than 14% of GDP up to 2015. On the revenue side, these measures targeted a broad spectrum of taxes and were aimed at broadening tax bases (lowering tax-free thresholds and removing tax exemptions) as well as improving tax compliance. On the expenditure side, the largest contributions came from a reduction in the public wage bill, cuts in pensions and other

social benefits, as well as in public consumption and non-wage services. On 20 February 2012 the Eurogroup agreed on a policy package which entails additional official sector financing of €130 billion until the end of 2014, while requiring further ambitious efforts by the Greek authorities to bring down government spending.

In Ireland, the implementation of the Irish economic adjustment programme in 2011 progressed in line with the original targets. The European Commission's autumn 2011 economic forecast points to a deficit of 10.3% of GDP in 2011. Structural fiscal reforms were initiated, and the Irish Fiscal Advisory Council was established with the mandate to assess official forecasts and to evaluate the appropriateness of the fiscal stance and the consistency of budgetary plans with fiscal rules. A comprehensive review of public expenditures was completed, aimed at a targeted reduction in public spending and improved efficiency of the public sector. The Irish government remained committed to meeting the stability programme objectives and its medium-term fiscal statement of November 2011, in which it pledged to continue fiscal consolidation beyond programme completion so as to meet the 2015 deadline for correcting the excessive deficit.

In Portugal, the European Commission's autumn 2011 economic forecast points to a deficit of 5.8% of GDP in 2011, on track to reach the fiscal target set in the EU-IMF financial assistance programme of 5.9% of GDP. In response to the budgetary slippages that emerged vis-à-vis the 2011 target during the implementation of the economic adjustment programme, the new government introduced additional offsetting measures, including an extraordinary tax on the Christmas bonus and an increase in the VAT rate on electricity and gas. Moreover, a one-off transfer of pension funds from private banks to the social security system of around 3.5% of GDP took place in December 2011. As a consequence, the deficit for 2011 is expected to reach around 4% of GDP, which is well below the target.

Table 5 Changes in the cyclically adjusted balance, the cyclically adjusted primary balance and the structural balance in the euro area and euro area countries

(in percentage points of GDP)

	Change in cyclically adjusted budget balance			Change in cyclically adjusted primary budget balance			Change in structural budget balance		
	2009	2010	2011	2009	2010	2011	2009	2010	2011
Belgium	-2.3	1.1	0.1	-2.5	0.9	0.0	-1.6	0.5	0.2
Germany	-0.1	-2.3	2.2	-0.2	-2.5	2.1	-0.6	-1.0	1.1
Estonia	5.6	1.6	-1.5	5.6	1.5	-1.4	3.9	0.7	-0.1
Ireland	-4.6	-17.4	20.2	-4.0	-16.3	20.7	-2.6	0.1	0.6
Greece	-4.6	6.4	3.4	-4.4	6.9	4.6	-5.6	6.4	4.0
Spain	-4.6	2.1	2.5	-4.4	2.3	2.8	-4.2	1.5	2.1
France	-2.3	0.4	1.1	-2.8	0.4	1.3	-2.2	0.5	1.0
Italy	-0.1	0.1	0.4	-0.7	0.0	0.8	-0.6	0.6	0.4
Cyprus	-5.6	0.8	-1.1	-5.9	0.5	-1.0	-5.9	0.6	-0.2
Luxembourg	-0.6	-0.8	0.2	-0.5	-0.8	0.3	-0.6	-0.8	0.1
Malta	2.2	-0.4	0.2	2.1	-0.5	0.4	1.9	-0.9	1.2
Netherlands	-3.3	0.2	0.4	-3.4	0.0	0.3	-3.3	0.3	0.3
Austria	-0.8	-0.8	0.3	-0.6	-0.9	0.3	-0.8	-0.4	0.1
Portugal	-5.5	-0.2	4.5	-5.6	-0.1	5.8	-4.1	-0.8	2.7
Slovenia	0.8	0.3	-0.2	1.0	0.6	0.1	0.9	0.2	0.9
Slovakia	-3.4	0.1	1.9	-3.2	0.0	2.1	-3.4	0.4	2.6
Finland	-1.9	-1.2	0.7	-2.2	-1.2	0.8	-1.9	-1.2	0.6
Euro area	-1.8	-0.4	1.8	-2.0	-0.4	1.9	-1.9	0.3	1.0

Source: European Commission's autumn 2011 economic forecast.
Notes: Positive numbers correspond to fiscal improvements and negative ones to fiscal deteriorations. For Ireland, changes in cyclically adjusted and cyclically adjusted primary balances include financial sector support measures in 2009 and 2010 of 2.5% of GDP and 19.8% of GDP respectively.

Table 6 Excessive deficit procedures in the euro area countries

(as a percentage of GDP)

	Budget balance 2011	Start	Deadline	Recommended average structural adjustment p.a.
Belgium	-3.6	2010	2012	¾
Germany	-1.3	2011	2013	≥ 0.5
Estonia	0.8	-	-	-
Ireland	-10.3	2010	2015	at least 9½ over 2011-15
Greece	-8.9	2010	2014	10 over 2009-14
Spain	-6.6	2010	2013	>1.5
France	-5.8	2010	2013	>1.0
Italy	-4.0	2010	2012	≥ 0.5
Cyprus	-6.7	2010	2012	1½
Luxembourg	-0.6	-	-	-
Malta	-3.0	2010	2011	¾
Netherlands	-4.3	2011	2013	¾
Austria	-3.4	2011	2013	¾
Portugal	-5.8	2010	2013	1¼
Slovenia	-5.7	2010	2013	¾
Slovakia	-5.8	2010	2013	1.0
Finland	-1.0	2010	2011	½

Source: European Commission.

CYCLICALLY ADJUSTED INDICATORS

As shown in Table 5, all three fiscal indicators which take into account the cyclical conditions of the economy (i.e. the cyclically adjusted balance, the cyclically adjusted primary balance and the structural balance) confirm a remarkable consolidation effort for the euro area aggregate in 2011. In particular, both the cyclically adjusted balance and the cyclically adjusted primary balance, which leaves out the effects of interest payments, improved respectively by 1.8 and 1.9 percentage points of GDP in the euro area in 2011. The euro area structural balance (which excludes one-off and temporary measures) improved by 1.0 percentage point of GDP in the same period. These numbers have to be interpreted with caution because real-time estimates of the cyclical impact on budget balances are characterised by a degree of uncertainty.

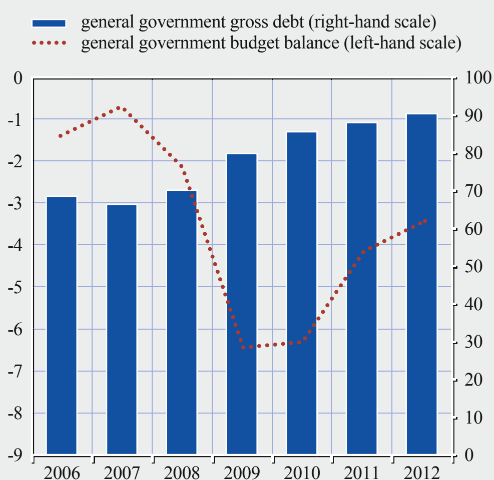
All euro area countries except Germany, Estonia, Luxembourg, Malta and Finland recorded a deficit above the 3% of GDP reference value in 2011. By the end of 2011 14 euro area countries were subject to an excessive deficit procedure, with deadlines for reducing deficit ratios below the reference value of 3% of GDP ranging from 2011 for Malta to 2015 for Ireland (see Table 6). The excessive deficit procedure for Finland was abrogated by the Council of the European Union in July 2011, as final data showed that the deficit had not exceeded the 3% of GDP reference value in 2010 and the European Commission's spring 2011 economic forecast projected the deficit to fall further to 1% of GDP in 2011.

FURTHER FISCAL CONSOLIDATION EXPECTED

In 2012 further improvement is expected in the fiscal situation of the euro area, albeit at a slower pace. According to the European Commission's autumn 2011 economic forecast, the average general government deficit ratio in the euro area will decline by 0.7 percentage point to 3.4% of GDP (see Chart 26). The euro area average revenue ratio is projected to increase by 0.5 percentage point of GDP, whereas the expenditure ratio is projected to fall by 0.2 percentage point of GDP. The average government debt ratio in the euro area is projected to continue to rise by 2.4 percentage points to 90.4% of GDP in 2012, with debt ratios exceeding 100% of GDP in four countries, namely Ireland, Greece, Italy and Portugal.

Chart 26 Fiscal developments in the euro area

(as a percentage of GDP)



Source: European Commission's autumn 2011 economic forecast.
Note: Figures for budget balances exclude proceeds from the sale of UMTS licences.

FISCAL PRUDENCE IS VITAL IN ORDER TO RESTORE MARKET CONFIDENCE

Turning to the institutional framework for fiscal policy-making, the adoption of the new governance reform package following intense negotiations on the reform of the EU framework of economic governance was a step in the right direction, but does not constitute the required "quantum leap" (see Part 1 of Chapter 4). The agreement on new governance rules was reached between the European Council, the European Parliament and the European Commission in September 2011, with formal adoption in November and entry into force in December 2011. The governance reform package consists of six legal texts (known as the "six-pack") that are aimed at strengthening economic governance in the EU and, in particular, the euro area. The adopted legislative package contains a number of elements to improve fiscal governance in the EU and the euro area, provided the new rules are applied strictly, although deeper reforms are warranted. In addition, the fiscal compact (as part of the Treaty on Stability, Coordination and Governance in the Economic and Monetary Union) will further improve fiscal governance at the national level.

Overall, fiscal consolidation strategies must adhere strictly to the provisions laid down in the Stability and Growth Pact to restore financial market confidence. In particular, the countries receiving EU-IMF financial assistance need to fully comply with their programme commitments. All countries subject to an excessive deficit procedure need to ensure full compliance with their budgetary targets. Medium-term budgetary plans need to provide for sufficiently credible measures, with fiscal strategies focused firmly on correcting excessive deficits.

Risks to fiscal sustainability should also be addressed by implementing structural reforms to boost growth and increasing banking sector stability, while accounting for country-specific imbalances. The appropriate strategy to restore and increase fiscal soundness differs across euro area countries and depends on the primary sources of fiscal imbalances. Each country therefore needs to implement an individual strategy, while strictly following the recommendations provided under the European Semester (the cycle of economic policy coordination). Structural reforms need to be implemented as swiftly as possible in order to strengthen competitiveness, raise economies' flexibility and increase productivity growth, thus enhancing longer-term growth.

3 ECONOMIC AND MONETARY DEVELOPMENTS IN NON-EURO AREA EU MEMBER STATES

ECONOMIC ACTIVITY

In most non-euro area EU Member States, output continued to recover in 2011 (see Table 7). However, there were increasing signs of a slowdown towards the end of the year, as these countries were adversely affected by deteriorating economic growth and heightened financial stress in the euro area. Volatility in the growth profile and cross-country differences remained significant. Although domestic demand became a more important driver of economic growth, particularly in Latvia, Lithuania and Poland, net exports continued to contribute to economic growth in 2011 in most countries. In several countries, weak labour market conditions, low capacity utilisation and fiscal consolidation constrained the recovery. Furthermore, deteriorating economic sentiment, deleveraging of the banking sector, country-specific factors and the need to repair private sector balance sheets gradually became a more apparent drag on domestic demand.

Looking at the main components of domestic demand, private consumption still remained subdued in most countries, reflecting the above-mentioned factors. Unemployment rates remained high in all non-euro area EU countries, and the economic recovery brought about an improvement in the labour market in only a few of them. Despite slack in labour markets and constraints in the public sector, wage growth increased in 2011 in most countries, reflecting, inter alia, composition effects and labour market bottlenecks. The growth of credit to the private sector continued to be weak in most non-euro area EU countries, as a result of both tight supply-side conditions owing to capital and funding pressures and low demand in line with moderate economic activity and debt deleveraging. In an environment characterised by high spare capacity, investment growth gradually gained momentum in most countries, often driven by EU funds.

Among the non-euro area EU Member States, real GDP growth in 2011 (the first three quarters) was particularly strong in Latvia, Lithuania, Poland and Sweden, i.e. countries where the contribution of domestic demand was the largest. On the other hand, GDP growth weakened markedly in the United Kingdom, in line with a contraction in domestic demand. GDP growth also decelerated in the Czech Republic, while it increased somewhat in Hungary. In Romania, GDP growth turned positive in

Table 7 Real GDP growth in the non-euro area EU Member States and the euro area

(annual percentage changes)

	2008	2009	2010	2011[3]	2011 Q1	2011 Q2	2011 Q3	2011[3] Q4
Bulgaria	6.2	-5.5	0.2	.	1.5	2.2	2.3	.
Czech Republic	3.1	-4.7	2.7	.	3.1	2.0	1.2	.
Denmark	-0.8	-5.8	1.3	*1.1*	1.9	1.7	0.1	*0.6*
Latvia	-3.3	-17.7	-0.3	.	3.5	5.6	6.6	.
Lithuania	2.9	-14.8	1.4	*5.9*	5.9	6.5	6.7	*4.4*
Hungary	0.9	-6.8	1.3	*1.7*	2.5	1.5	1.4	*1.4*
Poland	5.1	1.6	3.9	*4.3*	4.1	4.7	4.3	*4.3*
Romania	7.4	-7.1	-1.3	.	1.7	1.4	4.4	.
Sweden	-0.6	-5.0	6.1	*4.0*	6.1	4.4	4.5	*1.1*
United Kingdom	-1.1	-4.4	2.1	.	1.3	1.6	0.4	.
EU7[1]	4.4	-3.2	2.2	.	3.3	3.3	3.5	.
EU10[2]	0.4	-4.3	2.5	.	2.4	2.4	1.6	.
Euro area	0.4	-4.3	1.9	*1.5*	2.4	1.6	1.3	*0.7*

Source: Eurostat.
Note: Quarterly data are seasonally and working day-adjusted for all countries except Romania, for which the data are only seasonally adjusted.
1) The EU7 aggregate comprises the seven non-euro area EU Member States that joined the EU in 2004 or 2007.
2) The EU10 aggregate comprises the ten non-euro area EU Member States as at 31 December 2011.
3) Figures for 2011 are flash estimates, i.e. preliminary data.

2011 after two years of contraction, on account of restocking and a positive contribution from domestic demand.

PRICE DEVELOPMENTS

Average annual inflation increased in 2011 in most of the non-euro area EU Member States (see Table 8). The broad-based increase reflected both domestic and external factors. Upward pressure came from food and energy prices, especially in the first half of the year, as well as from changes in indirect taxes, administered prices and excise duties and from exchange rate depreciation in some countries. The increase in international commodity prices tended to have a larger impact on inflation in the central and eastern European countries than in the other non-euro area EU countries owing to the greater weight of food and energy in their HICP baskets. Furthermore, reflecting the gradual recovery in domestic demand, annual inflation rates excluding energy and food prices also increased in most countries, although from very low or even negative rates in some countries.

The cross-country variation in annual HICP inflation remained significant. The highest average inflation rate was recorded in Romania (5.8%), which had introduced a substantial VAT increase in 2010. Inflation ranged between 3.4% and 4.5% in most of the other countries. In the Czech Republic and Denmark inflation was 2.1% and 2.7% respectively, while the lowest inflation among the non-euro area EU countries was seen in Sweden (1.4%). The intra-year developments varied across countries. The disinflationary effect of food and energy price changes in the second half of the year was to some extent counteracted by country-specific factors, such as increases in VAT (e.g. in Latvia, Poland and the United Kingdom), excise duty hikes (in Latvia) and administered price increases (in the Czech Republic), or by exchange rate depreciations (e.g. in Hungary and Poland). The inflation rate decreased significantly in the second half of the year in Romania, helped, among other factors, by the statistical base effect associated with the fading of the impact of the VAT rate hike and a good domestic harvest.

FISCAL POLICIES

All non-euro area EU Member States apart from Bulgaria, Hungary and Sweden are estimated to have posted budget deficits above the 3% of GDP reference value in 2011 (see Table 9). In Hungary, however, the fiscal surplus of 3.6% of GDP was significantly affected by one-off revenues linked to the nationalisation of the obligatory private pension pillar.

Table 8 HICP inflation in the non-euro area EU Member States and the euro area

(annual percentage changes)

	2008	2009	2010	2011	2011 Q1	2011 Q2	2011 Q3	2011 Q4
Bulgaria	12.0	2.5	3.0	3.4	4.5	3.4	3.1	2.5
Czech Republic	6.3	0.6	1.2	2.1	1.9	1.8	2.0	2.8
Denmark	3.6	1.1	2.2	2.7	2.6	2.9	2.6	2.5
Latvia	15.3	3.3	-1.2	4.2	3.8	4.6	4.4	4.1
Lithuania	11.1	4.2	1.2	4.1	3.2	4.7	4.6	4.0
Hungary	6.0	4.0	4.7	3.9	4.3	3.9	3.4	4.1
Poland	4.2	4.0	2.7	3.9	3.6	4.0	3.7	4.2
Romania	7.9	5.6	6.1	5.8	7.5	8.3	4.2	3.4
Sweden	3.3	1.9	1.9	1.4	1.3	1.7	1.6	0.9
United Kingdom	3.6	2.2	3.3	4.5	4.1	4.4	4.7	4.7
EU7 1)	6.5	3.7	3.2	3.9	4.1	4.4	3.5	3.7
EU10 2)	4.7	2.7	3.2	4.0	3.9	4.2	4.0	4.0
Euro area	3.3	0.3	1.6	2.7	2.5	2.8	2.7	2.9

Source: Eurostat.
1) The EU7 aggregate comprises the seven non-euro area EU Member States that joined the EU in 2004 or 2007.
2) The EU10 aggregate comprises the ten non-euro area EU Member States as at 31 December 2011.

Table 9 General government finances

(as a percentage of GDP)

	Budget balance					Gross debt				
	European Commission forecast				April 2011 convergence programme updates	European Commission forecast				April 2011 convergence programme updates
	2008	2009	2010	2011	2011	2008	2009	2010	2011	2011
Bulgaria	1.7	-4.3	-3.1	-2.5	-2.5	13.7	14.6	16.3	17.5	16.4
Czech Republic	-2.2	-5.8	-4.8	-4.1	-4.2	28.7	34.4	37.6	39.9	41.4
Denmark	3.2	-2.7	-2.6	-4.0	-3.8	34.5	41.8	43.7	44.1	43.0
Latvia	-4.2	-9.7	-8.3	-4.2	-4.5	19.8	36.7	44.7	44.8	48.3
Lithuania	-3.3	-9.5	-7.0	-5.0	-5.3	15.5	29.4	38.0	37.7	38.1
Hungary	-3.7	-4.6	-4.2	3.6	2.0	72.9	79.7	81.3	75.9	75.5
Poland	-3.7	-7.3	-7.8	-5.6	-5.6	47.1	50.9	54.9	56.7	54.9
Romania	-5.7	-9.0	-6.9	-4.9	-4.9	13.4	23.6	31.0	34.0	33.3
Sweden	2.2	-0.7	0.2	0.9	0.6	38.8	42.7	39.7	36.3	36.8
United Kingdom	-5.0	-11.5	-10.3	-9.4	-7.9	54.8	69.6	79.9	84.0	84.1
EU7[1]	-3.5	-7.0	-6.5	-3.9	-4.2	38.1	44.1	48.7	49.6	49.0
EU10[2]	-3.3	-8.5	-7.5	-6.3	-5.6	47.3	58.0	64.5	66.2	66.1
Euro area	-2.1	-6.4	-6.2	-4.1	-4.3	70.1	79.8	85.6	88.0	-

Sources: European Commission's autumn 2011 economic forecast, April 2011 updated convergence programmes and ECB calculations.
Notes: Data are based on ESA 95 definitions. The 2011 figures in the April 2011 convergence programme updates were established by national governments and hence could differ from the final outcomes.
1) The EU7 aggregate comprises the seven non-euro area EU Member States that joined the EU in 2004 or 2007.
2) The EU10 aggregate comprises the ten non-euro area EU Member States as at 31 December 2011.

The United Kingdom continued to record a very large deficit, estimated at 9.4% of GDP, owing to a significantly less favourable macroeconomic environment than previously expected. Overall, in most countries, the fiscal outcomes for 2011 were in line with the targets contained in the April 2011 convergence programmes. The improvements in budget balances in 2011 were mainly due to structural fiscal consolidation (including in Latvia and Romania, which were under EU-IMF programmes), as well as positive cyclical developments (in Hungary and Sweden). Only Denmark recorded a worsening fiscal balance in 2011.

At the end of 2011 all non-euro area EU Member States apart from Sweden were subject to an EU Council decision on the existence of an excessive deficit. Deadlines to correct the excessive deficit situation were set at 2011 for Bulgaria and Hungary, at 2012 for Latvia, Lithuania, Poland and Romania, at 2013 for the Czech Republic and Denmark, and at (financial year) 2014/15 for the United Kingdom.

The gross general government debt-to-GDP ratios are estimated to have increased in 2011 in all non-euro area EU Member States, apart from Lithuania, Hungary and Sweden. The decline in the government debt ratio in Hungary was exclusively due to the aforementioned partial use of assets of the former private pension pillar to redeem government debt. The debt-to-GDP ratio remained above the 60% reference value in Hungary and the United Kingdom.

BALANCE OF PAYMENTS DEVELOPMENTS

In 2011 the combined current and capital account balances of the non-euro area EU Member States (as a percentage of GDP) either improved or remained broadly unchanged in most countries (see Table 10). Bulgaria registered its first combined current and capital account surplus since EU accession, while the surplus increased in Hungary. In Romania the deficit shrank. Latvia and Lithuania continued to record surpluses, but despite buoyant exports these surpluses were smaller than in 2010. This largely reflected higher import

Table 10 Balance of payments of the non-euro area EU Member States and the euro area

(as a percentage of GDP)

	Current and capital account balance				Net direct investment flows				Net other investment flows			
	2008	2009	2010	2011 1)	2008	2009	2010	2011 1)	2008	2009	2010	2011 1)
Bulgaria	-22.3	-7.6	-0.5	2.2	17.5	7.2	4.4	2.9	17.0	-2.0	-3.0	-4.6
Czech Republic	-1.4	-1.0	-2.2	-2.2	0.9	1.0	2.6	0.8	1.7	-1.4	-1.8	2.1
Denmark	2.9	3.3	5.6	6.9	-3.3	-0.8	-3.5	-2.3	2.1	3.8	4.1	-11.2
Latvia	-11.6	11.1	4.9	1.3	3.0	0.6	1.5	5.1	7.6	-9.8	-1.1	-3.6
Lithuania	-11.1	7.8	4.2	3.2	3.4	-0.4	1.8	2.9	5.8	-10.7	-9.0	-2.5
Hungary	-6.3	1.0	2.9	3.0	2.7	-0.2	0.4	-0.3	16.9	9.2	0.4	-2.7
Poland	-5.4	-2.2	-2.8	-2.7	2.0	1.9	0.7	1.2	6.0	3.1	2.0	0.8
Romania	-11.1	-3.6	-4.3	-4.2	6.7	3.0	1.8	0.7	6.5	2.3	4.9	1.9
Sweden	8.6	6.9	6.5	7.4	1.2	-3.9	-5.6	-4.9	9.4	-9.9	-9.0	-7.1
United Kingdom	-1.3	-1.5	-3.1	-2.7	-2.6	1.2	0.9	-1.5	-9.8	-3.0	0.0	10.0
EU7 2)	-6.8	-1.4	-1.7	-1.6	3.4	1.8	1.4	1.1	7.1	1.8	0.9	0.2
EU10 3)	-1.4	-0.2	-1.0	-0.5	-0.7	0.7	0.0	-1.3	-2.5	-1.9	-0.5	3.8
Euro area	-0.2	-0.4	-0.2	-0.5	-1.2	-0.6	-0.8	0.3	-1.9	-0.6	-2.8	-3.1

Source: ECB.
1) Data for 2011 refer to the four-quarter average up to the third quarter of 2011.
2) The EU7 aggregate comprises the seven non-euro area EU Member States that joined the EU in 2004 or 2007.
3) The EU10 aggregate comprises the ten non-euro area EU Member States as at 31 December 2011.

demand, boosted by strong GDP growth, and a deterioration in the income account. In Poland and the Czech Republic, which had entered the global financial crisis with smaller deficits, the combined current and capital account balance did not move significantly. Meanwhile, the deficit in the United Kingdom narrowed, whereas the sizeable surpluses in Denmark and Sweden widened further.

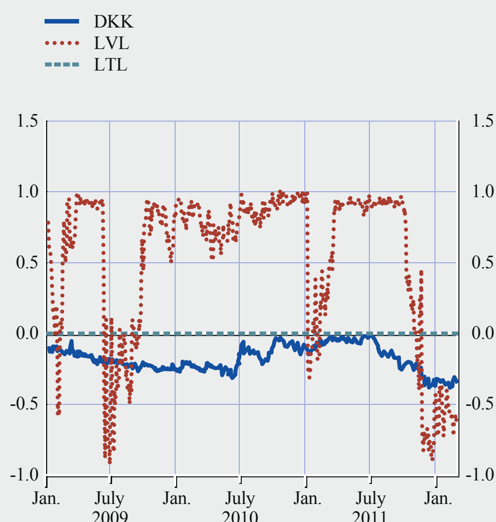
On the financing side, foreign direct investment inflows moderated in 2011 in most of the non-euro area countries that joined the EU in 2004 or later. The United Kingdom became a net exporter of direct investment, while Denmark and Sweden posted further net outflows. Denmark and Hungary received large portfolio investment inflows, while marked outflows were observed for Latvia and the United Kingdom. Turning to other investment, many countries continued to experience net outflows or reduced net inflows in 2011, which was probably related to ongoing deleveraging. Private capital inflows in Latvia and Romania continued to be supplemented by financial support provided by international organisations.

EXCHANGE RATE DEVELOPMENTS

Exchange rate developments in the non-euro area EU Member States in 2011 were strongly influenced by the exchange rate regimes of the individual countries. The currencies of Denmark, Latvia and Lithuania participated in the exchange rate mechanism II (ERM II). The Latvian lats and the Lithuanian litas were subject to a standard fluctuation band of ±15% around their central rates against the euro, and the Danish krone was subject to a narrower band of ±2.25% (see Chart 27). ERM II participation was, in some cases, accompanied by unilateral commitments on the part of the countries concerned to maintain narrower fluctuation bands or currency board regimes. These unilateral commitments place no additional obligations on the ECB. In particular, the Lithuanian litas joined ERM II with its existing currency board arrangement in place, while the Latvian authorities decided to maintain the exchange rate of the lats at its central rate against the euro with a fluctuation band of ±1%. During 2011 the Lithuanian litas stayed at its central rate, while the Latvian lats fluctuated within the unilaterally set band of ±1% vis-à-vis the euro.

Chart 27 Developments in ERM II EU currencies

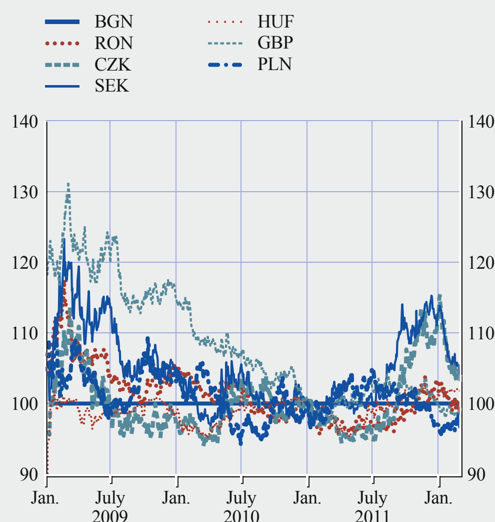
(daily data, deviation from the central parity in percentage points)



Source: ECB.
Notes: A positive (negative) deviation from the central rate against the euro implies that the currency is on the weak (strong) side of the band. For the Danish krone, a fluctuation band of ±2.25% applies. For the other currencies, the standard fluctuation band of ±15% applies. The latest observation is for 2 March 2012.

Chart 28 Developments in non-ERM II EU currencies vis-à-vis the euro

(daily data; index: 3 January 2011 = 100)



Source: ECB.
Notes: An increase (decrease) indicates a depreciation (appreciation) of the currency. The latest observation is for 2 March 2012.

Turning to the currencies of the non-euro area EU Member States that did not participate in ERM II in 2011, two phases of exchange rate developments can be identified. In the first half of the year the Czech koruna, Hungarian forint and Romanian leu moderately appreciated and the Polish zloty remained broadly stable against the euro (see Chart 28). These developments primarily reflected a favourable economic outlook for the countries in question and improving sentiment in the euro area, which is these countries' main trading partner. In the second half of 2011, however, increasing global risk aversion contributed to a depreciation of those currencies against the euro. In Hungary, the weakening of the forint took place against the backdrop of renewed concerns about central bank independence and the interruption of the talks between the IMF and the EU and the Hungarian government about a new precautionary loan agreement (see also Box 9). The opposite pattern of exchange rate movements was observed for the pound sterling, which depreciated against the euro in the first half of 2011, before appreciating strongly later in the year. Following a sharp appreciation of the Swedish krona against the euro in 2009 and 2010, influenced by the strong recovery of the Swedish economy, the krona remained broadly stable in 2011. The Bulgarian lev also remained unchanged against the euro, reflecting its euro-based currency board arrangement.

FINANCIAL DEVELOPMENTS

Financial market conditions generally worsened in the non-euro area EU Member States in the course of 2011. While long-term interest rates, as measured by ten-year government bond yields, declined or remained broadly unchanged in all countries except Hungary and Lithuania, credit risk premia as measured by credit default swaps (CDSs) increased in all countries. The largest CDS increases were observed in Hungary. In addition to country-specific factors, the broad-based rise in sovereign risk premia was driven by higher investor risk aversion related

to the reintensification of financial turbulence in the euro area. Turning to money markets, interest rates increased in all non-euro area EU Member States except Bulgaria, the Czech Republic, Denmark and Romania, partly owing to increases in policy rates.

Stock markets in the non-euro area EU Member States generally fell significantly in 2011, on average to an extent comparable to the euro area (a fall of approximately 20%). The least severe stock price declines were observed in the United Kingdom, followed by Denmark, while the worst-affected market was the Czech Republic, followed by Bulgaria.

MONETARY POLICY

The primary objective of monetary policy in all non-euro area EU Member States is price stability. Monetary policy strategies, however, continued to differ considerably from country to country (see Table 11).

Until July 2011 many non-euro area EU central banks, including Danmarks Nationalbank, the Magyar Nemzeti Bank, Narodowy Bank Polski and Sveriges Riksbank, increased their key policy rates in several steps to counteract expected inflationary pressures or, in the case of Denmark, to mirror the ECB interest rate move. As economic prospects deteriorated in the second half of the year, the key policy rate was lowered in November and December by Danmarks Nationalbank in line with the cut in the key ECB interest rates. In November 2011 and January and February 2012 Banca Națională a României also cut its key policy rate in view of more favourable inflation developments. By contrast, the Magyar Nemzeti Bank raised its base rate further in November and December 2011 to contain the depreciation of the forint, which threatened to cause an overshooting of the inflation target and increased the vulnerability of the financial system.

Table 11 Official monetary policy strategies of the non-euro area EU Member States

	Monetary policy strategy	Currency	Features
Bulgaria	Exchange rate target	Bulgarian lev	Exchange rate target: peg to the euro at BGN 1.95583 per euro within the framework of a currency board arrangement.
Czech Republic	Inflation target	Czech koruna	Inflation target: 2% ±1 percentage point. Managed floating exchange rate.
Denmark	Exchange rate target	Danish krone	Participates in ERM II with a ±2.25% fluctuation band around a central rate of DKK 7.46038 per euro.
Latvia	Exchange rate target	Latvian lats	Participates in ERM II with a ±15% fluctuation band around a central rate of LVL 0.702804 per euro. Latvia continues with a fluctuation band of ±1% as a unilateral commitment.
Lithuania	Exchange rate target	Lithuanian litas	Participates in ERM II with a ±15% fluctuation band around a central rate of LTL 3.45280 per euro. Lithuania continues with its currency board arrangement as a unilateral commitment.
Hungary	Inflation target	Hungarian forint	Inflation target: 3% ±1 percentage point medium-term target since 2007. Free-floating exchange rate.
Poland	Inflation target	Polish zloty	Inflation target: 2.5% ±1 percentage point (12-month increase in the CPI). Free-floating exchange rate.
Romania	Inflation target	Romanian leu	Inflation target: 3.0% ±1 percentage point for end-2011 and end-2012, and 2.5% ±1 percentage point for the year-end from 2013. Managed floating exchange rate.
Sweden	Inflation target	Swedish krona	Inflation target: 2% increase in the CPI. Free-floating exchange rate.
United Kingdom	Inflation target	Pound sterling	Inflation target: 2% as measured by the 12-month increase in the CPI. In the event of a deviation of more than 1 percentage point, the Governor of the Bank of England is expected to write an open letter on behalf of the Monetary Policy Committee to the Chancellor of the Exchequer. Free-floating exchange rate.

Source: ESCB.
Note: For the United Kingdom the CPI is identical to the HICP.

With regard to other monetary policy measures, Danmarks Nationalbank intervened in the foreign exchange market and cut its current account rate and certificate of deposit rate in several steps in order to keep the exchange rate vis-à-vis the euro stable after capital inflows had intensified during the summer. Banca Națională a României lowered the minimum reserve requirement ratio on foreign currency-denominated liabilities with residual maturities of up to two years from 25% to 20% in order to continue the gradual alignment with ECB standards. In January 2012 Latvijas Banka lowered the reserve ratio for liabilities with maturities of over two years from 3% to 2% and for other liabilities from 5% to 4%, thus creating more favourable conditions for lending. The Bank of England increased the size of its asset purchase programme by GBP 75 billion to a total of GBP 275 billion in October owing to the deterioration in the economic outlook and an increased risk of inflation undershooting the 2% target in the medium term.

The Grossmarkthalle, a listed building, formerly housed Frankfurt's wholesale fruit and vegetable market. It was built between 1926 and 1928 according to the design of Professor Martin Elsaesser, who was Director of Town Planning for the City of Frankfurt am Main at the time. The restoration works on the Grossmarkthalle include removing and replacing the mortar from all the joints of the brick facades of the wing buildings.

The joint profile of the brick facades was one of the Grossmarkthalle's special features. According to the original design, the horizontality of the brick courses was to be accentuated by varying not only the width, but also the colouring, of the joints. Therefore, the horizontal joints were wider and filled with a pale mortar, while the vertical settlement joints were narrower and filled with a dark mortar. The aim of the careful restoration of the joints is to replicate this original feature of the facades.

The restoration works on the eastern wing building were completed in 2011, while those on the western wing building commenced in the spring of that year. All of these restoration works were given the go-ahead by the historic preservation authorities.

CHAPTER 2

CENTRAL BANK OPERATIONS AND ACTIVITIES

1 MONETARY POLICY OPERATIONS, FOREIGN EXCHANGE OPERATIONS AND INVESTMENT ACTIVITIES

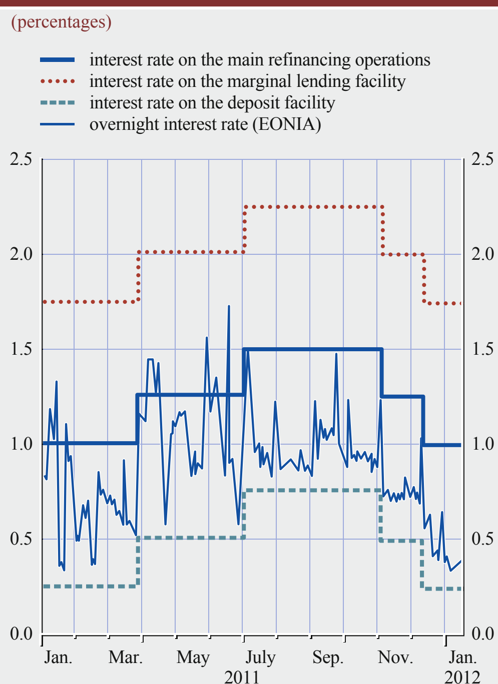
1.1 MONETARY POLICY OPERATIONS

The monetary policy instruments used by the Eurosystem in 2011 comprised open market operations, such as main refinancing operations (MROs), longer-term refinancing operations (LTROs) and fine-tuning operations, as well as standing facilities and minimum reserve requirements. The Eurosystem also made use of non-standard measures, including the second covered bond purchase programme and the Securities Markets Programme.

During 2011 the Governing Council changed the key ECB interest rates on four occasions (see Chart 29). On 13 April 2011 the interest rates on the MROs, the marginal lending facility and the deposit facility were increased by 25 basis points to 1.25%, 2.00% and 0.50% respectively. There was a further 25 basis point increase in all key ECB rates with effect from 13 July. The Governing Council decided to lower the key ECB rates by 25 basis points with effect from 9 November. On 14 December all key rates were lowered by a further 25 basis points, bringing them back to the levels at which they started the year (i.e. 1.00%, 1.75% and 0.25% respectively). The width of the interest rate corridor was kept at 150 basis points (75 basis points either side of the fixed rate of the MROs).

Chart 29 ECB interest rates and the overnight interest rate

(percentages)



Source: ECB.

The implementation of monetary policy during 2011 was again driven by the Eurosystem's efforts to address the tensions in some segments of the financial markets and the impairment of the monetary policy transmission mechanism. Full allotment and fixed rate tender procedures continued to apply to the MROs and LTROs. As a consequence, the outstanding volume of refinancing operations continued to be driven by the demand from counterparties, thereby reflecting their underlying liquidity preferences. The banking system's demand for liquidity from the Eurosystem was relatively stable at a level of around €600 billion during the first half of 2011, but increased sharply in the second half, reaching more than €1 trillion by the end of the year (see Chart 31).

In 2011[1] the average daily liquidity needs of the euro area banking system amounted to €470 billion, which was 16% lower than in 2010. The main reason for the decrease was the decline in autonomous factors[2], by 25%, to €260 billion on average (see Chart 30). Minimum reserve requirements slightly decreased on average in 2011, to €208 billion, compared with €212 billion in 2010. The average monthly amount of excess reserves in 2011 stood at €2.53 billion, which was higher than in previous years (€1.26 billion in 2010 and €1.03 billion in 2009).

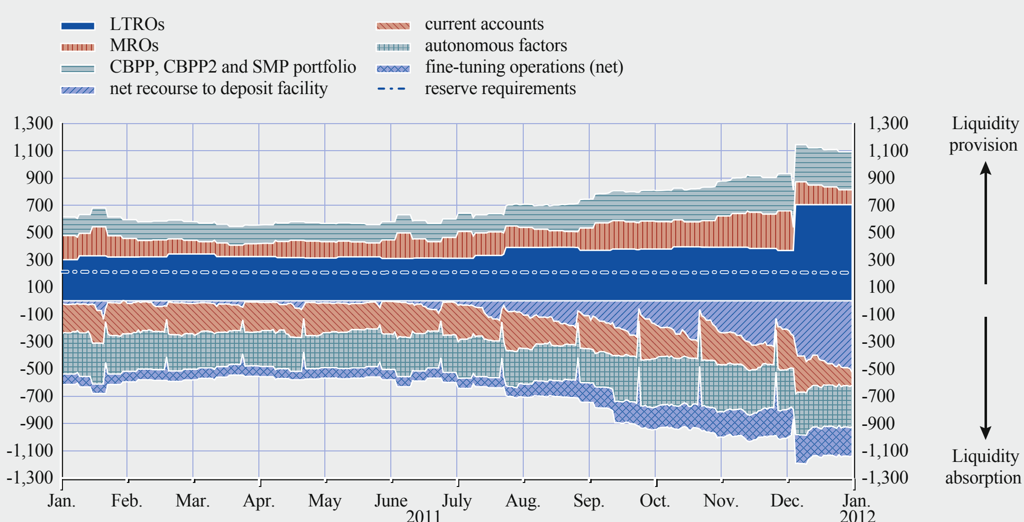
The large amount of excess liquidity (i.e. the difference between the liquidity provided by

1 This period covers the full 12 maintenance periods of 2011, from 19 January 2011 to 17 January 2012.

2 Autonomous factors are those items on the Eurosystem's balance sheet, such as banknotes in circulation and government deposits, which have an impact on credit institutions' current account holdings, but are not under the direct control of the ECB's liquidity management function.

Chart 30 Liquidity factors in the euro area in 2011

(EUR billions)



Source: ECB.

the Eurosystem and the liquidity needs of the banking system) resulted in a marked increase in the use of the deposit facility. The average daily use of the deposit facility stood at around €25 billion in the first half of 2011, and steadily increased from €87 billion on 1 August to €528 billion at the end of the 12th maintenance period of 2011.

OPEN MARKET OPERATIONS

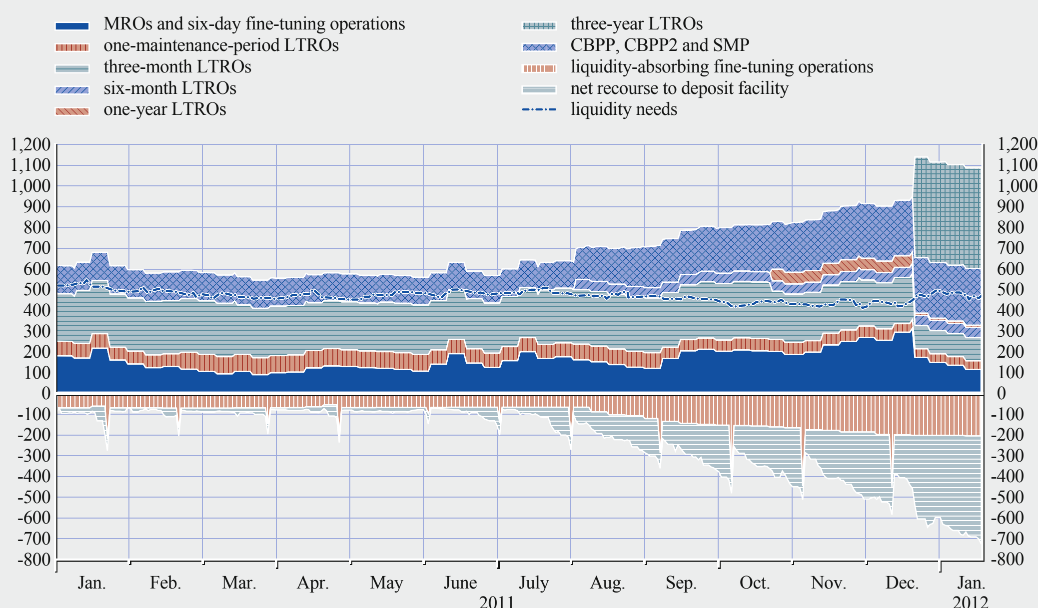
The Eurosystem currently uses MROs, regular LTROs, special-term refinancing operations with a maturity of one maintenance period, supplementary LTROs and fine-tuning operations to manage the liquidity situation in the money market. All liquidity-providing operations have to be fully collateralised.

MROs are regular operations with a weekly frequency and normally have a maturity of one week. They are the main instrument for signalling the ECB's monetary policy stance. In 2011 all 52 MROs were conducted as fixed rate tender procedures in which all bids were satisfied. The number of eligible counterparties increased to 2,319 in 2011, from 2,267 in 2010. On average, 190 counterparties participated in the MROs in 2011. The average volume allotted in the MROs was €156 billion (compared with €133.8 billion in 2010), whereby the average allotment in the first half of the year was about 42% lower than during the second half. In 2011 the lowest number of counterparties (126) to participate in an MRO was recorded in the operation that was settled on 7 September, and the lowest MRO volume (€84.5 billion) was allotted in the operation that was settled on 6 April. The highest participation (371) was observed on 2 February, while the highest allotment amount (€291.6 billion) was recorded on 14 December.

In 2011 the daily average outstanding volume of liquidity allotted in the regular three-month LTROs, special-term refinancing operations and supplementary LTROs was €373 billion. Participation in the regular three-month LTROs averaged €72.7 billion and remained volatile throughout 2011, ranging from a minimum of €29.7 billion allotted in December to a maximum of €140.6 billion allotted in September. The average volume allotted in the one-month special-term refinancing operations was €66.8 billion and the average number of participating counterparties was 47. In the six-month LTRO settled on 11 August, 114 counterparties participated for

Chart 31 Outstanding volume of monetary policy operations

(EUR billions)



Source: ECB.

a total amount of €49.8 billion. Lastly, in the three-year supplementary LTRO[3] which was settled on 22 December, 523 counterparties participated for a total amount of €489.2 billion, which included €45.7 billion that was moved from the 12-month supplementary LTRO allotted in October 2011. A total of 123 counterparties made use of the possibility to shift between operations, whereas 58 decided to keep their borrowing in the 12-month supplementary LTRO, which thereafter had a remaining outstanding amount of €11.2 billion.

In addition to the open market operations used for the implementation of monetary policy, the ECB can also provide eligible counterparties with liquidity in other currencies (see Section 1.2).

SECURITIES MARKETS PROGRAMME

The Governing Council decided in May 2010 to establish the Securities Markets Programme (SMP). The objective of this temporary programme is to address the malfunctioning of certain euro area debt securities market segments and to restore an appropriate monetary policy transmission mechanism. The programme is implemented by Eurosystem portfolio managers carrying out purchases of certain euro area sovereign debt securities in market interventions. In 2011 a total amount of €144.6 billion of securities was purchased under the SMP, with the bulk of the purchases being made in the period between the statement of the President of the ECB on 7 August 2011 on the active implementation of the SMP and the end of the year. By 30 December 2011 the Eurosystem had purchased securities under the SMP with a total settlement amount of around €211.4 billion.[4]

3 The rate of this LTRO is fixed at the average rate of the MROs over its lifetime. After one year (i.e. starting on 26 December 2012), counterparties will have the possibility to redeem on a weekly basis (i.e. every Wednesday) the funds (or a part thereof) borrowed.

4 More information on the SMP can be found in the ECB's press release of 10 May 2010, in the ECB's Decision of 14 May 2010 establishing a securities markets programme, and in the weekly financial statements of the Eurosystem.

THE SECOND COVERED BOND PURCHASE PROGRAMME

On 6 October 2011 the Governing Council decided to launch a new covered bond purchase programme, CBPP2. This programme was launched with a view to easing funding conditions for banks and companies and encouraging banks to maintain or expand lending to their customers. It allows the Eurosystem to purchase eligible euro-denominated covered bonds issued in the euro area for an intended nominal amount of €40 billion. The purchases are conducted in both the primary and secondary markets on the basis of certain qualifying criteria. The programme is expected to be fully implemented by the end of October 2012 at the latest. By 30 December 2011 covered bonds in the amount of €3.1 billion had been purchased. The Governing Council also decided to make the CBPP2 portfolio available for securities lending. Lending is voluntary and conducted through securities lending facilities offered by central securities depositories, or via matched repurchase transactions with eligible counterparties.

The previous covered bond purchase programme (the CBPP) was completed in 2010. Under this programme, a nominal amount of €60 billion was purchased over a one-year period from 1 July 2009 to 30 June 2010. Since March 2010 the securities held under this programme have been made available for securities lending on demand to eligible counterparties against eligible collateral. While this lending activity has remained limited in terms of amounts, it is considered useful for a proper market functioning that the securities held under the programme are in principle available for lending.

FINE-TUNING OPERATIONS

In order to absorb the liquidity injected through the SMP, the ECB conducted weekly liquidity-absorbing fine-tuning operations to collect one-week fixed-term deposits for a weekly amount corresponding to the size of the SMP operations settled up to the previous Friday. These fine-tuning operations were carried out as variable rate tender procedures with a maximum bid rate equal to the prevailing MRO rate. Moreover, the ECB conducted fine-tuning operations to counter the liquidity imbalance on the last day of the maintenance periods. 12 liquidity-absorbing operations were conducted, with a one-day maturity, as variable rate tender procedures with a maximum bid rate equal to the fixed rate on the MROs. On average, €154 billion was absorbed via these operations, with 136 counterparties participating. Since 14 December 2011 the fine-tuning operations on the last day of the maintenance period have been temporarily discontinued. In relation to the three-year LTRO, €141.9 billion was provided via a one-day liquidity-providing fine-tuning operation which was settled on 21 December 2011.

STANDING FACILITIES

Counterparties can use the two standing facilities on their own initiative to obtain overnight liquidity against eligible collateral or to place overnight deposits with the Eurosystem. At the end of 2011 2,605 counterparties had access to the marginal lending facility and 2,976 counterparties had access to the deposit facility. The use of the deposit facility remained at high levels, in particular during the second half of 2011, with a peak of €452 billion on 27 December 2011, which was followed by even higher usage of €528 billion on 17 January 2012. The average daily use of the deposit facility was €120 billion (compared with €145.9 billion in 2010 and €109 billion in 2009). In 2011 use of the deposit facility followed a broadly similar pattern during each reserve maintenance period: the deposit facility amounts were lower at the beginning of each period, but increased subsequently as more counterparties fulfilled their reserve requirements. The average daily recourse to the marginal lending facility was €2.1 billion (compared with €0.62 billion in 2010).

MINIMUM RESERVE SYSTEM

Credit institutions in the euro area are required to hold minimum reserves on current accounts with the Eurosystem. In 2011, as has been the case since 1999, the minimum reserve requirements were equal to 2% of credit institutions' reserve base and amounted to €208 billion on average, which was 2% lower than in 2010. As the Eurosystem remunerates reserve holdings at a rate corresponding to the MRO rate, the minimum reserve system does not impose a tax on the banking sector. In view of the full allotment policy applied in the MROs in 2011, the Governing Council considered that the minimum reserve system did not need to be applied to the same extent as under normal circumstances to steer money market conditions. On 8 December the Governing Council thus decided to reduce the reserve ratio to 1% as of the reserve maintenance period starting on 18 January 2012 in order to support bank lending and liquidity in the euro area money market.

ELIGIBLE ASSETS FOR CREDIT OPERATIONS

As required by Article 18.1 of the Statute of the ESCB, and in line with central bank practice worldwide, all credit operations of the Eurosystem are based on adequate collateral. The concept of adequacy implies that the Eurosystem is to a large extent protected from incurring losses in its credit operations (see below for more details on risk management issues).

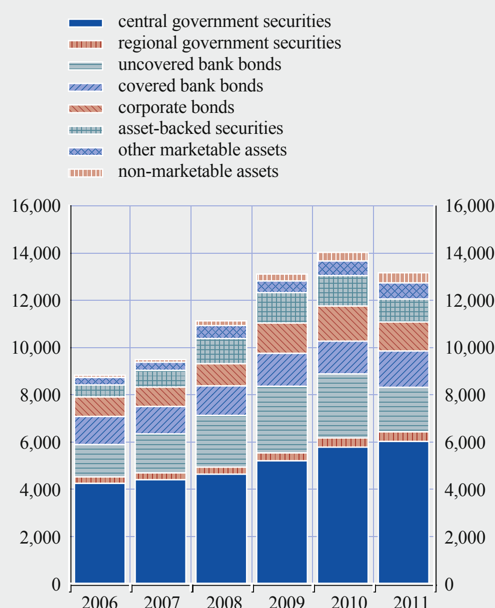
The Eurosystem accepts a broad range of assets as collateral in all its credit operations. This feature of the Eurosystem's collateral framework, together with the fact that access to Eurosystem open market operations is granted to a large pool of counterparties, has been key in supporting the implementation of monetary policy in times of stress. The inbuilt flexibility of its operational framework has allowed the Eurosystem to provide the necessary liquidity to address the impaired functioning of the money market during the financial crisis, without counterparties encountering widespread collateral constraints.

Since 1 January 2011 fixed-term deposits have been accepted as eligible collateral in the Eurosystem's standard framework. However, these instruments had already been accepted as eligible collateral, following the temporary expansion of the list of eligible collateral in 2008. In addition, at its meeting on 8 December 2011, the Governing Council decided, in connection with other non-standard monetary policy measures, to increase collateral availability.

In 2011 the average amount of eligible collateral was €13.2 trillion, a 6% decrease compared with 2010 (see Chart 32). This development was related in particular to a significant decrease in uncovered bank bonds, mainly owing to the expiry of some of the state guarantees on unsecured bank bonds, as well as in asset-backed securities (ABSs), which was largely attributable to tighter rating requirements implemented as of 1 March 2011. Central government securities, which amounted to €6 trillion, accounted for 46% of total eligible collateral, followed by uncovered bank bonds (€1.9 trillion, or 14%) and covered bank bonds (€1.5 trillion, or 12%).

Chart 32 Eligible collateral by asset type

(EUR billions; annual average)



Source: ECB.

As well as marketable collateral, eligible collateral includes non-marketable assets, mostly credit claims (also referred to as bank loans). In contrast to the situation for marketable assets, the volume of potentially eligible non-marketable assets cannot easily be measured. The deposited amount of non-marketable assets reached €0.4 trillion in 2011.

The average amount of collateral put forward by counterparties decreased to €1,790 billion in 2011, from €2,010 billion in 2010 (see Chart 33). At the same time, the average amount of outstanding credit also decreased, by approximately €137 billion compared with the previous year, partly as a result of the expiry of one-year LTROs towards the end of 2010. Consequently, the share of deposited collateral not used to cover credit from monetary policy operations increased during 2011, whereas the absolute amount decreased slightly. This suggests that, at least at the aggregate level, the Eurosystem's counterparties experienced no shortage of collateral.

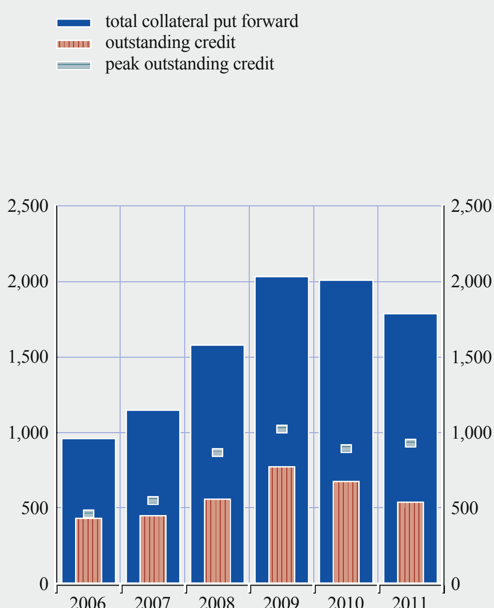
As regards the composition of collateral put forward (see Chart 34), non-marketable assets (mostly credit claims and fixed-term deposits) became the largest component in 2011, accounting for 23% of the total (compared with 18% in 2010). Mirroring developments in total eligible collateral, the shares of ABSs and uncovered bank bonds decreased. By contrast, also owing to the sovereign debt crisis in some euro area countries, the average share of central government bonds increased slightly from 13% in 2010 to 14% in 2011.

RISK MANAGEMENT ISSUES RELATED TO CREDIT OPERATIONS

In the implementation of monetary policy operations, the Eurosystem is exposed to

Chart 33 Collateral put forward in Eurosystem credit operations versus outstanding credit in monetary policy operations

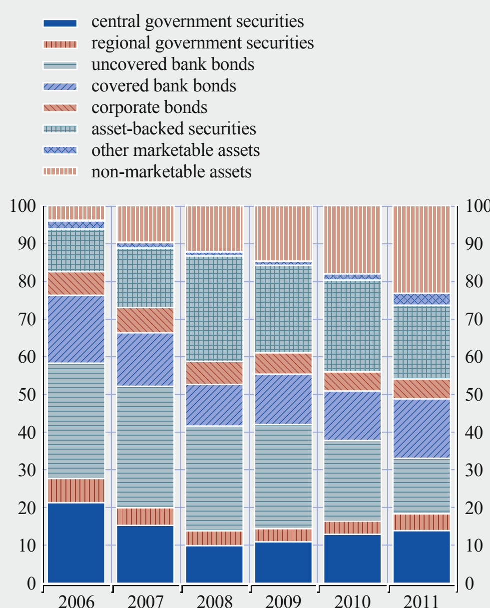
(EUR billions)



Source: ECB.
Note: "Collateral put forward" refers to assets deposited as collateral in countries operating a pooling system and assets used as collateral in countries operating an earmarking system.

Chart 34 Breakdown of assets (including credit claims) put forward as collateral by asset type

(percentages; annual averages)



Source: ECB.

the risk of counterparty default. This risk is mitigated by requiring counterparties to submit adequate collateral. However, in the event of a counterparty default, the Eurosystem would also be exposed to credit, market and liquidity risks associated with the resolution of collateral assets. In addition, liquidity-providing operations in foreign currencies against euro-denominated collateral also entail currency risk. In order to reduce all these risks to acceptable levels, the Eurosystem maintains high credit standards for assets accepted as collateral, valuates collateral on a daily basis and applies appropriate risk control measures. The establishment, as an independent business area, of the Risk Management Office, together with the continued work of the Risk Management Committee, has further contributed to enhancing risk management practices within the ECB and the Eurosystem (see also Section 1.6 of Chapter 7).

As a matter of prudence, the Eurosystem has established a buffer against potential shortfalls resulting from the eventual resolution of collateral received from defaulted counterparties. The level of the buffer is reviewed annually, pending the eventual disposal of the received collateral and in line with the prospect of recovery. More generally, financial risks in credit operations are quantified at the Eurosystem level and regularly reported to the ECB's decision-making bodies.

In 2011 the ECB made a number of adjustments to its eligibility criteria and risk control framework.

Following the decision of the Governing Council of 28 July 2010, the new "haircut" schedule resulting from the biennial review of the Eurosystem risk control measures entered into force on 1 January 2011.

On 18 February 2011 the Governing Council approved the rating tool of Coface Serviços Portugal, S.A. for use within the Eurosystem Credit Assessment Framework (ECAF).

On 31 March 2011 the Governing Council decided to suspend the application of the minimum credit rating eligibility requirement for marketable debt instruments issued or guaranteed by the Irish government. On 7 July 2011 the Governing Council decided to adopt the same treatment for marketable debt instruments issued or guaranteed by the Portuguese government. The decisions followed the positive assessment of the economic and financial adjustment programmes adopted by the Irish and Portuguese governments, negotiated with the European Commission, in liaison with the ECB and the IMF, and were taken on the basis of the strong commitments of the respective governments to fully implement the programmes.

Following the Governing Council decision announced on 16 December 2010 to establish loan-by-loan information requirements for ABSs in the Eurosystem collateral framework, starting with residential mortgage-backed securities, the ECB announced on 29 April 2011 its intention to introduce, within the next 18 months, these requirements also for commercial mortgage-backed securities and small and medium-sized enterprise (SME) transactions accepted in the Eurosystem collateral framework. The provision of loan-by-loan information will become an eligibility requirement upon the entry into force of the obligation to submit loan-level data.

In the context of the measures to support bank lending and money market activity announced on 8 December 2011, the Governing Council decided to increase collateral availability by: i) reducing the rating threshold of two "triple A" ratings at issuance for certain ABSs and ii) allowing NCBs, as a temporary solution, to accept as collateral additional performing credit claims (i.e. bank loans) that satisfy specific eligibility criteria. The Eurosystem included, among the assets eligible for use as collateral in credit operations, ABSs having a second-best rating of at least "single A" in the Eurosystem's

harmonised credit scale at issuance and at all times subsequently and with underlying assets comprising either residential mortgages only or loans to SMEs only. The ABSs must also fulfil all other specific eligibility requirements, except for the rating requirement.

Furthermore, the Governing Council announced its support for the wider use of credit claims as collateral in the Eurosystem's credit operations on the basis of harmonised criteria, together with the aim of enhancing the Eurosystem's internal credit assessment capabilities. In addition, potential external credit assessment providers (rating agencies and providers of rating tools), together with commercial banks that use an internal ratings-based system, were encouraged to seek Eurosystem endorsement within the ECAF.

1.2 FOREIGN EXCHANGE OPERATIONS AND OPERATIONS WITH OTHER CENTRAL BANKS

In 2011 the Eurosystem undertook one intervention in the foreign exchange markets. In response to the movements in the exchange rate of the yen associated with the natural disaster in Japan, and at the request of the Japanese authorities, the authorities of the United States, the United Kingdom and Canada, as well as the ECB, joined Japan, on 18 March, in a concerted intervention in foreign exchange markets. The ECB did not undertake any foreign exchange operations in the currencies that participate in ERM II. The standing agreement between the ECB and the IMF to facilitate the initiation of special drawing right (SDR) transactions by the IMF on behalf of the ECB with other SDR holders was activated on five occasions in 2011.

The temporary liquidity swap line which the ECB established with the Federal Reserve System in 2007, which was reactivated in May 2010 to counter strains in the European US dollar funding markets, was extended twice in 2011, on the last occasion until 1 February 2013. In close cooperation with other central banks, the Eurosystem provided US dollar funding to counterparties against eligible collateral in operations which took the form of repurchase agreements and were carried out as fixed rate tender procedures with full allotment. In addition to these regular weekly seven-day operations, the Governing Council decided on 15 September 2011, in coordination with the Federal Reserve, the Bank of England, the Bank of Japan and the Swiss National Bank, to conduct three US dollar liquidity-providing operations with a maturity of approximately three months covering the end of the year. In 2011 the Eurosystem conducted 50 operations with a seven-day maturity, as well as one 14-day operation at year-end and four 84-day operations. In 27 operations no bids were submitted by counterparties. On 30 November the ECB, the Bank of England, the Bank of Japan and the Swiss National Bank decided to continue to offer three-month tenders until further notice. This decision was taken as part of coordinated actions by these four central banks, as well as the Federal Reserve System and the Bank of Canada, to enhance their capacity to provide liquidity support to the global financial system. The purpose of these actions was to ease strains in financial markets and thereby mitigate the effects of such strains on the supply of credit to households and businesses and so help foster economic activity. One of these actions was the decision of the ECB, in cooperation with the other central banks, to establish a temporary network of reciprocal swap lines. This action enables the Eurosystem to provide euro to those central banks when required, as well as enabling the Eurosystem to provide liquidity, should it be needed, in Japanese yen, pounds sterling, Swiss francs and Canadian dollars (in addition to the existing operations in US dollars). The establishment of temporary bilateral liquidity swap arrangements among these central banks was agreed as a contingency measure so that liquidity could be provided in each jurisdiction in any of their currencies, should market conditions so warrant. These swap lines are authorised until 1 February 2013.

On 25 August 2011 the Governing Council decided, in agreement with the Bank of England, to extend the liquidity swap arrangement with the Bank of England up to 28 September 2012. The swap facility agreement of 17 December 2010 had been authorised until the end of September 2011. Under this facility, the Bank of England can provide, if necessary, up to GBP 10 billion to the ECB in exchange for euro. The agreement allows pounds sterling to be made available to the Central Bank of Ireland as a precautionary measure, for the purpose of meeting any temporary liquidity needs of the banking system in that currency.

In the week ending 30 December 2011 liquidity-providing repurchase transactions of €1.5 billion were outstanding. These transactions were conducted by the ECB in connection with liquidity arrangements in place with central banks outside the euro area.

1.3 INVESTMENT ACTIVITIES

The ECB invests the funds related to its foreign reserve portfolio as well as its own funds. These investment activities, which are separate from monetary policy programmes such as the SMP and CBPP2, are organised in such a way as to ensure that no inside information about central bank policy actions may be used when making investment decisions (i.e. there is a "Chinese wall"). Should inside information be passed on, be it on purpose or not, the ECB's investment activities may be suspended in full or in part, which means that the compositions of the ECB's investment portfolios compared with their respective benchmarks are not allowed to change.

FOREIGN RESERVE MANAGEMENT

The ECB's foreign reserve portfolio was originally set up through transfers of foreign reserve assets from the euro area NCBs. Over time, the composition of the portfolio reflects changes in the market value of the invested assets, as well as foreign exchange and gold operations of the ECB. The main purpose of the ECB's foreign reserves is to ensure that, whenever needed, the Eurosystem has a sufficient amount of liquid resources for its foreign exchange policy operations involving non-EU currencies. The objectives for the management of the ECB's foreign reserves are, in order of importance, liquidity, security and return.

The ECB's foreign reserve portfolio consists of US dollars, Japanese yen, gold and SDRs. The US dollar and Japanese yen reserves are actively managed by the ECB and those euro area NCBs that wish to take part in this activity as agents for the ECB. Since January 2006 a "currency specialisation model" has been in operation to increase the efficiency of the ECB's investment operations. Under this scheme, each NCB which wishes to be involved in ECB foreign reserve management, or group of NCBs acting jointly for this purpose, is as a rule allocated a share in the US dollar or the Japanese yen portfolio.[5]

The value of the ECB's net foreign reserve assets[6] at current exchange rates and market prices increased from €60.6 billion at end-2010 to €65.6 billion at end-2011, of which €45.3 billion was in foreign currencies and €20.3 billion was in gold and SDRs. The increase in the value of the foreign reserve portfolio reflected an 8% appreciation of the Japanese yen against the euro, along with positive contributions from the capital gains and interest income generated by portfolio management activities; however, this increase was largely offset by the foreign exchange intervention in March (see Section 1.2). Applying the exchange rates of end-2011, US dollar-denominated assets represented 76% of the foreign currency reserves, while those denominated in Japanese yen accounted for 24%. The value of gold and SDR holdings increased by approximately 16%. This increase was mostly due to the appreciation of gold by around 11% in 2011 (as measured in

5 For more details, see the article entitled "Portfolio management at the ECB", *Monthly Bulletin*, ECB, April 2006.

6 Net foreign reserve assets are calculated as official reserve assets excluding the net, marked-to-market value of foreign currency swaps, plus deposits in foreign currency with residents, minus future predetermined net drains on foreign currency holdings owing to repurchase and forward transactions. For detailed information on the data sources, see the ECB's website.

euro terms). The ECB's gold holdings increased at the start of 2011 when Eesti Pank transferred its share of gold to the ECB as part of its transfer of foreign reserve assets to the ECB.

In 2011 the list of eligible instruments in which the ECB's foreign reserve portfolio can be invested was unchanged.

OWN FUNDS MANAGEMENT

The ECB's own funds portfolio consists of the invested counterpart of the ECB's paid-up capital, as well as amounts held in its general reserve fund and its provision against foreign exchange rate, interest rate, credit and gold price risks. The purpose of this portfolio is to provide the ECB with income to help cover its operating expenses. The objective of its management is to maximise expected returns, subject to a no-loss constraint at a certain confidence level. The portfolio is invested in euro-denominated fixed income assets.

The value of the portfolio at current market prices grew from €13.3 billion at end-2010 to €15.9 billion at end-2011. The increase in market value was due to an increase in the ECB's paid-up capital effective on 28 December 2011, an increase in the provision against foreign exchange rate, interest rate, credit and gold price risks and, to a lesser extent, investment returns.

In 2011 the list of eligible instruments in which the ECB's own funds portfolio can be invested was unchanged.

To comply with the strict Chinese wall in place at the ECB, the implementation of the CBPP2 and the SMP led to a partial freeze in the investment activities related to the ECB's own funds portfolio in 2011.

RISK MANAGEMENT ISSUES RELATED TO INVESTMENT ACTIVITIES AND MONETARY POLICY PORTFOLIOS

The financial risks to which the ECB is exposed in its investment activities and monetary policy portfolios (SMP, CBPP and CBPP2) are closely monitored and measured. For this purpose, a detailed limit structure is in place. The monitoring of limit compliance is performed daily. Furthermore, regular reports ensure that all stakeholders are adequately informed of the level of such risks.

In 2011 the ECB continued to enhance the information technology infrastructure supporting the risk management framework for its investment operations and monetary policy portfolios. This framework now also covers the portfolio of covered bonds purchased by the ECB under the CBPP2.

One of the indicators used to monitor market risk is Value-at-Risk (VaR), which defines the maximum loss for a portfolio of assets in a specified time period with a given probability. The value of this indicator depends on a series of parameters used for the calculation, in particular the confidence level, the length of the time horizon and the sample used to estimate asset price volatility. As an illustration, computing this indicator for the ECB's investment portfolio on 30 December 2011, using as parameters a 95% confidence level, a time horizon of one year, and a sample of one year for asset price volatility, would result in a VaR of €13.08 billion.[7] Computing the same indicator with a five-year instead of a one-year sample would result in a VaR of €12.16 billion. The largest part of this market risk is due to movements in currency and gold prices. The low levels of interest rate risk in the ECB's investment portfolios reflect the fact that the modified duration of these portfolios remained relatively low in 2011.

7 Following the decisions of the Governing Council that the CBPP, CBPP2 and SMP portfolios will be held until maturity, the valuation principle applied to these holdings is amortised cost subject to impairment. Accordingly, the market risk for these portfolios is not included in the estimates.

2 PAYMENT AND SECURITIES SETTLEMENT SYSTEMS

The Eurosystem has the statutory task of promoting the smooth operation of payment systems. Payment systems and securities clearing and settlement systems are fundamental infrastructures that are necessary for the proper functioning of market economies. They are indispensable for the efficient flow of payments for goods, services and financial assets, and their smooth functioning is crucial for the implementation of a central bank's monetary policy and for maintaining the stability of and confidence in the currency, the financial system and the economy in general. For the performance of this task, the Eurosystem applies three approaches: it takes on an operational role, conducts oversight activities and acts as a catalyst (for further details on the second and third of these, see Sections 4 and 5 of Chapter 3). In terms of its operational role, the Eurosystem, according to the Statute of the ESCB, may provide facilities to ensure efficient and sound clearing and payment systems.

2.1 THE TARGET2 SYSTEM

The Eurosystem operates the TARGET2 system for large-value and urgent payments in euro. TARGET2 plays an important role in the execution of the single monetary policy and the functioning of the euro money market. It offers a real-time settlement service in central bank money and broad market coverage. It processes large-value and urgent transactions without any upper or lower limit on the value of payments and has also attracted a variety of other payments. The system is based on a single technical infrastructure, the Single Shared Platform (SSP). Three Eurosystem central banks – the Deutsche Bundesbank, the Banque de France and the Banca d'Italia – jointly provide the SSP and operate it on behalf of the Eurosystem.

By December 2011 TARGET2 had 987 direct participants. The overall number of banks (including branches and subsidiaries) that can be addressed worldwide through TARGET2 reached 54,000. In addition, TARGET2 settled the cash positions of 72 ancillary systems.

TARGET2 OPERATIONS

The TARGET2 system functioned smoothly in 2011 and settled a large number of euro payments. The system's market share remained stable, with 91% of the total value of payments in euro large-value payment systems being executed via TARGET2. In 2011 the system processed a total of 89,565,697 transactions, with a daily average of 348,505 transactions. The total value of TARGET2 traffic in 2011 was €612,936 billion, with an average daily value of €2,385 billion. Table 12 provides an overview of payment traffic in the TARGET2 system in 2011, comparing it with traffic in the previous year.

In 2011 the overall availability[8] of the SSP of TARGET2 reached 99.89%, as one incident on 25 July made the system unavailable for three hours at the beginning of the day. The appropriate contingency procedures were activated on this occasion, allowing the most critical transactions to be settled. At the end of that day, all payments had been processed and TARGET2 closed normally at 6 p.m.

8 The level of availability is the extent to which participants were able to use the TARGET2 system during their business hours without incident.

Table 12 Payment traffic in TARGET2

Value (EUR billions)	2010	2011	Change (%)
TARGET2 overall			
Total	593,194	612,936	3.3
Daily average	2,299	2,385	

Volume (number of transactions)	2010	2011	Change (%)
TARGET2 overall			
Total	88,591,926	89,565,697	1.1
Daily average	343,380	348,505	

Source: ECB.
Note: There were 258 operating days in 2010 and 257 in 2011.

Over the course of the year 99.85% of the payments in the SSP were processed within five minutes. In general, the system's positive performance met with the satisfaction of participants.

COOPERATION WITH TARGET2 USERS

The Eurosystem maintains close relations with TARGET2 users. Regular meetings were held between the NCBs and national TARGET2 user groups in 2011. In addition, joint meetings of the Eurosystem's Working Group on TARGET2 and the TARGET Working Group of the European credit sector associations took place on a quarterly basis to discuss TARGET2 business issues at the pan-European level. An ad hoc group composed of representatives from these two groups was created to address major changes affecting TARGET2, such as the connection of TARGET2-Securities (T2S). Further strategic issues were addressed in the Contact Group on Euro Payments Strategy, a forum composed of senior representatives from commercial and central banks.

MANAGEMENT OF NEW SYSTEM RELEASES

The Eurosystem attaches the greatest importance to the development of TARGET2 in order to further increase the level of service offered and to meet the needs of its participants. In preparation for the connection of T2S to TARGET2, the Eurosystem launched a user consultation in September 2011 on the necessary adaptations in TARGET2. Such adaptations fall within the scope of the Eurosystem's strategy for improving the compliance of TARGET2 with ISO 20022 standards.

On 21 November 2011 the fifth release of the SSP was implemented.[9] The release comprised a limited number of enhancements to the TARGET2 system and the technical implementation of a network which links the participating central banks and gives them direct access to the main TARGET2 services in the event of a global or regional SWIFT outage.

In November 2011 the Eurosystem also finalised the content of the sixth release, which will include a limited number of functional changes with a small impact on TARGET2. For this reason, unanimous agreement was reached with TARGET2 participants that the release would be implemented in 2013 instead of 2012.

COUNTRIES PARTICIPATING IN TARGET2

All euro area countries participate in TARGET2, as its use is mandatory for the settlement of all payment orders related to the Eurosystem's monetary policy operations. Non-euro area EU central banks may connect to the TARGET system on a voluntary basis in order to facilitate the settlement of euro-denominated transactions in these countries. From a legal and business point of view, each central bank is responsible for managing its system component and for maintaining relationships with its participants. In addition, some financial institutions located in other EEA countries participate in TARGET2 via remote access.

24 central banks of the EU and their respective user communities are currently connected to TARGET2: the 17 euro area NCBs, the ECB and six central banks from non-euro area countries[10]. In July 2011 Banca Națională a României and its national user community successfully connected to TARGET2.

2.2 TARGET2-SECURITIES

TARGET2-Securities (T2S) is the future Eurosystem service for securities settlement in central bank money in Europe. The project is currently in the development phase, and the settlement platform is due to go live in June 2015. 30 central securities depositories (CSDs) are presently involved in the project and it is expected that most traded securities in Europe will be settled in T2S, leading to significant economies of scale and very low settlement costs. By removing the distinction

9 The updates introduced in the fifth release were reflected in Guideline ECB/2011/15 of 14 October 2011 amending Guideline ECB/2007/2 on a Trans-European Automated Real-time Gross settlement Express Transfer system (TARGET2).

10 Bulgaria, Denmark, Latvia, Lithuania, Poland and Romania.

between cross-border and domestic settlement, T2S will constitute a major breakthrough in the creation of an integrated capital market for Europe, providing a solid basis for increasing efficiency and competition in the entire post-trading sector. Although T2S is a Eurosystem initiative, it will also settle securities transactions in currencies other than the euro if the relevant central bank, with the support of its market, gives its consent.

In 2011 significant efforts were dedicated to finalising the T2S Framework Agreement, which is the contractual agreement to be signed by the Eurosystem and each CSD that plans to participate in T2S. Following more than two years of negotiations with the CSDs, the Governing Council approved the final version of the agreement in November 2011. CSDs which decide to participate in T2S are expected to sign the agreement at the latest by June 2012. The Eurosystem is offering certain incentives to encourage CSDs to sign in a timely manner and migrate early to T2S.

In parallel with the negotiations with CSDs, the Eurosystem also continued discussions on the Currency Participation Agreement with the non-euro area central banks that had shown interest in allowing their national currencies to be settled in T2S. A task force, which included experts from all interested non-euro area central banks, actively supported the T2S Programme Board in the identification, analysis and resolution of issues related to this agreement. Discussions were completed in January 2012 and the non-euro area central banks were invited to sign the agreement by the end of March 2012, so that CSDs know which currencies are to be settled in T2S before they decide whether to sign the T2S Framework Agreement.

Several CSDs have so far announced that they plan to join T2S in its first migration wave: Monte Titoli (the Italian CSD), BOGS (the CSD for Greek government securities), Depozitarul Central S.A. (the Romanian CSD) and SIX Securities Services (the Swiss CSD). Full functional coverage will thus be ensured from the very start of T2S operations, with the participation of CSDs from within and outside the euro area.

The remaining elements of the T2S price list, in particular the fees for information services and the treatment of markets in which end-investors hold accounts at the CSD, were finalised during 2011. Overall, the T2S price list has remained lean and transparent, while also ensuring that settlement and information service fees charged by T2S closely reflect the costs of those services. The low fees, savings in collateral and liquidity, and harmonised back office procedures offered by T2S will deliver major cost savings to the settlement industry.

The T2S governance arrangements, which determine how decisions on T2S will be made in the future, were agreed with all stakeholders in 2011. The new arrangements will be put in place once the Framework Agreement and Currency Participation Agreement have been signed.

In 2011 the Eurosystem also made important progress on "connectivity" to T2S, i.e. the choice of networks through which market participants and CSDs will be able to send instructions to and receive messages from T2S. T2S will provide the option of connecting to the platform via two value-added network service providers, as well as via a dedicated line providing only basic connectivity services. A tender for the value-added network service providers was launched in July 2011. Several bids were received by the end of September and agreements were signed with the two selected providers in January 2012. For the implementation of the dedicated line, the Eurosystem has chosen to use an existing Eurosystem network, which will be adapted for T2S.

The Eurosystem finalised the user detailed functional specifications, publishing a draft version in May for a public consultation. A stable version was then published in October 2011, taking into account the feedback received. This version can be considered as the basis for the

adaptation of CSD and central bank systems to T2S and can be used by all directly connected participants when they design and build their interfaces with T2S.

Finally, the T2S Programme Board has further strengthened its commitment to post-trade harmonisation. In 2011 a Harmonisation Steering Group, composed of senior-level representatives from the industry and the public sector, was established to make sure that the harmonisation requirements are met in time for the launch of T2S. For further details on T2S harmonisation activities and their impact on European financial integration, see Section 4 of Chapter 3.

2.3 SETTLEMENT PROCEDURES FOR COLLATERAL

A common set of eligible assets may be used to collateralise all types of Eurosystem credit operation, not only at the domestic level but also across national borders. The cross-border mobilisation of collateral in the euro area is conducted mainly via the correspondent central banking model (CCBM) and through eligible links between euro area securities settlement systems (SSSs). Whereas the first solution is provided by the Eurosystem, the latter is a market-led initiative. In addition, cross-border collateral can be mobilised on the accounts of NCBs with a non-domestic (international) CSD on an exceptional basis.

At the end of 2011 the amount of cross-border collateral (including both marketable and non-marketable assets) held by the Eurosystem stood at €731 billion, down from €762 billion at the end of 2010. Overall, at the end of 2011 cross-border collateral represented 29.9% of the total collateral provided to the Eurosystem.

COLLATERAL MANAGEMENT SERVICES

The CCBM remained the main channel for transferring cross-border collateral in Eurosystem monetary policy and intraday credit operations in 2011. Assets held in custody through the CCBM decreased from €507 billion at the end of 2010 to €434 billion at the end of 2011. Cross-border collateral held on accounts of NCBs with a non-domestic (international) CSD on an exceptional basis amounted to €122 billion at the end of 2011.

The CCBM was initially set up in 1999 as an interim solution and, since it builds upon the principle of minimum harmonisation, market participants have called for some improvements. In particular, they have requested that it no longer be necessary to repatriate (marketable) assets from investor CSDs to issuer CSDs before they are mobilised as collateral through the CCBM, and that tri-party collateral management services which are currently only used domestically may also be used on a cross-border basis. The Eurosystem supports the inclusion of these enhancements to the CCBM and is currently working on their incorporation into the framework.

Issues related to euro securities settlement and collateral mobilisation in Eurosystem credit operations are discussed in the Contact Group on Euro Securities Infrastructures, which is a forum for representatives of market infrastructures, market participants and central banks.

ELIGIBLE LINKS BETWEEN NATIONAL SECURITIES SETTLEMENT SYSTEMS

Cross-border collateral can also be mobilised by using links between national SSSs. However, such links are only eligible for Eurosystem credit operations if they meet the Eurosystem's user standards. Once the securities have been transferred to another SSS via eligible links, they can be used through local procedures in the same way as any domestic collateral. The amount of collateral mobilised through direct and relayed links increased from €109 billion at the end of 2010 to €175 billion at the end of 2011.

In 2011 three new eligible links (two direct links and one relayed link) were added to the list of eligible links. In total, there are now 54 direct and 8 relayed links available to counterparties, of which only a limited number are actively used.

3 BANKNOTES AND COINS

In accordance with Article 128 of the Treaty, the Governing Council of the ECB has the exclusive right to authorise the issuance of euro banknotes within the EU. The ECB and the NCBs may issue these banknotes.

3.1 THE CIRCULATION OF BANKNOTES AND COINS

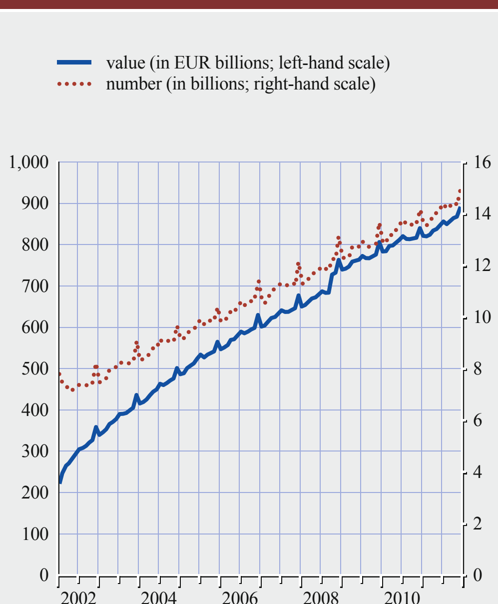
DEMAND FOR EURO BANKNOTES AND COINS

At the end of 2011 there were 14.9 billion banknotes in circulation, with a total value of €888.6 billion. This compares with 14.2 billion banknotes, with a total value of €839.7 billion, at the end of 2010 (see Chart 35). In 2011 the annual growth rate of the €5, €10 and €20 banknotes was 3.0% in value terms. The €50 banknotes showed by far the highest annual growth rate, at 8.9%, followed by the €100 banknotes, at 6.4%. Demand for €500 banknotes, which are largely used as a store of value, intensified in the second half of 2011 and recorded an annual growth rate of 4.1% (see Chart 36) after having been fairly stable since the beginning of 2010. The €50 banknote was the most-used denomination, accounting for 41% of the total number of banknotes in circulation. In value terms, the €50 and the €500 banknotes had the largest shares, at 34% each.

There is evidence that a significant share of the high-value banknotes is held outside the euro area. Owing to the financial turmoil, foreign demand (as well as domestic demand) had risen from autumn 2008, but declined slightly during 2010, before picking up again in 2011. It is estimated that 20-25% of the euro banknotes in circulation, in terms of value, are held outside the euro area, predominantly in countries neighbouring the euro area. They are mainly held as a store of value, but are also used for transaction purposes on international markets.

In 2011 the sovereign debt crisis led to increased withdrawals of euro banknotes in Greece, especially €50 banknotes, which are the highest denomination issued via cash dispensers in

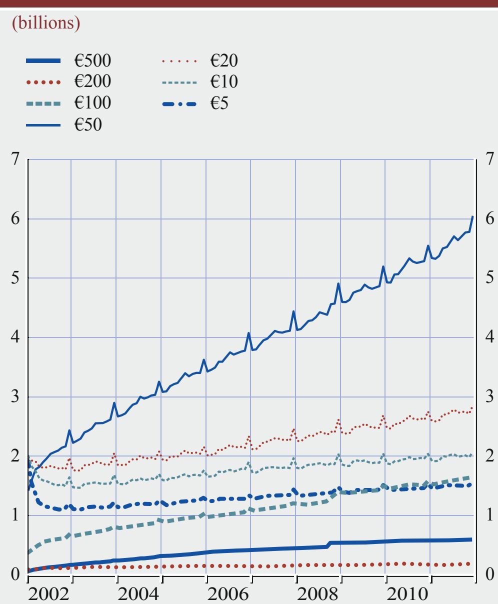
Chart 35 Number and value of euro banknotes in circulation



Source: ECB.

Chart 36 Number of euro banknotes in circulation by denomination

(billions)



Source: ECB.

Greece. However, these volumes have had only a minor impact on overall circulation.

In 2011 the total number of euro coins in circulation (i.e. net circulation excluding stocks held by the euro area NCBs) increased by 5.2% to stand at 97.8 billion. The low-value coins of 1, 2 and 5 cent accounted for 61% of the total number of coins in circulation. At the end of 2011 the value of coins in circulation stood at €23.1 billion, 3.6% higher than at the end of 2010.

BANKNOTE HANDLING BY THE EUROSYSTEM

In 2011 the euro area NCBs issued 34.0 billion banknotes worth €1.1 trillion, while 33.2 billion banknotes worth €1.0 trillion were returned to them. 34.3 billion banknotes were processed using fully automated banknote processing machines, which checked the banknotes for both authenticity and fitness for circulation in order to maintain the quality and integrity of the banknotes in circulation according to the common minimum sorting standards established by the Eurosystem. In that process, some 5.7 billion banknotes were identified as being unfit for circulation and destroyed. At 16.5%, the unfit rate[11] was slightly lower than the rate recorded in 2010. The average return frequency[12] of banknotes in circulation decreased further, falling from 2.46 at end-2010 to 2.30 at end-2011, meaning that, on average, a banknote returned to a euro area NCB every five months. To a large extent, the decline can be attributed to the high share of high-value banknotes, which are largely used as a store of value and thus have a low return frequency. The decreasing return frequency may to some extent also reflect the trend towards outsourcing NCBs' operational activities to third parties and the increasing recirculation of cash by third parties. The return frequencies of the high-value banknotes were 0.34 for €500 banknotes, 0.47 for €200 banknotes and 0.73 for €100 banknotes, while the return frequencies of the denominations which are typically used for transactions were higher (1.73 for €50 banknotes, 3.63 for €20 banknotes, 4.32 for €10 banknotes and 2.42 for €5 banknotes).

3.2 BANKNOTE COUNTERFEITING AND COUNTERFEIT DETERRENCE

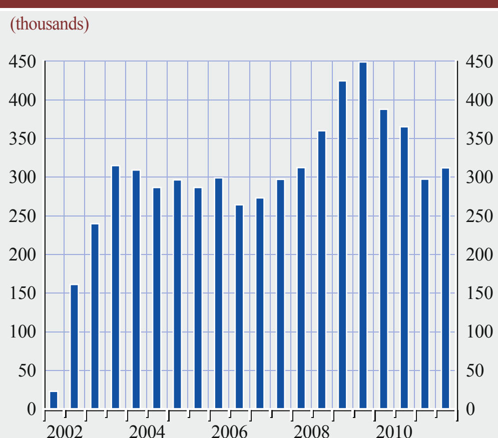
COUNTERFEIT EURO BANKNOTES

In 2011 the National Analysis Centres[13] received some 606,000 counterfeit euro banknotes. When compared with the number of genuine euro banknotes in circulation, the proportion of counterfeits remains at a very low level. Long-term developments in the quantity of counterfeits removed from circulation are shown in Chart 37. Counterfeiters tend to target the €20 and €50 banknotes, which in 2011 accounted for 47.5% and 32.5% of total counterfeits respectively. Further details of the denominational breakdown are shown in Chart 38.

Although confidence in the security of the euro is fully justified by the ongoing anti-counterfeiting measures of European and international authorities, this should not give rise to complacency. The ECB continues to advise the public to remain alert to the possibility of

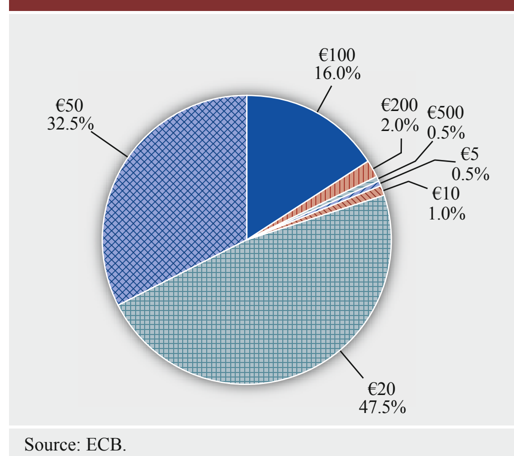
11 Defined as the number of banknotes identified as being unfit in a given period divided by the total number of banknotes sorted during that period.
12 Defined as the total number of banknotes returned to euro area NCBs in a given period divided by the average number of banknotes in circulation during that period.
13 Centres established in each EU Member State for the initial analysis of counterfeit euro banknotes at the national level.

Chart 37 Number of counterfeit euro banknotes recovered from circulation



Source: ECB.

Chart 38 Breakdown of counterfeit euro banknotes by denomination in 2011



Source: ECB.

fraud, to remember the "feel-look-tilt" test,[14] and never to rely on just one security feature. In addition, training is offered to professional cash handlers on a continuous basis, both in Europe and beyond, and information materials have been created and updated to support the Eurosystem's fight against counterfeiting. The ECB's well-established cooperation with Europol and the European Commission also serves this goal.

COUNTERFEIT DETERRENCE AT THE GLOBAL LEVEL

Cooperation on counterfeit deterrence goes beyond the European level. The Eurosystem participates actively in the work of the Central Bank Counterfeit Deterrence Group[15]. The ECB hosts the International Counterfeit Deterrence Centre (ICDC), which acts as the technical centre for this group. The ICDC maintains a website[16] which provides information and guidance concerning the reproduction of banknote images, as well as links to country-specific websites.

3.3 BANKNOTE PRODUCTION AND ISSUANCE

PRODUCTION ARRANGEMENTS

For 2011 the production of a total of 6.0 billion euro banknotes, with a value of €171.3 billion, was allocated to the euro area NCBs. The allocation of euro banknote production continued to be based on decentralised production with pooling, an arrangement initially established in 2002. Under this arrangement, each euro area NCB is responsible for the procurement of an allocated share of the total requirement for certain denominations (see Table 13).

ROADMAP FOR GREATER CONVERGENCE OF NCB CASH SERVICES

In 2007 the Governing Council adopted a roadmap for procedural steps contributing, in the medium term, to increased convergence of NCB cash services. Most roadmap items have meanwhile been implemented. These are: i) remote access to the cash services of a non-domestic NCB; ii) the acceptance of coin deposits at NCB counters; iii) minimum NCB opening hours for cash services in at least one NCB location; and iv) the introduction of orientation-independent banknote deposits and withdrawals as a common free-of-charge NCB service.

The two remaining roadmap items, which are the electronic messaging between NCBs and national and international professional clients on cash transactions and the convergence of banknote packaging for NCB cash services, are pending implementation in the medium term. The implementation at the NCB level follows individual timetables which have been communicated to the European Payments Council and the European Security Transport Association in their capacity as main cash stakeholders at the European level. Both measures are intended to facilitate cash transactions across national borders and thus complement Regulation (EU) No 1214/2011 on the professional cross-border transportation of euro cash by road between euro area countries, which will enter into force at the end of November 2012.

14 See the ECB's website.
15 A group comprising 32 central banks and banknote printing authorities that work together under the auspices of the G10.
16 For details, see http://www.rulesforuse.org

Table 13 Allocation of euro banknote production in 2011

	Quantity (millions of banknotes)	NCB commissioning production
€5	1,714.8	DE, IE, ES, FR, CY, LU, MT, NL, SI, SK, FI
€10	1,541.2	DE, GR, FR, AT, PT
€20	536.6	FR, CY, LU, MT, NL, SI, SK, FI
€50	2,169.1	BE, DE, ES, IT
€100	0	-
€200	0	-
€500	56.2	AT
Total	**6,017.9**	

Source: ECB.

RECIRCULATION OF BANKNOTES

The recirculation of euro banknotes by cash handlers has been regulated since 1 January 2011 by Decision ECB/2010/14 on the authenticity and fitness checking and recirculation of euro banknotes. In addition to credit institutions and other professional cash handlers, other economic agents, such as retailers and casinos, must comply with the ECB procedures when distributing euro banknotes to the public via cash dispensers. This means that all euro banknotes recirculated via cash dispensers in the euro area have to be checked for authenticity and fitness, which is essential for the integrity of the banknotes in circulation.

THE EXTENDED CUSTODIAL INVENTORY PILOT PROGRAMME IN ASIA

The Governing Council made a positive assessment of the three-year Extended Custodial Inventory (ECI) pilot programme for euro banknotes, in the context of which ECI sites were operated in 2011 by Bank of America Merrill Lynch (in Hong Kong) and Bank of Ireland First Currency Services in a joint venture with United Overseas Bank (in Singapore).[17] The ECI programme will be extended from Asia to North America and the Middle East by way of an open tender procedure, which was initiated in the first quarter of 2012. To avoid any interruption of established procedures within the current ECI programme related to the distribution of banknotes to international markets, the Governing Council decided that the existing programme would be extended beyond 1 February 2012, until contracts have been awarded to the successful bidders.

THE SECOND SERIES OF EURO BANKNOTES

The Eurosystem continued work on a new series of euro banknotes in 2011, focusing on developing the origination materials (i.e. the master materials used for banknote production) and carrying out test prints to assess the capacity to produce the new banknotes in a large-scale production environment. The new series will retain the most important design elements from the first series of banknotes. The exact timing and sequence of issuance will be determined at a later stage. The Eurosystem will inform the public, cash handlers and banknote equipment manufacturers well in advance about the modalities of the introduction of the new banknotes. Euro area NCBs will redeem euro banknotes from the first series for an unlimited period of time.

17 The second ECI in Hong Kong, operated by HSBC, was closed down in October 2010 owing to the withdrawal of HSBC from the international wholesale banknote business.

4 STATISTICS

The ECB, assisted by the NCBs, develops, collects, compiles and disseminates a wide range of statistics which support the monetary policy of the euro area, various other tasks of the ESCB, and, since its creation on 1 January 2011, the tasks of the European Systemic Risk Board (ESRB). These statistics are also used extensively by public authorities – for example, in the European Commission's scoreboard for monitoring macroeconomic imbalances – financial market participants, the media and the general public. In 2011 regular euro area statistics continued to be provided in a smooth and timely manner, while significant efforts were devoted to further improving the ESCB's statistical framework in accordance with the annually reviewed work programme. Major challenges in 2011 resulted from data demands for statistics suited to the financial stability function, which can require the use of micro databases and registers.

4.1 NEW AND ENHANCED EURO AREA STATISTICS

In June 2011 the ECB released new and enhanced statistics based on data reported by MFIs, financial vehicle corporations engaged in securitisation transactions, and insurance corporations and pension funds, which broaden the statistical coverage of the euro area financial sector and of financial instruments. The new breakdowns of monthly statistics on MFI balance sheet items and MFI interest rates on loans and deposits into households and non-financial corporations improve two sets of statistics that are important for analysing the money-issuing sector. Moreover, the two new quarterly datasets on the outstanding amounts and transactions of financial vehicle corporations and on the outstanding amounts and selected transactions of insurance corporations and pension funds – together with the new statistics on investment funds published since 2010 – close some gaps in the harmonised reporting of euro area non-bank financial intermediaries, a sector of growing importance for macroeconomic and financial analysis.

A new table on insurance corporations and pension funds has been added to the Eurosystem's joint dissemination framework showing euro area aggregates and all corresponding national data on the websites of the ECB and the respective NCBs. The dissemination of statistics was also improved by, among other things, an educational video on statistics.

In May 2011 the ECB released a new visualisation tool on government finance statistics for the euro area and the individual Member States. In response to the increased demand for fiscal statistics since the start of the financial and sovereign debt crises, further breakdowns of government debt by financial instrument, residual and original maturity, currency and holder were disseminated.

4.2 OTHER STATISTICAL DEVELOPMENTS

Building on the notable example of the Centralised Securities Database, which contains reference data, prices and corporate information on all individual securities considered statistically relevant for the ESCB, the Governing Council approved in 2011 the systematic collection and compilation of statistics on securities holdings on the basis of security-by-security information. This endeavour, which will make it possible to analyse the securities holdings of institutional sectors in greater detail, will require the preparation of a legal act and the creation of a database for producing more harmonised and higher-quality statistics.

In November 2011 the ECB, in cooperation with the European Commission, released the results of the survey on small and medium-sized enterprises' access to finance, which, every two years, covers all 27 EU countries plus ten countries in the neighbouring region, including EU candidate countries. The ECB runs part of the survey every six months for companies in the euro area in order to assess the latest developments in their financing conditions.

Work progressed on the implementation of the Eurosystem's survey on household finance and consumption. The survey aims to provide micro-level data on households' real and financial assets, liabilities, consumption and saving, income and employment, future pension entitlements, intergenerational transfers and gifts, and attitudes to risk. The fieldwork for the first survey was conducted in late 2010 and early 2011 by the NCBs of most euro area countries (in a few cases in collaboration with national statistical institutes).

In January 2011 an ECB Decision was published on the transmission of confidential data under the common framework for business registers for statistical purposes. The Decision defines the format of and the security and confidentiality measures for the mutual exchange of information with the European Commission and the national statistical institutes. Furthermore, the ESCB continued work on developing a register of all financial institutions in Europe, including large banking and insurance groups. Moreover, the ESCB supports the steps being taken to create a global "legal entity identifier" system for uniquely identifying parties to financial transactions, a project of key importance for financial regulators and the financial industry.

The ECB continued its close working relationship with Eurostat and with other international organisations such as the BIS, the IMF, the OECD and the United Nations. With regard to the implementation of new international statistical standards, the ECB, together with Eurostat, focused on the revision of the ESA 95, which needs to be aligned with the System of National Accounts 2008 and the sixth edition of the IMF's "Balance of Payments and International Investment Position Manual". In parallel, ECB and EU legal acts are being revised to ensure that the new standards are implemented in 2014 and to progressively improve the timeliness of the euro area accounts. In March 2011 the Governing Council supported advancing the reporting deadlines for the quarterly government accounts under the ESA transmission programme and for the excessive deficit procedure data, with the aim of supporting the compilation of full quarterly integrated euro area accounts at t+90. Moreover, in December 2011 the Governing Council endorsed the recast Guideline and Recommendation on ECB reporting requirements on external statistics, which enhance the balance of payments and international investment position statistics (including, for example, requirements on cross-border euro banknote shipments) and improve the timeliness of euro area external statistics.

Improvements in the timeliness, quality and coverage of statistics are important for the ECB's monetary policy function, but also for the purposes of financial stability analysis. In this context, the ECB provided statistical support to the ESRB, making consolidated banking data available on a semi-annual basis and delivering other datasets as required by the ESRB Decision on the provision and collection of information of September 2011. It also continued to cooperate closely with the newly established European Supervisory Authorities, in particular with the EBA and EIOPA. Work focused on allowing an exchange of appropriate and reliable information in accordance with European legislation and respecting the protection of confidential information. In addition, work has continued on aligning statistical and supervisory reporting requirements. Achieving an efficient data flow will minimise the reporting burden on entities that are required to provide data to both the Eurosystem and supervisory authorities.

In the context of cooperation at the global level, the ECB participates in the statistical initiatives supported by the G20 with a view to closing key information gaps in economic and financial statistics. As a member of the Inter-Agency Group on Economic and Financial Statistics, the ECB is actively involved in the fulfilment of the G20 action plan to address the measurement of risks in the financial sector, international financial linkages and the vulnerability of economies to shocks. The ECB also helped to enhance the Principal Global Indicators website.

5 ECONOMIC RESEARCH

Consistent with the approach adopted throughout the Eurosystem, the purpose of research activities at the ECB is to: i) provide research results relevant for the formulation of policy advice on monetary policy and other Eurosystem tasks, ii) maintain and use econometric models in order to construct economic forecasts and projections and compare the impact of alternative policy choices, and iii) communicate with the academic and research community, for example through the publication of research results in peer-reviewed scientific journals and by participating in and organising research conferences. The following two sections analyse the main research areas and activities in 2011.

5.1 RESEARCH PRIORITIES AND ACHIEVEMENTS

Economic research at the ECB is performed in a decentralised manner by several business areas according to their needs and expertise. The Directorate General Research is charged with coordinating this research work, as well as producing high-quality research itself. Its Director General chairs the Research Coordination Committee (RCC), which aligns research activities at the ECB with the requirements of the institution and the needs of its policy processes. The RCC establishes a set of priority areas each year and steers the focus of research activities towards these areas. The high-level research priorities identified for 2011 were: financial stability and macro-prudential supervision and regulation; money markets in a "new normal" situation and the post-crisis design of the operational framework; the interaction between monetary and fiscal policy and the effects of low interest rates and non-standard monetary policy measures; and country surveillance.

Research related to financial stability and macro-prudential supervision and regulation focused in particular on macro-financial linkages and systemic risk policy. The ESCB Macro-prudential Research Network made significant progress in this area, developing macro-financial models which link financial stability and the performance of the economy (see Section 2.2 of Chapter 3). The network's first public conference, at which a number of research papers were presented, was held in October 2011.

With regard to the research priority relating to money markets and the operational framework, progress was made in developing models to improve understanding of the implications of heightened market tensions for the demand for central bank funds and for the functioning of money markets in general. The optimal design of the operational framework and the implications of liquidity regulation were also examined.

With regard to monetary policy strategy, analytical work was carried out on the interaction between fiscal and monetary policy, as well as on non-standard monetary policy measures. Progress was also made in developing the analysis of alternative expectation formation mechanisms and their implications for business cycle dynamics. As regards fiscal policy analysis, the focus was on various aspects of government debt and fiscal sustainability.

In the area of country surveillance, the New Multi-Country Model was further developed and increasingly used for scenario input on a cross-country and euro area basis. The Euro Area and Global Economy model was extended to include two more countries and used to analyse, among other things, fiscal and structural adjustment issues. Initial steps were also taken to establish a competitiveness research network across the ESCB.

5.2 DISSEMINATION OF RESEARCH: PUBLICATIONS AND CONFERENCES

As in previous years, ECB staff research was published in the ECB's Working Paper Series and Occasional Paper Series. 127 Working Papers and 11 Occasional Papers were published in 2011. A total of 116 Working Papers were written or co-written by ECB staff, a large number together with other Eurosystem

economists, with the remainder being written by external visitors attending conferences and workshops, participating in research networks or spending a prolonged period at the ECB for the completion of a research project.[18] As is now the established norm, most of the papers are eventually expected to be published in leading peer-reviewed academic journals. In 2011 ECB staff published more than 124 articles in academic journals. Another regular ECB publication is the Research Bulletin,[19] which is used to disseminate research work of general interest to a wide audience. Three issues were published in 2011, with featured topics including: the analysis of the conduct of monetary policy in the euro area using a model of labour market search frictions (the Diamond, Mortensen and Pissarides model); new methodologies for measuring systemic risk; the management of exchange rate misalignment and current account imbalances; the monitoring of spillovers and contagion; and the information content of core inflation.

The ECB organised or co-organised 15 conferences and workshops on research topics in 2011. Co-organised conferences involved the Centre for Economic Policy Research, the BIS and other central banks, both within and outside the Eurosystem. As in previous years, most of the conferences and workshops were related to specific research priorities. The programmes for these events and the papers presented are available on the ECB's website.

Another long-standing mechanism for the dissemination of research is the organisation of seminar series, of which two are of particular relevance: the Joint Lunchtime Seminars, co-organised with the Deutsche Bundesbank and the Center for Financial Studies, and the Invited Speaker Seminars. These two series comprise weekly seminars, at which external researchers are invited to present their recent work at the ECB. The ECB also organises research seminars outside the scope of these two series on a more ad hoc basis.

18 External researchers visit the ECB on an ad hoc basis or in the context of formal programmes such as the Lamfalussy Research Fellowship.

19 All Research Bulletins can be found on the ECB's website under "Publications".

6 OTHER TASKS AND ACTIVITIES

6.1 COMPLIANCE WITH THE PROHIBITION OF MONETARY FINANCING AND PRIVILEGED ACCESS

Pursuant to Article 271(d) of the Treaty, the ECB is entrusted with the task of monitoring the compliance of the 27 EU NCBs and the ECB with the prohibitions implied by Articles 123 and 124 of the Treaty and Council Regulations (EC) Nos 3603/93 and 3604/93. Article 123 prohibits the ECB and the NCBs from providing overdraft facilities or any other type of credit facility to governments and EU institutions or bodies, as well as from purchasing debt instruments directly from them. Article 124 prohibits any measure, not based on prudential considerations, which establishes privileged access by governments and EU institutions or bodies to financial institutions. In parallel with the Governing Council, the European Commission monitors Member States' compliance with the above provisions.

The ECB also monitors the EU central banks' secondary market purchases of debt instruments issued by the domestic public sector, the public sector of other Member States and EU institutions and bodies. According to the recitals of Council Regulation (EC) No 3603/93, the acquisition of public sector debt instruments in the secondary market must not be used to circumvent the objective of Article 123 of the Treaty. Such purchases should not become a form of indirect monetary financing of the public sector.

The monitoring exercise conducted for 2011 indicates that the following cases could be seen as non-compliant with the provisions of Articles 123 and 124 of the Treaty and the related Council Regulations.

First, Národná banka Slovenska bought a euro-denominated security of a public sector entity on the primary debt market for asset management purposes. This was due to an operational mistake, and the security was sold immediately after recognition of the error. Second, advance payments continued to be made by De Nederlandsche Bank in the context of the operation of the Dutch deposit insurance scheme. It is urgently necessary to finalise the required changes to the Dutch law in line with the ECB opinion in order to ensure the law's compliance with Treaty provisions on the prohibition of monetary financing.

In more general terms, it is worth recalling that the prohibitions implied by Articles 123 and 124 of the Treaty need to be strictly respected, even in case of a financial crisis.

6.2 ADVISORY FUNCTIONS

Articles 127(4) and 282(5) of the Treaty require that the ECB be consulted on any proposed EU or draft national legislation falling within its fields of competence.[20] All ECB opinions are published on the ECB's website. ECB opinions on proposed EU legislation are also published in the Official Journal of the European Union.

Following the entry into force of the Lisbon Treaty in December 2009 and in view of the establishment of the new European Supervisory Authorities in early 2011, the ECB developed its stance on the exercise of its advisory role regarding draft delegated and implementing acts as defined in Articles 290 and 291 of the Treaty respectively.[21] The ECB pointed out that such draft acts qualify as "proposed Union acts" within the meaning of the first indent of Article 127(4) and Article 282(5) of the Treaty. The ECB should be consulted in due time on any draft Union acts, including draft delegated and implementing acts, falling within its fields of competence.

In 2011 the ECB adopted 19 opinions on proposed EU legislation and 88 on draft national legislation falling within the ECB's fields of competence. A list of the opinions

20 The United Kingdom is exempt from the consultation obligation, pursuant to the Protocol on certain provisions relating to the United Kingdom of Great Britain and Northern Ireland, which is annexed to the Treaty, OJ C 83, 30.3.2010, p. 284.

21 See, for example, CON/2011/42, CON/2011/44 and CON/2012/5.

adopted in 2011 and early 2012 is annexed to this Annual Report.

OPINIONS ON PROPOSED EU LEGISLATION

The ECB opinions issued at the request of the Council of the European Union, the European Parliament and the European Council concerned, inter alia, an amendment to Article 136 of the Treaty, the proposals for a directive and a regulation to replace the Capital Requirements Directive, and the rules applicable to short selling.

The opinion on a proposed amendment to Article 136 of the Treaty[22] (see Chapter 4) reiterated the ECB's call for a quantum leap in the economic governance of EMU and emphasised the need to establish a permanent crisis management framework which can, as ultima ratio, provide temporary financial support to euro area countries experiencing impaired access to market financing. The ECB stressed that the prospective European Stability Mechanism (ESM) would have to be carefully designed in order to be safeguarded against moral hazard. While acknowledging that it could act as fiscal agent for the ESM, the ECB observed that the monetary financing prohibition in Article 123 of the Treaty would not allow the ESM to become a counterparty of the Eurosystem under Article 18 of the Statute of the ESCB.

In its opinion on the proposals for a directive and a regulation to replace the Capital Requirements Directive,[23] the ECB strongly supported the timely and effective implementation of the Basel III agreements and liquidity standards (see Section 3 of Chapter 3). The ECB fully supported the aim of addressing targeted risk exposures through delegated acts that empower the European Commission to impose stricter prudential requirements where necessary to address changes in the intensity of micro- and macro-prudential risks which arise from market developments. The ECB recommended that national authorities should also be allowed to impose stricter prudential requirements to address specific financial stability concerns in the Member State concerned.

The ECB opinion on the proposal for a regulation on short selling and certain aspects of credit default swaps[24] expressed support for the new transparency regime for the short selling of shares and for compulsory disclosure in relation to significant net short positions relating to sovereign debt issuers in the EU or equivalent uncovered positions in credit default swaps (see Section 3 of Chapter 3). The opinion also contained recommendations regarding reporting and disclosure standards and information-sharing arrangements.

OPINIONS ON DRAFT NATIONAL LEGISLATION

There were a significant number of consultations by national authorities, many of which concerned measures relating to financial market stability, including in connection with the financial crisis.[25]

Several Member States consulted the ECB on intervention and resolution measures for credit and financial institutions, some in compliance with structural benchmarks under the EU-IMF support programmes. The proposals aimed to reinforce supervisory powers in addressing distressed financial institutions, including the possibility of transferring distressed institutions' assets and liabilities to another entity, such as a bridge bank. They also provided for the establishment of schemes to finance resolution measures. In relation to Greece,[26] the ECB welcomed the establishment of a transitional credit institution as a resolution tool to be funded entirely by the Hellenic Financial Stability Fund. The ECB also welcomed the banking sector's responsibility for funding a resolution unit separately established within the Hellenic Deposit and Investment Guarantee Fund through special levies. In another opinion, the ECB supported the establishment of a compensation

22 CON/2011/24.
23 CON/2012/5.
24 CON/2011/17.
25 See, for example, CON/2011/21, CON/2011/39, CON/2011/45, CON/2011/72, CON/2011/76, CON/2011/79, CON/2011/82, CON/2011/83, CON/2011/86, CON/2011/95 and CON/2011/103.
26 CON/2011/72.

scheme for distressed banks in Denmark.[27] In the context of proposed Dutch crisis intervention measures,[28] the ECB commented on a special expropriation regime to ensure the stability of the financial system, highlighting that expropriation by the state in relation to institutions in difficulty should remain a tool for use in clearly defined and exceptional circumstances. The opinion on the Portuguese bank resolution framework[29] considered the impact of granting preferential ranking to claims in respect of guaranteed deposits. The opinions on state guarantees supporting the Dexia restructuring plans[30] emphasised the need for coordination and consistency of the Member States' responses to the current financial situation and the criteria regarding government guarantees for bank debt.

Several consultations concerned the financing and tasks of deposit guarantee schemes.[31] The ECB welcomed the ex ante funding arrangements for the Dutch deposit guarantee scheme but noted that the proposed framework included forms of advance financing by the central bank incompatible with the monetary financing prohibition.

The ECB also commented on important developments in financial market supervisory structures.[32] It welcomed the proposal to integrate financial market supervision within Lietuvos bankas. As regards the transfer of supervisory tasks to the Nationale Bank van België/Banque Nationale de Belgique and Lietuvos bankas under the respective draft laws, the ECB acknowledged the arrangements for the financing of the new tasks, referring to the principle of financial independence.

The ECB adopted several opinions concerning the NCBs, including amendments to the statutes of the Greek, Austrian, Slovenian, Maltese, Lithuanian and Hungarian NCBs.[33] The ECB expressed concerns with regard to central bank independence in the context of the appointment, composition and tasks of the Bank of Greece Social Security Board. Commenting on draft amendments to the Law on the Oesterreichische Nationalbank, the ECB recommended fully aligning the grounds for dismissal of the Governing Board members with the Statute of the ESCB. In relation to Lithuania, the ECB considered amendments to Lietuvos bankas' profit distribution rules as regards financial independence and monetary financing. In its opinions concerning the Magyar Nemzeti Bank,[34] the ECB expressed serious concerns regarding central bank independence.

27 CON/2011/45. For related developments, see also CON/2011/90.
28 CON/2011/60.
29 CON/2011/83.
30 CON/2011/79, CON/2011/82 and CON/2011/85.
31 CON/2011/15, CON/2011/76 and CON/2011/86.
32 CON/2011/5 and CON/2011/46.
33 CON/2011/36, CON/2011/38, CON/2011/40, CON/2011/43, CON/2011/46, CON/2011/91, CON/2011/99, CON/2011/104 and CON/2011/106.
34 CON/2011/104 and CON/2011/106.

Box 9

CENTRAL BANK INDEPENDENCE IN HUNGARY

Since 2010 the Magyar Nemzeti Bank's legal and operational framework has been subject to a number of substantial changes that have raised concerns in terms of their compatibility with the independence principle enshrined in the Treaty, including:

– changes in the remuneration of the incumbent Governor and other decision-makers (CON/2010/56 and CON/2010/91);

– changes in the appointment rules and composition of the Monetary Council (CON/2010/91 and CON/2011/104);

– a complete overhaul of the governance structure through the reinstatement of the Executive Board and an increase in the number of deputy governors (CON/2011/104 and CON/2011/106);

– the creation of the constitutional basis for a merger between the central bank and the financial supervisor (CON/2011/106).

In its most recent opinions concerning the Magyar Nemzeti Bank (CON/2011/104 and CON/2011/106), the ECB expressed serious concerns regarding central bank independence. The constant changes in the composition of the Magyar Nemzeti Bank's decision-making bodies, the increase in the number of Monetary Council members, and the possibility of increasing the number of deputy governors – without due justification for the need to amend the institutional framework – are seen as possible means to influence the decision-making process. The recent repeated amendments to the legislation on the salaries of the members of the decision-making bodies have been implemented without taking into account the views of the Magyar Nemzeti Bank in the light of financial independence concerns. The ECB also commented on a constitutional amendment allowing the Magyar Nemzeti Bank to be merged with the Hungarian Financial Supervisory Authority to form a new institution and, in particular, demoting the current Governor and placing him under the authority of the President of the merged institution. In the ECB's view, this enabling provision constitutes a threat to the personal independence of the Governor.

In addition, the Hungarian legislators failed several times to respect their duty to consult the ECB or to take its opinions into account in adopting the NCB-related legislation.

The breaches of the principle of central bank independence and of the obligation to consult the ECB resulted in the initiation in January 2012 of an infringement procedure by the European Commission against Hungary.

In an opinion on an increase in Romania's IMF quota,[35] the ECB referred to the principle of central bank independence, which requires that an NCB entrusted with exercising the rights and obligations resulting from its country's IMF membership takes decisions in a fully independent manner regarding the management of the special drawing rights.

The ECB considered legal convergence issues when assessing amendments to the Polish constitution concerning the future adoption of the euro.[36] The ECB commented on functional, institutional and personal aspects of central bank independence and on issues pertaining to the legal integration of Narodowy Bank Polski into the Eurosystem.

The ECB issued several opinions concerning cash circulation and protection against counterfeiting.[37] Commenting on the proposals to adapt national rules to the harmonised legal framework established by Decision ECB/2010/14,[38] the ECB considered it essential for national legislation implementing the Decision not to deviate from its common provisions, unless expressly provided for in the Decision.

35 CON/2011/102.
36 CON/2011/9.
37 For example, CON/2011/19, CON/2011/51, CON/2011/59, CON/2011/64 and CON/2011/92.
38 Decision ECB/2010/14 of the European Central Bank of 16 September 2010 on the authenticity and fitness checking and recirculation of euro banknotes (OJ L 267, 9.10.2010, p. 1).

CASES OF NON-COMPLIANCE

In 2011 the ECB recorded 20 cases of non-compliance with the obligation to consult on draft national legislation,[39] including two cases in which the ECB issued an opinion on its own initiative. The following ten cases were considered clear and important.[40]

The Greek Ministry of Finance failed to consult the ECB on three occasions. The first case concerned the extension of the validity of the recruitment ratio imposed on public sector entities in 2010, including in relation to the Bank of Greece. This case related to NCB independence, which is a matter of general significance to the ESCB. In addition, the ECB was not consulted on substantive legislative amendments relating to the enhancement of the economy's liquidity following the international financial crisis and to the supervisory and resolution measures for credit institutions. These cases concerned the sovereign debt crisis and austerity measures, matters of great significance to the ESCB.

Hungary did not comply with the obligation to consult the ECB on four occasions. Two cases which related to draft laws pertaining to foreign currency loans were of general significance to the ESCB because they concerned financial stability and the risk associated with foreign currency loans. The third case concerned the Law on the Magyar Nemzeti Bank, the preliminary draft of which was sent for consultation, but was subsequently substantially changed. The ECB was not properly consulted as regards the deadlines and the extent of the amendments. Finally, the Hungarian authorities failed to consult the ECB on a constitutional amendment allowing the Magyar Nemzeti Bank to be merged with the financial supervisory authority (see Box 9). These latter cases were of general significance to the ESCB as they related to central bank independence.

The three other cases concerned Lithuania, the Netherlands and Spain. The Lithuanian authorities did not consult the ECB on amendments to several financial legal acts entrusting certain additional powers to Lietuvos bankas to address the problems of distressed banks and providing for the creation of a bridge bank. This case was of general significance to the ESCB as it dealt with bank resolution measures. The Dutch Ministry of Finance failed to consult the ECB on a draft regulation transforming the financing of the Dutch deposit guarantee scheme from ex post to ex ante. This was a clear and important case as the matter related to monetary financing, which is of general significance to the ESCB. Finally, the ECB was not consulted on amendments to Spanish deposit guarantee legislation, concerning in particular an increase in ex ante contributions by financial institutions. This was a clear and important case as the matter concerned the deposit guarantee scheme and its financing, which is of general significance to the ESCB.

There were considered to have been clear and repetitive cases of failure to consult the ECB by Greece and Hungary in 2011. Repetitive cases are those where the same Member State fails to consult the ECB at least three times in two consecutive years, with at least one non-consultation in each year under consideration.

6.3 ADMINISTRATION OF BORROWING AND LENDING OPERATIONS

In line with earlier requests, the ECB continued to administer and/or process several borrowing and lending operations in 2011.

The ECB continues to be responsible for the administration of the borrowing and lending operations of the EU under the medium-term financial assistance facility, as set out in Decision ECB/2003/14 of

39 No cases of non-compliance with the obligation to consult the ECB on draft EU legislation were identified in 2011.

40 The ECB understands "clear" to mean cases in which there is no legal doubt that the ECB should have been consulted, and "important" to mean cases: i) where, if consultation had properly taken place, the ECB would have made significant critical comments on the substance of the legislative proposal, and/or ii) which are of general significance to the ESCB.

7 November 2003.[41] In 2011 the ECB received two disbursement payments on behalf of the EU and transferred these amounts to the borrower country (Romania). Interest payments on ten loans and the principal on one loan were processed by the ECB. The total amount of outstanding EU lending operations under the medium-term financial assistance facility as at 31 December 2011 was €11.4 billion.

The ECB continues to be responsible for processing, on behalf of the lenders and the borrower, all payments related to the loan facility agreement for Greece.[42] In 2011 the ECB received four disbursement payments from the lenders and transferred these amounts to the Bank of Greece in its capacity as agent to the borrower. Interest payments on five loans were processed by the ECB. The balance outstanding as at 31 December 2011 in respect of the pooled bilateral loans for the benefit of Greece amounted to €52.9 billion.

The ECB continues to be responsible for the administration of the borrowing and lending operations of the EU under the European Financial Stabilisation Mechanism (EFSM).[43] In 2011 the ECB received ten disbursement payments on behalf of the EU and transferred these amounts to the borrower countries (Ireland and Portugal). The interest payment on one loan was processed by the ECB. The total amount of outstanding EU lending operations under the EFSM as at 31 December 2011 was €28 billion.

The ECB continues to be responsible for the administration of European Financial Stability Facility (EFSF) loans to Member States whose currency is the euro.[44] In 2011 the ECB received six disbursement payments on behalf of the EFSF and transferred these amounts to the borrower countries (Ireland and Portugal). Interest payments on two loans were processed by the ECB. The balance outstanding as at 31 December 2011 in respect of EFSF loans was €16.3 billion.

6.4 EUROSYSTEM RESERVE MANAGEMENT SERVICES

In 2011 a comprehensive set of services continued to be offered within the framework established in 2005 for the management of Eurosystem customers' euro-denominated reserve assets. The complete set of services – which is available to central banks, monetary authorities and government agencies located outside the euro area, as well as to international organisations – is offered under harmonised terms and conditions in line with general market standards by individual Eurosystem central banks (the Eurosystem service providers). The ECB performs an overall coordinating role, ensuring the smooth functioning of the framework. The number of customers maintaining a business relationship with the Eurosystem remained stable over 2011. With regard to the services themselves, 2011 saw a considerable increase (8%) in customers' total cash balances (including deposits) and securities holdings.

41 In accordance with Article 141(2) of the Treaty, Articles 17, 21.2, 43.1 and 46.1 of the Statute of the ESCB and Article 9 of Council Regulation (EC) No 332/2002 of 18 February 2002.

42 In the context of the loan facility agreement between the Member States whose currency is the euro (other than Greece and Germany) and Kreditanstalt für Wiederaufbau (acting in the public interest, subject to the instructions of and with the benefit of the guarantee of the Federal Republic of Germany) as lenders and the Hellenic Republic as borrower and the Bank of Greece as agent to the borrower, and pursuant to Articles 17 and 21.2 of the Statute of the ESCB and Article 2 of Decision ECB/2010/4 of 10 May 2010.

43 In accordance with Articles 122(2) and 132(1) of the Treaty, Articles 17 and 21 of the Statute of the ESCB, and Article 8 of Council Regulation (EU) No 407/2010 of 11 May 2010.

44 In accordance with Articles 17 and 21 of the Statute of the ESCB (in conjunction with Article 3(5) of the EFSF Framework Agreement).

The Grossmarkthalle is to house a visitor centre, staff restaurant, cafeteria and conference rooms. These areas are being integrated into the former market hall as a separate house-in-house system.

The Grossmarkthalle's basement has been replaced by a new, waterproof basement capable of supporting the load of the new building elements that are currently being incorporated into the hall.

The restoration works on the concrete grid facade and the roof shells are also progressing.

CHAPTER 3

FINANCIAL STABILITY, TASKS RELATED TO THE ESRB, AND FINANCIAL INTEGRATION

1 FINANCIAL STABILITY

The Eurosystem contributes to the smooth conduct of policies pursued by the competent national authorities relating to the prudential supervision of credit institutions and the stability of the financial system. It also provides advice to these authorities and the European Commission on the scope and implementation of EU legislation in these fields.

Following the establishment of the European Systemic Risk Board (ESRB) on 16 December 2010 (see Section 2 of this chapter), the new European supervisory framework came into being on 1 January 2011 with the creation of three European Supervisory Authorities (ESAs), covering banking (European Banking Authority – EBA), securities and markets (European Securities and Markets Authority – ESMA), and insurance and occupational pensions (European Insurance and Occupational Pensions Authority – EIOPA). This framework has resulted in a substantial strengthening of the European supervisory structure both at the micro-prudential level and, for the first time, at the macro-prudential level.

1.1 FINANCIAL STABILITY MONITORING

THE EURO AREA BANKING SECTOR

The ECB, together with the ESCB's Financial Stability Committee (FSC), monitors risks to financial stability and assesses the shock-absorbing capacity of the euro area financial system.[1] The main focus of this important task is on banks, as they remain the primary financial intermediaries in Europe. However, owing to the increasing importance of financial markets, financial infrastructures and other financial institutions, and their linkages with banks, vulnerabilities in these components of the financial system also need to be monitored by the ESCB.

In the course of 2011 risks to euro area financial stability increased considerably as the sovereign debt crisis worsened and its harmful interplay with the banking sector intensified. In the second half of the year in particular, vulnerabilities grew as the sovereign debt crisis spread from some smaller to some larger euro area countries. These forces of contagion were, importantly, accompanied by weakening macroeconomic growth prospects, especially towards the end of the year. The vulnerability to further contagion was highest for those countries that were perceived to exhibit a combination of vulnerable or deteriorating fiscal positions, weak macro-financial conditions, a lack of political effort to enforce necessary institutional reforms and the potential for further significant losses in the banking sector.

Amid this contagion, considerable funding strains emerged for euro area banks. While mitigated through ample and timely central bank liquidity provision, medium and longer-term funding strains – in some cases acute – emerged during the course of the year. Euro area banks faced a downturn in market confidence that led to an abrupt rise in funding costs and to constrained access to term funding, particularly for banks located in euro area countries experiencing sovereign distress. Funding strains especially affected banks that heavily relied on wholesale unsecured term funding, including on volatile US dollar funding. Moreover, some segmentation emerged in secured funding markets, such as the market for repurchase agreements where bonds issued by countries experiencing sovereign distress were priced at a lower level than other bonds, thus adversely affecting funding costs of banks relying on such "distressed" bonds as collateral in repurchase transactions. Access to funding was also highly determined by concerns about some banks' asset quality, especially as regards exposures to formerly exuberant housing markets. Overall, the transmission of tensions among sovereigns and banks intensified, leading to a systemic crisis.

1 Since the end of 2004 the ECB has published its Financial Stability Review, a semi-annual report on the stability of the euro area financial system. These publications present the main findings of the monitoring of the structure and stability of the banking sector, and are available on the ECB's website.

Developments in the financial condition of euro area large and complex banking groups (LCBGs) were mixed in the first three quarters of 2011. Following a generally strong earnings performance in the first quarter of 2011, second-quarter results showed an overall deterioration. This reflected the more challenging conditions faced by banks, characterised by adverse developments in funding and trading markets, a first wave of write-downs on Greek government debt securities and a weaker than expected global economic environment. At the same time, banks' efforts to raise capital and reduce risk-weighted assets, which were also influenced by the EBA's 2011 EU-wide stress test, contributed to an increase in regulatory capital ratios.[2] Third-quarter results further confirmed the downward trend in earnings. Many euro area LCBGs posted declines in net income owing to further impairments on Greek sovereign debt and subdued trading income. A number of banks reduced their exposure to sovereign debt of stressed euro area countries through sales or the non-renewal of maturing assets. On the positive side, throughout the first three quarters of 2011 net interest income – and to a lesser extent income from fees and commissions – remained broadly stable. Diversification of activities across geographical regions helped some LCBGs to remain profitable, despite the difficulties that some faced in their domestic markets.

Funding as well as capital-related deleveraging pressures re-emerged in 2011, implying the risk of adverse implications for credit availability, in particular in countries with distressed sovereigns where the cost and availability of medium and long-term funding was most adversely affected. It is important to note that vulnerabilities in the euro area banking sector in 2011 differed extensively across countries and across individual banks on account of differences in geographical and sectoral credit risk exposures, business models and, in particular, the fiscal situation of the country where the banks were located. Market indicators pointed to a significant deterioration in the earnings expectations of euro area LCBGs. Banking sector equity indices for the euro area – and also globally – considerably underperformed overall benchmark indices, while corresponding volatility measures for the euro area banking sector reached peaks not seen since the bankruptcy of Lehman Brothers in September 2008.

The broad-based intensification of financial stability risks revealed a critical need for bold and decisive action both within and outside the euro area. Alongside national decisions to step up fiscal consolidation and to strengthen national fiscal rules, measures adopted at the meetings of the Council of the European Union and the euro area Heads of State or Government in July, October and December 2011 also addressed several key areas with the aim of restoring euro area financial stability. One key measure was the enhancement of the lending capacity of the European Financial Stability Facility and the broadening of its mandate. With the intention of fundamentally redesigning euro area governance, it was agreed at the EU summit on 8 and 9 December 2011 to move closer towards an economic union and to establish a new fiscal compact, which was concluded among 25 of the 27 EU Member States on 30 January 2012. A complete implementation of the measures announced and the bringing-forward of the implementation of the European Stability Mechanism should mitigate negative feedback effects between vulnerable public finances, the financial sector and economic growth. Complementing this, a comprehensive strategy to strengthen the capital and funding capacity of EU banks was unveiled, requiring large banks to build up a temporary capital buffer and achieve a core tier 1 ratio of 9% by June 2012. This resulted in estimated capital needs for the EU banking sector as a whole amounting to €114.7 billion. To avoid excessive asset deleveraging to fill the identified capital gaps, which could have

2 The EU-wide stress-test exercise was coordinated by the EBA, in close collaboration with the ECB and the European Commission. A detailed description of the methodology, as well as the results, which were published in mid-July, are available on the websites of the EBA and the participating national authorities.

detrimental effects on the real economy, banks' balance sheet adjustment plans will be closely monitored at both the national and the European level. In addition, the need to facilitate access to term funding was addressed through an EU-coordinated re-establishment of state funding guarantee schemes. Finally, the Eurosystem's enhanced credit support measures, including two longer-term refinancing operations with a three-year maturity, ensured that euro area banks continued to have access to stable funding. As a result, funding market tensions eased somewhat in early 2012.

OTHER FINANCIAL INSTITUTIONS

Concerns about the stability of other financial institutions were not as pronounced in 2011 as those about euro area banking sector stability. However, the non-bank financial sector was also affected by the loss of confidence on financial markets owing to the strong interlinkages between financial sectors and across market segments. The financial soundness of large primary insurers in the euro area remained broadly stable in the first three quarters of 2011. The profitability of large euro area reinsurers rebounded from the low levels recorded in the first quarter, when natural catastrophes increased their claims burden. All in all, the capital buffer of the sector seemed to have been adequate to withstand the difficult first half of the year. This was partly attributable to insurers' preference to hold excess capital in order to maintain a targeted credit rating, but was also due to the pre-emptive building-up of additional buffers in an uncertain economic situation. A major risk facing euro area insurers is that a prolonged period of low interest rates, in particular on AAA-rated government bonds, diminishes the profitability of guaranteed life insurance products and weakens investment income and the solvency position in general. Furthermore, low market valuations of bonds issued by countries and sectors most affected by the current crisis bear the risk of having a negative impact on insurers that have invested in such portfolios.

The hedge fund sector suffered considerable investment losses in 2011, albeit not as large as those following the failure of Lehman Brothers. Moreover, compared with this earlier period, the sector was less leveraged, which helped to alleviate funding liquidity pressures stemming from prime brokers' margin calls. Larger than usual investor withdrawals still have the potential to entail funding liquidity risk, despite generally strong investor appetite for hedge fund investments amid low nominal interest rates. While hedge funds in general appeared to have quite a limited role within the euro area (at the end of the third quarter of 2011 assets held by euro area hedge funds amounted to €119 billion), they are part of the complex network of the "shadow banking" sector, either through their involvement in securitisation activities or in the repo market. The shadow banking sector comprises activities related to credit intermediation, such as liquidity and maturity transformation, which take place outside the regular banking system. For the euro area, assets held by shadow banking-related sectors amounted to €11 trillion in the third quarter of 2011. In relative terms, those assets represent 27.7% of the total assets of the combined banking and shadow banking sector,[3] thus illustrating that the shadow banking sector plays a significant role in financial intermediation in general and the funding activities of banks in particular.

1.2 FINANCIAL STABILITY ARRANGEMENTS

Throughout 2011 work continued in the field of crisis management and resolution, with efforts being made to improve the rules and standards at the EU and international levels.

In the EU, the European Commission's DG Internal Market and Services launched a public consultation in January 2011 on the emerging EU framework for crisis management in the

3 According to ECB and Eurostat statistics.

financial sector, setting out the technical details of the framework already outlined in the Commission's communication of October 2010.[4] In its contribution to this consultation,[5] the ESCB fully supports the overall objective of the Commission's proposal to develop a crisis management and resolution framework for EU financial institutions. In particular, the ESCB shares the view that the overriding policy objective of the new EU regime should be that all institutions can be allowed to fail in a way that safeguards the stability of the EU financial system as a whole and minimises public costs and economic disruption. The Commission proposal for a directive on a new resolution framework is expected in spring 2012.

This new EU framework for crisis management and resolution has also drawn inspiration from a number of ongoing national initiatives in the EU Member States amending their national resolution frameworks for the financial sector. The ECB issued opinions on these initiatives and also contributed directly to the work on new resolution regimes in the countries under EU-IMF programmes (Ireland, Greece and Portugal).[6]

In 2011 the ECB actively supported the work carried out both by the Economic and Financial Committee's Ad Hoc Working Group on Crisis Management and by the Advisory Technical Committee of the ESRB, related to the adoption by the Member States of remedial measures and backstops to address financial stability risks potentially arising from the publication of the EBA's stress-test results (or from a market-based test).

At the international level, the G20 leaders endorsed, at their meeting in Cannes on 3 and 4 November 2011, the implementation of an integrated set of policy measures to address the risks to the global financial system from systemically important financial institutions (SIFIs), including a new international standard for resolution regimes. The Financial Stability Board (FSB) has developed this new standard – the "Key Attributes of Effective Resolution Regimes for Financial Institutions"[7] – as a point of reference for reforms of national resolution regimes, to strengthen authorities' powers to resolve failing financial firms in an orderly manner and without exposing the taxpayer to the risk of loss.[8] For the initial group of 29 global SIFIs, the recovery and resolution-related requirements will need to be met by end-2012. The ECB – as a member of the FSB – has actively contributed to and supported this initiative, notably by being fully involved in the activities of the FSB's Resolution Steering Group, Cross-Border Crisis Management Working Group and Bail-in Working Group.

4 For further details of the consultation, see the European Commission's website (http://ec.europa.eu).
5 For further details of this contribution, see the ECB's website.
6 See, for example, CON/2011/39, CON/2011/45, CON/2011/60, CON/2011/72 and CON/2011/84. All ECB opinions are published on the ECB's website.
7 Available on the FSB's website (www.financialstabilityboard.org).
8 The Key Attributes identify 12 essential features of resolution regimes, which constitute a minimum standard to be satisfied by the resolution regimes in all jurisdictions: i) scope, ii) resolution authority, iii) resolution powers, iv) set-off, netting, collateralisation, segregation of client assets, v) safeguards, vi) funding of firms in resolution, vii) legal framework conditions for cross-border cooperation, viii) Crisis Management Groups, ix) institution-specific cross-border cooperation agreements, x) resolvability assessments, xi) recovery and resolution planning, and xii) access to information and information-sharing.

2 TASKS CONCERNING THE FUNCTIONING OF THE EUROPEAN SYSTEMIC RISK BOARD

2.1 INSTITUTIONAL FRAMEWORK

2011 was the first year of operation of the European Systemic Risk Board (ESRB). The ESRB is responsible for the macro-prudential oversight of the EU financial system, with the ECB providing the ESRB Secretariat as well as analytical, statistical, logistical and administrative support. The ESRB was established on the basis of Regulation (EU) No 1092/2010 of 24 November 2010 of the European Parliament and of the Council on European Union macro-prudential oversight of the financial system and establishing a European Systemic Risk Board.[9] Furthermore, Council Regulation (EU) No 1096/2010 of 17 November 2010[10] conferred specific tasks upon the ECB concerning the functioning of the ESRB.

For the first five years of its existence, the President of the ECB is the Chair of the ESRB. In 2011 the ESRB was therefore chaired until 31 October by Jean-Claude Trichet, followed since 1 November by Mario Draghi.

By end-June 2011 the ESRB had finalised the establishment of its institutional structures. The ESRB General Board adopted: i) its rules of procedure,[11] ii) the rules for selection of members of the ESRB Advisory Scientific Committee,[12] iii) the ESRB Code of Conduct[13] and iv) the rules on access to ESRB documents.[14] Moreover, the ESRB adopted a decision on the provision and collection of information for the purpose of macro-prudential oversight[15] and agreed procedures with the ESAs for the transmission of confidential information.

With a staff of 25 experts, the ESRB Secretariat supported the day-to-day business of the ESRB, including the administrative support to the institutional bodies, the provision of analytical work, contributions to defining a framework for macro-prudential strategy and its implementation, as well as cooperation with supervisory authorities.

The ESRB used the various channels foreseen in Regulation No 1092/2010 to ensure its accountability as a new European public body. This included initial hearings in the European Parliament where the Chair explained how he intended to discharge his duties (Jean-Claude Trichet on 7 February 2011; Mario Draghi on 16 January 2012), other regular hearings, and confidential discussions on the ongoing activity of the ESRB with the Chair and Vice-Chairs of the Economic and Monetary Affairs Committee of the European Parliament, for which an agreement was concluded between the two entities in September 2011. The ESRB also reported in several forms to the European Council on warnings and recommendations and their follow-up. The ESRB is expected to publish its first Annual Report covering 2011 in May 2012.

2.2 ANALYTICAL, STATISTICAL, LOGISTICAL AND ORGANISATIONAL SUPPORT TO THE ESRB

The ECB is called upon to ensure the ESRB Secretariat and thereby provide analytical, statistical, logistical and organisational support to the ESRB. In 2011, the first year of ESRB operations, the ECB support focused on the regular monitoring, identification and assessment of EU-wide systemic risks.

9 OJ L 331, 15.12.2010, p. 1.
10 OJ L 331, 15.12.2010, p. 162.
11 Decision of the European Systemic Risk Board of 20 January 2011 adopting the Rules of Procedure of the European Systemic Risk Board (ESRB/2011/1), OJ C 58, 24.2.2011, p. 4.
12 Decision of the European Systemic Risk Board of 20 January 2011 on the procedures and requirements for the selection, appointment and replacement of the members of the Advisory Scientific Committee of the European Systemic Risk Board (ESRB/2011/2), OJ C 39, 8.2.2011, p. 10.
13 Decision of the European Systemic Risk Board of 25 March 2011 adopting the Code of Conduct of the European Systemic Risk Board (ESRB/2011/3), OJ C 140, 11.5.2011, p. 18.
14 Decision of the European Systemic Risk Board of 3 June 2011 on public access to European Systemic Risk Board documents (ESRB/2011/5), OJ C 176, 16.6.2011, p. 3.
15 Decision of the European Systemic Risk Board of 21 September 2011 on the provision and collection of information for the macro-prudential oversight of the financial system within the Union (ESRB/2011/6), OJ C 302, 13.10.2011, p. 3.

In addition to the regular financial stability surveillance and assessment activities, this support also encompassed the development and enhancement of analytical tools and methodologies, which was supported by the ESCB Macro-prudential Research Network, as well as statistical efforts to fill gaps identified in the data required for the purpose of conducting macro-prudential analysis.

ANALYTICAL SUPPORT

In 2011 the ECB provided analytical support to the ESRB in the form of regular reports monitoring and identifying systemic risks faced by the EU financial system and including assessments of the potential impact of those risks. In addition, ECB staff contributed to specific studies, initiated by the ESRB, on systemic risk and macro-prudential issues on an ad hoc basis.

All these contributions were based on ECB expertise, building on the organisation and infrastructure adopted for performing the ECB's financial stability tasks. The information base to support the analysis also includes information collected through market intelligence efforts, in particular to support the systemic risk identification process. Regular systemic risk surveillance and assessment work also relies on and benefits from information received from ESRB members. Systemic risk indicators and early-warning systems are important analytical tools aiding the risk surveillance work of the ESRB. The risk assessment is supported, in particular, by macro-stress-testing tools and the analysis of propagation channels to assess and rank the potential severity of specific risks. In cooperation with the NCBs and national and European supervisory authorities – via the ESRB's Advisory Technical Committee and its substructures – the ECB regularly reviews the available tools, with the objective of continuously improving the analytical framework, and develops new analytical tools to fill identified analytical gaps. The ESCB Macro-prudential Research Network plays a role in this regard (see Box 10).

The ECB may provide input into the preparation of ESRB recommendations on regulatory matters or legislative initiatives, at the request of the ESRB. In this regard, in 2011 the ECB contributed to the work of the ESRB on the identification and analysis of risks related to foreign currency lending in the EU. In addition, the ECB provided input on possible policy recommendations on the basis of previous analytical work carried out by the ECB and the Eurosystem.

Box 10

THE ESCB MACRO-PRUDENTIAL RESEARCH NETWORK

The General Council approved in 2010 the establishment of an ESCB Macro-prudential Research Network. This network is designed to support the new policy function of macro-prudential oversight in the EU that was established as a consequence of the financial crisis, notably the European Systemic Risk Board. In particular, researchers within this network are conducting research and sharing research results on conceptual frameworks, models and tools for macro-prudential oversight.

The first public event organised by the network was a conference in Frankfurt on 5 and 6 October 2011, where some of the network's researchers presented their work.[1] A small number of researchers from outside the network were also invited and the discussions of papers were led

1 Information about the conference is available on the ECB's website.

by renowned experts in the field. Only a selection of the research work conducted in the network could be covered in the conference, but a wider range of papers will be published over time in the ECB's Working Paper Series.

The first work area of the network deals with the development of macro-financial models linking financial instability and the performance of the economy. This workstream primarily aims to provide fundamental research rather than producing immediately operational policy tools. The research in this area is following various complementary avenues. Some researchers are focusing on the inclusion of financial frictions and factors in standard macro models. Others are concentrating on the key aspects needed to integrate realistic characterisations of financial instability into models of the aggregate economy. In particular, attention is being devoted to the modelling of bank defaults, including the interconnected nature of default risk, the debt and leverage ratio of financial intermediaries over the business cycle, the inclusion of non-linearities and the role played by the shadow banking sector, in particular in the context of different regulatory environments. Another line of research within this work area focuses on the evaluation of different macro-prudential regulatory policies, such as capital regulation or loan-to-value ratios, and of the effects arising from their interaction with other policies, such as monetary policy. A cross-country team is developing a canonical model of such policies that incorporates relevant forms of systemic instability and aims to identify and assess regulatory policies limiting systemic risks.

The second area of research deals with early-warning models and systemic risk indicators and is of a more operational nature. Research on these topics suggests that the value of early-warning indicators has increased overall thanks to improved methodologies and the use of so far less exploited data sources. The greater effectiveness of new early-warning tools has also resulted from shifting the focus of the analysis somewhat from predicting crises to predicting growing imbalances. In general, the work carried out by the network's researchers within the second area shows how the predictive power of early-warning models can be improved by using individual balance sheet data of financial firms, combined with traditional macro-financial variables. In addition, this combination provides very valuable information for policy-makers in terms of measuring the current level of systemic financial stress.

The third area in which the network is seeking to make progress is the assessment of contagion risks. Extensive research on risks from cross-border bank contagion in Europe is somewhat challenging owing to data limitations. However, a large project assessing cross-border financial links using transaction-based data from the TARGET2 system and involving researchers from several NCBs has been launched.

The main output of the network are research papers, workshops and conferences (a second conference is planned for 2012), including interactions with researchers outside the ESCB. The network will report on its results after two years in the second half of 2012.

STATISTICAL SUPPORT

Following the preparatory work undertaken in 2010, the ECB, assisted by the NCBs, provided statistical support to the ESRB, working closely with the ESAs when appropriate.

A key contribution to addressing the statistical data needs of the ESRB was made by a joint group comprising representatives of the ESRB Secretariat, the ECB and the ESAs between October 2010 and June 2011. The final report of

this joint group was partly translated into the ESRB Decision on the provision and collection of aggregated information for the macro-prudential oversight of the financial system within the Union (ESRB/2011/6).[16] This Decision covers in particular the identification of regular aggregated information needed to support the ESRB's tasks in the short term (i.e. until early 2013). The Decision requires the ECB and the ESAs to provide aggregated information on a regular basis and addresses data that are already collected. Moreover, it covers the definition of procedures to be followed in case additional and ad hoc aggregated data not included in the regularly provided data are needed to support the ESRB's tasks.

The joint group also discussed the long-term requirements for supervisory data and public disclosure, mainly based on reporting requirements currently being devised by the ESAs and the European Commission. These requirements will directly contribute to ESCB statistical work, avoid duplication of reporting and ensure consistency in the data for economic and financial stability analyses and related research work. In addition, the ECB has itself been involved in several workstreams to develop statistics (e.g. consolidated banking data and securities holdings statistics) that could also support the ESRB (see Section 4 of Chapter 2).

The ECB makes important contributions to the ESRB risk surveillance and risk analysis work through a quarterly macro-prudential review that presents statistical information (in tables and charts) and indicators broken down by risk category, namely macroeconomic risk, credit risk, market risk, liquidity and funding risk, interlinkages and imbalances, profitability and solvency. This quarterly review is based on data from several different sources, including the ESCB, the ESAs and commercial data providers. In addition, the ESRB Regulation (Article 3(g)) requires that the ESRB should "in collaboration with the ESAs, develop a common set of quantitative and qualitative indicators (risk dashboard) to identify and measure systemic risk". In this vein, the work to develop such a risk dashboard is divided into the same risk categories.

16 OJ C 302, 13.10.2011, p. 1.

3 FINANCIAL REGULATION AND SUPERVISION

3.1 BANKING

The Basel Committee on Banking Supervision (BCBS) published its new capital and liquidity standards (Basel III) in December 2010. The ECB actively participated in the development of the new Basel III framework and contributed substantially to the various impact assessments that aimed to quantify the possible effects of the regulatory package on financial markets and the real economy. In line with the commitment made by G20 leaders in November 2010, national and international efforts in this field are now focusing on the timely and consistent implementation of the Basel III standards. The ECB continues to participate in the follow-up work currently being carried out in various workstreams of the Basel Committee, including the revision and finalisation of certain elements of the reform package in the coming years. The ECB also contributes to the implementation of the Basel standards in Europe. Against this background, the ECB welcomes the European Commission's proposals made on 20 July 2011 for a directive and regulation which will transpose the Basel III framework into European law. These proposals represent an important step towards strengthening the regulation of the banking and investment firm sector and creating a sounder and safer financial system in Europe.

On 27 January 2012 the ECB published its opinion on the proposed directive and regulation.[17] In its opinion the ECB welcomes the strong commitment of the EU to implementing international standards and agreements in the field of financial regulation, while taking into consideration, where relevant, certain specific features of the EU legal and financial system. The key elements of the opinion are as follows.

First, concerning the proposed regulation, which will be directly applicable across Member States, the ECB strongly supports the "single rulebook" approach, which will ensure that financial institutions providing financial services in the Single Market comply with one set of prudential rules. This approach is expected to further enhance financial integration in Europe, among other things. In this context, the ECB fully supports the aim of addressing targeted risk exposures concerning, inter alia, certain sectors, regions or Member States through delegated acts that empower the Commission to impose stricter prudential requirements where necessary to address changes in the intensity of micro- or macro-prudential risks which arise from market developments. However, the ECB considers it important that the proposed regulation makes it possible for Member States to apply more stringent prudential requirements where systemic risks to financial stability arise. This framework should allow only upward adjustments in calibrations, while definitions should be maintained, thus respecting the principle of an EU rulebook. Furthermore, this framework should be subject to strict safeguards, under the coordination of the ESRB, in order to guard against possible unintended consequences, spillover effects and misuse. Second, it is crucial that EU banks are seen to maintain the same level of resilience and loss-absorbing capacity with regard to regulatory capital as their international peers. In this context, it should be ensured that the EU qualifying criteria for common equity tier 1 for joint stock companies, and therefore the definition of common equity tier 1, are equivalent to the Basel international standard. Third, the ECB is firmly in favour of the introduction of an explicit counter-cyclical element in financial regulation, which the ECB views as a key element of a wider macro-prudential toolkit. Finally, the ECB strongly supports the introduction of liquidity risk requirements and a leverage ratio into the EU regulatory framework, subject to appropriate review and calibration. The liquidity requirements include the introduction of a short-term liquidity coverage ratio, which aims to ensure that banks hold sufficient high-quality liquid assets to withstand an acute stress scenario lasting one month, and a longer-term net stable funding ratio, which increases the incentives for banks to fund themselves using more stable sources on a structural basis.

17 CON/2012/5.

While the new liquidity standards are expected to yield substantial micro- and macro-prudential benefits, possible unintended consequences of the new standards need to be assessed. In this context, the ESCB is carrying out work to analyse the interaction of the new liquidity regulation with monetary policy operations, through a task force established in May 2011 bringing together financial stability and monetary policy experts.

The Financial Stability Board (FSB), in line with the G20 mandate, focused its efforts in 2011 on developing critical measures to address the risks associated with systemically important financial institutions. The international framework developed by the FSB comprises the following building blocks: i) international standards and requirements for effective resolution, ii) more intensive and effective supervision, and iii) additional requirements to enhance loss absorbency. In particular, joint efforts by the BCBS and the FSB have resulted in a capital surcharge on top of Basel III requirements for global systemically important banks (G-SIBs).[18] In quantitative terms, G-SIBs will be subject to a progressive capital surcharge, ranging from 1% to 2.5% of risk-weighted assets,[19] depending on a bank's systemic importance[20]. This surcharge is to be fully met with common equity. In November 2011 the BCBS and the FSB identified an initial group of 29 banks deemed to be G-SIBs. The additional loss-absorbency requirements will initially apply to those banks identified in November 2014 as G-SIBs. The capital surcharge will be phased in from January 2016, with full implementation by January 2019. This time frame is expected to give banks the necessary time to adjust to the new rules, while minimising short-term disturbances to the strategies, business models and capital planning of banks. The ECB welcomes and has actively supported the work of the BCBS and the FSB in this important field. The ECB fully supports these new international standards, which are specifically designed to address the negative externalities and moral hazard posed by G-SIBs. They are a necessary step to reduce the likelihood and severity of financial instability and bailouts triggered by the failure of global systemically important financial institutions. For the framework to deliver its intended effects, a timely and internationally coordinated implementation of such measures is crucial.

3.2 SECURITIES

In 2011 a comprehensive reform of the EU framework for securities regulation, in which the ECB was closely involved, gained momentum.

In December 2010 the European Commission initiated a review of the Markets in Financial Instruments Directive (MiFID), a cornerstone of the EU regulation of financial markets. The overarching objective of the review is to adapt the EU regulatory framework to the latest technological and financial developments, while addressing the G20 requests[21] for national authorities to tackle less regulated and more opaque parts of the financial system. On 20 October 2011 the European Commission released its proposal for the revision of MiFID and proposed changes to the Market Abuse Directive.

Moreover, the European Commission presented a proposal for a directive amending Directive 2004/109/EC on the harmonisation of transparency requirements for issuers whose securities are admitted to trading on a regulated market (the Transparency Directive).

In the area of short selling, the ECB issued on 3 March 2011 an opinion[22] on the European Commission's proposal for a regulation. It noted that the proposed regulation incorporated many of the recommendations made in the 2010

18 See *Global systemically important banks: Assessment methodology and the additional loss absorbency requirement*, Basel Committee on Banking Supervision, November 2011.
19 A top, empty risk bucket of 3.5% is envisaged to provide incentives to banks to avoid further increasing their systemic importance over time.
20 Systemic importance is measured according to an indicator-based methodology developed by the BCBS.
21 See the G20 statements made at the Pittsburgh summit (in September 2009) and the Seoul summit (in November 2010).
22 CON/2011/17.

Eurosystem contribution to the Commission's public consultation on short selling. It is envisaged that the regulation will enter into force in November 2012.

The European Commission also put forward a proposal for a regulation and a directive on credit rating agencies on 15 November 2011. The aim of the proposal is to contribute to reducing risks to financial stability and restoring the confidence of investors and other market participants in financial markets and the quality of ratings. The ECB is currently in the process of preparing an opinion on the proposal.

The ECB also followed very closely and supported the work that the FSB and other international bodies started following the request of the G20 leaders in November 2010 to develop recommendations to strengthen the regulation and oversight of the shadow banking system. An overview of shadow banking in the euro area was prepared by the ECB and distributed to the FSB's members.

3.3 ACCOUNTING

In March 2011 the Eurosystem provided comments to the International Accounting Standards Board (IASB) on the standard-setter's hedge accounting proposal. In its letter to the IASB, the Eurosystem generally supported the proposed principles-based model that aims to better align financial reporting and companies' risk-management activities. The Eurosystem noted, however, that important hedging activities, such as macro hedging, were not covered by this proposal. Moreover, the Eurosystem highlighted the interlinkage between hedging and other parts of the financial instruments project, such as classification and measurement, and the potential benefits of conducting a comprehensive impact assessment – taking into account the interactions between all those parts of the financial instruments project – and a programme of outreach to stakeholders.

Throughout the year the IASB and the Financial Accounting Standards Board continued the convergence work on aligning their respective accounting frameworks. Despite the progress made in 2011, material differences continue to exist in key accounting areas, such as financial instruments accounting (classification and netting).

4 FINANCIAL INTEGRATION

The Eurosystem and the ESCB contribute to enhancing European financial integration by: i) raising awareness of and monitoring financial integration, ii) acting as a catalyst for private sector activities by facilitating collective action, iii) giving advice on the legislative and regulatory framework for the financial system and direct rule-making, and iv) providing central banking services that foster financial integration.

RAISING AWARENESS OF AND MONITORING FINANCIAL INTEGRATION

In May 2011 the ECB published its fifth annual report on "Financial integration in Europe".[23] The main purpose of the report is to contribute to the analysis of the advancement of European financial integration and to raise public awareness of the Eurosystem's role in supporting this process, providing information about the state of integration and thus an empirical basis for policy measures to foster further financial integration. This issue of the report focuses on the sovereign debt crisis in the euro area and its impact on bond and money markets. The report also contains more detailed analyses of the following topics: i) crisis management and resolution from a financial integration perspective, ii) insurance corporations and pension funds in the euro area, and iii) developments in the euro area bond markets during the financial crisis. The report concludes with an overview of the Eurosystem's contribution towards the achievement of more integrated and developed financial markets in Europe during 2010.

The ECB continues to be involved in the Research Network on Capital Markets and Financial Integration in Europe. This network brings together academics, market participants, policy-makers and central bankers, and is run in cooperation with the Center for Financial Studies at the University of Frankfurt. The network organised a workshop on "The structure of the euro area market for banks' debt financing and implications for monetary transmission and financial integration", which took place on 17 and 18 May 2011 in Frankfurt and was hosted by the ECB. As in previous years, the ECB offered five "Lamfalussy Fellowships" to young researchers in the context of the network. The network's current priorities are: i) financial systems as risk managers, risk distributors and risk creators, ii) the integration and development of retail financial services and the promotion of innovative firms, and iii) financial modernisation and governance and the integration of the European financial system into global capital markets.

ACTING AS A CATALYST FOR PRIVATE SECTOR ACTIVITIES

SEPA

The Single Euro Payments Area (SEPA) is an initiative aimed at achieving a fully integrated market for retail payment services in euro, with no distinction between cross-border and national payments. During 2011 the Eurosystem continued to monitor and support the work in this field.[24] Special attention was paid to the migration to the new SEPA instruments. According to the SEPA indicators, the migration in the euro area from domestic credit transfers to SEPA credit transfers reached 23.7% in December 2011. As regards the SEPA direct debits, the migration amounted to only 0.5% in December 2011. An end-date regulation to support the migration to the SEPA credit transfer and direct debit schemes was proposed by the European Commission. In its opinion, the ECB welcomed the Commission's proposal, which promotes binding end-dates for migration, deeming them crucial for the success of the project. The ECB also stressed the significance of a long-term solution for interchange fees for direct debits.[25]

The need to urgently adopt an end-date regulation was also stressed by the SEPA Council, the stakeholders' forum co-chaired by the ECB and the European Commission, which aims

23 This report is available on the ECB's website.

24 It also assessed progress against the milestones set out in its seventh SEPA Progress Report, published in October 2010 and available on the ECB's website.

25 See CON/2011/32, OJ C 155, 25.5.2011.

to promote an integrated euro retail payments market by ensuring the proper involvement of all parties and by fostering consensus on the next steps towards the realisation of SEPA. Besides the banking industry, public administrations and end-users (such as consumers and corporate entities like small and medium-sized enterprises and retailers) are represented. Four Eurosystem central banks also participate on a rotating basis.

There are several areas where further progress is needed in order to ensure the success of SEPA. Particular attention is required in the field of SEPA for cards. First, in order to enhance the security level of card transactions and to reduce card fraud based on "skimming"[26], the Eurosystem encouraged the market to migrate to EMV-chip technology and abandon the magnetic stripe. It also urged the different stakeholders involved to develop solutions to minimise fraud related to the use of magnetic stripes for as long as the global migration to EMV-chip technology remains incomplete (e.g. by blocking by default magnetic stripe transactions). Second, in order to create an integrated and competitive cards market, discussions with stakeholders were initiated on harmonised business practices. Furthermore, in the area of functional standardisation, the Eurosystem organised an ad hoc Forum on Cards Standardisation in March 2011. In addition, it actively promoted the work on establishing a harmonised SEPA security certification framework.

Attention also needs to be paid to innovation. The full migration to the SEPA schemes and the realisation of an integrated and competitive cards market based on common business practices, technical standards and security requirements form the foundation for innovative services offered on a pan-European scale. In this context, the Eurosystem stressed the need for secure and efficient online payment solutions to be offered throughout SEPA. Although clear market demand for this kind of service exists, progress in this field seemed to have stalled by the end of 2011. Market participants may be awaiting the finalisation of the investigation opened by the European Commission in September 2011 into the European Payments Council's standardisation process for payments over the internet.

To foster voluntary cooperation between relevant authorities within the EEA on the issue of retail payment security, a European Forum on the Security of Retail Payments was established in 2011 on the initiative of the ECB (see Section 5.2 of this chapter).

SECURITIES MARKETS

Since 2001 the Short-Term European Paper (STEP) initiative, pursued by market participants under the auspices of the European Banking Federation (EBF) and ACI – the Financial Markets Association, and steered by the STEP Market Committee, has promoted the integration of the short-term debt securities market in the euro area. It has done so through a voluntary core set of market standards and practices which can be applied to issuance programmes on existing markets such as the Euro Commercial Paper (ECP) market or the French commercial paper (TCN) market.

The STEP label was introduced in 2006 and, in December 2011, there were 166 active STEP-labelled programmes. STEP debt securities have come through the financial market turmoil relatively unscathed and their total amount outstanding in December 2011 was €415 billion, slightly more than one year earlier and approximately a 55% increase since the start of the financial turmoil in August 2007. Moreover, in the third quarter of 2011 the outstanding amount of non-government STEP securities accounted for around 40% of benchmark short-term debt securities, up from below 30% during the corresponding quarter

26 "Skimming" is the unauthorised copying of the data contained in the magnetic stripe via a manipulated or fake terminal or with a handheld reading device, with the aim of using the stolen data to execute fraudulent transactions without the cardholder's consent.

in 2007. The steady development of the market is due to the fact that STEP criteria can be applied to other existing market programmes and that STEP is regarded by the Eurosystem as a non-regulated market for collateral purposes. The temporary expansion of the list of assets eligible as collateral in Eurosystem credit operations to include STEP securities issued by credit institutions (i.e. certificates of deposit), following the Governing Council's decision in October 2008, was discontinued as from 1 January 2011. Despite some volatility in the outstanding amounts during 2011, the STEP market did not suffer substantially from this discontinuation and continued to grow. As of 1 January 2012 STEP-labelled securities issued by credit institutions again became eligible collateral with the Eurosystem as a result of the removal of the eligibility requirement that debt instruments (other than covered bank bonds) issued by credit institutions must be admitted to trading on a regulated market.

To increase transparency in the area of asset-backed securities (ABSs), the Governing Council decided in December 2010 to establish loan-by-loan information requirements for ABSs in the Eurosystem collateral framework. It decided to start with residential mortgage-backed securities, which is by far the largest relevant asset class, and introduced a lead time of about 18 months for such securities. This implies that the loan-level template that was published at the same time needs to be complied with by summer 2012. In April 2011 the Governing Council took a similar decision on commercial mortgage-backed securities and small and medium-sized enterprise ABSs, with the same timetable for implementation.

A well-functioning securitisation market, supported by standardisation and enhanced transparency by ensuring investor access to comprehensive and standardised information across the European ABS market, will contribute to the completeness of the European financial system and foster integration through the improved comparability of instruments across borders.

ADVICE ON THE LEGISLATIVE AND REGULATORY FRAMEWORK FOR THE FINANCIAL SYSTEM AND DIRECT RULE-MAKING

To enhance financial integration, the ECB and the Eurosystem, in line with their advisory and regulatory functions, monitor and actively contribute to the development of the EU legislative and regulatory framework. The activities during 2011 are covered in Section 3 of this chapter.

Furthermore, the ECB participated as an observer in the European Commission's Expert Group on Market Infrastructures, mandated to contribute to the development of an efficient, safe and sound post-trade market in the EU. The group concluded its work and on 10 October 2011 published a report,[27] which serves as input for ongoing policy analysis by the European Commission in relation to post-trade services and market infrastructures in the EU. This work is closely linked to the implementation of TARGET2-Securities (T2S).

PROVIDING CENTRAL BANKING SERVICES WHICH FOSTER FINANCIAL INTEGRATION

TARGET2, the second generation of the Eurosystem's large-value payment system, is the first market infrastructure which is completely integrated and harmonised at the European level. The Eurosystem has continued to make enhancements to TARGET2 and implemented a new release of the system in November 2011 (see Section 2.1 of Chapter 2).

T2S – the future Eurosystem service for securities settlement – will have an important impact on the harmonisation and integration of the post-trading environment in Europe. T2S will automatically remove many of the "Giovannini barriers" to cross-border clearing and settlement by, among other things: i) providing a single IT platform with a common interface and a single messaging protocol, ii) introducing a harmonised timetable for all connected markets, and iii) extending a single harmonised settlement

27 The report is available on the European Commission's website.

model comprising delivery versus payment in central bank money to all national and cross-border transactions. Nevertheless, even with a single technical platform, significant barriers to cross-border settlement remain, which must be removed in order for the payments market to reap the full benefits of T2S. In order to make further progress, a Harmonisation Steering Group, composed of senior representatives from the payments industry and from the public sector, was established in 2011. The group's main task is to identify where industry groups or markets are lagging behind the rest of Europe in the implementation of commonly agreed harmonisation standards, and if necessary exert pressure on national markets and relevant actors. The Harmonisation Steering Group will be at the core of the T2S harmonisation agenda, giving a major boost to T2S and the broader post-trade harmonisation work in Europe, in cooperation with the European Commission and other relevant actors (see Section 2.2 of Chapter 2).

Finally, in the area of collateral management, the correspondent central banking model (CCBM) has fostered financial integration since its implementation in 1999, by enabling all euro area counterparties to use on a cross-border basis eligible assets as collateral in Eurosystem credit operations, regardless of the country in which the asset has been issued. The Eurosystem is currently incorporating enhancements to the CCBM (see Section 2.3 of Chapter 2).

5 OVERSIGHT OF PAYMENT SYSTEMS AND MARKET INFRASTRUCTURES

Through its oversight function, the Eurosystem aims to ensure the safety and efficiency of payment and securities settlement systems, central counterparties (CCPs) processing the euro, payment instruments, major service providers and other critical infrastructures by monitoring and assessing them and, where necessary, inducing change.[28]

5.1 LARGE-VALUE PAYMENT SYSTEMS AND INFRASTRUCTURE SERVICE PROVIDERS

Large-value payment systems form the backbone of the euro area market infrastructure and play an important role for the stability and efficiency of the financial sector and the overall economy. The Eurosystem applies a well-defined oversight policy framework to all large-value payment systems that settle euro-denominated transactions – both its own system and those that are privately operated. This framework is based on the internationally accepted Core Principles for Systemically Important Payment Systems (CPSIPS), defined by the Committee on Payment and Settlement Systems (CPSS) and adopted by the Governing Council of the ECB in 2001. The CPSIPS are complemented by the Business Continuity Oversight Expectations (BCOE) for systemically important payment systems, which were adopted by the Governing Council in 2006.

TARGET2

The oversight of TARGET2 is led and coordinated by the ECB, in close cooperation with the participating NCBs. In 2011 the Eurosystem's TARGET2 overseers especially focused on operational risk aspects and the follow-up to the assessment of TARGET2 against the BCOE. Although the business continuity framework of TARGET2 had been assessed as generally well-established and ensuring a sufficiently high and consistent level of resilience, a few improvements to some parts of the framework were recommended. In 2011 the overseers monitored the implementation of these improvements. At the end of 2011 the implementation of one recommendation (related to documenting the obligation of the providers of the TARGET2 Single Shared Platform to provide adequate information to the governance bodies of TARGET2) was pending. Moreover, in the context of regular oversight activities, TARGET2 incidents were carefully analysed and discussed with the system operator.

In addition, the fifth TARGET2 software release went live on 21 November 2011. Prior to its launch, the overseers assessed the new functionalities against the applicable CPSIPS. The overseers concluded that, overall, the new release would not adversely affect the compliance of TARGET2 with the CPSIPS, and several of the changes would result in better services for TARGET2 customers.

The TARGET2 Simulator, an analytical tool based on payment data, was further refined in 2011. The tool enables overseers and operators, in particular, to closely replicate and stress-test the settlement process of TARGET2, using a pan-European dataset of TARGET2 activity, including transaction, liquidity and participant data. Several analytical projects independent from the TARGET2 Simulator but based on the related set of transaction-level data are being undertaken, among them a study on the intraday patterns of payment flows and the application of network theory with a focus on sub-networks ("communities") among TARGET2 participants.

EURO1

EURO1 is a large-value payment system for cross-border and domestic transactions in euro between banks operating in the EU. It is operated by EBA CLEARING. EURO1 works on a multilateral net basis. The end-of-day positions of EURO1 participants are ultimately settled in central bank money via the TARGET2 system, with the ECB acting as the settlement agent.

28 Detailed information on the Eurosystem's oversight function and activities is also provided by the ECB on its website and through specific Eurosystem oversight reports.

The ECB is entrusted with primary oversight responsibility, acting in close cooperation with all Eurosystem NCBs. Three main oversight activities relating to EURO1 were performed in 2011. The ECB, in close cooperation with the Deutsche Bundesbank, the Banco de España, the Banque de France, the Banca d'Italia and De Nederlandsche Bank, finalised the comprehensive assessment of EURO1 against the CPSIPS. The assessment concluded that the EURO1 system complies with Core Principles I to IX and, owing to the absence of a dedicated risk management function within the company, only broadly complies with Core Principle X (governance). In addition, the report made recommendations to the operator for improvements in the system, highlighting, however, that none of the aspects to be improved posed a significant risk to the effective functioning of EURO1. The ECB also carried out a follow-up assessment of the status of the recommendations made as a result of the system's assessment against the BCOE. All recommendations had been implemented by the system operator. Finally, the ECB, together with volunteering euro area NCBs, assessed changes to the business functionality (e.g. the implementation of two additional liquidity distribution windows during the EURO1 operating hours). The Eurosystem concluded that these changes would not adversely affect the compliance of EURO1 with the CPSIPS. Overall, the EURO1 system operated smoothly throughout 2011 and no incidents occurred.

CONTINUOUS LINKED SETTLEMENT SYSTEM

The Continuous Linked Settlement system (CLS) was launched in 2002 and is operated by CLS Bank International (CLS Bank). The system provides a multi-currency service for the synchronous – i.e. payment versus payment (PvP) – settlement of payment instructions relating to foreign exchange transactions. Through its PvP mechanism, CLS virtually eliminates the principal risk associated with the settlement of foreign exchange transactions. CLS currently settles in 17 of the world's most traded currencies, including the euro. Given that CLS Bank is established in the United States, the Federal Reserve System accepts primary oversight responsibility for CLS under a cooperative oversight arrangement involving the G10 central banks and the central banks of issue of currencies settled by CLS. The ECB, in close cooperation with the euro area NCBs, is part of this cooperative oversight arrangement and has primary oversight responsibility for settlement in euro by CLS.

In 2011 cooperative oversight activities with respect to CLS focused mainly on the monitoring of new business developments and initiatives by CLS.

SWIFT

SWIFT is important from a financial stability perspective, as it provides secure messaging services to the financial community in more than 210 countries around the world. SWIFT is a limited liability cooperative company which is established in Belgium. Through their participation in the G10 cooperative oversight of SWIFT, the ECB and some other Eurosystem NCBs contribute to various oversight activities carried out by the cooperative oversight group, with the Nationale Bank van België/ Banque Nationale de Belgique being the lead overseer.

In 2011 the oversight activities continued to be focused on the implementation of the Distributed Architecture programme, mainly through the construction of an additional operations centre in Europe. Furthermore, the overseers closely monitored the redesign of the FIN application project initiated in 2011. Other major activities performed in 2011 included reviewing the operational performance and availability of SWIFT's services, monitoring new projects that could potentially have an impact on the confidentiality, integrity and availability of SWIFT's critical services, and reviewing the possible impact of a cost optimisation programme launched by SWIFT on the resilience and availability of messaging services. The level of availability of the SWIFTNet FIN network in 2011 was 99.999%.

5.2 RETAIL PAYMENT SYSTEMS AND PAYMENT INSTRUMENTS

The Eurosystem also has oversight responsibility for retail payment systems and payment instruments. In 2003 the Governing Council adopted oversight standards for retail payment systems which draw on the CPSIPS. These standards are currently being reviewed and, additionally, oversight expectations for links between retail payment systems are under development.

The ECB is the lead overseer of the STEP2 system, which is a pan-European automated clearing house for retail payments in euro and is managed and operated by EBA CLEARING. STEP2 offers the processing of different kinds of retail payment, such as SEPA-compliant transactions (SEPA credit transfers and SEPA direct debits) and transactions according to domestic technical standards for which the services are limited to the respective domestic banking community (e.g. in Italy).

In October 2011 a new settlement service specifically for Irish banks ("STEP2 Irish Service") was introduced. STEP2 arranges the settlement of the values of payment transactions that are bilaterally exchanged between Irish banks via the domestic retail payment system operated by the Irish Retail Electronic Clearing Company Ltd. The settlement takes place in the TARGET2 system on pre-funded TARGET sub-accounts of the involved Irish banks. The ECB assessed the new service before its launch against the applicable oversight standards and came to the conclusion that the new service does not negatively affect the compliance of the STEP2 system with the oversight standards.

In 2011 the Eurosystem finalised the individual oversight assessments of card payment schemes operating in the euro area and made further progress on the oversight assessments of international card payment schemes.

Furthermore, in May 2011 the Governing Council approved the mandate for the European Forum on the Security of Retail Payments. The forum, which is a voluntary cooperative initiative in particular between overseers and supervisors of payment service providers, aims at sharing knowledge and enhancing understanding on issues related to the security of retail payments. In 2011 the focus of the forum was on the security of internet payments made using payment cards, credit transfers and direct debits, with the aim of issuing security recommendations in this field.

5.3 SECURITIES AND DERIVATIVES CLEARING AND SETTLEMENT

The Eurosystem has a strong interest in the smooth functioning of securities clearing and settlement systems because failures in the clearing, settlement and custody of securities could jeopardise the implementation of monetary policy, the smooth functioning of payment systems and the maintenance of financial stability.

MARKET INFRASTRUCTURES FOR OVER-THE-COUNTER (OTC) DERIVATIVES

As part of the follow-up to the mandate given at the G20 Pittsburgh summit in 2009,[29] the main legislative initiative in the EU during 2011 concerned the proposal for a regulation on OTC derivatives, central counterparties and trade repositories, also known as the European Market Infrastructure Regulation (EMIR), first issued in September 2010. The proposed regulation seeks to follow up on the G20 mandate regarding mandatory clearing and reporting to trade repositories of OTC derivatives and also to establish for the first time a common framework in the EU for CCPs across financial products. In its opinion of 13 January 2011, the ECB expressed its concerns that the proposed framework would not sufficiently reflect the

29 The G20 decided at its 2009 Pittsburgh summit that: "All standardised OTC derivative contracts should be traded on exchanges or electronic trading platforms, where appropriate, and cleared through central counterparties by end-2012 at the latest. OTC derivative contracts should be reported to trade repositories. Non-centrally cleared contracts should be subject to higher capital requirements."

competencies and need for involvement of central banks in relation to CCPs and trade repositories; it would also be necessary to strengthen the requirements for cooperation between regulators, overseers and central banks of issue. In addition, the EU followed up on the G20 mandate regarding the electronic trading of OTC derivatives, as part of its broader review of the Markets in Financial Instruments Directive (MiFID). On 20 October 2011 the European Commission issued legislative proposals for the revision of MiFID, which were assessed by the ECB.

A key initiative with respect to standard-setting is the revision of the international principles for financial market infrastructures with the aim of harmonising and, where appropriate, strengthening the existing international standards for payment systems that are systemically important, central securities depositories (CSDs), securities settlement systems and CCPs. Given the growing use and systemic importance of CCPs in the field of OTC derivatives and the increasing reliance of systemically relevant infrastructures and authorities on the accuracy and availability of trade repository data for the performance of their own functions, the revised standards also incorporate additional guidance for OTC derivatives, CCPs and trade repositories. In March 2011 the CPSS and the International Organization of Securities Commissions (IOSCO) published a consultative report on the draft principles for financial market infrastructures, to be finalised during the first quarter of 2012.

On 11 October 2011 the FSB in its second progress report on OTC derivatives market reform implementation highlighted the need to accelerate the pace of legislative and regulatory action, as well as to intensify the multilateral and bilateral dialogue to address overlaps, gaps and conflicts between authorities' approaches. The ECB, which was involved in both the CPSS-IOSCO and the FSB work, fully supported these conclusions. The ECB also considers that the consistent implementation of international standards across jurisdictions will be a critical element in delivering the coherent regulatory and oversight framework that is needed to ensure the safety and efficiency of global OTC derivatives markets.

TARGET2-SECURITIES

TARGET2-Securities (T2S) is a settlement service that aims to provide a single, borderless pool of securities and a core, neutral settlement process. The ECOFIN Council underlined in 2007 that the supervisory arrangements applicable to CSDs should remain safe and efficient, and that the implications of T2S for these arrangements should therefore be analysed to that end.

All competent authorities with a legitimate interest in the smooth functioning of T2S participate in a group coordinating the information exchange and carrying out activities related to the oversight and supervision of T2S services in the development phase, i.e. overseers of CSDs and payment infrastructures using T2S services, overseers with responsibility for critical infrastructures, supervisors with competences over CSDs joining T2S, and the non-euro area central banks issuing currencies eligible for settlement in T2S. So far, all competent authorities continue to support the idea of establishing a cooperative framework for the oversight and supervision of T2S services. Nevertheless, at this stage, it cannot be finalised because the responsibilities of T2S and CSDs are still in the process of being defined.

Throughout 2011 an extensive preliminary review of the available documentation concerning the T2S design took place involving all competent authorities. In particular, the T2S design was reviewed against the 2009 ESCB/CESR Recommendations for Securities Settlement Systems, taking into account some adaptations owing to the specific features of the T2S design. The Governing Council and the European Securities and Markets Authority also made some suggestions to the T2S Programme Board to foster compliance with the recommendations. Owing to the ongoing developments within the T2S project, the findings of the T2S design review will be updated once all the relevant documentation has been finalised.

Since July 2011 the structural framework of the high-rise has towered over the Grossmarkthalle.
By the end of December 2011 the construction works on both towers had reached the 21st floor.

CHAPTER 4

EUROPEAN ISSUES

1 POLICY AND INSTITUTIONAL ISSUES

As a consequence of the ongoing financial and economic crisis, 2011 witnessed an increase in the frequency of meetings at the EU and euro area level and a general intensification of contacts among the European institutions and fora involved in shaping Europe's policy response, in particular the European Council, the ECOFIN Council, the Eurogroup, the European Commission, the European Parliament and the ECB.

The President of the ECB participated regularly in Eurogroup meetings and in meetings of the ECOFIN Council when matters relating to the objectives and tasks of the ESCB were discussed. Beyond that, the President of the ECB was invited to take part in European Council meetings and in the informal meetings of the Heads of State or Government of the euro area, when issues related to the EU's policy response to the economic and financial crisis were addressed. When considered appropriate by them, the President of the Eurogroup and the Commissioner for Economic and Monetary Affairs participated in meetings of the Governing Council of the ECB.

IMPROVING CRISIS MANAGEMENT AT THE EUROPEAN LEVEL

As part of a package of measures to respond to the crisis, the European Council agreed on 24 and 25 March 2011 to establish a permanent crisis management mechanism, the European Stability Mechanism (ESM). The ESM will provide support to euro area countries subject to strict conditionality if it is established that it is indispensable to safeguard financial stability in the euro area as a whole. Following a limited amendment of the Treaty (Article 136), and given the decision of the euro area Heads of State or Government on the acceleration of its entry into force, the ESM is foreseen to enter into force in July 2012. The ESM will in future replace both the European Financial Stability Facility (EFSF) and the European Financial Stabilisation Mechanism (EFSM), which were established as temporary instruments in 2010.

At their meeting of 11 March 2011, the Heads of State or Government of the euro area agreed to extend the effective lending capacity of the EFSF to €440 billion and to ensure an effective lending capacity of the ESM of €500 billion. Subsequently, on 21 July 2011 they agreed to increase the flexibility of the EFSF and the future ESM by allowing them to act on the basis of a precautionary programme, to finance the recapitalisation of financial institutions through loans to the participating Member States, and to intervene in the primary and secondary government bond markets. On 9 December 2011 further important agreements were reached, including on the introduction of an emergency procedure in the voting rules of the ESM. Moreover, as regards the involvement of the private sector, it was reaffirmed that the well-established IMF principles and practices would be strictly adhered to.

As regards the involvement of the ECB, the President of the ECB will participate in the meetings of the Board of Governors of the EFSF and of the future ESM as an observer. Moreover, the European Commission will liaise with the ECB and the IMF in the identification of risks to the financial stability of the euro area as a whole. In liaison with the Commission and the IMF, ECB staff will undertake a rigorous debt sustainability analysis of a country requesting financial stability support. The Commission, assisted by the ECB and the IMF, will be responsible for the programme design and monitoring. The ECB regularly participates in joint missions with the Commission and the IMF to programme countries in order to assess the progress made in relation to the agreed conditionality and to contribute to the regular programme reviews. EFSF and ESM interventions in the secondary bond market will be possible on the basis of an ECB analysis recognising the existence of exceptional financial market circumstances and risks to financial stability.

IMPROVING ECONOMIC GOVERNANCE IN THE EU

In response to the financial and economic crisis, the Council of the European Union (EU Council) and the European Parliament adopted in 2011 a legislative package to strengthen the EU's

economic governance within the framework of the Treaty.[1] The ECB is of the view that the package contains a number of steps in the right direction to strengthen fiscal surveillance and to improve the enforcement of fiscal discipline. In particular, the Stability and Growth Pact (SGP) has been enhanced, to some extent, through reinforced monitoring and more automatic decision-making procedures with the introduction of reverse qualified majority voting; certain recommendations of the Commission will be deemed adopted unless the EU Council rejects them by qualified majority within a certain period of time. Moreover, more emphasis has been placed on the government debt criterion and the long-term sustainability of public finances. The reform also introduced expenditure benchmarks and minimum requirements for national budgetary frameworks. Furthermore, earlier and more graduated financial as well as non-financial sanctions have been introduced to encourage Member States' compliance with the SGP. Moreover, addressing a significant gap in the surveillance framework, a new macroeconomic surveillance procedure, with a preventive and a corrective arm, has been set up. Complementing the Europe 2020 strategy (see below), this new procedure is specifically aimed at addressing macroeconomic imbalances and deteriorating competitiveness.

In addition, the euro area Heads of State or Government agreed on 26 October 2011 to hold Euro Summit meetings on at least a half-yearly basis to provide strategic orientations on the economic and fiscal policies in the euro area, and to take better account of the euro area dimension of domestic policy decisions. It was also agreed that the Presidents of the Euro Summit, the Commission and the Eurogroup would hold meetings at least once a month, to which the President of the ECB may be invited.[2]

On 9 December 2011 the euro area Heads of State or Government agreed on a reinforced architecture for EMU that would include a new fiscal compact, in the form of a "Treaty on Stability, Coordination and Governance in the Economic and Monetary Union". This Treaty, which is compatible with EU law, is intended as a major step towards closer and irrevocable fiscal and economic integration and stronger governance in the euro area. It is open to non-euro area Member States and was signed in March 2012 by the Heads of State or Government of all EU countries, with the exception of the United Kingdom and the Czech Republic. It will enter into force after it has been ratified by at least 12 euro area countries.

Notwithstanding the progress made in strengthening economic governance, the ECB considers that reforms should have gone further still. In particular, one of the key aspects of the required "quantum leap" in economic governance – greater automaticity in decision-making through the use of reverse qualified majority voting to the maximum extent possible – has so far been only partly achieved. Moreover, as regards the new macroeconomic surveillance framework, it remains crucial that the effectiveness of the new mechanism is not weakened by its broad scope, also in terms of the indicators used, so that it can correct imbalances and vulnerabilities at an early stage.

THE EUROPEAN SEMESTER AND THE EUROPE 2020 STRATEGY

Based on the Europe 2020 strategy for jobs and smart, sustainable and inclusive growth, EU surveillance over the economic policies of its Member States is now organised in an annual cycle consisting of a European and a national semester. Under this new process, economic and fiscal surveillance are aligned, while remaining legally separate, so as to enhance the overall consistency of policy advice to Member States. The first European semester started in January 2011 with the publication of the Commission's Annual Growth Survey, which identified the main policy challenges for Member States as well as the EU and the euro area. The European Council, at its meeting

1 The ECB provided its assessment of the Commission proposals in its opinion on economic governance reform in the European Union (CON/2011/13) of 16 February 2011.

2 The Presidents of the European Supervisory Authorities and the CEO of the EFSF/Managing Director of the ESM may also be invited on an ad hoc basis.

on 24 and 25 March 2011, provided strategic guidance to be taken into account by Member States in the preparation of their stability and convergence programmes and national reform programmes. Following a review of these programmes, the ECOFIN Council issued policy recommendations to each Member State in June 2011, ahead of the adoption of national budgets and other policy measures, which takes place in the second half of the year. In the Annual Growth Survey published in November 2011, the Commission assessed compliance with the policy recommendations at the EU level and identified the policy challenges for 2012, in particular achieving growth-friendly fiscal consolidation, restoring normal lending to the economy, promoting growth and competitiveness, tackling unemployment and the social consequences of the crisis, and modernising public administration.

In the opinion of the ECB, although it is too early to fully assess the effectiveness of the European semester in improving the conduct of fiscal and structural policies in Member States, the framework can contribute to a more integrated and consistent approach to economic policies and surveillance. Overall, it remains important to maintain peer pressure and ensure that policy recommendations to Member States are not watered down in the surveillance process.

As a further step to enhance economic governance in the euro area, the Commission presented, in November 2011, two draft regulations to strengthen budgetary surveillance of euro area countries experiencing or threatened with serious difficulties with respect to their financial stability, and to monitor and assess draft national budgetary plans so as to facilitate the prevention and timely correction of excessive deficits. These proposals are currently under consideration within the EU Council and the European Parliament.

THE EURO PLUS PACT

At their meeting on 11 March 2011, the Heads of State or Government of the euro area adopted a Pact for the Euro. The Pact aims to further strengthen the economic pillar of EMU and achieve a new quality of policy coordination, with a focus on areas falling under national competence which are key for improving competitiveness and avoiding harmful imbalances. The monitoring of progress is to take place in the context of the European semester. The Pact is also open to non-euro area Member States and, as it has been signed by Bulgaria, Denmark, Latvia, Lithuania, Poland and Romania, it was renamed the Euro Plus Pact. The ECB welcomed the concrete commitment of the participating Member States to undertake particularly ambitious actions in areas such as competitiveness, employment and the long-term sustainability of public finance, going beyond what has already been agreed.

THE STABILITY AND GROWTH PACT

In 2011 all Member States, except Estonia, Luxembourg, Finland and Sweden, were subject to excessive deficit procedures (EDPs). For Finland the EDP was abrogated by the ECOFIN Council decision of 12 July 2011, after Eurostat data revealed that the country's deficit in 2010 had remained below 3% of GDP. For Bulgaria, Hungary and Malta the deadline to bring the general government deficit below the 3% of GDP reference value was end-2011, while for Belgium, Italy, Cyprus, Latvia, Lithuania, Poland and Romania it is 2012 and for the remaining countries in EDPs, including those subject to an EU-IMF programme, it is 2013 and beyond.

The ECB appreciates the consolidation efforts being undertaken by euro area countries, which are vital to return to sound fiscal positions. However, for several euro area countries in EDPs, the structural adjustment in 2011 was smaller than required. In view of the risks to a timely and sustainable correction of the EDPs, the ECB supports a stepping-up of the EDPs and the immediate implementation of the strengthened SGP procedures, which entered into force in January 2012.

2 DEVELOPMENTS IN AND RELATIONS WITH EU CANDIDATE COUNTRIES

Further progress was made in the EU enlargement agenda over 2011, especially in Croatia. EU Member States closed accession negotiations with Croatia in June 2011. The Accession Treaty was signed on 9 December 2011 in Brussels, with accession foreseen for 1 July 2013. As a consequence, members of Hrvatska narodna banka (the Croatian central bank) have been invited to attend, as observers, the meetings of the General Council of the ECB and of the ESCB committees. With regard to the remaining candidate countries, i.e. countries for which the EU has accepted an application for EU membership, accession negotiations continued with Turkey (opened in October 2005) and with Iceland (opened in July 2010). After granting Montenegro candidate status in December 2010, the European Council launched the accession process with the country in December 2011 with a view to opening accession negotiations in June 2012. In March 2012 the European Council also decided to grant candidate status to Serbia. The European Commission reiterated its recommendation to open accession negotiations with the former Yugoslav Republic of Macedonia, a candidate country since 2005, but no date has yet been set.

The ECB continued its policy dialogue with the central banks of the EU candidate countries in 2011 through bilateral meetings and within the overall institutional framework for the enlargement process set up by the EU. The ECB organised annual high-level policy dialogues with the Central Bank of the Republic of Turkey and Hrvatska narodna banka. The relations between the ECB and the Central Bank of Iceland were reinforced and a delegation from the latter headed by Governor Már Guðmundsson was hosted in Frankfurt in September 2011. Furthermore, close relations with the central banks of the candidate countries, as well as those of other countries, have been maintained through technical cooperation programmes (see Section 2 of Chapter 5).

The two office towers are currently growing at the same rate of one storey a week, but in terms of their height, one tower is taller than the other. Upon completion, the north tower will have 45 floors and the south tower 43. The high-rise itself (without the antenna) will measure approximately 185 metres at its highest point.

Since last summer the structural framework at the top of the high-rise has been surrounded by a yellow debris mesh. This has acted as a shield and allowed the formwork and concreting works to continue in bad weather and strong winds, without putting the safety of the workers at risk – even at great heights.

CHAPTER 5

INTERNATIONAL ISSUES

1 KEY DEVELOPMENTS IN THE INTERNATIONAL MONETARY AND FINANCIAL SYSTEM

SURVEILLANCE OF MACROECONOMIC POLICIES IN THE GLOBAL ECONOMY

Given the high degree of economic and financial integration, the monitoring and analysis of developments in the global economic environment are critically important for the conduct of economic policy in the euro area. The ECB also plays an important role in the process of international multilateral surveillance of macroeconomic policies, which at the central banking level is mainly coordinated by the BIS. The ECB also participates in the relevant meetings of other international organisations such as the IMF and the OECD, as well as fora such as the G20 and G7 finance ministers and central bank governors.

The international economic environment in 2011 was characterised by a slowdown in the economic recovery, with growth declining to 1.6% for advanced economies (against 3.2% in 2010) and to 6.2% for emerging and developing economies (against 7.3% in 2010), according to the IMF. At the same time, external imbalances, which had decreased in 2009 in the context of the global financial crisis, stopped narrowing and remained at elevated levels in 2011. The main surplus and deficit countries have remained essentially the same. As in recent years, the euro area's current account was broadly balanced in 2011. On various occasions in 2011 the ECB stressed the risks and distortions that would ensue if global imbalances were to remain at unsustainable levels, and expressed support for a rebalancing of global demand patterns. In terms of structural factors that would help in substantially reducing global imbalances, countries with external deficits should increase domestic savings, reduce fiscal deficits and complete the structural reform agenda. Similarly, economies with external surpluses could also contribute substantially by increasing domestic consumption, developing more extensive social safety nets, undertaking financial market reforms and increasing exchange rate flexibility.

In that context, the ECB took part in the discussions among G20 finance ministers and central bank governors which led to an agreement on a set of "Indicative guidelines for assessing persistently large imbalances" in April 2011. The ECB was also involved in drawing up, at the level of finance ministers and central bank governors, a G20 Action Plan, which was adopted by G20 leaders in November 2011. This plan aims both to address short-term vulnerabilities and to reduce financial instability, as well as identifying policy commitments by G20 members that will help lay the foundations for sustainable and balanced medium-term growth.

Finally, the euro area itself is subject to international policy surveillance exercises by the IMF and the OECD. In 2011 the IMF conducted its regular review of the monetary, financial and economic policies of the euro area, as a complement to its reviews of the individual euro area countries. It prepared two reports assessing euro area policies, including the financial stability framework of the EU.[1] In the context of a new surveillance exercise by the IMF, the euro area (in addition to the United States, the United Kingdom, China and Japan) participated in discussions regarding cross-border policy spillovers.[2]

REFORMS IN THE INTERNATIONAL INSTITUTIONAL SET-UP

The set-up and functioning of the international monetary system remains an important issue for the international community. In 2011 the G20 forum of systemically important advanced and emerging economies, which includes the EU, continued to foster international cooperation, with the aim of addressing ongoing global economic and financial challenges and promoting stronger, more sustainable and balanced growth.

1 *Euro Area Policies: 2011 Article IV Consultation – Staff Report*, IMF Country Report No 11/184, July 2011, and *Euro Area Policies: 2011 Article IV Consultation – Lessons from the European Financial Stability Framework Exercise*, IMF Country Report No 11/186, July 2011.

2 *Euro Area Policies: Spillover Report for the 2011 Article IV Consultation and Selected Issues*, IMF Country Report No 11/185, July 2011.

At their sixth summit in Cannes in November 2011, the G20 leaders followed up on the commitments made at their meeting in Pittsburgh in September 2009, where they had launched a framework for strong, sustainable and balanced growth. The aim of this framework is to help manage the transition from crisis response to a strong, sustainable and balanced pattern of global growth. The framework foresees a process of mutual assessment of how the national and regional policies and policy frameworks of G20 members fit together and whether they are consistent with the framework's objective. The G20 leaders also agreed on a set of conclusions to guide the management of capital flows as well as on an action plan for local currency bond markets. In addition, in recognition of the increasing importance of regional financing arrangements, the G20 agreed on common principles for cooperation between the IMF and regional financing arrangements. These measures were intended to help achieve a more stable and resilient international monetary system. In this context, discussions also focused on IMF surveillance, the IMF's lending instruments, IMF resources and the special drawing right (SDR)[3] basket, as well as work on assessing developments in global liquidity and the analysis of drivers of reserve accumulation.

As a follow-up to the commitment made by G20 leaders at their London summit in April 2009 to increase the resources available to international financial institutions, the reformed and expanded New Arrangements to Borrow (NAB)[4] became effective in March 2011. Participation in the NAB was extended from 26 to 40 members, and the overall amount of these credit lines to the IMF increased from SDR 34 billion to SDR 370 billion. Most bilateral borrowing and note purchase agreements signed since 2009 between the IMF and its member countries, in the amount of around SDR 180 billion, are to be incorporated over time into the NAB. In November 2011 the IMF agreed to further amend its lending instruments to respond to the liquidity needs of countries with strong fundamentals that are affected by contagion. In this context, it was decided to increase the flexibility of the Precautionary Credit Line created in August 2010 by allowing it to be used by members with *actual* balance of payments needs and by enabling six-month arrangements in addition to the existing options of one and two-year arrangements. Given these changes, the Precautionary Credit Line was renamed the Precautionary and Liquidity Line.[5]

The G20 and the IMF Executive Board also exchanged views in 2011 on the composition of the currency basket that determines the value of the SDR. It was affirmed that the composition of the basket should continue to reflect the relative role of currencies in the global trading and financial system, and that the principles guiding SDR valuation, including stability in terms of major currencies, remained valid, though there is to be further clarification of the criteria for admission to the basket. In the current four-currency SDR basket, the contribution of the euro was set on 1 January 2011 at 42.3 euro cent, or 37.4% of the basket on that date.

One of the core activities of the IMF, surveillance, underwent its regular triennial review in 2011. This exercise considered lessons for surveillance emerging from the global financial crisis and took stock of the progress made since 2008 (including the new spillover reports mentioned above). It was agreed that the surveillance framework should be more integrated, even-handed and effective so that it can better identify and address risks, including spillover risks, to economic and financial stability.

3 The special drawing right (SDR) is a unit of account used by the IMF and some other international institutions, as well as a potential claim on the freely usable currencies of IMF members.
4 The NAB are credit arrangements between the IMF and a number of IMF member countries and institutions that provide supplementary resources to the IMF.
5 The other qualification criteria of the Precautionary Credit Line will continue to apply.

2 COOPERATION WITH COUNTRIES OUTSIDE THE EU

As in previous years, the Eurosystem organised seminars and workshops with non-EU central banks in order to foster policy dialogue. The ECB also actively participated alongside the European Commission in the EU's macroeconomic dialogue with key emerging market economies and EU neighbouring countries. In addition, the technical cooperation provided by the Eurosystem remained an important tool for strengthening the administrative capacity of central banks outside the EU, especially in the EU's neighbouring regions, and for enhancing compliance with European and international standards.

FOSTERING POLICY DIALOGUE

The ECB continued to deepen its relations with the central banks and monetary authorities of various countries. For example, the ECB took part in EU macroeconomic dialogues with Brazil, Russia, India and China.

In the context of the ECB's bilateral relations with the People's Bank of China (PBC), the ECB-PBC Working Group discussed a wide range of topics, such as the rebalancing of global growth, monetary policy challenges, asset price bubbles and associated risks, the reform and liberalisation of the financial markets, and the international role of currencies.

The sixth high-level seminar of the Eurosystem and the Bank of Russia was held on 3 and 4 February 2011 in Frankfurt. Discussions focused on the Russian economy, on the role of money and credit in the conduct of monetary policy and on the new supervisory architecture in the EU and Russia.

The sixth high-level seminar of central banks in the East Asia-Pacific region and the euro area took place in Amsterdam on 27 and 28 June 2011 and was jointly organised by the ECB, De Nederlandsche Bank and the Bank of Korea, in its capacity as 2011 chair of the Executives' Meeting of East Asia Pacific Central Banks. The purpose of the seminar was to exchange views on key policy issues of mutual interest and to deepen relationships between the monetary authorities of the two regions.

On 5 and 6 July 2011 the ECB organised an economics conference on emerging Europe. The main focus of the conference, which was held in Frankfurt, was on the effectiveness of policy responses to the crisis, sustainable growth and convergence, as well as financial stability challenges in central, eastern and south-eastern Europe.

The Eurosystem held a third high-level seminar with central banks and monetary agencies of the member states of the Gulf Cooperation Council, which was co-organised by the ECB and the Central Bank of the United Arab Emirates and held on 19 January 2012 in Abu Dhabi. The topics of the seminar were the current economic, financial and fiscal challenges in the euro area, systemic risk analysis and the prevention of financial crises, and the international monetary and financial architecture.

TECHNICAL COOPERATION

Since 2003 the ECB, together with the NCBs, has implemented several EU-funded technical cooperation programmes for the benefit of EU neighbouring countries. This activity peaked in early 2011, when the ECB coordinated the highest number of simultaneous programmes in its history.

The ECB and 21 NCBs[6] started supporting the National Bank of Serbia on 1 February 2011 through a two-year EU-funded programme. It aims to bring the central bank closer to EU standards in 11 different areas, including financial sector supervision, legal harmonisation, monetary and exchange rate operations, economic analysis and research, statistics, payment systems and financial stability.

6 The NCBs of Belgium, Bulgaria, the Czech Republic, Germany, Estonia, Ireland, Greece, Spain, France, Cyprus, Luxembourg, Hungary, the Netherlands, Austria, Poland, Portugal, Romania, Slovenia, Slovakia, Finland and the United Kingdom.

The three-year technical cooperation programme with the Bank of Russia, funded by the EU, came to an end on 31 March 2011. The ECB, together with eight euro area NCBs[7] and in cooperation with the Financial Supervisory Authority of Finland, supported the Bank of Russia in the areas of banking supervision and internal audit. The aim of the programme was to support the gradual implementation of the Basel II framework in Russia and to provide training and information on Eurosystem internal audit practices.

On 30 September 2011 the 18-month programme of technical cooperation between the ECB, seven partner NCBs[8] and the Central Bank of Bosnia and Herzegovina ended. The programme, funded by the EU, supported the Central Bank of Bosnia and Herzegovina in implementing EU central banking standards in the areas of statistics, economic analysis and research, financial stability, legal harmonisation, information technology and EU integration.

With regard to the western Balkans and Turkey, a two-year EU-funded programme on macro- and micro-prudential supervision came to an end on 16 January 2012. The programme was implemented by the ECB together with 14 partner NCBs[9] and in cooperation with international and European institutions.[10] As part of the programme, the Eurosystem organised intensive regional training on macro- and micro-prudential supervision and supported the implementation of specific national measures in beneficiary institutions.[11] Furthermore, region-wide technical simulations of home-host cooperation were conducted.

Cooperation with the Central Bank of Egypt continued throughout 2011 in an EU-funded programme aimed at strengthening banking supervision in Egypt to achieve compliance with the basic components of the Basel II framework. The programme involves experts from the ECB and seven NCBs.[12] The programme is expected to end on 31 March 2012.

7 The NCBs of Germany, Greece, Spain, France, Italy, the Netherlands, Austria and Finland.
8 The NCBs of Germany, Greece, Spain, Italy, the Netherlands, Austria and Slovenia.
9 The NCBs of Belgium, Greece, Spain, France, Italy, Cyprus, Luxembourg, Malta, the Netherlands, Austria, Portugal, Slovenia, Slovakia and Finland.
10 The Basel Committee on Banking Supervision, the Committee of European Banking Supervisors (succeeded by the European Banking Authority), the Financial Stability Institute, the IMF and the World Bank.
11 The central banks and supervisory authorities of Croatia, the former Yugoslav Republic of Macedonia, Montenegro, Turkey, Albania, Bosnia and Herzegovina, Serbia and Kosovo under UN Security Council resolution 1244.
12 The NCBs of Bulgaria, the Czech Republic, Germany, Greece, France, Italy and Romania.

The entrance building will create a functional and visual link between the Grossmarkthalle and the double office tower. It will intersect with the Grossmarkthalle and form a clearly identifiable entrance from the north side of the site on Sonnemannstrasse. It will also house the press conference area.

The concrete core of the entrance building, which has already emerged out of the gap in the hall, now shows the location of the entrance building and its alignment between the double office tower and the entrance on Sonnemannstrasse.

CHAPTER 6

EXTERNAL COMMUNICATION AND ACCOUNTABILITY

1 ACCOUNTABILITY AND COMMUNICATION POLICY

Central bank independence has established itself over the past few decades as an indispensable element of the monetary policy regimes of both advanced and emerging economies. The decision to grant central banks independence has long been firmly supported by economic theory and empirical evidence, both of which show that such a set-up is conducive to maintaining price stability. At the same time, it is a founding principle of democratic societies that any independent institution bestowed with a public function must be accountable to citizens and their representatives. Accountability is therefore an important counterpart of central bank independence.

The ECB's commitment to accountability and transparency is illustrated by its reporting to European citizens and their elected representatives, the European Parliament. The Treaty lays down precise reporting requirements for the ECB, which include the publication of a quarterly report, a weekly financial statement and an annual report. The ECB goes far beyond these statutory obligations in its regular reporting, for instance by publishing a Monthly Bulletin, rather than the required quarterly report. The ECB's commitment to accountability and transparency is also illustrated by the numerous speeches delivered by the members of the Governing Council, which deal with a broad variety of topics of relevance to the ECB's tasks.

External communication at the ECB aims to enhance the public's understanding of the ECB's policies and decisions and, as such, is an integral part of the ECB's monetary policy and its other tasks. Two key elements – openness and transparency – guide the ECB's communication activities. Both contribute to the effectiveness, efficiency and credibility of the ECB's monetary policy and its other statutory tasks. They also support the ECB's efforts to give a full account of its actions.

The ECB's concept of real-time, regular and comprehensive explanations of its monetary policy assessment and decisions, which was introduced in 1999, represents a uniquely open and transparent approach to central bank communication. Monetary policy decisions are explained at a press conference immediately after the Governing Council has taken them. The President delivers a detailed introductory statement at the press conference, explaining the Governing Council's decisions. The President and Vice-President are then at the media's disposal to answer questions. Since December 2004 decisions taken by the Governing Council other than those setting interest rates have also been published every month on the websites of the Eurosystem central banks.

ECB legal acts are made available in all the official languages of the EU, as are the Governing Council's monetary policy decisions, the decisions taken by the Governing Council in addition to decisions setting interest rates, and the consolidated financial statements of the Eurosystem.[1] The ECB's Annual Report is also made available in full in all official EU languages.[2] The Convergence Report and the quarterly issues of the ECB's Monthly Bulletin are made available either in full or in summary form in all official EU languages.[3] For the purposes of public accountability and transparency, the ECB also publishes other documentation – in addition to the statutory publications – in some or all official languages, in particular press releases announcing staff macroeconomic projections, policy positions and information of relevance to the general public. The preparation, publication and distribution of the national language versions of the ECB's key publications are undertaken in close collaboration with the NCBs.

1 With the exception of Irish, for which a derogation is in effect at the EU level.
2 With the exception of Irish (by EU derogation) and Maltese (by agreement with the Central Bank of Malta, following the lifting of the temporary EU derogation in May 2007).
3 See footnote 2.

2 ACCOUNTABILITY TO THE EUROPEAN PARLIAMENT

The European Parliament, as the institution which derives its legitimacy directly from the citizens of the EU, plays the most important institutional role in holding the ECB to account. Since its establishment, the ECB has maintained a close and fruitful dialogue with the European Parliament.

The President of the ECB continued to report on the ECB's monetary policy and its other tasks during his quarterly hearings before the European Parliament's Committee on Economic and Monetary Affairs (ECON) in 2011. In addition, he met the Conference of Presidents of the European Parliament in February 2011. He also attended an extraordinary ECON hearing in August to exchange views with members of the European Parliament (MEPs) on the financial and economic crisis. In December 2011 he appeared before the plenary session of Parliament to present the ECB's Annual Report 2010.

Other members of the ECB's Executive Board also appeared before the European Parliament on a number of occasions. The Vice-President presented the ECB's Annual Report 2010 to ECON. Gertrude Tumpel-Gugerell appeared before ECON to inform its members about payment issues in January 2011. She also participated in a public hearing on the Single Euro Payments Area organised by ECON in April 2011. Jürgen Stark participated in a public hearing on economic governance organised by ECON in October 2011. In line with past practice, a delegation from ECON visited the ECB in December 2011, in order to exchange views with the members of the Executive Board.

During the various exchanges of views between MEPs and ECB representatives during 2011, a wide range of issues were addressed. The European Parliament expressed support for the ECB and its policies on many issues. It recognised the ECB's success in achieving its mandate under difficult circumstances and its determined policy conduct during the crisis, and also acknowledged the ECB's constant and rigorous contributions with regard to strengthening economic governance. Beyond macroeconomic developments and the ECB's monetary policy, the main issues discussed concerned the causes, impact and resolution of the financial crisis. In addition, a very fruitful dialogue was conducted on issues related to economic governance, and the topic of financial regulation and supervision was also addressed.

RESOLUTION OF THE FINANCIAL AND ECONOMIC CRISIS

A very important topic in discussions between the ECB and the European Parliament in 2011 was the tackling of the ongoing financial and economic crisis (see Section 1 of Chapter 4). The European Parliament repeatedly welcomed the determined stance taken by the ECB throughout the crisis. It noted that the ECB had been successful in maintaining price stability in spite of unfavourable macroeconomic conditions and acknowledged the necessity of non-standard monetary policy measures. The Parliament also emphasised the importance of sound public finances for a sustainable recovery from the crisis. The Parliament welcomed the establishment of a permanent crisis management mechanism – the European Stability Mechanism – and stressed the need to bring the latter more closely under the EU framework.

During his appearances before the European Parliament, the President of the ECB recalled the severity of the crisis and emphasised that the decisions taken by the ECB had been indispensable to prevent a further deterioration of the crisis. The President also reaffirmed that the ECB would continue to do whatever necessary to maintain price stability in the euro area and thus deliver on its primary mandate. He expressed his appreciation for the constructive dialogue with the Special Committee on the Financial, Economic and Social Crisis, emphasising the ECB's responsibility to contribute with its expertise to parliamentary debates in order to facilitate progress on issues of high relevance to the smooth functioning of EMU.

REFORM OF EU AND EURO AREA ECONOMIC GOVERNANCE

The reform of the economic governance framework in the EU and the euro area also featured prominently in the discussions between the ECB and the European Parliament. In the course of the year the European Parliament debated a set of six legislative proposals on this subject put forward by the European Commission in September 2010. Moreover, the European Parliament is co-deciding on the two legislative proposals to further strengthen budgetary surveillance in the euro area[4] which were presented by the Commission in November 2011. The European Parliament also participated as an observer in the Working Group on the Fiscal Stability Union, which discussed the Treaty on Stability, Coordination and Governance in the Economic and Monetary Union (for further information on these issues, see Section 1 of Chapter 4).

During his appearances before the European Parliament, the President of the ECB engaged in an in-depth discussion of the new legislation and encouraged MEPs to be ambitious in their approach. He stressed the importance of more automaticity in the decision-making procedures under the Stability and Growth Pact. This position followed earlier calls by the ECB in 2010 for a "quantum leap" towards strengthening the institutional foundations of economic governance in EMU. The President of the ECB also welcomed the Parliament's contribution during the legislative procedure to further strengthening the provisions of the Stability and Growth Pact, in particular by making both the Stability and Growth Pact and the newly created macroeconomic imbalances framework more effective through the use of reverse qualified majority voting. Moreover, the European Parliament added the application of fines for statistical misreporting. Finally, the European Parliament paid particular attention to the democratic legitimacy aspects of the new governance framework, by introducing the concept of "economic dialogue" between national and EU policy-makers and the European Parliament.

EU FINANCIAL SECTOR REFORM

The European Parliament and the ECB continued their intensive dialogue on matters concerning financial supervision and regulation (see Section 3 of Chapter 3). The European Market Infrastructure Regulation and the Regulation on short selling and certain aspects of credit default swaps figured prominently on the agenda of ECON. Legislative discussions on the third revision of the Capital Requirements Directive and the revision of legislation pertaining to credit rating agencies also started. On a number of occasions, the potential benefits and drawbacks of a financial transaction tax were discussed.

During his appearances before the European Parliament, the President of the ECB welcomed the instrumental role played by the European Parliament in the pursuit of an ambitious financial supervisory reform with a true European perspective. The President stressed the importance of maintaining political momentum in order to further implement the financial regulatory agenda. Concerning the European Market Infrastructure Regulation, he expressed a preference for an arrangement involving cooperation and information-sharing among supervisory authorities in the form of colleges rather than bilateral procedures. He emphasised the importance of sound bank resolution mechanisms, which would limit the costs associated with a bank failure in the case of a cross-border group. On all these issues the President of the ECB stressed the importance of achieving a level playing field and of avoiding regulatory arbitrage.

The ECB's opinions on EU legislative proposals within its field of competence (see Section 6.2 of Chapter 2) also served as a source of technical advice to members of the European Parliament.

4 Proposals for a regulation on common provisions for monitoring and assessing draft budgetary plans and ensuring the correction of excessive deficits of the Member States in the euro area, and for a regulation on the strengthening of economic and budgetary surveillance of Member States experiencing or threatened with serious difficulties with respect to their financial stability in the euro area.

3 COMMUNICATION ACTIVITIES

The ECB addresses a variety of audiences – financial experts, the media, governments, parliaments and the general public – with varying levels of knowledge regarding finance and economics. Its mandate and decisions are therefore explained through a range of communication tools and activities which are constantly being refined in order to make them as effective as possible, taking into account the different audiences and the relevant communication environments and needs.

In 2011 the ECB's communication activities focused on explaining the events and consequences of the global financial and economic crisis with special regard to the sovereign debt crisis in Europe and the measures decided on by the Governing Council and executed by the Eurosystem. The vast majority of public speeches delivered by members of the Executive Board were related to these issues. These topics also dominated the questions and requests for information received from the media, the public and visitors to the ECB. The activities of the European Systemic Risk Board in its first year, and in particular the ECB's role in supporting it, also featured regularly in the ECB's communication activities.

The ECB publishes a number of regular and periodic studies and reports. These include: the Annual Report, which presents a review of the ECB's activities in the previous year; the Monthly Bulletin, which provides regular updates on the ECB's assessment of economic and monetary developments and detailed information underlying its decisions; and the biannual Financial Stability Review, which assesses the stability of the euro area financial system with regard to its ability to absorb adverse shocks. The ECB also provides a wide range of statistical data, primarily by means of the Statistical Data Warehouse and interactive charts on the ECB's website, but also in hard copy in the monthly editions of the Statistics Pocket Book.

All members of the ECB's Governing Council contribute directly to enhancing public knowledge and understanding of the Eurosystem's tasks and policies by giving testimonies before the European Parliament and national parliaments, delivering public speeches and granting interviews to the media. Over the course of 2011 the members of the Executive Board delivered around 150 speeches to a variety of audiences and granted around 240 interviews to the media. They also had many articles published in journals, magazines and newspapers.

The euro area NCBs play a key role in ensuring the dissemination, at the national level, of Eurosystem information and messages to the general public and other interested parties. They address a variety of national and regional audiences in their own languages and environments.

In 2011 the ECB organised 16 seminars for journalists aimed at enhancing the knowledge and understanding of the national and international media as regards the ECB's mandate, tasks and activities. It organised seminars on its own and in cooperation with the NCBs, the European Commission, the European Journalism Centre and other public authorities and foundations. The ECB welcomed approximately 13,500 visitors to its premises in Frankfurt in 2011. Visitors received first-hand information in the form of presentations given by ECB staff.

All documents published by the ECB and other information about its various activities are available on the ECB's website. In 2011 the website received 27 million visits; 224 million pages were viewed and 57 million documents were downloaded. In 2011 the ECB replied to around 100,000 enquiries from the public requesting information on a number of issues related to the ECB's activities, policies and decisions. The online educational game

"€CONOMIA", launched in 2010, was adapted for mobile devices and was awarded first prize in the corporate games category of the Deutscher Preis für Onlinekommunikation.

A number of high-level international conferences and events were organised in 2011, including "European integration and stability", an ECB colloquium in honour of Gertrude Tumpel-Gugerell on 19 May 2011, and the event to mark the end of Jean-Claude Trichet's term as President of the ECB on 19 October 2011.

On 1 October 2011 the Generation €uro Students' Award was launched for secondary school students in the euro area. This competition, which will be held each year, aims in the long run to enhance the economic literacy of teenagers and to give them a better understanding of the role of the central bank in the economy. The first competition covers the academic year 2011/12 and will end with a European award event in mid-2012.

In November 2011 a timeline displaying the key dates and events of the financial crisis was launched on the ECB's website. This timeline aims to satisfy the strong need for information on the unfolding of the crisis on the part of the media and the general public. It provides, in a user-friendly and compact form, a summary of the key events related to the financial and sovereign debt crisis from an ECB perspective.

In preparation for the tenth anniversary of the introduction of the euro banknotes and coins on 1 January 2012, a commemorative film, a press kit, footage on the production of the euro banknotes and coins, educational material and a competition for children aged 9 to 12 were produced. In addition, as part of the communication activities on banknotes, the Euro Exhibition featuring a range of interactive elements and games travelled to Bucharest, Paris and Sofia, organised by the ECB in cooperation with NCBs and other institutions, such as museums. By the end of 2011 around 226,000 people had visited the Euro Exhibition since its creation in 2008.

In 2011 the Cultural Days of the ECB were dedicated to Italy and organised in cooperation with the Banca d'Italia. Italian art and culture were celebrated between 19 October and 17 November at well-known cultural locations in Frankfurt through a wide variety of events, ranging from classical concerts, a jazz evening, literary events and films to dance performances, art lectures and exhibitions, as well as children's events. The Cultural Days initiative was launched in 2003 with the aim of raising cultural awareness and giving the residents of Frankfurt and visitors to the area a unique flavour of the culture of a different EU Member State each year.

In November 2011 the first of a total of 14 trusses were mounted in the atrium between the two office towers. These trusses, together with the interchange platforms, serve to brace the two office towers.

CHAPTER 7

INSTITUTIONAL FRAMEWORK AND ORGANISATION

1 DECISION-MAKING BODIES AND CORPORATE GOVERNANCE OF THE ECB

1.1 THE EUROSYSTEM AND THE EUROPEAN SYSTEM OF CENTRAL BANKS

The Eurosystem is the central banking system of the euro area. It comprises the ECB and the NCBs of the EU Member States whose currency is the euro (17 since 1 January 2011). The term "Eurosystem", now enshrined in the Lisbon Treaty, was adopted by the Governing Council in order to facilitate understanding of the structure of central banking in the euro area. This term underlines the shared identity, teamwork and cooperation of all its members.

The ESCB is composed of the ECB and the NCBs of all 27 EU Member States, i.e. it also includes the NCBs of the Member States which have not yet adopted the euro.

The ECB is the core of the Eurosystem and the ESCB and ensures that the operations which form part of the tasks of the ESCB are carried out either through its own activities or via the NCBs, to which the ECB shall have recourse to the extent deemed possible and appropriate. The ECB has legal personality under public international law. The Lisbon Treaty established the ECB as an EU institution. However, the institutional features of the ECB remain unchanged.

Each NCB has legal personality according to the law of its respective country. The euro area NCBs, which form an integral part of the Eurosystem, carry out the tasks conferred upon the Eurosystem in accordance with the rules established by the ECB's decision-making bodies. The NCBs also contribute to the work of the Eurosystem and the ESCB through their participation in the Eurosystem/ESCB committees (see Section 1.5 of this chapter). They may perform non-Eurosystem functions on their own responsibility, unless the Governing Council finds that such functions interfere with the objectives and tasks of the Eurosystem.

The Eurosystem and the ESCB are governed by the decision-making bodies of the ECB: the Governing Council and the Executive Board. The General Council is constituted as a third decision-making body of the ECB, for as long as there are EU Member States which have not yet adopted the euro. The functioning of the decision-making bodies is governed by the Treaty, the Statute of the ESCB and the relevant Rules of Procedure.[1] Decision-making within the Eurosystem and the ESCB is centralised. However, the ECB and the euro area NCBs jointly contribute, strategically and operationally, to attaining the common goals of the Eurosystem, with due respect to the principle of decentralisation in accordance with the Statute of the ESCB.

1.2 THE GOVERNING COUNCIL

The Governing Council comprises the members of the Executive Board of the ECB and the governors of the NCBs of the Member States which have adopted the euro. Its main responsibilities, as laid down in the Treaty, are:

– to adopt the guidelines and take the decisions necessary to ensure the performance of the tasks entrusted to the Eurosystem;

– to formulate the monetary policy of the euro area, including, as appropriate, decisions relating to intermediate monetary objectives, key interest rates and the supply of reserves in the Eurosystem, and to establish the necessary guidelines for their implementation.

The Governing Council meets, as a rule, twice a month at the ECB's premises in Frankfurt am Main, Germany. It conducts, inter alia, an in-depth assessment of monetary and economic developments and takes related decisions specifically at its first meeting of the month, while the second meeting usually focuses on issues related to other tasks and responsibilities of the ECB and the Eurosystem. In 2011 two meetings were held outside Frankfurt, one hosted by Suomen Pankki – Finlands Bank in Helsinki and the other hosted by the Deutsche Bundesbank in Berlin. In addition to these meetings, the Governing Council may also hold meetings by means of teleconference or take decisions by written procedure.

When taking decisions on monetary policy and on other tasks of the ECB and the Eurosystem, the members of the Governing Council do not act as national representatives, but in a fully independent personal capacity. This is reflected by the principle of "one member, one vote" applied within the Governing Council. In 2008 the Governing Council decided to continue its existing voting regime – as provided for by Article 10.2 of the Statute of the ESCB – and to introduce a rotation system only when the number of governors in the Governing Council exceeds 18.

1.3 THE EXECUTIVE BOARD

The Executive Board comprises the President and the Vice-President of the ECB and four other members appointed by the European Council, acting by qualified majority, after consultation of the European Parliament and of the ECB. The main responsibilities of the Executive Board, which as a rule meets once a week, are:

– to prepare the meetings of the Governing Council

– to implement the monetary policy of the euro area in accordance with the guidelines and decisions laid down by the Governing Council and, in doing so, to give the necessary instructions to the euro area NCBs;

1 For the ECB's Rules of Procedure, see: Decision ECB/2004/2 of 19 February 2004 adopting the Rules of Procedure of the European Central Bank, OJ L 80, 18.3.2004, p. 33; Decision ECB/2004/12 of 17 June 2004 adopting the Rules of Procedure of the General Council of the ECB, OJ L 230, 30.6.2004, p. 61; and Decision ECB/1999/7 of 12 October 1999 concerning the Rules of Procedure of the Executive Board of the ECB, OJ L 314, 8.12.1999, p. 34. These rules are also available on the ECB's website.

THE GOVERNING COUNCIL

Front row (left to right):
Carlos Costa, Yves Mersch, Vítor Constâncio, Mario Draghi, José Manuel González-Páramo, Benoît Cœuré, Marko Kranjec, Jörg Asmussen

Middle row (left to right):
Erkki Liikanen, Ignazio Visco, Ewald Nowotny, Miguel Fernández Ordóñez, Josef Bonnici, Patrick Honohan, Jozef Makúch, Christian Noyer

Back row (left to right):
Luc Coene, George A. Provopoulos, Athanasios Orphanides, Klaas Knot, Jens Weidmann, Peter Praet, Andres Lipstok

Mario Draghi
President of the ECB
(from 1 November 2011)
Governor of the Banca d'Italia
(until 31 October 2011)
Jean-Claude Trichet
President of the ECB
(until 31 October 2011)
Vítor Constâncio
Vice-President of the ECB
Jörg Asmussen
Member of the Executive Board of the ECB
(from 1 January 2012)
Lorenzo Bini Smaghi
Member of the Executive Board of the ECB
(until 31 December 2011)
Michael C. Bonello
Governor of the Central Bank of Malta
(until 30 June 2011)
Josef Bonnici
Governor of the Central Bank of Malta
(from 1 July 2011)
Luc Coene
Governor of the Nationale Bank van België/
Banque Nationale de Belgique
(from 1 April 2011)
Benoît Cœuré
Member of the Executive Board of the ECB
(from 1 January 2012)
Carlos Costa
Governor of the Banco de Portugal
Miguel Fernández Ordóñez
Governor of the Banco de España
José Manuel González-Páramo
Member of the Executive Board of the ECB
Patrick Honohan
Governor of the Central Bank of Ireland
Klaas Knot
President of De Nederlandsche Bank
(from 1 July 2011)
Marko Kranjec
Governor of Banka Slovenije

Erkki Liikanen
Governor of Suomen Pankki – Finlands Bank
Andres Lipstok
Governor of Eesti Pank
Jozef Makúch
Governor of Národná banka Slovenska
Yves Mersch
Governor of the Banque centrale du Luxembourg
Ewald Nowotny
Governor of the Oesterreichische Nationalbank
Christian Noyer
Governor of the Banque de France
Athanasios Orphanides
Governor of the Central Bank of Cyprus
Peter Praet
Member of the Executive Board of the ECB
(from 1 June 2011)
George A. Provopoulos
Governor of the Bank of Greece
Guy Quaden
Governor of the Nationale Bank van België/
Banque Nationale de Belgique
(until 31 March 2011)
Jürgen Stark
Member of the Executive Board of the ECB
(until 31 December 2011)
Gertrude Tumpel-Gugerell
Member of the Executive Board of the ECB
(until 31 May 2011)
Ignazio Visco
Governor of the Banca d'Italia
(from 1 November 2011)
Axel A. Weber
President of the Deutsche Bundesbank
(until 30 April 2011)
Jens Weidmann
President of the Deutsche Bundesbank
(from 1 May 2011)
Nout Wellink
President of De Nederlandsche Bank
(until 30 June 2011)

– to manage the current business of the ECB;

– to exercise certain powers delegated to it by the Governing Council, including some of a regulatory nature.

The Executive Board is assisted by a Management Committee in matters relating to the ECB's management, business planning and annual budget process. The Management Committee is composed of one Executive Board member, who acts as Chairperson, and a number of senior managers.

1.4 THE GENERAL COUNCIL

The General Council is composed of the President and the Vice-President of the ECB and the governors of the NCBs of all 27 EU Member States. It mainly carries out those tasks taken over from the European Monetary Institute which still have to be performed because not all the Member States have adopted the euro. These tasks include strengthening cooperation between the NCBs, supporting the coordination of the monetary policies of the Member States with the aim of ensuring price stability, and monitoring

THE EXECUTIVE BOARD

Back row (left to right):
Jörg Asmussen, Peter Praet,
Benoît Cœuré

Front row (left to right):
Vítor Constâncio (Vice-President),
Mario Draghi (President),
José Manuel González-Páramo

Mario Draghi
President of the ECB
(from 1 November 2011)
Jean-Claude Trichet
President of the ECB
(until 31 October 2011)
Vítor Constâncio
Vice-President of the ECB
Jörg Asmussen
Member of the Executive Board
(from 1 January 2012)
Lorenzo Bini Smaghi
Member of the Executive Board
(until 31 December 2011)
Benoît Cœuré
Member of the Executive Board
(from 1 January 2012)
José Manuel González-Páramo
Member of the Executive Board
Peter Praet
Member of the Executive Board
(from 1 June 2011)
Jürgen Stark
Member of the Executive Board
(until 31 December 2011)
Gertrude Tumpel-Gugerell
Member of the Executive Board
(until 31 May 2011)

THE GENERAL COUNCIL

Front row (left to right):
Ewald Nowotny, Ilmārs Rimšēvičs, Athanasios Orphanides, Vítor Constâncio, Mario Draghi, Miguel Fernández Ordóñez, Luc Coene

Middle row (left to right):
Erkki Liikanen, Carlos Costa, Yves Mersch, Christian Noyer, Jozef Makúch, Marko Kranjec, Stefan Ingves, Mugur Constantin Isărescu

Back row (left to right):
Marek Belka, Ignazio Visco, Nils Bernstein, Klaas Knot, Miroslav Singer, Andres Lipstok, András Simor, Patrick Honohan

Note: Josef Bonnici, Ivan Iskrov, Mervyn King, George A. Provopoulos, Vitas Vasiliauskas and Jens Weidmann were not available at the time the photograph was taken.

Mario Draghi
President of the ECB
(from 1 November 2011)
Governor of the Banca d'Italia
(until 31 October 2011)
Jean-Claude Trichet
President of the ECB
(until 31 October 2011)
Vítor Constâncio
Vice-President of the ECB
Marek Belka
President of Narodowy Bank Polski
Nils Bernstein
Governor of Danmarks Nationalbank
Michael C. Bonello
Governor of the Central Bank of Malta
(until 30 June 2011)
Josef Bonnici
Governor of the Central Bank of Malta
(from 1 July 2011)
Luc Coene
Governor of the Nationale Bank van België/
Banque Nationale de Belgique
(from 1 April 2011)
Carlos Costa
Governor of the Banco de Portugal
Miguel Fernández Ordóñez
Governor of the Banco de España
Patrick Honohan
Governor of the Central Bank of Ireland
Stefan Ingves
Governor of Sveriges Riksbank
Mugur Constantin Isărescu
Governor of Banca Naţională a României
Ivan Iskrov
Governor of Българска народна банка
(Bulgarian National Bank)
Mervyn King
Governor of the Bank of England
Klaas Knot
President of De Nederlandsche Bank
(from 1 July 2011)
Marko Kranjec
Governor of Banka Slovenije
Erkki Liikanen
Governor of Suomen Pankki – Finlands Bank
Andres Lipstok
Governor of Eesti Pank
Jozef Makúch
Governor of Národná banka Slovenska
Yves Mersch
Governor of the Banque centrale du Luxembourg
Ewald Nowotny
Governor of the Oesterreichische Nationalbank
Christian Noyer
Governor of the Banque de France
Athanasios Orphanides
Governor of the Central Bank of Cyprus
George A. Provopoulos
Governor of the Bank of Greece
Guy Quaden
Governor of the Nationale Bank van België/
Banque Nationale de Belgique
(until 31 March 2011)
Ilmārs Rimšēvičs
Governor of Latvijas Banka
Reinoldijus Šarkinas
Chairman of the Board of Lietuvos bankas
(until 15 April 2011)
András Simor
Governor of the Magyar Nemzeti Bank
Miroslav Singer
Governor of Česká národní banka
Vitas Vasiliauskas
Chairman of the Board of Lietuvos bankas
(from 16 April 2011)
Ignazio Visco
Governor of the Banca d'Italia
(from 1 November 2011)
Axel A. Weber
President of the Deutsche Bundesbank
(until 30 April 2011)
Jens Weidmann
President of the Deutsche Bundesbank
(from 1 May 2011)
Nout Wellink
President of De Nederlandsche Bank
(until 30 June 2011)

the functioning of ERM II. Moreover, it reports – in the form of the ECB's Convergence Report – to the Council of the European Union (EU Council) on the progress made by Member States which have not yet adopted the euro in fulfilling their obligations regarding the achievement of Economic and Monetary Union. It also contributes to the advisory functions of the ECB. In 2011 the General Council had its four quarterly meetings.

1.5 EUROSYSTEM/ESCB COMMITTEES, THE BUDGET COMMITTEE, THE HUMAN RESOURCES CONFERENCE AND THE EUROSYSTEM IT STEERING COMMITTEE

The Eurosystem/ESCB committees have continued to play an important role in assisting the ECB's decision-making bodies in the performance of their tasks. At the request of both the Governing Council and the Executive Board, the committees have provided expertise in their fields of competence and have facilitated the decision-making process. Membership of the committees is usually restricted to staff of the Eurosystem central banks. However, the NCBs of the Member States which have not yet adopted the euro take part in the meetings of a committee whenever it deals with matters that fall within the field of competence of the General Council. Where appropriate, other competent bodies, such as national supervisory authorities in the case of the former Banking Supervision Committee, may also be invited. On 13 January 2011 the Financial Stability Committee was established to assist the Governing Council in the fulfilment of the ECB's tasks relating to financial stability. As at 31 December 2011 14 Eurosystem/ESCB committees had been established under Article 9.1 of the Rules of Procedure of the ECB.

EUROSYSTEM/ESCB COMMITTEES, EUROSYSTEM IT STEERING COMMITTEE, BUDGET COMMITTEE, HUMAN RESOURCES CONFERENCE AND THEIR CHAIRPERSONS[1]

Accounting and Monetary Income Committee (AMICO) Werner Studener	**International Relations Committee (IRC)** Wolfgang Duchatczek
Banknote Committee (BANCO) Ton Roos	**Legal Committee (LEGCO)** Antonio Sáinz de Vicuña
Committee on Cost Methodology (COMCO) N.N.	**Market Operations Committee (MOC)** Francesco Papadia
Eurosystem/ESCB Communications Committee (ECCO) Elisabeth Ardaillon-Poirier	**Monetary Policy Committee (MPC)** Wolfgang Schill
Financial Stability Committee (FSC) Mauro Grande	**Payment and Settlement Systems Committee (PSSC)** Daniela Russo
Information Technology Committee (ITC) Koenraad de Geest	**Risk Management Committee (RMC)** Carlos Bernadell
Internal Auditors Committee (IAC) Klaus Gressenbauer	**Statistics Committee (STC)** Aurel Schubert
Budget Committee (BUCOM) José Luis Malo de Molina	**Human Resources Conference (HRC)** Steven Keuning
Eurosystem IT Steering Committee (EISC) Benoît Cœuré	

1 As at 17 February 2012.

Three further committees exist. The Budget Committee, which was established under Article 15 of the Rules of Procedure, assists the Governing Council in matters related to the ECB's budget. The Human Resources Conference was established in 2005 under Article 9a of the Rules of Procedure as a forum for the exchange of experience, expertise and information among Eurosystem/ESCB central banks in the field of human resources management. The Eurosystem IT Steering Committee was established in 2007 by the Governing Council, with a mandate to steer continuous improvement in the use of IT within the Eurosystem.

1.6 CORPORATE GOVERNANCE

In addition to the decision-making bodies, the corporate governance of the ECB encompasses a number of external and internal control layers, two codes of conduct, an Ethics Framework and rules concerning public access to ECB documents.

EXTERNAL CONTROL LAYERS

The Statute of the ESCB provides for two control layers, namely the external auditor, which is appointed to audit the annual accounts of the ECB (Article 27.1 of the Statute of the ESCB), and the European Court of Auditors, which examines the operational efficiency of the management of the ECB (Article 27.2). The annual report of the European Court of Auditors, together with the ECB's reply, is published on the ECB's website and in the Official Journal of the European Union. In order to reinforce public assurance as to the independence of the ECB's external auditor, the principle of audit firm rotation is applied.[2] Good practices for the selection and mandate of external auditors, published on the ECB's website, provide high-level guidance for each Eurosystem central bank when selecting external auditors and determining their mandate. The good practices also enable the Governing Council to formulate its recommendations to the EU Council on the basis of harmonised, consistent and transparent selection criteria.

INTERNAL CONTROL LAYERS

The internal control structure of the ECB is based on an approach in which each organisational unit (section, division, directorate or directorate general) has primary responsibility for managing its own risks, as well as for ensuring the effectiveness and efficiency of its operations. Each organisational unit implements operational control procedures within its area of responsibility in accordance with the risk tolerance set ex ante by the Executive Board.

In 2011 the ECB continued, together with the NCBs, to implement the operational risk management framework for Eurosystem tasks and processes. The business areas of the ECB also updated their operational risk assessments. The ECB continued to regularly test and review the business continuity arrangements for its critical operations. Furthermore, in 2011 the ECB reviewed its crisis management framework and conducted a training programme for the crisis management team. In cooperation with the NCBs, the ECB launched a business impact analysis to identify the time criticality of Eurosystem functions.

The Risk Management Committee (RMC) assists the decision-making bodies in ensuring an appropriate level of protection for the Eurosystem by managing and controlling the risks originating from its market operations. In 2011 the RMC discussed the assessment of risks related to monetary policy operations and to the management of the ECB's foreign reserves. It also considered the risk aspects of various options for addressing the deteriorating liquidity conditions of banks in countries under stress, the monitoring of Eurosystem

2 Following the conclusion of a tender procedure and in line with the agreed practice of rotating audit firms, PricewaterhouseCoopers Aktiengesellschaft Wirtschaftsprüfungsgesellschaft was appointed as the ECB's external auditor for the financial years 2008-12.

counterparties' financial soundness, and the setting of the strategic benchmarks and currency distribution for the ECB's foreign reserves.

In July 2011 the ECB transformed its Risk Management Division into a Risk Management Office, establishing it as an independent business area. It is responsible for the risk management framework for all of the ECB's financial market operations and for monitoring, assessing and proposing improvements to the Eurosystem's operational framework for monetary policy and foreign exchange policy from a risk management perspective. The organisational change was the result of a significant increase in the role of the risk management function in central banks in general (and the ECB in particular). It also reflected the guidance provided by the Governing Council to all Eurosystem central banks that there should be separate reporting lines to the board members responsible for the market operations function and for the risk management function. This organisational development is in line with best practices in governance advocating the independent conduct of the risk management function within financial organisations.

Independently from the internal control structure and risk monitoring of the ECB, audit missions are performed by the Directorate Internal Audit under the direct responsibility of the Executive Board. In accordance with the mandate defined in the ECB Audit Charter[3], the ECB's internal auditors provide independent and objective assurance and consulting services, bringing a systematic approach to evaluating and improving the effectiveness of risk management, control and governance processes. The ECB's internal audit activities conform with the International Standards for the Professional Practice of Internal Auditing of the Institute of Internal Auditors.

A Eurosystem/ESCB committee, the Internal Auditors Committee, which is composed of the heads of internal audit at the ECB and the NCBs, is responsible for coordinating the auditing of Eurosystem/ESCB joint projects and operational systems.

An ECB Audit Committee further enhances the corporate governance of the ECB and the Eurosystem as a whole. It is composed of three Governing Council members, with Erkki Liikanen (Governor of Suomen Pankki – Finlands Bank) as Chairman.

CODES OF CONDUCT

Two codes of conduct are applicable to the members of the ECB's decision-making bodies. The first code of conduct gives guidance to, and sets ethical standards for, the members of the Governing Council and their alternates when exercising their functions as members of the Governing Council.[4] It reflects their responsibility to safeguard the integrity and reputation of the Eurosystem and to maintain the effectiveness of its operations. An Ethics Adviser has been appointed by the Governing Council to provide guidance to its members on aspects of professional conduct. The second code is the Supplementary Code of Ethics Criteria for the members of the Executive Board.[5] It complements the other code of conduct by further detailing the ethical regime applicable to members of the Executive Board.

The Ethics Framework for members of staff of the ECB[6] provides guidance and sets ethics conventions, standards and benchmarks. All staff are expected to maintain high standards of professional ethical behaviour in the performance of their duties, as well as in their relations with NCBs, public authorities, market participants, media representatives and the public in general. An Ethics Officer appointed by the Executive Board ensures a consistent interpretation of the rules applicable to Executive Board members and staff.

3 This charter is published on the ECB's website to foster the transparency of audit arrangements in place at the ECB.
4 See the Code of Conduct for the members of the Governing Council, OJ C 123, 24.5.2002, p. 9, its amendment, OJ C 10, 16.1.2007, p. 6, and the ECB's website.
5 See the Supplementary Code of Ethics Criteria for the members of the Executive Board of the ECB, OJ C 104, 23.4.2010, p. 8, and the ECB's website.
6 See Part 0 of the ECB Staff Rules containing the Ethics Framework, OJ C 104, 23.4.2010, p. 3, and the ECB's website.

ANTI-FRAUD MEASURES

In 1999 the European Parliament and the EU Council adopted a Regulation[7] to step up the fight against fraud, corruption and any other illegal activity detrimental to the Communities' financial interests. The Regulation provides, inter alia, for the internal investigation of suspected fraud by the European Anti-Fraud Office (OLAF) within the EU institutions, bodies, offices and agencies. The OLAF Regulation foresees that each of the latter adopt decisions in order for OLAF to be able to carry out its investigations within each of them. In 2004 the Governing Council adopted a Decision[8] concerning the terms and conditions for investigations by OLAF of the ECB, which entered into force on 1 July 2004.

ANTI-MONEY LAUNDERING/COUNTER-TERRORIST FINANCING PROGRAMME

In 2007 the ECB established its internal anti-money laundering (AML) and counter-terrorist financing (CTF) scheme. The design of the AML/CTF provisions is in line with the 40 recommendations and nine special recommendations of the Financial Action Task Force (FATF), to the extent that they are applicable to the ECB's operations. A compliance function within the ECB identifies, analyses and addresses the risks associated with money laundering and terrorist financing for all relevant activities of the ECB. In particular, ensuring compliance with applicable AML/CTF legislation is part of the process of assessing and monitoring the eligibility of the ECB's counterparties. In this context, particular attention is paid to restrictive measures adopted by the EU and public statements issued by the FATF. In September 2011 a provision stating that counterparties are deemed to be aware of, and must comply with, all obligations imposed on them by AML/CTF legislation was introduced into the "General Documentation"[9]. An internal reporting system complements the ECB's AML/CTF framework to ensure that all relevant information is systematically collected and duly communicated to the Executive Board.

PUBLIC ACCESS TO ECB DOCUMENTS

The ECB's Decision on public access to ECB documents,[10] adopted in 2004, is in line with the objectives and standards applied by other EU institutions and bodies with regard to public access to their documents. It enhances transparency, while at the same time taking into account the independence of the ECB and of the NCBs and ensuring the confidentiality of certain matters specific to the performance of the ECB's tasks.[11] In 2011 the ECB amended its Decision on public access to ECB documents in order to take into account the new ESRB-related activities of the ECB.[12]

In 2011 the number of public access requests remained limited.

7 Regulation (EC) No 1073/1999 of the European Parliament and of the Council of 25 May 1999 concerning investigations conducted by the European Anti-Fraud Office (OLAF), OJ L 136, 31.5.1999, p. 1.

8 Decision ECB/2004/11 of 3 June 2004 concerning the terms and conditions for European Anti-Fraud Office investigations of the European Central Bank, in relation to the prevention of fraud, corruption and any other illegal activities detrimental to the European Communities' financial interests and amending the Conditions of Employment for Staff of the European Central Bank, OJ L 230, 30.6.2004, p. 56.

9 *The implementation of monetary policy in the euro area – general documentation on Eurosystem monetary policy instruments and procedures*, ECB, September 2011.

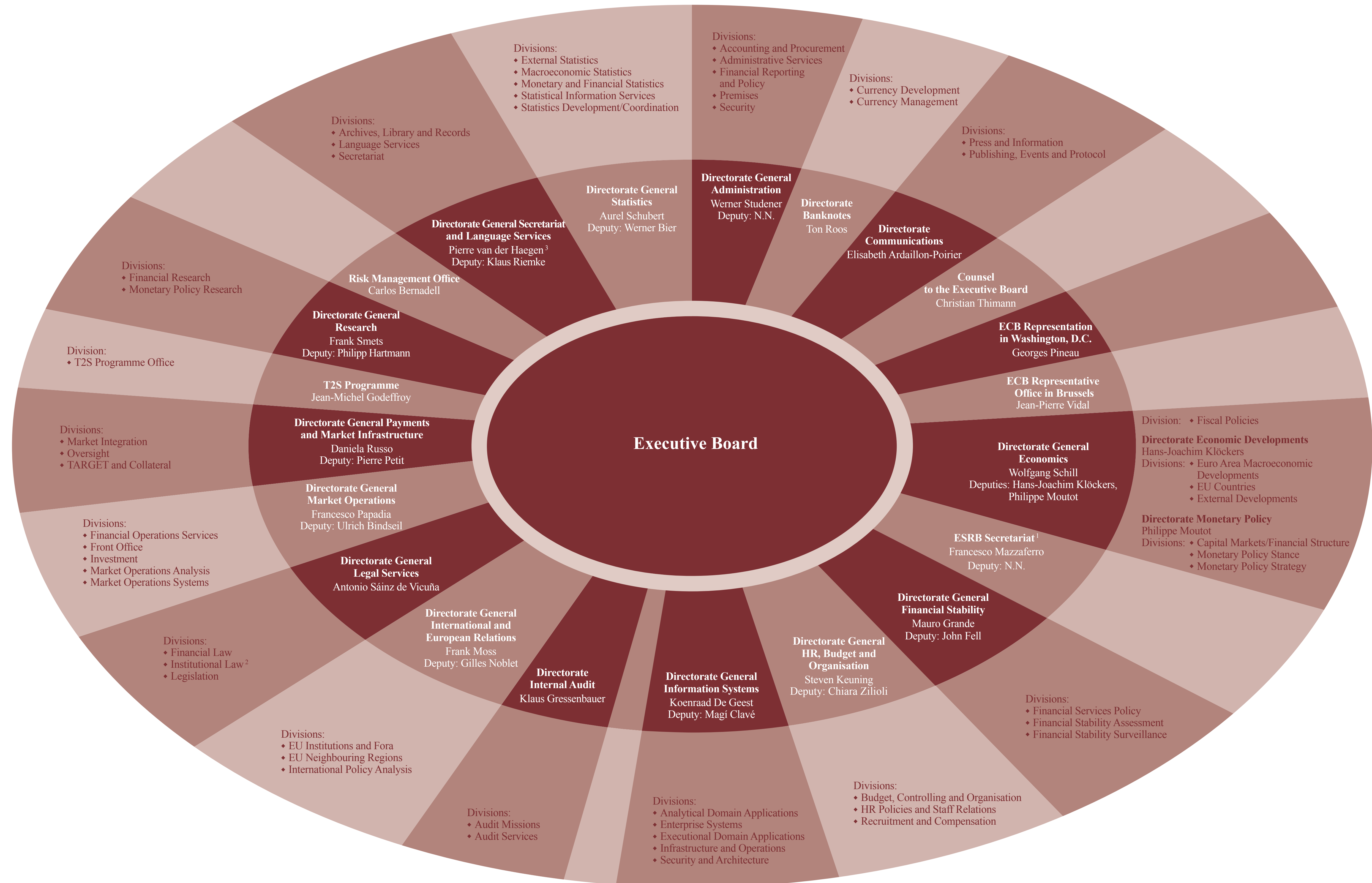
10 Decision ECB/2004/3 of 4 March 2004 on public access to European Central Bank documents, OJ L 80, 18.3.2004, p. 42.

11 In line with the ECB's commitment to openness and transparency, the "Archives" section of the ECB's website provides access to historical documentation.

12 Decision ECB/2011/6 of 9 May 2011 amending Decision ECB/2004/3 on public access to ECB documents, OJ L 158, 16.6.2011, p. 37.

THE ORGANISATION CHART OF THE ECB

(as at 31 December 2011)



1 Reports to the President of the ECB in his capacity as Chair of the ESRB.
2 Includes the data protection function.
3 Secretary to the Executive Board, the Governing Council and the General Council.

2 ORGANISATIONAL DEVELOPMENTS

2.1 HUMAN RESOURCES MANAGEMENT

In 2011 the ECB continued to develop and implement human resources management policies in four areas: working culture, recruitment, professional development and employment conditions.

WORKING CULTURE

In 2011 developments related to the working culture of the ECB focused on diversity and professional ethics. The ECB organised a high-level diversity forum in March 2011, and regular monitoring of gender diversity data has been enhanced. With regard to professional ethics, efforts were directed towards further embedding the Ethics Framework for members of staff in the ECB's working culture.

RECRUITMENT

On 31 December 2011 the actual full-time equivalent number of staff holding employment contracts with the ECB was 1,609 (1,607 on 31 December 2010).[13] A total of 55 new fixed-term contracts (limited in nature or convertible to permanent contracts) were offered in 2011. By contrast, 38 members of staff employed on a fixed-term or permanent basis left the ECB in 2011 (28 in 2010), following resignation or retirement. Furthermore, to cover for absences of less than one year, 147 short-term contracts were issued during 2011 (in addition to a number of contract extensions), while 123 short-term contracts expired in the course of the year.

The ECB continued to offer short-term contracts to staff from NCBs and international organisations, thus fostering an ESCB-wide team spirit and cooperation with international organisations. On 31 December 2011 152 employees from NCBs and international organisations were working at the ECB on various assignments, 4% less than in 2010.

In September 2011 the ECB welcomed the sixth intake of participants in its Graduate Programme. The participants, who are recent graduates from leading universities, have a broad educational background and are each assigned to two business areas on a rotational basis for a total period of two years.

As in previous years, traineeship opportunities were offered throughout the year to students and graduates with backgrounds in economics, statistics, business administration, law or translation. On 31 December 2011 108 trainees were being hosted by the ECB (17% more than in 2010). The ECB also awarded six fellowships as part of the Wim Duisenberg Research Fellowship Programme, which is open to leading economists, and four fellowships to young researchers in the context of its Lamfalussy Fellowship Programme.

PROFESSIONAL DEVELOPMENT

Mobility and staff development measures continued to be the main tools for professional development at the ECB. The ECB's internal mobility policy enables the ECB to broaden staff awareness and to increase synergies across business areas. The ECB's internal recruitment policy also aims to facilitate internal mobility by placing emphasis on broad competencies. In the course of 2011 237 staff members, including 64 managers and advisers, moved internally to other positions, on either a temporary or a longer-term basis.

The ECB, like all ESCB central banks, actively participates in the external mobility schemes promoted by the Human Resources Conference, which enables the ECB to second staff to the 27 NCBs in the EU or to relevant international organisations (e.g. the IMF and the BIS) for periods of two to twelve months. A total of six members of staff were seconded under this scheme in 2011 (new cases). In addition, the ECB granted unpaid leave, for up to three years, to 27 members of staff (new cases) in order that they could study or take up employment with another organisation. The total number of staff members on unpaid leave at the end of December 2011 was 55 (compared with 45 in 2010).

13 In addition to contracts based on full-time equivalent positions, this figure includes short-term contracts awarded to staff seconded from NCBs and international organisations and contracts awarded to Graduate Programme participants.

The ECB continued to promote the acquisition and development of skills and the enhancement of the competencies of management and staff. In addition to various in-house training opportunities, coaching services were made available to staff, and management and staff continued to take up external training opportunities to address individual training needs of a more technical nature. They also benefited from opportunities organised as part of ESCB training programmes or training offered by the NCBs. First-level managers (59 deputy heads of division/heads of section) also participated in a structured feedback exercise in 2011, in which colleagues (staff and peers) and external counterparts completed a questionnaire on the managerial and leadership skills of the managers. Overall, the feedback was very positive. As a follow-up, the results were analysed with the support of external coaches and individual action plans were devised to further enhance the individuals' performance as managers.

THE HUMAN RESOURCES CONFERENCE

The activities of the Human Resources Conference and its Task Force on Training and Development covered several aspects of human resources management in 2011, including the organisation of several ESCB training activities and intra-ESCB mobility. The ESCB Training and Development Community, an electronic platform for accessing training and mobility opportunities within the ESCB, was launched in April 2011 with a view to further enhancing intra-ESCB cooperation. The training calendar for 2012 foresees a total of 46 sessions of ESCB training activities, hosted by 23 central banks. Three new ESCB training courses will be launched in 2012.

EMPLOYMENT CONDITIONS

The ECB's employment conditions are designed to be attractive and to balance the needs of staff with those of the organisation. In 2011 the ECB reviewed its leave provisions. It introduced a longer paternity leave period following the birth or adoption of a child. Moreover, the length of the adoptive leave period was increased, and the minimum period to request unpaid parental leave and unpaid leave was reduced. An Occupational Safety and Health Committee was also established, with a view to involving staff representatives in discussions regarding safety and health issues at the ECB.

As for working time-related policies, at the end of 2011 193 staff members were working part time, slightly more than in 2010. The number of staff on unpaid parental leave as at 31 December 2011 was 33 (compared with 24 in 2010). The teleworking pilot project launched in 2008 continued during 2011. In parallel, a consultation on a permanent policy took place. The new policy will enter into force on 1 February 2012. In 2011, on average, around 309 staff members teleworked each month. In 2011 as a whole, 826 staff members teleworked at least once.

2.2 STAFF RELATIONS AND SOCIAL DIALOGUE

The ECB fully recognises the importance of a constructive dialogue with its staff. In 2011 the ECB consulted and exchanged information with the staff representatives on changes related to remuneration, employment, working conditions, health and safety conditions, and pensions. In this context, 219 letters were exchanged. In addition, the ECB continued to have frequent oral discussions with staff representatives on employment and social matters.

A discussion with the recognised trade union IPSO[14] led to the signing of an addendum to the 2008 memorandum of understanding between the ECB and IPSO, comprising several provisions aimed at further enhancing the social dialogue at the ECB.

2.3 ESCB SOCIAL DIALOGUE

The ESCB Social Dialogue is a consultative forum involving the ECB, employee

14 IPSO stands for "International and European Public Services Organisation".

representatives from the central banks of the ESCB and representatives from European trade union federations[15]. Its purpose is to provide information and foster exchanges of views on issues that may have a major impact on employment conditions at the central banks of the ESCB. This information is provided in a biannual newsletter and at meetings held in Frankfurt.

In 2011 the ESCB Social Dialogue meeting focused on ESCB/Eurosystem training and development, financial stability, the governance of IT projects and risk management. Issues relating to banknote production and circulation, market operations and payment systems were also discussed.

The ad hoc working group on banknote production and circulation continued to address technical issues complementing those discussed in the plenary meeting of the ESCB Social Dialogue. The working group on the ESCB Social Dialogue met in March and November 2011 and, among other things, identified possible items to be included in the agenda of the ESCB Social Dialogue meetings.

2.4 THE EUROSYSTEM PROCUREMENT COORDINATION OFFICE

The objective of the Eurosystem Procurement Coordination Office (EPCO) is to ensure the efficient coordination of joint procurements of goods and services by those ESCB central banks that have committed to participating in the activities of EPCO during its first mandate (2008-12),[16] as well as to further improve the best procurement practices of these central banks. The network of central bank procurement experts, coordinated by EPCO, met six times in 2011.

The third joint procurement plan of EPCO was implemented in 2011. The joint procedures on air transport for ESCB meetings and global hotel agreements were renewed and the joint procurement on IT system consultancy services finalised. In addition, eight other joint procurements progressed towards finalisation (in areas related to market data, ratings and information technology). In 2011 EPCO also provided support in procurement-related activities to the Eurosystem central banks leading two ESCB projects: the Common Eurosystem Pricing Hub and TARGET2-Securities.

2.5 NEW ECB PREMISES

Construction works on the various building elements of the ECB's new premises progressed visibly in 2011, with the high-rise structure growing above ground from February 2011. The concreting works for the new foundation plate of the Grossmarkthalle (the former wholesale market hall), as well as the structural works for a new basement and new ground floor within the market hall, were finalised. Structural works for the future house-in-house concept were undertaken, and renovation works for the roof shells and the concrete grid facade were ongoing. Spring saw the start of renovation works for the facade of the western wing building, while the renovation works for the facade of the eastern wing building were completed in the autumn. In late summer the installation of new glass panes in the renovated original steel frames of the northern staircase began. Structural works for the underground staff car park were finalised in the summer, while the main structural works for the logistics centre were concluded in the autumn. The structural works for both entry control points also progressed. The steel construction for the new entrance building to connect the former market hall with the high-rise was started at the end of 2011.

In February 2011 the contract for the remaining structural works for the high-rise was awarded to Ed. Züblin AG. As of the autumn the structural

15 The Standing Committee of European Central Bank Unions (SCECBU), Union Network International – Europa (UNI-Europa Finance) and the European Federation of Public Service Unions (EPSU).

16 In 2011, in addition to the Eurosystem central banks, the Magyar Nemzeti Bank, Narodowy Bank Polski and Banca Naţională a României participated in EPCO activities.

works progressed at a rate of one floor per week, reaching the 21st floor of both towers by the end of the year. The first large steel trusses of the atrium connecting the two parts of the office tower were installed in November 2011.

The contracts for the remaining construction works – constituting approximately 20% of the building costs – were put out to tender in summer 2010. They mainly relate to the fit-out and landscaping works. The various contracts were awarded between May and December 2011. This round of tendering, like those before it, was in line with the allotted budget and time frame. The date for completion of the new premises remains unchanged and is scheduled for the end of 2013, with the ECB moving in thereafter, i.e. in 2014.

2.6 ENVIRONMENTAL ISSUES

The ECB aims to make prudent use of natural resources in order to preserve the quality of the environment and to protect human health. It has established an environmental policy and is committed to continuously improving its environmental performance and to minimising its ecological footprint. To systematically pursue environmental sustainability, the ECB has adopted an Environmental Management System that complies with the international standard EN ISO 14001 and Regulation (EC) No 1221/2009 of the European Parliament and of the Council on the voluntary participation by organisations in a Community eco-management and audit scheme. In 2011 the Environmental Management System successfully passed its first surveillance audit. A comparison of the data for 2009 and 2010 revealed a further 7.8% reduction in carbon emissions over this period. As carbon emissions mainly arise from the production of electricity and heating and cooling, the ECB switched to 100% electricity from renewable local energy resources (hydropower, from the river Main), and improvements to the technical infrastructure on its main premises were initiated. Between 2008 and the end of 2011 the ECB's carbon emissions were reduced by approximately one-third.

In addition, measures continued to be put in place in the context of the environmental programme implemented by the ECB with the aim of continuously improving its environmental performance. A sustainable procurement guide was developed and a pilot phase launched for its implementation. In October 2011 a "green day" event was held to inform employees about the ECB's policy and to encourage them to make an active contribution. Special attention is being paid to the establishment of state-of-the-art sustainability features in the operation and maintenance plans for the ECB's new premises.

2.7 INFORMATION TECHNOLOGY SERVICE MANAGEMENT

The project portfolio pursued by the Directorate General Information Systems focused on the finalisation of technical solutions to support the operations of the ESRB Secretariat and to implement urgent changes to several IT systems to support the implementation of decisions taken as a consequence of the financial crisis. Additional work was undertaken to provide better support for the management of the ECB's foreign reserve assets, own funds, monetary policy operations and collateral. Work also continued on strengthening the support and maintenance of statistical applications and applications supporting enterprise processes and the management of documents and records. At the same time, the ECB invested resources in the reinforcement of operational security and cooperated with other central banks on the provision or maintenance of business applications.

Finally, internal processes were reassessed by external auditors and the ISO 9001:2008 and ISO/IEC 20000 certifications were confirmed, while the ISO/IEC 27001 certification process is under way.

When finished, the new ECB premises will enhance Frankfurt's skyline.

The top levels of the high-rise will be completed in 2012 and a "topping out" ceremony will be held in the second half of the year. Work will also continue on the facade and the installation of the technical infrastructure. The energy-efficient facade has a grey, non-mirror finish with a light green sheen. It was chosen to blend into the surrounding environment. The installation of the technical infrastructure includes the setting-up of the heating and cooling systems and the wiring, followed by the interior fit-out works.

ANNUAL ACCOUNTS

MANAGEMENT REPORT FOR THE YEAR ENDING 31 DECEMBER 2011

1 NATURE OF THE BUSINESS

The ECB's activities in 2011 are described in detail in the relevant chapters of the Annual Report.

2 OBJECTIVES AND TASKS

The ECB's objectives and tasks are described in the Statute of the ESCB (Articles 2 and 3). An overview of performance against these objectives is included in the President's foreword to the Annual Report.

3 KEY RESOURCES, RISKS AND PROCESSES

GOVERNANCE OF THE ECB

The Executive Board, the Governing Council and the General Council are the decision-making bodies of the ECB.

The ECB's governance framework includes a variety of internal and external controls. In the context of the external controls, the European Court of Auditors reviews the operational efficiency of the management of the ECB, while an external auditor is appointed to audit the ECB's Annual Accounts. To reinforce the independence of the external auditor, the ECB appoints a different external audit firm every five years.

In the context of the internal control structure of the ECB, each organisational unit is responsible for managing its own risks and implementing its own controls, as well as for the effectiveness and efficiency of its operations. In addition, independent audit missions are performed by the Directorate Internal Audit under the direct responsibility of the Executive Board. In order to further strengthen the ECB's corporate governance, the Governing Council established the ECB Audit Committee in 2007. The Committee provides assistance to the Governing Council as regards its responsibilities in respect of the integrity of financial information, the oversight of internal controls and the performance of the ECB's and the Eurosystem's audit functions.

To reflect the significant increase in the role of the risk management function, and in line with best practices, in July 2011 the ECB reorganised its Risk Management Division as a Risk Management Office (RMO), establishing it as an independent business area. The RMO is responsible for the risk management framework applicable to all of the ECB's financial market operations and for monitoring, assessing and proposing improvements to the Eurosystem's operational framework for monetary policy and foreign exchange policy from a risk management perspective.

A comprehensive ethics framework for the staff of the ECB, which is regularly updated, provides guidance and sets ethics conventions, standards and benchmarks. All staff are expected to maintain high standards of professional ethical behaviour in the performance of their duties, as well as in their relations with NCBs, public authorities, market participants, media representatives and the general public. Two additional codes of conduct deal exclusively with the ethical regime applicable to the ECB's decision-making bodies. The Ethics Officer appointed by the Executive Board ensures that the rules applicable to Executive Board members and staff are interpreted consistently. An Ethics Adviser has been appointed by the Governing Council to provide guidance to its members on aspects of professional conduct.

Further information relating to the governance of the ECB is provided in Section 1 of Chapter 7 of the Annual Report.

MEMBERS OF THE EXECUTIVE BOARD

The members of the Executive Board are appointed from among persons of recognised

standing and professional experience in monetary or banking matters by the European Council, upon a recommendation from the EU Council after it has consulted the European Parliament and the Governing Council.

The terms and conditions of members' employment are determined by the Governing Council, based on a proposal from a committee comprising three members appointed by the Governing Council and three members appointed by the EU Council.

The emoluments of the members of the Executive Board are set out in note 30, "Staff costs", of the Annual Accounts.

EMPLOYEES

The ECB is fully cognisant of the importance of having a constructive dialogue with its staff. In 2011 the ECB continued to develop and implement human resources management policies in four areas: working culture, recruitment, professional development and employment conditions. Developments related to the working culture of the ECB continued to focus on diversity and professional ethics. The ECB organised a high-level diversity forum in March 2011 and enhanced the regular monitoring of gender diversity data.

Mobility and staff development measures remained the main tools for professional development. Moreover, the ECB continued to support staff in the areas of childcare and the reconciliation of work and family commitments.

The average number of staff (full-time equivalents) holding contracts with the ECB[1] rose from 1,565 in 2010 to 1,601 in 2011. At the end of 2011 1,609 staff were employed. For further information, see note 30, "Staff costs", of the Annual Accounts and Section 2 of Chapter 7 of the Annual Report which also describes developments in the area of human resources management in more detail.

RISK MANAGEMENT PRACTICES RELATED TO THE ECB'S INVESTMENT ACTIVITIES AND MONETARY POLICY PORTFOLIOS

The ECB holds two types of investment portfolio, namely the foreign reserves portfolio and the own funds portfolio. In addition, the ECB also holds securities for monetary policy purposes, acquired in the context of the Securities Markets Programme and the two covered bond purchase programmes. The various purposes and objectives of the ECB's investment and monetary policy portfolios, as well as the associated risk management practices, are described in detail in Section 1 of Chapter 2 of the Annual Report.

The ECB is exposed to financial risks arising from its investment portfolios and its holdings of securities purchased for monetary policy purposes. They encompass credit, market and liquidity risks. The ECB closely monitors and measures such risks on an ongoing basis and, where appropriate, mitigates them through the implementation of risk management frameworks. These frameworks take into account the objectives and purposes of the various holdings of securities, as well as the risk preferences specified by the ECB's decision-making bodies. They also include eligibility criteria and a system of exposure limits.

BUDGET PROCESS

Spending against agreed budgets is monitored regularly by the Executive Board, taking into account the advice of the ECB's internal controlling function, and by the Governing Council with the assistance of the Budget Committee (BUCOM). BUCOM, composed of ECB and euro area NCB experts, is a key contributor to the ECB's financial governance process. In accordance with Article 15 of the ECB's Rules of Procedure,

1 Staff on unpaid leave are excluded. This number includes staff with permanent, fixed or short-term contracts and the participants in the ECB's Graduate Programme. Staff on maternity or long-term sick leave are also included.

BUCOM supports the Governing Council by providing a detailed evaluation of the ECB's annual budget proposals and requests for supplementary budget funding by the Executive Board, prior to their submission to the Governing Council for approval.

4 FINANCIAL RESOURCES

CAPITAL

In December 2010 the ECB decided to increase its subscribed capital by €5 billion, from €5.8 billion to €10.8 billion. This decision resulted from an assessment of the adequacy of its statutory capital, which was launched in 2009. The capital increase was deemed appropriate in view of increased volatility in foreign exchange rates, interest rates and gold prices, as well as in view of the ECB's exposure to credit risk. In order to smooth the transfer of capital to the ECB, the Governing Council decided that the euro area NCBs should pay their additional capital contributions in three equal annual instalments due in December 2010, 2011 and 2012.

As a consequence of Estonia's adoption of the single currency on 1 January 2011, Eesti Pank paid up an amount of €13 million as of that date. This amount included the first instalment of Eesti Pank's contribution to the increase in the ECB's subscribed capital at end-December 2010.

On 28 December 2011 the NCBs of the euro area, including Eesti Pank, paid an amount of €1,166 million as the second instalment of their contribution to the increase in the ECB's subscribed capital.

As a result of the above payments in 2011, the ECB's paid-up capital amounted to €6,484 million on 31 December 2011. Detailed information on these changes is provided in note 17, "Capital and reserves", of the Annual Accounts.

PROVISION FOR FOREIGN EXCHANGE RATE, INTEREST RATE, CREDIT AND GOLD PRICE RISKS

Since most of the ECB's assets and liabilities are periodically revalued at current market exchange rates and security prices, the ECB's profitability is strongly affected by exchange rate exposures and, to a lesser extent, interest rate exposures. These exposures stem mainly from its holdings of gold and foreign reserve assets denominated in US dollars and Japanese yen, which are predominantly invested in interest-bearing instruments.

In 2005, taking into account the ECB's large exposure to these risks and the size of its revaluation accounts, the Governing Council decided to establish a provision for foreign exchange rate, interest rate and gold price risks. In 2009, following the establishment of the programme for the purchase of covered bonds (see note 5, "Securities of euro area residents denominated in euro", of the Annual Accounts), the Governing Council decided to extend the scope of the risk provision to also cover credit risk.

The size of and continuing requirement for this provision is reviewed annually, taking a range of factors into account, including in particular the level of holdings of risk-bearing assets, the extent of materialised risk exposures in the current financial year, projected results for the coming year, and a risk assessment involving calculations of Values at Risk (VaR) on risk-bearing assets, which is applied consistently over time. The risk provision, together with any amounts held in the ECB's general reserve fund, may not exceed the value of the capital paid up by the euro area NCBs.

As at 31 December 2010 the provision for foreign exchange rate, interest rate, credit and gold price risks amounted to €5,184 million. In accordance with Article 48.2 of the Statute of the ESCB, Eesti Pank contributed an amount of €13 million to the provision with effect from 1 January 2011. In addition, after taking the

results of its risk assessment into account, the Governing Council decided to further increase the size of the risk provision to €6,363 million as at 31 December 2011. This sum represents the current maximum allowed ceiling.

5 FINANCIAL RESULTS

FINANCIAL ACCOUNTS

Under Article 26.2 of the Statute of the ESCB, the Annual Accounts of the ECB are drawn up by the Executive Board, in accordance with the principles established by the Governing Council. The accounts are then approved by the Governing Council and subsequently published.

FINANCIAL RESULT FOR 2011

In 2011 the net income of the ECB prior to the transfer of €1,166 million to the risk provision was €1,894 million, compared with €1,334 million in 2010. The net profit, amounting to €728 million after this transfer, was distributed to the euro area NCBs.

In 2011 net interest income amounted to €1,999 million, compared with €1,422 million in 2010. The increase in net interest income was mainly due to additional income generated on the securities purchased under the Securities Markets Programme and an increase in interest income on the ECB's share of the total euro banknotes in circulation as a result of a higher average rate used by the Eurosystem in its tenders for main refinancing operations in 2011.

Net realised gains arising from financial operations decreased marginally from €474 million in 2010 to €472 million in 2011. Higher net exchange rate gains on foreign currency outflows, which were mainly due to Japanese yen outflows in the context of the ECB's participation in the concerted international intervention in the foreign exchange markets in March 2011, were offset by lower net realised price gains on sales of securities.

Write-downs, mainly owing to unrealised price losses on security holdings which are shown on the Balance Sheet at their market value as at end-2011, amounted to €157 million in 2011, compared with €195 million in 2010.

As at end-2010 unrealised foreign exchange gains, mainly arising on the US dollar portfolio and the Japanese yen portfolio, amounted to €6,271 million, and unrealised gold price gains amounted to €13,079 million. In 2011 the depreciation of the euro vis-à-vis the Japanese yen and the US dollar resulted in an increase in unrealised foreign exchange gains, which rose to €7,976 million, while the rise in the price of gold during 2011 led to unrealised gold price gains amounting to €15,718 million. In line with the Eurosystem's accounting policies, these gains were recorded in revaluation accounts.

No impairment losses were recorded at the year-end. Regarding the ECB's holdings of Greek government bonds purchased under the Securities Markets Programme, the private sector involvement (PSI) initiative announced in 2011 was not expected to result in changes to any future contractual cash flows associated with these holdings, as it was designed to voluntarily restructure debt held by the private sector.

Total administrative expenses of the ECB, including depreciation, amounted to €442 million in 2011, compared with €415 million in 2010. The vast majority of the costs incurred in connection with the construction of the ECB's new premises have been capitalised and are excluded from this item.

BALANCE SHEET AS AT 31 DECEMBER 2011

ASSETS	NOTE NUMBER	2011 €	2010 €
Gold and gold receivables	1	**19,643,678,205**	**17,015,600,109**
Claims on non-euro area residents denominated in foreign currency	2		
Receivables from the IMF	2.1	664,189,254	414,722,811
Balances with banks and security investments, external loans and other external assets	2.2	40,763,380,487	39,298,995,950
		41,427,569,741	**39,713,718,761**
Claims on euro area residents denominated in foreign currency	2.2	**4,827,713,607**	**4,326,557,549**
Claims on non-euro area residents denominated in euro	3		
Balances with banks, security investments and loans	3.1	**1,456,000,000**	**1,800,000,000**
Other claims on euro area credit institutions denominated in euro	4	**204,931,400**	**33,368,000**
Securities of euro area residents denominated in euro	5		
Securities held for monetary policy purposes	5.1	**22,819,128,768**	**17,925,976,508**
Intra-Eurosystem claims	6		
Claims related to the allocation of euro banknotes within the Eurosystem	6.1	71,090,081,710	67,176,191,390
Other claims within the Eurosystem (net)	6.2	49,393,103,654	0
		120,483,185,364	**67,176,191,390**
Other assets	7		
Tangible and intangible fixed assets	7.1	441,349,493	281,925,625
Other financial assets	7.2	16,040,825,454	13,249,960,731
Off-balance-sheet instruments revaluation differences	7.3	264,245,011	147,260,366
Accruals and prepaid expenses	7.4	1,861,875,764	1,319,491,653
Sundry	7.5	1,400,781,867	532,963,278
		20,009,077,589	**15,531,601,653**
Total assets		**230,871,284,674**	**163,523,013,970**

LIABILITIES	NOTE NUMBER	2011 €	2010 €
Banknotes in circulation	8	**71,090,081,710**	**67,176,191,390**
Other liabilities to euro area credit institutions denominated in euro	9	**204,926,300**	**33,363,000**
Liabilities to other euro area residents denominated in euro	10		
Other liabilities	10.1	**1,056,000,000**	**1,072,000,000**
Liabilities to non-euro area residents denominated in euro	11	**77,116,620,293**	**1,201,602,021**
Liabilities to non-euro area residents denominated in foreign currency	12		
Deposits, balances and other liabilities	12.1	**406,665,121**	**478,028,926**
Intra-Eurosystem liabilities	13		
Liabilities equivalent to the transfer of foreign reserves	13.1	40,307,572,893	40,204,457,215
Other liabilities within the Eurosystem (net)	6.2	0	21,225,255,926
		40,307,572,893	**61,429,713,141**
Other liabilities	14		
Off-balance-sheet instruments revaluation differences	14.1	869,160,478	568,235,002
Accruals and income collected in advance	14.2	1,251,205,972	749,630,881
Sundry	14.3	623,759,817	494,466,366
		2,744,126,267	**1,812,332,249**
Provisions	15	**6,407,941,415**	**5,216,716,613**
Revaluation accounts	16	**24,324,930,772**	**19,626,699,159**
Capital and reserves	17		
Capital	17.1	**6,484,283,669**	**5,305,536,076**
Profit for the year		**728,136,234**	**170,831,395**
Total liabilities		**230,871,284,674**	**163,523,013,970**

PROFIT AND LOSS ACCOUNT FOR THE YEAR ENDING 31 DECEMBER 2011

	NOTE NUMBER	2011 €	2010 €
Interest income on foreign reserve assets	24.1	290,220,291	366,179,478
Interest income arising from the allocation of euro banknotes within the Eurosystem	24.2	856,392,005	653,509,659
Other interest income	24.4	8,331,260,026	4,796,498,245
Interest income		*9,477,872,322*	*5,816,187,382*
Remuneration of NCBs' claims in respect of foreign reserves transferred	24.3	(433,970,898)	(346,484,251)
Other interest expense	24.4	(7,044,498,398)	(4,047,227,079)
Interest expense		*(7,478,469,296)*	*(4,393,711,330)*
Net interest income	24	**1,999,403,026**	**1,422,476,052**
Realised gains/losses arising from financial operations	25	472,219,229	474,313,327
Write-downs on financial assets and positions	26	(157,457,283)	(195,213,437)
Transfer to/from provisions for foreign exchange rate, interest rate, credit and gold price risks		(1,166,175,000)	(1,163,191,667)
Net result of financial operations, write-downs and risk provisions		**(851,413,054)**	**(884,091,777)**
Net expense from fees and commissions	27	**(1,980,780)**	**(1,409,017)**
Income from equity shares and participating interests	28	**1,048,891**	**2,612,858**
Other income	29	**23,122,157**	**46,537,026**
Total net income		**1,170,180,240**	**586,125,142**
Staff costs	30	(216,065,185)	(196,470,934)
Administrative expenses	31	(208,017,979)	(196,636,534)
Depreciation of tangible and intangible fixed assets		(11,488,672)	(13,601,111)
Banknote production services	32	(6,472,170)	(8,585,168)
Profit for the year		**728,136,234**	**170,831,395**

Frankfurt am Main, 28 February 2012

EUROPEAN CENTRAL BANK

Mario Draghi
President

ACCOUNTING POLICIES[1]

FORM AND PRESENTATION OF THE FINANCIAL STATEMENTS

The financial statements of the ECB have been designed to present fairly the financial position of the ECB and the results of its operations. They have been drawn up in accordance with the following accounting policies,[2] which the Governing Council of the ECB considers to be appropriate to the nature of central bank activity.

ACCOUNTING PRINCIPLES

The following accounting principles have been applied: economic reality and transparency, prudence, recognition of post-balance-sheet events, materiality, going concern, the accruals principle, consistency and comparability.

RECOGNITION OF ASSETS AND LIABILITIES

An asset or liability is only recognised in the Balance Sheet when it is probable that any associated future economic benefit will flow to or from the ECB, substantially all of the associated risks and rewards have been transferred to the ECB, and the cost or value of the asset or the amount of the obligation can be measured reliably.

BASIS OF ACCOUNTING

The accounts have been prepared on a historical cost basis, modified to include the market valuation of marketable securities (other than those classified as held-to-maturity), gold and all other on-balance-sheet and off-balance-sheet assets and liabilities denominated in foreign currency. Transactions in financial assets and liabilities are reflected in the accounts on the basis of the date on which they were settled.

With the exception of spot transactions in securities, transactions in financial instruments denominated in foreign currency are recorded in off-balance-sheet accounts on the trade date. At the settlement date the off-balance-sheet entries are reversed and transactions are booked on-balance-sheet. Purchases and sales of foreign currency affect the net foreign currency position on the trade date, and realised results arising from sales are also calculated on that date. Accrued interest, premiums and discounts related to financial instruments denominated in foreign currency are calculated and recorded daily, and the foreign currency position is also affected daily by these accruals.

GOLD AND FOREIGN CURRENCY ASSETS AND LIABILITIES

Assets and liabilities denominated in foreign currency are converted into euro at the exchange rate prevailing on the balance sheet date. Income and expenses are converted at the exchange rate prevailing on the recording date. The revaluation of foreign exchange assets and liabilities, including on-balance-sheet and off-balance-sheet instruments, is performed on a currency-by-currency basis.

Revaluation to the market price for assets and liabilities denominated in foreign currency is treated separately from the exchange rate revaluation.

Gold is valued at the market price prevailing at the year-end. No distinction is made between the price and currency revaluation differences for gold. Instead, a single gold valuation is accounted for on the basis of the price in euro per fine ounce of gold, which, for the year ending 31 December 2011, was derived from the exchange rate of the euro against the US dollar on 30 December 2011.

The special drawing right (SDR) is defined in terms of a basket of currencies. To revalue the ECB's holdings of SDRs, the value of the

1 Decision ECB/2006/17 of 10 November 2006, OJ L 348, 11.12.2006, p. 38, as amended, containing the detailed accounting policies of the ECB, was repealed and replaced by Decision ECB/2010/21 of 11 November 2010, OJ L 35, 9.2.2011, p. 1, with effect from 31 December 2010.

2 These policies are consistent with the provisions of Article 26.4 of the Statute of the ESCB, which require a harmonised approach to the rules governing the accounting and financial reporting of Eurosystem operations.

SDR was calculated as the weighted sum of the exchange rates of four major currencies (the US dollar, euro, Japanese yen and pound sterling) converted into euro as at 30 December 2011.

SECURITIES

Marketable securities (other than those classified as held-to-maturity) and similar assets are valued either at the mid-market prices or on the basis of the relevant yield curve prevailing on the balance sheet date, on a security-by-security basis. For the year ending 31 December 2011, mid-market prices on 30 December 2011 were used.

Marketable securities classified as held-to-maturity and illiquid equity shares are all valued at cost subject to impairment.

INCOME RECOGNITION

Income and expenses are recognised in the period in which they are earned or incurred. Realised gains and losses arising from the sale of foreign exchange, gold and securities are taken to the Profit and Loss Account. Such realised gains and losses are calculated by reference to the average cost of the respective asset.

Unrealised gains are not recognised as income but are transferred directly to a revaluation account.

Unrealised losses are taken to the Profit and Loss Account if, at the year-end, they exceed previous revaluation gains registered in the corresponding revaluation account. Unrealised losses on any one security or currency or on gold are not netted against unrealised gains on other securities or currencies or gold. In the event of an unrealised loss on any item taken to the Profit and Loss Account, the average cost of that item is reduced to the year-end exchange rate or market price.

Impairment losses are taken to the Profit and Loss Account and are not reversed in subsequent years unless the impairment decreases and the decrease can be related to an observable event that occurred after the impairment was first recorded.

Premiums or discounts arising on purchased securities, including those classified as held-to-maturity, are calculated and presented as part of interest income and are amortised over the remaining life of the securities.

REVERSE TRANSACTIONS

Reverse transactions are operations whereby the ECB buys or sells assets under a repurchase agreement or conducts credit operations against collateral.

Under a repurchase agreement, securities are sold for cash with a simultaneous agreement to repurchase them from the counterparty at an agreed price on a set future date. Repurchase agreements are recorded as collateralised deposits on the liability side of the Balance Sheet and lead to an interest expense in the Profit and Loss Account. Securities sold under such an agreement remain on the Balance Sheet of the ECB.

Under a reverse repurchase agreement, securities are bought for cash with a simultaneous agreement to sell them back to the counterparty at an agreed price on a set future date. Reverse repurchase agreements are recorded as collateralised loans on the asset side of the Balance Sheet but are not included in the ECB's security holdings. They give rise to interest income in the Profit and Loss Account.

Reverse transactions (including security lending transactions) conducted under an automated security lending programme are recorded on the Balance Sheet only where collateral is provided in the form of cash placed on an account of the ECB. In 2011 the ECB did not receive any collateral in the form of cash in connection with such transactions.

OFF-BALANCE-SHEET INSTRUMENTS

Currency instruments, namely foreign exchange forward transactions, forward legs of foreign exchange swaps and other currency instruments involving an exchange of one currency for another at a future date, are included in the net foreign currency position for the purpose of calculating foreign exchange gains and losses.

Interest rate instruments are revalued on an item-by-item basis. Daily changes in the variation margin of open interest rate futures contracts are recorded in the Profit and Loss Account. The valuation of forward transactions in securities and of interest rate swaps is based on generally accepted valuation methods using observable market prices and rates, as well as discount factors from the settlement dates to the valuation date.

POST-BALANCE-SHEET EVENTS

The values of assets and liabilities are, in principle, adjusted for events that occur between the annual balance sheet date and the date on which the Governing Council approves the financial statements, if such events materially affect the condition of assets and liabilities at the balance sheet date.

Important post-balance-sheet events that do not affect the condition of assets and liabilities at the balance sheet date are disclosed in the notes.

INTRA-ESCB BALANCES/INTRA-EUROSYSTEM BALANCES

Intra-ESCB balances result from cross-border payments in the EU that are settled in central bank money in euro. These transactions are for the most part initiated by private entities (i.e. credit institutions, corporations and individuals). They are settled in TARGET2 – the Trans-European Automated Real-time Gross settlement Express Transfer system (see Chapter 2 of the Annual Report) and give rise to bilateral balances in the TARGET2 accounts of EU central banks. These bilateral balances are netted out and then assigned to the ECB on a daily basis, leaving each NCB with a single net bilateral position vis-à-vis the ECB only. This position in the books of the ECB represents the net claim or liability of each NCB against the rest of the ESCB. Intra-Eurosystem balances of euro area NCBs vis-à-vis the ECB arising from TARGET2, as well as other intra-Eurosystem balances denominated in euro (e.g. interim profit distributions to NCBs), are presented on the Balance Sheet of the ECB as a single net asset or liability position and disclosed under "Other claims within the Eurosystem (net)" or "Other liabilities within the Eurosystem (net)". Intra-ESCB balances of non-euro area NCBs vis-à-vis the ECB, arising from their participation in TARGET2,[3] are disclosed under "Liabilities to non-euro area residents denominated in euro".

Intra-Eurosystem balances arising from the allocation of euro banknotes within the Eurosystem are included as a single net asset under "Claims related to the allocation of euro banknotes within the Eurosystem" (see "Banknotes in circulation" in the notes on accounting policies).

Intra-Eurosystem balances arising from the transfer of foreign reserve assets to the ECB by NCBs joining the Eurosystem are denominated in euro and reported under "Liabilities equivalent to the transfer of foreign reserves".

TREATMENT OF FIXED ASSETS

Fixed assets, with the exception of land and works of art, are valued at cost less depreciation. Land and works of art are valued at cost. Depreciation is calculated on a straight-line basis, beginning in the quarter after acquisition and continuing over the period for which the asset is expected to be available for use, as follows:

Computers, related hardware and software, and motor vehicles	4 years
Technical equipment	4 or 10 years
Furniture and plant in building	10 years
Fixed assets costing less than €10,000	Written off in the year of acquisition

3 As at 31 December 2011 the non-euro area NCBs participating in TARGET2 were Българска народна банка (Bulgarian National Bank), Danmarks Nationalbank, Latvijas Banka, Lietuvos bankas, Narodowy Bank Polski and Banca Naţională a României.

The length of the depreciation period for capitalised building and refurbishment expenditure relating to the ECB's existing rented premises has been adjusted to ensure that these assets are fully depreciated before the ECB moves to its new premises.

Costs incurred in relation to the ECB's new premises are recorded under the heading "Assets under construction" if they comply with the capitalisation criteria. These costs will be transferred to the relevant fixed asset headings once the assets are available for use. For the depreciation of the ECB's new premises, costs will be assigned to the appropriate components and depreciated in accordance with the estimated useful lives of the assets.

THE ECB'S PENSION PLAN, OTHER POST-EMPLOYMENT BENEFITS AND OTHER LONG-TERM BENEFITS

The ECB operates a defined benefit plan for its staff. This is funded by assets held in a long-term employee benefit fund.

The compulsory contributions made by the ECB and the staff are 18% and 6% of basic salary respectively. Staff can make additional contributions on a voluntary basis in a defined contribution pillar that can be used to provide additional benefits.[4]

Balance Sheet

The liability recognised in the Balance Sheet in respect of the defined benefit plan is the present value of the defined benefit obligation at the balance sheet date, *less* the fair value of plan assets used to fund the obligation, adjusted for unrecognised actuarial gains or losses.

The defined benefit obligation is calculated annually by independent actuaries using the projected unit credit method. The present value of the defined benefit obligation is calculated by discounting the estimated future cash flows using a rate which is determined by reference to market yields at the balance sheet date on high quality euro-denominated corporate bonds that have similar terms of maturity to the term of the pension obligation.

Actuarial gains and losses can arise from experience adjustments (where actual outcomes are different from the actuarial assumptions previously made) and changes in actuarial assumptions.

Profit and Loss Account

The net amount charged to the Profit and Loss Account comprises:

(a) the current service cost of the defined benefits accruing for the year;

(b) interest at the discount rate on the defined benefit obligation;

(c) the expected return on plan assets held against the defined benefit obligation;

(d) any actuarial gains and losses arising from post-employment benefits, using a "10% corridor" approach; and

(e) any actuarial gains and losses arising from other long-term benefits, in their entirety.

"10% corridor" approach

Net cumulative unrecognised actuarial gains and losses on post-employment benefits which exceed the greater of (a) 10% of the present value of the defined benefit obligation and (b) 10% of the fair value of plan assets held against the defined benefit obligation, are amortised over the expected average remaining working lives of the participating employees.

Unfunded benefits

Unfunded arrangements are in place for the post-employment and other long-term benefits of members of the Executive Board of the ECB.

4 The funds accumulated by a staff member through voluntary contributions can be used at retirement to purchase an additional pension. This pension is included in the defined benefit obligation from that point on.

For staff, unfunded arrangements are in place for post-employment benefits other than pensions and for other long-term benefits. The expected costs of these benefits are accrued over the Executive Board/staff members' terms of office/employment using an accounting approach similar to that of defined benefit pension plans. Actuarial gains and losses are recognised in the manner outlined under the heading "Profit and Loss Account".

These amounts are valued annually by independent actuaries to establish the appropriate liability in the financial statements.

BANKNOTES IN CIRCULATION

The ECB and the euro area NCBs, which together comprise the Eurosystem, issue euro banknotes.[5] The total value of euro banknotes in circulation is allocated to the Eurosystem central banks on the last working day of each month in accordance with the banknote allocation key.[6]

The ECB has been allocated a share of 8% of the total value of euro banknotes in circulation, which is disclosed under the Balance Sheet liability item "Banknotes in circulation". The ECB's share of the total euro banknote issue is backed by claims on the NCBs. These claims, which bear interest,[7] are disclosed under the sub-item "Intra-Eurosystem claims: claims related to the allocation of euro banknotes within the Eurosystem" (see "Intra-ESCB balances/intra-Eurosystem balances" in the notes on accounting policies). Interest income on these claims is included in the item "Net interest income".

INTERIM PROFIT DISTRIBUTION

The ECB's income on euro banknotes in circulation and income arising from securities purchased under the Securities Markets Programme is due to the euro area NCBs in the financial year in which it accrues. The ECB distributes this income in January of the following year by means of an interim profit distribution.[8] It is distributed in full unless the ECB's net profit for the year is less than its income earned on euro banknotes in circulation and securities purchased under the Securities Markets Programme, and subject to any decisions by the Governing Council to make transfers to the provision for foreign exchange rate, interest rate, credit and gold price risks. The Governing Council may also decide to charge costs incurred by the ECB in connection with the issue and handling of euro banknotes against income earned on euro banknotes in circulation.

OTHER ISSUES

Taking account of the ECB's role as a central bank, the Executive Board considers that the publication of a cash-flow statement would not provide the readers of the financial statements with any additional relevant information.

In accordance with Article 27 of the Statute of the ESCB, and on the basis of a recommendation of the Governing Council, the EU Council has approved the appointment of PricewaterhouseCoopers Aktiengesellschaft Wirtschaftsprüfungsgesellschaft as the external auditors of the ECB for a five-year period up to the end of the financial year 2012.

5 Decision ECB/2010/29 of 13 December 2010 on the issue of euro banknotes (recast), OJ L 35, 9.2.2011, p. 26.
6 "Banknote allocation key" means the percentages that result from taking into account the ECB's share in the total euro banknote issue and applying the subscribed capital key to the NCBs' share in that total.
7 Decision ECB/2010/23 of 25 November 2010 on the allocation of monetary income of the national central banks of Member States whose currency is the euro (recast), OJ L 35, 9.2.2011, p. 17, as amended.
8 Decision ECB/2010/24 of 25 November 2010 on the interim distribution of the income of the European Central Bank on euro banknotes in circulation and arising from securities purchased under the Securities Markets Programme (recast), OJ L 6, 11.1.2011, p. 35.

NOTES ON THE BALANCE SHEET

1 GOLD AND GOLD RECEIVABLES

As at 31 December 2011 the ECB held 16,142,871 ounces[9] of fine gold (2010: 16,122,143 ounces). The increase was due mainly to the transfer by Eesti Pank to the ECB of 20,728 ounces of fine gold[10] upon the adoption of the single currency by Estonia, in accordance with Article 30.1 of the Statute of the ESCB. In addition, minor weight differences arose under the substitution programme that the ECB initiated in 2010. However, the increase in the euro equivalent value of the ECB's holdings of fine gold was mainly due to a significant rise in the price of gold during 2011 (see "Gold and foreign currency assets and liabilities" in the notes on accounting policies and note 16, "Revaluation accounts").

2 CLAIMS ON NON-EURO AREA AND EURO AREA RESIDENTS DENOMINATED IN FOREIGN CURRENCY

2.1 RECEIVABLES FROM THE IMF

This asset represents the ECB's holdings of SDRs as at 31 December 2011. It arises as the result of a two-way SDR buying and selling arrangement with the International Monetary Fund (IMF), whereby the IMF is authorised to arrange sales or purchases of SDRs against euro, on behalf of the ECB, within minimum and maximum holding levels. For accounting purposes, SDRs are treated as a foreign currency (see "Gold and foreign currency assets and liabilities" in the notes on accounting policies).

2.2 BALANCES WITH BANKS AND SECURITY INVESTMENTS, EXTERNAL LOANS AND OTHER EXTERNAL ASSETS; AND CLAIMS ON EURO AREA RESIDENTS DENOMINATED IN FOREIGN CURRENCY

These two items consist of balances with banks and loans denominated in foreign currency, and investments in securities denominated in US dollars and Japanese yen.

Claims on non-euro area residents	2011 €	2010 €	Change €
Current accounts	967,861,820	1,415,134,235	(447,272,415)
Money market deposits	598,657,080	881,467,443	(282,810,363)
Reverse repurchase agreements	623,065,152	54,632,540	568,432,612
Security investments	38,573,796,435	36,947,761,732	1,626,034,703
Total	40,763,380,487	39,298,995,950	1,464,384,537

Claims on euro area residents	2011 €	2010 €	Change €
Current accounts	1,439,838	3,522,840	(2,083,002)
Money market deposits	4,826,273,769	4,254,182,741	572,091,028
Reverse repurchase agreements	0	68,851,968	(68,851,968)
Total	4,827,713,607	4,326,557,549	501,156,058

The increase in these items in 2011 was mainly due to the appreciation of the US dollar and the Japanese yen against the euro, which was partially offset by a decrease in the holdings of Japanese yen as a result of the ECB's participation in the concerted international intervention in the foreign exchange markets on 18 March 2011. Income received in 2011, primarily on the US dollar portfolio, and an increase in unrealised gains from the revaluation of securities (see note 16, "Revaluation accounts") also contributed to the increase in the total value of these items.

Additionally, upon the adoption of the single currency by Estonia with effect from 1 January 2011, Eesti Pank transferred foreign reserve assets denominated in Japanese yen with a value of €124.0 million to the ECB, in accordance with Article 48.1 and Article 30.1 of the Statute of the ESCB.

9 This corresponds to 502.1 tonnes.

10 The transfer, with a value equivalent to €21.9 million, was made with effect from 1 January 2011.

The ECB's net foreign currency holdings of US dollars and Japanese yen,[11] as at 31 December 2011, were as follows:

	2011 Currency in millions	2010 Currency in millions
US dollars	44,614	43,952
Japanese yen	1,041,238	1,101,816

3 CLAIMS ON NON-EURO AREA RESIDENTS DENOMINATED IN EURO

3.1 BALANCES WITH BANKS, SECURITY INVESTMENTS AND LOANS

As at 31 December 2011 this item consisted of a claim on a non-euro area central bank in connection with an agreement on repurchase transactions established with the ECB. Under this agreement the non-euro area central bank can borrow euro against eligible collateral in order to support its domestic liquidity-providing operations.

4 OTHER CLAIMS ON EURO AREA CREDIT INSTITUTIONS DENOMINATED IN EURO

This item consisted mainly of claims that arose under reverse repurchase transactions, conducted in the context of covered bond lending operations (see note 9, "Other liabilities to euro area credit institutions denominated in euro").

5 SECURITIES OF EURO AREA RESIDENTS DENOMINATED IN EURO

5.1 SECURITIES HELD FOR MONETARY POLICY PURPOSES

As at 31 December 2011 this item consisted of securities acquired by the ECB within the scope of the two covered bond purchase programmes[12] and the Securities Markets Programme.[13]

	2011 €	2010 €	Change €
First covered bond purchase programme	4,814,370,827	4,823,413,246	(9,042,419)
Second covered bond purchase programme	212,604,879	-	212,604,879
Securities Markets Programme	17,792,153,062	13,102,563,262	4,689,589,800
Total	22,819,128,768	17,925,976,508	4,893,152,260

The purchases under the first covered bond purchase programme were fully implemented by the end of June 2010. In 2011 the amortisation of premiums and discounts relating to these holdings resulted in a net decrease in this item (see "Income recognition" in the notes on accounting policies).

On 6 October 2011 the Governing Council announced the second covered bond purchase programme. Under this programme, the ECB and the NCBs started to purchase euro-denominated covered bonds issued in the euro area with the objective of easing funding conditions for credit institutions and enterprises, as well as encouraging credit institutions to maintain and expand lending to their clients. The purchases are expected to be fully implemented by the end of October 2012.

11 These holdings comprise assets minus liabilities denominated in the given foreign currency that are subject to foreign currency revaluation. They are included under the headings "Claims on non-euro area residents denominated in foreign currency", "Claims on euro area residents denominated in foreign currency", "Accruals and prepaid expenses", "Liabilities to non-euro area residents denominated in foreign currency", "Off-balance-sheet instruments revaluation differences" (liability side) and "Accruals and income collected in advance", also taking into account foreign exchange forward and swap transactions under off-balance-sheet items. Price gains on financial instruments denominated in foreign currency arising as a result of revaluations are not included.

12 As announced in the ECB's press releases of 4 June 2009 and 6 October 2011.

13 As announced in the ECB's press release of 10 May 2010 on measures to address severe tensions in financial markets.

Under the Securities Markets Programme, established in May 2010, the ECB and the NCBs may purchase euro area public and private debt securities in order to address the malfunctioning of certain segments of the euro area debt securities markets and restore the proper functioning of the monetary policy transmission mechanism. The net increase in this item in 2011 was due to further purchases that more than offset redemptions in 2011.

Securities purchased under the Securities Markets Programme and the covered bond purchase programmes are classified as held-to-maturity securities and are valued on an amortised cost basis subject to impairment (see "Securities" in the notes on accounting policies). Annual impairment tests were conducted on the basis of the information available and estimated recoverable amounts as at the end of 2011.

In this context, the Governing Council considered the impact of the private sector involvement (PSI) initiative announced in 2011, which proposed a restructuring of part of the debt issued by the Hellenic Republic to secure debt sustainability in the long term. Part of the ECB's holdings under the Securities Markets Programme comprises debt securities issued by the Hellenic Republic. However, given that the initiative was designed to voluntarily restructure debt held by the private sector, it was not expected to result in changes to any future contractual cash flows associated with the ECB's holdings of these securities. As at 31 December 2011 the Governing Council considered that there was no evidence to assume that the initiative would not be successfully implemented, therefore, no impairment losses were recorded at the year-end.

Furthermore, no impairment was recorded in respect of the other securities purchased under the Securities Markets Programme or the securities bought under the two covered bond purchase programmes.

The Governing Council assesses on a regular basis the financial risks associated with the securities held under the Securities Markets Programme and the two covered bond purchase programmes.

POST-BALANCE-SHEET EVENTS

In February 2012 the Eurosystem central banks exchanged their holdings of Greek government bonds purchased under the Securities Markets Programme for new securities issued by the Hellenic Republic. The newly acquired securities have the same characteristics as those purchased under the Securities Markets Programme in terms of their nominal values, coupon rates, interest payment dates and redemption dates. The new securities were not included on the list of eligible securities that were subject to restructuring in the context of the PSI initiative.

6 INTRA-EUROSYSTEM CLAIMS

6.1 CLAIMS RELATED TO THE ALLOCATION OF EURO BANKNOTES WITHIN THE EUROSYSTEM

This item consists of the claims of the ECB vis-à-vis the euro area NCBs relating to the allocation of euro banknotes within the Eurosystem (see "Banknotes in circulation" in the notes on accounting policies). The remuneration of these claims is calculated daily at the latest available marginal interest rate used by the Eurosystem in its tenders for main refinancing operations (see note 24.2, "Interest income arising from the allocation of euro banknotes within the Eurosystem").

6.2 OTHER CLAIMS/LIABILITIES WITHIN THE EUROSYSTEM (NET)

In 2011 this item consisted mainly of the TARGET2 balances of the euro area NCBs vis-à-vis the ECB (see "Intra-ESCB balances/ intra-Eurosystem balances" in the notes on

accounting policies). The ECB had a net liability vis-à-vis the euro area NCBs at the end of 2010 but a net claim at the end of 2011. This change resulted mainly from an increase in the outstanding amounts related to back-to-back swap transactions conducted with NCBs in connection with US dollar liquidity-providing operations (see note 11, "Liabilities to non-euro area residents denominated in euro"). The remuneration of TARGET2 positions, with the exception of balances arising from these back-to-back swap transactions, is calculated daily at the latest available marginal interest rate used by the Eurosystem in its tenders for main refinancing operations.

In 2011 this item also included the amount due to euro area NCBs in respect of the interim distribution of the ECB's income derived from banknotes in circulation (see "Interim profit distribution" in the notes on accounting policies). With respect to 2010, the Governing Council decided to retain the full amount of this income, as well as income earned on securities purchased under the Securities Markets Programme, and no related amounts were due at the end of 2010.

	2011 €	2010 €
Due from euro area NCBs in respect of TARGET2	842,032,488,071	435,850,611,581
Due to euro area NCBs in respect of TARGET2	(791,987,384,417)	(457,075,867,507)
Due to euro area NCBs in respect of the interim distribution of the ECB's income derived from banknotes in circulation	(652,000,000)	0
Other claims/ (liabilities) within the Eurosystem (net)	49,393,103,654	(21,225,255,926)

7 OTHER ASSETS

7.1 TANGIBLE AND INTANGIBLE FIXED ASSETS

These assets comprised the following items on 31 December 2011:

	2011 €	2010 €	Change €
Cost			
Land and buildings	168,916,034	168,714,234	201,800
Computer hardware and software	187,324,734	188,781,597	(1,456,863)
Equipment, furniture, plant in building and motor vehicles	30,891,846	30,325,142	566,704
Assets under construction	339,020,767	174,386,237	164,634,530
Other fixed assets	1,656,957	1,525,084	131,873
Total cost	**727,810,338**	**563,732,294**	**164,078,044**
Accumulated depreciation			
Land and buildings	(79,214,734)	(74,965,599)	(4,249,135)
Computer hardware and software	(177,313,517)	(177,760,956)	447,439
Equipment, furniture, plant in building and motor vehicles	(29,730,082)	(28,878,352)	(851,730)
Other fixed assets	(202,512)	(201,762)	(750)
Total accumulated depreciation	**(286,460,845)**	**(281,806,669)**	**(4,654,176)**
Net book value	**441,349,493**	**281,925,625**	**159,423,868**

The increase in the category "Assets under construction" is due mainly to activities related to the ECB's new premises.

7.2 OTHER FINANCIAL ASSETS

This item consists of the investment of the ECB's own funds[14] held as a direct counterpart to the capital and reserves of the ECB, as well as

14 Repurchase agreements conducted in the context of the management of the own funds portfolio are reported under "Sundry" on the liabilities side (see note 14.3, "Sundry").

other financial assets which include 3,211 shares in the Bank for International Settlements (BIS) at the acquisition cost of €41.8 million.

The main components of this item are as follows:

	2011 €	2010 €	Change €
Current accounts in euro	4,934,974	4,377,086	557,888
Securities denominated in euro	13,285,988,281	11,534,194,166	1,751,794,115
Reverse repurchase agreements in euro	2,707,978,069	1,669,436,200	1,038,541,869
Other financial assets	41,924,130	41,953,279	(29,149)
Total	16,040,825,454	13,249,960,731	2,790,864,723

The net increase in this item was due mainly to the investment in the own funds portfolio of (a) amounts received from the euro area NCBs in 2011 in respect of the second instalment of their contribution to the increase in the ECB's subscribed capital in 2010 (see note 17, "Capital and reserves"); (b) the counterpart of the amount transferred to the ECB's provision for foreign exchange rate, interest rate, credit and gold price risks in 2010; and (c) income received in 2011.

7.3 OFF-BALANCE-SHEET INSTRUMENTS REVALUATION DIFFERENCES

This item is composed mainly of valuation changes in swap and forward transactions in foreign currency that were outstanding on 31 December 2011 (see note 21, "Foreign exchange swap and forward transactions"). These valuation changes are the result of the conversion of such transactions into their euro equivalents at the exchange rates prevailing on the balance sheet date, compared with the euro values resulting from the conversion of the transactions at the average cost of the respective foreign currency on that date (see "Off-balance-sheet instruments" and "Gold and foreign currency assets and liabilities" in the notes on accounting policies).

Valuation gains on outstanding interest rate swap transactions are also included in this item (see note 20, "Interest rate swaps").

7.4 ACCRUALS AND PREPAID EXPENSES

In 2011 this position included accrued interest receivable on the TARGET2 balances due from euro area NCBs for the final month of 2011, amounting to €752.6 million (2010: €364.7 million), and accrued interest receivable on the ECB's claims related to the allocation of euro banknotes within the Eurosystem for the final quarter of the year (see "Banknotes in circulation" in the notes on accounting policies), amounting to €230.6 million (2010: €166.7 million).

Also included in this item is accrued coupon interest on securities (see note 2.2, "Balances with banks and security investments, external loans and other external assets; and Claims on euro area residents denominated in foreign currency", note 5, "Securities of euro area residents denominated in euro", and note 7.2, "Other financial assets") as well as accrued interest on other financial assets.

7.5 SUNDRY

This item includes positive balances related to swap and forward transactions in foreign currency that were outstanding on 31 December 2011 (see note 21, "Foreign exchange swap and forward transactions"). These balances arise from the conversion of such transactions into their euro equivalents at the respective currency's average cost on the balance sheet date, compared with the euro values at which the transactions were initially recorded (see "Off-balance-sheet instruments" in the notes on accounting policies).

This item also includes the accrued amounts of the interim distribution of the ECB's income derived from banknotes in circulation

(see "Interim profit distribution" in the notes on accounting policies and note 6.2, "Other claims/ liabilities within the Eurosystem (net)").

A claim against the German Federal Ministry of Finance in respect of recoverable value added tax and other indirect taxes paid is also included under this heading. Such taxes are refundable under the terms of Article 3 of the Protocol on the privileges and immunities of the European Union, which applies to the ECB by virtue of Article 39 of the Statute of the ESCB.

8 BANKNOTES IN CIRCULATION

This item consists of the ECB's share (8%) of the total euro banknotes in circulation (see "Banknotes in circulation" in the notes on accounting policies).

9 OTHER LIABILITIES TO EURO AREA CREDIT INSTITUTIONS DENOMINATED IN EURO

In 2010 the Governing Council decided that the Eurosystem central banks would make available for lending bonds bought under the first covered bond purchase programme. The ECB implemented these lending operations through matched repurchase transactions, whereby amounts received under repurchase agreements are fully and simultaneously reinvested with the same counterparty under a reverse repurchase agreement (see note 4, "Other claims on euro area credit institutions denominated in euro"). In 2011 the Governing Council decided to extend the scope of such lending operations to include bonds bought under the second covered bond purchase programme.

As at 31 December 2011 repurchase agreements conducted in the context of the covered bond lending operations with a value of €204.9 million (2010: €33.4 million) remained outstanding. They related solely to bonds bought under the first covered bond purchase programme.

10 LIABILITIES TO OTHER EURO AREA RESIDENTS DENOMINATED IN EURO

10.1 OTHER LIABILITIES

This item comprises deposits by members of the Euro Banking Association (EBA) which are used in order to provide the ECB with collateral in respect of the EBA's payments settled through the TARGET2 system.

11 LIABILITIES TO NON-EURO AREA RESIDENTS DENOMINATED IN EURO

As at 31 December 2011 this item consisted mainly of a liability amounting to €64.2 billion (2010: €0.1 billion) arising from the temporary reciprocal currency arrangement with the Federal Reserve. Under this arrangement, US dollars were provided by the Federal Reserve to the ECB by means of a temporary swap line, with the aim of offering short-term US dollar funding to Eurosystem counterparties. The ECB simultaneously entered into back-to-back swap transactions with euro area NCBs, which used the resulting funds to conduct US dollar liquidity-providing operations with Eurosystem counterparties in the form of reverse transactions. The back-to-back swap transactions resulted in intra-Eurosystem balances between the ECB and the NCBs.

The remainder of this item reflects balances held with the ECB by other non-euro area central banks, including balances held by non-euro area NCBs arising from transactions processed via the TARGET2 system (see "Intra-ESCB balances/intra-Eurosystem balances" in the notes on accounting policies).

12 LIABILITIES TO NON-EURO AREA RESIDENTS DENOMINATED IN FOREIGN CURRENCY

12.1 DEPOSITS, BALANCES AND OTHER LIABILITIES

This item consists of liabilities that arose under repurchase agreements conducted with

non-euro area residents in connection with the management of the foreign currency reserves of the ECB.

13 INTRA-EUROSYSTEM LIABILITIES

13.1 LIABILITIES EQUIVALENT TO THE TRANSFER OF FOREIGN RESERVES

These represent the liabilities to the euro area NCBs that arose from the transfer of foreign reserve assets to the ECB when they joined the Eurosystem. The remuneration of these liabilities is calculated daily at the latest available marginal interest rate used by the Eurosystem in its tenders for main refinancing operations, adjusted to reflect a zero return on the gold component (see note 24.3, "Remuneration of NCBs' claims in respect of foreign reserves transferred").

Eesti Pank's transfer of foreign reserve assets upon the adoption of the single currency by Estonia led to an increase in this item of €103,115,678.

	Since 1 January 2011 €	31 December 2010 €
Nationale Bank van België/ Banque Nationale de Belgique	1,397,303,847	1,397,303,847
Deutsche Bundesbank	10,909,120,274	10,909,120,274
Eesti Pank	103,115,678	-
Central Bank of Ireland	639,835,662	639,835,662
Bank of Greece	1,131,910,591	1,131,910,591
Banco de España	4,783,645,755	4,783,645,755
Banque de France	8,192,338,995	8,192,338,995
Banca d'Italia	7,198,856,881	7,198,856,881
Central Bank of Cyprus	78,863,331	78,863,331
Banque centrale du Luxembourg	100,638,597	100,638,597
Central Bank of Malta	36,407,323	36,407,323
De Nederlandsche Bank	2,297,463,391	2,297,463,391
Oesterreichische Nationalbank	1,118,545,877	1,118,545,877
Banco de Portugal	1,008,344,597	1,008,344,597
Banka Slovenije	189,410,251	189,410,251
Národná banka Slovenska	399,443,638	399,443,638
Suomen Pankki – Finlands Bank	722,328,205	722,328,205
Total	40,307,572,893	40,204,457,215

Eesti Pank's claim was set at €103,115,678 in order to ensure that the ratio between this claim and the aggregate claim credited to the other NCBs of Member States whose currency is the euro will be equal to the ratio between Eesti Pank's weighting in the ECB's capital key and the other euro area NCBs' aggregate weighting in this key. The difference between the claim and the value of the assets transferred (see note 1, "Gold and gold receivables", and note 2.2, "Balances with banks and security investments, external loans and other external assets; and Claims on euro area residents denominated in foreign currency") was treated as part of the contributions of Eesti Pank, due under Article 48.2 of the Statute of the ESCB, to the reserves and provisions equivalent to reserves of the ECB existing as at 31 December 2010 (see note 15, "Provisions", and note 16, "Revaluation accounts").

14 OTHER LIABILITIES

14.1 OFF-BALANCE-SHEET INSTRUMENTS REVALUATION DIFFERENCES

This item is composed mainly of valuation changes in swap and forward transactions in foreign currency that were outstanding on 31 December 2011 (see note 21, "Foreign exchange swap and forward transactions"). These valuation changes are the result of the conversion of such transactions into their euro equivalents at the exchange rates prevailing on the balance sheet date, compared with the euro values resulting from the conversion of the transactions at the average cost of the respective foreign currency on that date (see "Off-balance-sheet instruments" and "Gold and foreign currency assets and liabilities" in the notes on accounting policies).

Valuation losses on outstanding interest rate swaps are also included in this item (see note 20, "Interest rate swaps").

14.2 ACCRUALS AND INCOME COLLECTED IN ADVANCE

As at 31 December 2011 the two main items under this heading were accrued interest payable on TARGET2 balances due to NCBs for the final month of 2011, amounting to €770.1 million (2010: €381.8 million), and accrued interest payable to the NCBs for the whole of 2011 in respect of their claims relating to foreign reserves transferred to the ECB (see note 13, "Intra-Eurosystem liabilities"), amounting to €434.0 million (2010: €346.5 million). Accruals on financial instruments and other accruals are also reported in this item.

Also included under this heading is a contribution to the ECB from the City of Frankfurt of €15.3 million for the preservation of the listed Grossmarkthalle building in connection with the construction of the ECB's new premises. This amount will be netted against the cost of the building once it comes into use (see note 7.1, "Tangible and intangible fixed assets").

14.3 SUNDRY

This item includes outstanding repurchase transactions of €360.0 million (2010: €235.4 million) conducted in connection with the management of the ECB's own funds (see note 7.2, "Other financial assets").

This item also includes negative balances related to swap and forward transactions in foreign currency that were outstanding on 31 December 2011 (see note 21, "Foreign exchange swap and forward transactions"). These balances arise from the conversion of such transactions into their euro equivalents at the respective currency's average cost on the balance sheet date, compared with the euro values at which the transactions were initially recorded (see "Off-balance-sheet instruments" in the notes on accounting policies).

In addition, it includes the net liability in respect of the ECB's pension obligation of €112.5 million as described below.

THE ECB'S PENSION PLAN, OTHER POST-EMPLOYMENT BENEFITS AND OTHER LONG-TERM BENEFITS

The amounts recognised in the Balance Sheet in respect of post-employment and other long-term employee benefits (see "The ECB's pension plan, other post-employment benefits and other long-term benefits" in the notes on accounting policies) are as follows:

	2011 Staff € millions	2011 Executive Board € millions	2011 Total € millions
Present value of obligation	549.1	17.9	567.0
Fair value of plan assets	(418.4)	-	(418.4)
Unrecognised actuarial gains/(losses)	(35.6)	(0.5)	(36.1)
Liability recognised in the Balance Sheet	95.1	17.4	112.5

	2010 Staff € millions	2010 Executive Board € millions	2010 Total € millions
Present value of obligation	539.6	15.9	555.5
Fair value of plan assets	(391.6)	-	(391.6)
Unrecognised actuarial gains/(losses)	(71.6)	0.5	(71.1)
Liability recognised in the Balance Sheet	76.4	16.4	92.8

The present value of the obligation vis-à-vis staff includes unfunded benefits amounting to €86.6 million (2010: €86.9 million) relating to post-employment benefits other than pensions and to other long-term benefits. Unfunded arrangements are also in place for the post-employment and other long-term benefits of members of the Executive Board (see "The ECB's pension plan, other post-employment

benefits and other long-term benefits" in the notes on accounting policies).

The amounts recognised in the Profit and Loss Account in 2011 in respect of "Current service cost", "Interest on obligation", "Expected return on plan assets" and "Net actuarial (gains)/losses recognised in the year" are as follows:

	2011 Staff € millions	2011 Executive Board € millions	2011 Total € millions
Current service cost	31.1	1.4	32.5
Interest on obligation	24.2	0.8	25.0
Expected return on plan assets	(20.1)	-	(20.1)
Net actuarial (gains)/losses recognised in the year	6.2	(0.6)	5.6
Total included in "Staff costs"	41.4	1.6	43.0

	2010 Staff € millions	2010 Executive Board € millions	2010 Total € millions
Current service cost	25.4	1.2	26.6
Interest on obligation	21.1	0.8	21.9
Expected return on plan assets	(18.4)	-	(18.4)
Net actuarial (gains)/losses recognised in the year	(1.0)	(0.3)	(1.3)
Total included in "Staff costs"	27.1	1.7	28.8

Under the "10% corridor" approach (see "The ECB's pension plan, other post-employment benefits and other long-term benefits" in the notes on accounting policies), net cumulative unrecognised actuarial gains and losses arising from post-employment benefits exceeding the greater of (a) 10% of the present value of the defined benefit obligation and (b) 10% of the fair value of plan assets, are amortised over the expected average remaining working lives of the participating employees.

Changes in the present value of the obligation are as follows:

	2011 Staff € millions	2011 Executive Board € millions	2011 Total € millions
Opening obligation	539.6	15.9	555.5
Service cost	31.1	1.4	32.5
Interest cost	24.2	0.8	25.0
Contributions paid by plan participants	16.3	0.2	16.5
Other net changes in liabilities representing plan participants' contributions	(1.9)	0	(1.9)
Benefits paid	(5.4)	(0.8)	(6.2)
Actuarial (gains)/losses	(54.8)	0.4	(54.4)
Closing obligation	549.1	17.9	567.0

	2010 Staff € millions	2010 Executive Board € millions	2010 Total € millions
Opening obligation	430.5	13.4	443.9
Service cost	25.4	1.2	26.6
Interest cost	21.1	0.8	21.9
Contributions paid by plan participants	17.4	0.1	17.5
Other net changes in liabilities representing plan participants' contributions	4.5	0	4.5
Benefits paid	(4.8)	(0.4)	(5.2)
Actuarial (gains)/losses	45.5	0.8	46.3
Closing obligation	539.6	15.9	555.5

The actuarial losses of €46.3 million arising on the defined benefit obligation in 2010 were primarily due to the decrease in the discount rate from 5.50% to 5.00% and an increase in the value of the guaranteed benefits. These factors were only partially offset by the reduction in the assumed future increase in pensions from 2.00% to 1.65%.

Actuarial gains for 2011 on the defined benefit obligation relating to staff amounted to €54.8 million. This amount includes the effects of (a) lower than expected growth in the value of the minimum guaranteed benefits; (b) a downward revision of expected credited returns on the fund units with an underlying capital guarantee which are used for calculating the future pensions and consequently the

current value of the defined benefit obligation; and (c) lower projected growth in medical plan premiums.

Changes in the fair value of plan assets relating to staff, including those arising from voluntary contributions paid by plan participants, are as follows:

	2011 € millions	2010 € millions
Opening fair value of plan assets	391.6	333.2
Expected return	20.1	18.4
Actuarial gains/(losses)	(25.0)	0.6
Contributions paid by employer	22.7	22.4
Contributions paid by plan participants	16.3	17.3
Benefits paid	(5.4)	(4.8)
Other net changes in assets representing plan participants' contributions	(1.9)	4.5
Closing fair value of plan assets	418.4	391.6

In preparing the valuations referred to in this note, the actuaries have used assumptions which the Executive Board has accepted for the purposes of accounting and disclosure. The principal assumptions used for the purposes of calculating the benefits scheme liability are as follows:

	2011 %	2010 %
Discount rate	5.00	5.00
Expected return on plan assets	6.00	6.00
General future salary increases [1]	2.00	2.00
Future pension increases	1.65	1.65

1) In addition, allowance is made for prospective individual salary increases of up to 1.8% per annum, depending on the age of the plan participants.

15 PROVISIONS

This item consists of a provision for foreign exchange rate, interest rate, credit and gold price risks and other miscellaneous provisions.

The provision for foreign exchange rate, interest rate, credit and gold price risks will be used to the extent deemed necessary by the Governing Council to offset future realised and unrealised losses, in particular valuation losses not covered by the revaluation accounts. The size of and continuing requirement for this provision is reviewed annually, based on the ECB's assessment of its exposure to the above risks. This assessment takes a range of factors into account, including in particular the level of holdings of risk-bearing assets, the extent of materialised risk exposures in the current financial year, projected results for the coming year, and a risk assessment involving calculations of Values at Risk (VaR) on risk-bearing assets, which is applied consistently over time.[15] The provision, together with any amount held in the general reserve fund, may not exceed the value of the ECB's capital paid up by the euro area NCBs.

As at 31 December 2010 the provision for foreign exchange rate, interest rate, credit and gold price risks amounted to €5,183,637,388. Eesti Pank contributed an amount of €13,294,901 to the provision with effect from 1 January 2011.[16] Taking the results of its assessment into account, the Governing Council decided to transfer, as at 31 December 2011, an amount of €1,166,175,000 to the provision out of income arising from securities purchased under the Securities Markets Programme (see note 24.4, "Other interest income; and Other interest expense") and out of part of the income on euro banknotes in circulation (see note 24.2, "Interest income arising from the allocation of euro banknotes within the Eurosystem"). This transfer reduced the ECB's net profit for 2011 to €728,136,234 and, together with the amount contributed by Eesti Pank, increased the size of the provision to €6,363,107,289. Following the increase in the ECB's paid-up capital in 2011 (see note 17, "Capital and reserves"), this amount corresponds to the value of the ECB's capital paid up by the euro area NCBs as at 31 December 2011.

16 REVALUATION ACCOUNTS

These accounts represent revaluation balances arising from unrealised gains on assets, liabilities and off-balance-sheet instruments (see "Income recognition", "Gold and foreign currency assets and liabilities", "Securities" and "Off-balance-

15 See also Chapter 2 of the Annual Report.
16 In accordance with Article 48.2 of the Statute of the ESCB.

sheet instruments" in the notes on accounting policies). In accordance with Article 48.2 of the Statute of the ESCB, Eesti Pank contributed an amount of €50.3 million to these balances with effect from 1 January 2011.

	2011 €	2010 €	Change €
Gold	15,718,491,496	13,078,746,071	2,639,745,425
Foreign currency	7,975,683,173	6,271,078,092	1,704,605,081
Securities and other instruments	630,756,103	276,874,996	353,881,107
Total	24,324,930,772	19,626,699,159	4,698,231,613

The foreign exchange rates used for the year-end revaluation were as follows:

Exchange rates	2011	2010
US dollars per euro	1.2939	1.3362
Japanese yen per euro	100.20	108.65
Euro per SDR	1.1867	1.1572
Euro per fine ounce of gold	1,216.864	1,055.418

17 CAPITAL AND RESERVES

17.1 CAPITAL

With effect from 29 December 2010 the ECB increased its subscribed capital by €5 billion to €10,760,652,403.[17] In addition, the Governing Council decided that the euro area NCBs would pay their additional capital contributions resulting from this increase in three equal annual instalments.[18] Consequently, on 29 December 2010 the NCBs of the euro area (in its composition as at that date) paid an amount of €1,163,191,667 as their first instalment.

Eesti Pank paid up an amount of €12,572,592 as at 1 January 2011.[19] This amount consisted of the first instalment of Eesti Pank's contribution to the increase in the ECB's subscribed capital at end-December 2010, amounting to €2,983,333, and the remainder of its share in the ECB's subscribed capital before the increase, amounting to €9,589,259.

On 28 December 2011 the NCBs of the euro area, including Eesti Pank, paid an amount of €1,166,175,000 as the second instalment of their contribution to the increase in the ECB's subscribed capital. The third instalment will be paid at the end of 2012.

The combined effect of the above payments in 2011 was an increase in the paid-up capital of the ECB amounting to €1,178,747,592,[20] as shown in the table below:[21]

	Paid-up capital since 28 December 2011 €	Paid-up capital from 1 January to 27 December 2011 €	Paid-up capital as at 31 December 2010 €
Nationale Bank van België/Banque Nationale de Belgique	220,583,718	180,157,051	180,157,051
Deutsche Bundesbank	1,722,155,361	1,406,533,694	1,406,533,694
Eesti Pank	16,278,234	13,294,901	-
Central Bank of Ireland	101,006,900	82,495,233	82,495,233
Bank of Greece	178,687,726	145,939,392	145,939,392
Banco de España	755,164,576	616,764,576	616,764,576
Banque de France	1,293,273,899	1,056,253,899	1,056,253,899
Banca d'Italia	1,136,439,021	928,162,355	928,162,355
Central Bank of Cyprus	12,449,666	10,168,000	10,168,000
Banque centrale du Luxembourg	15,887,193	12,975,526	12,975,526
Central Bank of Malta	5,747,399	4,694,066	4,694,066
De Nederlandsche Bank	362,686,339	296,216,339	296,216,339
Oesterreichische Nationalbank	176,577,921	144,216,254	144,216,254
Banco de Portugal	159,181,126	130,007,793	130,007,793
Banka Slovenije	29,901,025	24,421,025	24,421,025
Národná banka Slovenska	63,057,697	51,501,030	51,501,030
Suomen Pankki – Finlands Bank	114,029,487	93,131,154	93,131,154
Subtotal for euro area NCBs	***6,363,107,289***	***5,196,932,289***	***5,183,637,388***

17 Decision ECB/2010/26 of 13 December 2010 on the increase of the European Central Bank's capital, OJ L 11, 15.1.2011, p. 53.
18 Decision ECB/2010/27 of 13 December 2010 on the paying-up of the increase of the European Central Bank's capital by the national central banks of Member States whose currency is the euro, OJ L 11, 15.1.2011, p. 54.
19 In accordance with Article 48.1 of the Statute of the ESCB and Decision ECB/2010/34 of 31 December 2010 on the paying-up of capital, transfer of foreign reserve assets and contributions by Eesti Pank to the European Central Bank's reserves and provisions, OJ L 11, 15.1.2011, p. 58.
20 This increase may not be derived precisely from the figures provided in the table below due to rounding.
21 Individual amounts are shown rounded to the nearest euro. Consequently, totals and subtotals in the tables of this section may not add up due to rounding.

	Paid-up capital since 28 December 2011 €	Paid-up capital from 1 January to 27 December 2011 €	Paid-up capital as at 31 December 2010 €
Българска народна банка (Bulgarian National Bank)	3,505,014	3,505,014	3,505,014
Česká národní banka	5,839,806	5,839,806	5,839,806
Danmarks Nationalbank	5,986,285	5,986,285	5,986,285
Eesti Pank	-	-	722,309
Latvijas Banka	1,144,799	1,144,799	1,144,799
Lietuvos bankas	1,717,400	1,717,400	1,717,400
Magyar Nemzeti Bank	5,591,235	5,591,235	5,591,235
Narodowy Bank Polski	19,754,137	19,754,137	19,754,137
Banca Naţională a României	9,944,860	9,944,860	9,944,860
Sveriges Riksbank	9,112,389	9,112,389	9,112,389
Bank of England	58,580,454	58,580,454	58,580,454
Subtotal for non-euro area NCBs	***121,176,379***	***121,176,379***	***121,898,688***
Total	**6,484,283,669**	**5,318,108,669**	**5,305,536,076**

The non-euro area NCBs are required to pay up 3.75% of their share in the ECB's subscribed capital as a contribution to the operational costs of the ECB. This contribution amounted to €121,176,379 at end-2011. The non-euro area NCBs are not entitled to receive any share of the distributable profits of the ECB, nor are they liable to fund any loss of the ECB.

The ECB's capital key and subscribed capital remained unchanged in 2011. As a result of the adoption of the single currency by Estonia on 1 January 2011, the allocation of the capital key and the subscribed capital to the euro area and non-euro area NCBs changed as follows:[22]

22 Individual amounts are shown rounded to the nearest euro. Consequently, totals and subtotals in the tables of this section may not add up due to rounding.

	Capital key since 1 January 2011 %	Subscribed capital since 1 January 2011 €	Capital key as at 31 December 2010 %	Subscribed capital as at 31 December 2010 €
Nationale Bank van België/Banque Nationale de Belgique	2.4256	261,010,385	2.4256	261,010,385
Deutsche Bundesbank	18.9373	2,037,777,027	18.9373	2,037,777,027
Eesti Pank	0.1790	19,261,568	-	-
Central Bank of Ireland	1.1107	119,518,566	1.1107	119,518,566
Bank of Greece	1.9649	211,436,059	1.9649	211,436,059
Banco de España	8.3040	893,564,576	8.3040	893,564,576
Banque de France	14.2212	1,530,293,899	14.2212	1,530,293,899
Banca d'Italia	12.4966	1,344,715,688	12.4966	1,344,715,688
Central Bank of Cyprus	0.1369	14,731,333	0.1369	14,731,333
Banque centrale du Luxembourg	0.1747	18,798,860	0.1747	18,798,860
Central Bank of Malta	0.0632	6,800,732	0.0632	6,800,732
De Nederlandsche Bank	3.9882	429,156,339	3.9882	429,156,339
Oesterreichische Nationalbank	1.9417	208,939,588	1.9417	208,939,588
Banco de Portugal	1.7504	188,354,460	1.7504	188,354,460
Banka Slovenije	0.3288	35,381,025	0.3288	35,381,025
Národná banka Slovenska	0.6934	74,614,364	0.6934	74,614,364
Suomen Pankki – Finlands Bank	1.2539	134,927,820	1.2539	134,927,820
Subtotal for euro area NCBs	***69.9705***	***7,529,282,289***	***69.7915***	***7,510,020,722***

	Capital key since 1 January 2011 %	Subscribed capital since 1 January 2011 €	Capital key as at 31 December 2010 %	Subscribed capital as at 31 December 2010 €
Българска народна банка (Bulgarian National Bank)	0.8686	93,467,027	0.8686	93,467,027
Česká národní banka	1.4472	155,728,162	1.4472	155,728,162
Danmarks Nationalbank	1.4835	159,634,278	1.4835	159,634,278
Eesti Pank	-	-	0.1790	19,261,568
Latvijas Banka	0.2837	30,527,971	0.2837	30,527,971
Lietuvos bankas	0.4256	45,797,337	0.4256	45,797,337
Magyar Nemzeti Bank	1.3856	149,099,600	1.3856	149,099,600
Narodowy Bank Polski	4.8954	526,776,978	4.8954	526,776,978
Banca Naţională a României	2.4645	265,196,278	2.4645	265,196,278
Sveriges Riksbank	2.2582	242,997,053	2.2582	242,997,053
Bank of England	14.5172	1,562,145,431	14.5172	1,562,145,431
Subtotal for non-euro area NCBs	***30.0295***	***3,231,370,113***	***30.2085***	***3,250,631,681***
Total	**100.0000**	**10,760,652,403**	**100.0000**	**10,760,652,403**

OFF-BALANCE-SHEET INSTRUMENTS

18 AUTOMATED SECURITY LENDING PROGRAMME

As part of the management of the ECB's own funds, the ECB has an automated security lending programme agreement in place, whereby an appointed agent enters into security lending transactions on behalf of the ECB with a number of counterparties, designated by the ECB as eligible counterparties. Under this agreement, reverse transactions with a value of €1.2 billion (2010: €1.5 billion) were outstanding as at 31 December 2011.

19 INTEREST RATE FUTURES

As at 31 December 2011 the following foreign currency transactions, presented at year-end market rates, were outstanding:

Foreign currency interest rate futures	2011 Contract value €	2010 Contract value €	Change €
Purchases	1,651,132,236	458,539,141	1,192,593,095
Sales	1,728,229,838	1,251,682,536	476,547,302

These transactions were conducted in the context of the management of the ECB's foreign reserves.

20 INTEREST RATE SWAPS

Interest rate swap transactions with a contract value of €225.7 million (2010: €742.4 million), presented at year-end market rates, were outstanding as at 31 December 2011. These transactions were conducted in the context of the management of the ECB's foreign reserves.

21 FOREIGN EXCHANGE SWAP AND FORWARD TRANSACTIONS

MANAGEMENT OF THE FOREIGN RESERVES

Foreign exchange swap and forward transactions were conducted in 2011 in the context of the management of the ECB's foreign reserves. The following forward claims and liabilities resulting from these transactions, presented at year-end market rates, remained outstanding as at 31 December 2011:

Foreign exchange swap and forward transactions	2011 €	2010 €	Change €
Claims	2,304,007,744	1,697,483,530	606,524,214
Liabilities	2,309,882,385	1,740,464,038	569,418,347

LIQUIDITY-PROVIDING OPERATIONS

Forward claims on NCBs and liabilities to the Federal Reserve, which arose in connection

with the provision of US dollar liquidity to Eurosystem counterparties (see note 11, "Liabilities to non-euro area residents denominated in euro"), were outstanding on 31 December 2011.

22 ADMINISTRATION OF BORROWING AND LENDING OPERATIONS [23]

The ECB continues to be responsible for the administration of the borrowing and lending operations of the EU under the medium-term financial assistance mechanism. Under this scheme, loans from the EU to Latvia, Hungary and Romania for a total amount of €11.4 billion were outstanding as at 31 December 2011.

In the context of the loan facility agreement between the Member States whose currency is the euro [24] and Kreditanstalt für Wiederaufbau,[25] as lenders, the Hellenic Republic, as the borrower, and the Bank of Greece, as the agent of the borrower, the ECB is responsible for processing all related payments on behalf of the lenders and the borrower. Under this scheme, pooled bilateral loans for the benefit of the Hellenic Republic amounting to €52.9 billion were outstanding as at 31 December 2011.

Furthermore, the ECB has an operational role in the administration of loans under the European Financial Stabilisation Mechanism (EFSM) and the European Financial Stability Facility (EFSF). Loans to Ireland and Portugal, amounting to €28 billion under the EFSM scheme and €16.3 billion under the EFSF scheme, were outstanding as at 31 December 2011.

23 PENDING LAWSUITS

An action for damages was brought against the ECB before the Court of First Instance of the European Communities (CFI)[26] by Document Security Systems Inc. (DSSI), alleging that the ECB had infringed a DSSI patent[27] in the production of euro banknotes. The CFI dismissed DSSI's action for damages against the ECB.[28] The ECB is currently pursuing actions to revoke the patent in certain national jurisdictions and has already succeeded in revoking it in a number of jurisdictions. Furthermore, the ECB firmly maintains that it has in no way infringed the patent, and will consequently also enter a defence against any infringement action brought by DSSI before any competent national court.

As a result of the CFI's dismissal of DSSI's action for damages against the ECB, as well as the ECB's successful actions to date in a number of national jurisdictions to revoke national portions of DSSI's patent, the ECB remains confident that the possibility of payments to DSSI is remote. The ECB is actively monitoring all developments in the continuing litigation.

23 See also Chapter 2 of the Annual Report.
24 Other than the Hellenic Republic and the Federal Republic of Germany.
25 Acting in the public interest, subject to the instructions of and with the benefit of the guarantee of the Federal Republic of Germany.
26 Following the entry into force of the Treaty of Lisbon on 1 December 2009, the name of the Court of First Instance was changed to the General Court.
27 DSSI's European Patent No 0455 750 B1.
28 Order of the Court of First Instance of 5 September 2007, Case T-295/05. Available at www.curia.europa.eu.

NOTES ON THE PROFIT AND LOSS ACCOUNT

24 NET INTEREST INCOME

24.1 INTEREST INCOME ON FOREIGN RESERVE ASSETS

This item includes interest income, net of interest expense, in respect of the ECB's net foreign reserve assets, as follows:

	2011 €	2010 €	Change €
Interest income on current accounts	2,088,888	1,328,753	760,135
Interest income on money market deposits	18,279,491	15,865,666	2,413,825
Interest income on reverse repurchase agreements	1,479,020	2,712,798	(1,233,778)
Net interest income on securities	254,699,342	335,790,909	(81,091,567)
Net interest income on interest rate swaps	6,284,214	4,611,662	1,672,552
Net interest income on foreign exchange swap and forward transactions	7,686,740	6,523,343	1,163,397
Total interest income on foreign reserve assets	**290,517,695**	**366,833,131**	**(76,315,436)**
Interest expense on current accounts	(6,126)	(8,795)	2,669
Net interest expense on repurchase agreements	(291,278)	(644,858)	353,580
Interest income on foreign reserve assets (net)	**290,220,291**	**366,179,478**	**(75,959,187)**

The overall decrease in net interest income in 2011 was due mainly to lower interest income generated on the US dollar portfolio.

24.2 INTEREST INCOME ARISING FROM THE ALLOCATION OF EURO BANKNOTES WITHIN THE EUROSYSTEM

This item consists of the interest income relating to the ECB's share of the total euro banknote issue (see "Banknotes in circulation" in the notes on accounting policies and note 6.1, "Claims related to the allocation of euro banknotes within the Eurosystem"). The increase in income in 2011 mainly reflected the fact that the average main refinancing rate was higher than in 2010.

24.3 REMUNERATION OF NCBS' CLAIMS IN RESPECT OF FOREIGN RESERVES TRANSFERRED

Remuneration paid to euro area NCBs on their claims on the ECB in respect of the foreign reserve assets transferred under Article 30.1 of the Statute of the ESCB (see note 13, "Intra-Eurosystem liabilities") is disclosed under this heading. The increase in this remuneration in 2011 predominantly reflected the fact that the average main refinancing rate was higher than in 2010.

24.4 OTHER INTEREST INCOME; AND OTHER INTEREST EXPENSE

These items include interest income of €6.6 billion (2010: €3.8 billion) and expenses of €6.9 billion (2010: €3.9 billion) arising from TARGET2 balances (see note 6.2, "Other claims/liabilities within the Eurosystem (net)", and note 11, "Liabilities to non-euro area residents denominated in euro").

These items also include net income of €165.7 million (2010: €140.4 million) on the securities purchased by the ECB under the covered bond purchase programmes, including net income on the related security lending transactions, and €1,002.8 million (2010: €438.0 million) on those purchased under the Securities Markets Programme. Interest income and expenses in respect of other assets and liabilities denominated in euro, as well as interest income and interest expense arising from US dollar liquidity-providing operations, are also shown under these headings.

25 REALISED GAINS/LOSSES ARISING FROM FINANCIAL OPERATIONS

Net realised gains arising from financial operations in 2011 were as follows:

	2011 €	2010 €	Change €
Net realised price gains on securities, interest rate futures and interest rate swaps	260,059,727	460,588,711	(200,528,984)
Net realised exchange rate and gold price gains	212,159,502	13,724,616	198,434,886
Net realised gains arising from financial operations	472,219,229	474,313,327	(2,094,098)

In 2011 this item included net realised price gains on sales of securities and net exchange rate gains on foreign currency outflows, which arose mainly as a result of Japanese yen outflows in the context of the ECB's participation in the concerted international intervention in the foreign exchange markets on 18 March 2011 (see note 2.2, "Balances with banks and security investments, external loans and other external assets; and Claims on euro area residents denominated in foreign currency").

26 WRITE-DOWNS ON FINANCIAL ASSETS AND POSITIONS

	2011 €	2010 €	Change €
Unrealised price losses on securities	(155,240,641)	(184,247,603)	29,006,962
Unrealised price losses on interest rate swaps	(2,216,642)	(10,963,861)	8,747,219
Unrealised exchange rate losses	0	(1,973)	1,973
Total write-downs	(157,457,283)	(195,213,437)	37,756,154

In 2011 this expense was due mainly to the write-down of the acquisition cost of a number of securities shown on the Balance Sheet to their market value as at 30 December 2011.

27 NET EXPENSE FROM FEES AND COMMISSIONS

	2011 €	2010 €	Change €
Income from fees and commissions	77,858	110,661	(32,803)
Expenses relating to fees and commissions	(2,058,638)	(1,519,678)	(538,960)
Net expense from fees and commissions	(1,980,780)	(1,409,017)	(571,763)

In 2011 income under this heading consisted of penalties imposed on credit institutions for non-compliance with the minimum reserve requirements. Expenses relate to fees payable on current accounts and in connection with interest rate futures transactions (see note 19, "Interest rate futures").

28 INCOME FROM EQUITY SHARES AND PARTICIPATING INTERESTS

Dividends received on shares which the ECB holds in the BIS (see note 7.2, "Other financial assets") are shown under this heading.

29 OTHER INCOME

Other miscellaneous income during the year arose mainly from the accrued contributions of the euro area NCBs to the costs incurred by the ECB in connection with a major market infrastructure project.

30 STAFF COSTS

Salaries, allowances, staff insurance and other miscellaneous costs of €173.1 million (2010: €167.7 million) are included under this heading. Also included in this item is an amount of €43.0 million (2010: €28.8 million) recognised in connection with the ECB's pension plan, other post-employment benefits and other

long-term benefits (see note 14.3, "Sundry"). Staff costs of €1.3 million (2010: €1.3 million) incurred in connection with the construction of the ECB's new premises have been capitalised and are excluded from this item.

Salaries and allowances, including the emoluments of holders of senior management positions, are modelled in essence on, and are comparable with, the remuneration scheme of the European Union.

Members of the Executive Board receive a basic salary and additional allowances for residence and representation. In the case of the President, an official residence owned by the ECB is provided in lieu of a residence allowance. Subject to the Conditions of Employment for Staff of the European Central Bank, members of the Executive Board are entitled to household, child and education allowances, depending on their individual circumstances. Basic salaries are subject to a tax for the benefit of the European Union as well as to deductions in respect of contributions to the pension, medical and accident insurance schemes. Allowances are non-taxable and non-pensionable.

Basic salaries paid to members of the Executive Board in 2011 were as follows:

	2011 €	2010 €
Jean-Claude Trichet (President until October 2011)	309,290	367,863
Mario Draghi (President since November 2011)	61,858	-
Lucas D. Papademos *(Vice-President until May 2010)*	-	*131,370*
Vítor Constâncio (Vice-President since June 2010)	318,132	183,918
Gertrude Tumpel-Gugerell (Board Member until May 2011)	110,460	262,728
Peter Praet (Board Member since June 2011)	154,644	-
José Manuel González-Páramo (Board Member)	265,104	262,728
Lorenzo Bini Smaghi (Board Member)	265,104	262,728
Jürgen Stark (Board Member)	265,104	262,728
Total	1,749,696	1,734,063

The total allowances paid to the members of the Executive Board and the ECB's contributions to the medical and accident insurance schemes on their behalf amounted to €646,154 (2010: €660,731).

In addition, the benefits on appointment or termination of service paid to Executive Board members joining or leaving the ECB amounted to €159,594 (2010: €52,548). They are reported under "Administrative expenses" in the Profit and Loss Account (see note 31, "Administrative expenses").

Transitional payments are made to former members of the Executive Board for a limited period after the end of their terms of office. In 2011 these payments, related family allowances and the ECB's contributions to the medical and accident insurance schemes of former members amounted to €479,665 (2010: €34,868). Pension payments, including related allowances, to former members of the Executive Board or their dependents and contributions to the medical and accident insurance schemes amounted to €321,929 (2010: €354,349). The total payments to former members of the Executive Board are reported as "Benefits paid" and reduce the ECB's defined benefit obligation in respect of the post-employment benefits for the Executive Board (see note 14.3, "Sundry").

At the end of 2011 the actual full-time equivalent number of staff holding contracts with the ECB was 1,609,[29] including 158 with managerial positions. The change in the number of staff during 2011 was as follows:

	2011	2010
Total staff as at 1 January	1,607	1,563
Newcomers/change of contractual status	313	328
Resignations/end of contract	(299)	(302)
Net increase/(decrease) due to changes in part-time working patterns	(12)	18
Total staff as at 31 December	1,609	1,607
Average number of staff employed	1,601	1,565

29 Staff on unpaid leave are excluded. This number includes staff with permanent, fixed or short-term contracts and the participants in the ECB's Graduate Programme. Staff on maternity or long-term sick leave are also included.

31 ADMINISTRATIVE EXPENSES

These cover all other current expenses relating to the renting and maintenance of premises, goods and equipment of a non-capital nature, professional fees and other services and supplies, together with staff-related expenses including recruitment, relocation, installation, training and resettlement expenses.

32 BANKNOTE PRODUCTION SERVICES

This expense is mainly due to the cross-border transportation of euro banknotes between banknote printing works and NCBs, for the delivery of new banknotes, and between NCBs, for the compensation of shortages with surplus stocks. These costs are borne centrally by the ECB.

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29 February 2012

Independent auditor's report

We have audited the accompanying annual accounts of the European Central Bank, which comprise the balance sheet as at 31 December 2011, the profit and loss account for the year then ended, and a summary of significant accounting policies and other explanatory notes (the "Annual Accounts").

The responsibility of the European Central Bank's Executive Board for the Annual Accounts

The Executive Board is responsible for the preparation and fair presentation of these Annual Accounts in accordance with the principles established by the Governing Council, which are set out in Decision ECB/2010/21 on the annual accounts of the European Central Bank, and for such internal control as the Executive Board determines is necessary to enable the preparation of the Annual Accounts that are free from material misstatement, whether due to fraud or error.

Auditor's responsibility

Our responsibility is to express an opinion on these Annual Accounts based on our audit. We conducted our audit in accordance with International Standards on Auditing. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the Annual Accounts are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the Annual Accounts. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the Annual Accounts, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the Annual Accounts in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the Executive Board, as well as evaluating the overall presentation of the Annual Accounts.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the Annual Accounts give a true and fair view of the financial position of the European Central Bank as of 31 December 2011, and of the results of its operations for the year then ended in accordance with the principles established by the Governing Council, which are set out in Decision ECB/2010/21 on the annual accounts of the European Central Bank.

Frankfurt am Main, 29 February 2012

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Jens Roennberg
Wirtschaftsprüfer

ppa. Muriel Atton
Wirtschaftsprüfer

NOTE ON PROFIT DISTRIBUTION/ ALLOCATION OF LOSSES

This note is not part of the financial statements of the ECB for the year 2011.

INCOME RELATED TO THE ECB'S SHARE OF TOTAL BANKNOTES IN CIRCULATION AND ITS HOLDINGS OF SECURITIES PURCHASED UNDER THE EUROSYSTEM'S SECURITIES MARKETS PROGRAMME

In respect of 2010, following a decision by the Governing Council, the full income earned on the ECB's share of total euro banknotes in circulation and securities purchased under the Securities Markets Programme, amounting to €654 million and €438 million respectively, was transferred to the provision for foreign exchange rate, interest rate, credit and gold price risks and therefore no interim profit distribution took place.

In respect of 2011, following a decision by the Governing Council, the full income arising from securities purchased under the Securities Markets Programme and part of the income earned on the ECB's share of total euro banknotes in circulation, amounting to €1,002.8 million and €163.4 million respectively, were transferred to the provision for foreign exchange rate, interest rate, credit and gold price risks. On the occasion of the ECB's interim profit distribution, income earned on the ECB's share of total euro banknotes in circulation, amounting to €652 million, was distributed to the euro area NCBs on 3 January 2012, in proportion to their paid-up shares in the subscribed capital of the ECB.

PROFIT DISTRIBUTION/COVERAGE OF LOSSES

Pursuant to Article 33 of the Statute of the ESCB, the net profit of the ECB shall be transferred in the following order:

(a) an amount to be determined by the Governing Council, which may not exceed 20% of the net profit, shall be transferred to the general reserve fund, subject to a limit equal to 100% of the capital; and

(b) the remaining net profit shall be distributed to the shareholders of the ECB in proportion to their paid-up shares.

In the event of a loss incurred by the ECB, the shortfall may be offset against the general reserve fund of the ECB and, if necessary, following a decision by the Governing Council, against the monetary income of the relevant financial year in proportion and up to the amounts allocated to the NCBs in accordance with Article 32.5 of the Statute of the ESCB.[1]

The Governing Council decided on 8 March 2012 to make no transfer to the general reserve fund and to distribute the remaining profit for 2011, amounting to €76 million, to the euro area NCBs, in proportion to their paid-up shares.

Non-euro area NCBs are not entitled to receive any share of the ECB's profit, nor are they liable to fund any loss of the ECB.

	2011 €	2010 €
Profit for the year	728,136,234	170,831,395
Interim distribution of income on the ECB's share of total euro banknotes in circulation and on securities purchased under the Securities Markets Programme [1)]	(652,000,000)	(0)
Profit for the year after distribution of income on the ECB's share of total euro banknotes in circulation and on securities purchased under the Securities Markets Programme	76,136,234	170,831,395
Distribution of profit to NCBs	(76,136,234)	(170,831,395)
Total	0	0

1) The Securities Markets Programme was established in May 2010.

1 Under Article 32.5 of the Statute of the ESCB, the sum of the NCBs' monetary income shall be allocated to the NCBs in proportion to their paid-up shares in the capital of the ECB.

CONSOLIDATED BALANCE SHEET OF THE EUROSYSTEM AS AT 31 DECEMBER 2011

(EUR MILLIONS)

ASSETS	31 DECEMBER 2011	31 DECEMBER 2010
1 Gold and gold receivables	**423,458**	**367,402**
2 Claims on non-euro area residents denominated in foreign currency	**244,623**	**224,001**
2.1 Receivables from the IMF	85,655	71,319
2.2 Balances with banks and security investments, external loans and other external assets	158,968	152,681
3 Claims on euro area residents denominated in foreign currency	**98,226**	**26,940**
4 Claims on non-euro area residents denominated in euro	**25,355**	**22,603**
4.1 Balances with banks, security investments and loans	25,355	22,603
4.2 Claims arising from the credit facility under ERM II	0	0
5 Lending to euro area credit institutions related to monetary policy operations denominated in euro	**863,568**	**546,747**
5.1 Main refinancing operations	144,755	227,865
5.2 Longer-term refinancing operations	703,894	298,217
5.3 Fine-tuning reverse operations	0	20,623
5.4 Structural reverse operations	0	0
5.5 Marginal lending facility	14,823	25
5.6 Credits related to margin calls	97	17
6 Other claims on euro area credit institutions denominated in euro	**78,653**	**45,655**
7 Securities of euro area residents denominated in euro	**618,764**	**457,415**
7.1 Securities held for monetary policy purposes	273,854	134,829
7.2 Other securities	344,910	322,586
8 General government debt denominated in euro	**33,926**	**34,954**
9 Other assets	**346,694**	**276,493**
Total assets	**2,733,267**	**2,002,210**

Totals/subtotals may not add up due to rounding.

LIABILITIES	31 DECEMBER 2011	31 DECEMBER 2010
1 Banknotes in circulation	**888,676**	**839,702**
2 Liabilities to euro area credit institutions related to monetary policy operations denominated in euro	**849,477**	**378,008**
2.1 Current accounts (covering the minimum reserve system)	223,539	212,739
2.2 Deposit facility	413,882	104,458
2.3 Fixed-term deposits	211,000	60,784
2.4 Fine-tuning reverse operations	0	0
2.5 Deposits related to margin calls	1,056	27
3 Other liabilities to euro area credit institutions denominated in euro	**2,423**	**2,808**
4 Debt certificates issued	**0**	**0**
5 Liabilities to other euro area residents denominated in euro	**79,726**	**79,792**
5.1 General government	65,590	71,685
5.2 Other liabilities	14,137	8,107
6 Liabilities to non-euro area residents denominated in euro	**156,876**	**47,703**
7 Liabilities to euro area residents denominated in foreign currency	**4,546**	**1,995**
8 Liabilities to non-euro area residents denominated in foreign currency	**9,027**	**14,346**
8.1 Deposits, balances and other liabilities	9,027	14,346
8.2 Liabilities arising from the credit facility under ERM II	0	0
9 Counterpart of special drawing rights allocated by the IMF	**55,942**	**54,480**
10 Other liabilities	**209,582**	**172,388**
11 Revaluation accounts	**394,013**	**331,510**
12 Capital and reserves	**82,978**	**79,479**
Total liabilities	**2,733,267**	**2,002,210**

ANNEXES

LEGAL INSTRUMENTS ADOPTED BY THE ECB

The following table lists the legal instruments that were adopted by the ECB in 2011. For a list of all the legal instruments adopted by the ECB since its establishment and published in the Official Journal, see the "Legal framework" section of the ECB's website.

Number	Title	OJ reference
ECB/2011/1	Recommendation of the European Central Bank of 25 February 2011 to the Council of the European Union on the external auditors of the Nationale Bank van België/Banque Nationale de Belgique	OJ C 67, 2.3.2011, p. 1
ECB/2011/2	Guideline of the European Central Bank of 17 March 2011 amending Guideline ECB/2007/2 on a Trans-European Automated Real-time Gross settlement Express Transfer system (TARGET2)	OJ L 86, 1.4.2011, p. 75
ECB/2011/3	Guideline of the European Central Bank of 18 March 2011 amending Guideline ECB/2004/18 on the procurement of euro banknotes	OJ L 86, 1.4.2011, p. 77
ECB/2011/4	Decision of the European Central Bank of 31 March 2011 on temporary measures relating to the eligibility of marketable debt instruments issued or guaranteed by the Irish Government	OJ L 94, 8.4.2011, p. 33
ECB/2011/5	Decision of the European Central Bank of 20 April 2011 on the selection of TARGET2-Securities network service providers	OJ L 134, 21.5.2011, p. 22
ECB/2011/6	Decision of the European Central Bank of 9 May 2011 amending Decision ECB/2004/3 on public access to European Central Bank documents	OJ L 158, 16.6.2011, p. 37
ECB/2011/7	Recommendation of the European Central Bank of 9 June 2011 to the Council of the European Union on the external auditors of the Oesterreichische Nationalbank	OJ C 174, 15.6.2011, p. 6
ECB/2011/8	Decision of the European Central Bank of 21 June 2011 on the environmental and health and safety accreditation procedures for the production of euro banknotes	OJ L 176, 5.7.2011, p. 52
ECB/2011/9	Guideline of the European Central Bank of 30 June 2011 amending Guideline ECB/2008/8 on data collection regarding the euro and the operation of the Currency Information System 2	OJ L 217, 23.8.2011, p. 1
ECB/2011/10	Decision of the European Central Bank of 7 July 2011 on temporary measures relating to the eligibility of marketable debt instruments issued or guaranteed by the Portuguese Government	OJ L 182, 12.7.2011, p. 31
ECB/2011/11	Recommendation of the European Central Bank of 25 August 2011 to the Council of the European Union on the external auditors of the Banco de Portugal	OJ C 258, 2.9.2011, p. 1

Number	Title	OJ reference
ECB/2011/12	Regulation of the European Central Bank of 25 August 2011 amending Regulation ECB/2008/32 concerning the balance sheet of the monetary financial institutions sector	OJ L 228, 3.9.2011, p. 13
ECB/2011/13	Guideline of the European Central Bank of 25 August 2011 amending Guideline ECB/2007/9 on monetary, financial institutions and markets statistics	OJ L 228, 3.9.2011, p. 37
ECB/2011/14	Guideline of the European Central Bank of 20 September 2011 on monetary policy instruments and procedures of the Eurosystem (recast)	OJ L 331, 14.12.2011, p. 1
ECB/2011/15	Guideline of the European Central Bank of 14 October 2011 amending Guideline ECB/2007/2 on a Trans-European Automated Real-time Gross settlement Express Transfer system (TARGET2)	OJ L 279, 26.10.2011, p. 5
ECB/2011/16	Decision of the European Central Bank of 31 October 2011 amending Decision ECB/2010/15 concerning the administration of EFSF loans to Member States whose currency is the euro, and amending Decision ECB/2010/31 concerning the opening of accounts for the processing of payments in connection with EFSF loans to Member States whose currency is the euro	OJ L 289, 8.11.2011, p. 35
ECB/2011/17	Decision of the European Central Bank of 3 November 2011 on the implementation of the second covered bond purchase programme	OJ L 297, 16.11.2011, p. 70
ECB/2011/18	Decision of the European Central Bank of 3 November 2011 amending Decision ECB/2010/23 on the allocation of monetary income of the national central banks of Member States whose currency is the euro	OJ L 319, 2.12.2011, p. 116
ECB/2011/19	Decision of the European Central Bank of 15 November 2011 amending Decision ECB/2007/7 concerning the terms and conditions of TARGET2-ECB	OJ L 303, 22.11.2011, p. 44
ECB/2011/20	Decision of the European Central Bank of 16 November 2011 establishing detailed rules and procedures for implementing the eligibility criteria for central securities depositories to access TARGET2-Securities services	OJ L 319, 2.12.2011, p. 117
ECB/2011/21	Decision of the European Central Bank of 1 December 2011 on the approval of the volume of coin issuance in 2012	OJ L 324, 7.12.2011, p. 37
ECB/2011/22	Recommendation of the European Central Bank of 9 December 2011 to the Council of the European Union on the external auditors of De Nederlandsche Bank	OJ C 367, 16.12.2011, p. 1

Number	Title	OJ reference
ECB/2011/23	Guideline of the European Central Bank of 9 December 2011 on the statistical reporting requirements of the European Central Bank in the field of external statistics (recast)	OJ L 65, 3.3.2012, p. 1
ECB/2011/24	Recommendation of the European Central Bank of 9 December 2011 on the statistical reporting requirements of the European Central Bank in the field of external statistics	OJ C 64, 3.3.2012, p. 1
ECB/2011/25	Decision of the European Central Bank of 14 December 2011 on additional temporary measures relating to Eurosystem refinancing operations and eligibility of collateral	OJ L 341, 22.12.2011, p. 65
ECB/2011/26	Regulation of the European Central Bank of 14 December 2011 amending Regulation ECB/2003/9 on the application of minimum reserves	OJ L 338, 21.12.2011, p. 51
ECB/2011/27	Guideline of the European Central Bank of 21 December 2011 amending Guideline ECB/2010/20 on the legal framework for accounting and financial reporting in the European System of Central Banks	OJ L 19, 24.1.2012, p. 37

OPINIONS ADOPTED BY THE ECB

The following table lists the opinions adopted by the ECB in 2011 and early 2012 under Articles 127(4) and 282(5) of the Treaty and Article 4 of the Statute of the ESCB. For a list of all the opinions adopted by the ECB since its establishment, see the "Legal framework" section of the ECB's website.

(a) ECB opinions following a consultation by a European institution

Number[1]	Originator and subject	OJ reference
CON/2011/1	Council – A proposal for a regulation of the European Parliament and of the Council on OTC derivatives, central counterparties and trade repositories	OJ C 57, 23.2.2011, p. 1
CON/2011/6	Council – A proposal for a directive of the European Parliament and of the Council amending Directives 98/78/EC, 2002/87/EC and 2006/48/EC as regards the supplementary supervision of financial entities in a financial conglomerate	OJ C 62, 26.2.2011, p. 1
CON/2011/8	Council – A recommendation for a Council decision on arrangements for the renegotiation of the Monetary Agreement with the Principality of Monaco	OJ C 60, 25.2.2011, p. 1
CON/2011/12	Council – A proposal for a directive of the European Parliament and of the Council on deposit guarantee schemes (recast) and a proposal for a directive amending Directive 97/9/EC of the European Parliament and of the Council on investor-compensation schemes	OJ C 99, 31.3.2011, p. 1
CON/2011/13	Council – Economic governance reform in the European Union	OJ C 150, 20.5.2011, p. 1
CON/2011/16	European Council – A Council recommendation on the appointment of a member of the Executive Board of the European Central Bank	OJ C 74, 8.3.2011, p. 1
CON/2011/17	Council – A proposal for a regulation of the European Parliament and of the Council on short selling and certain aspects of credit default swaps	OJ C 91, 23.3.2011, p. 1
CON/2011/18	Council – A proposal for a Council regulation on denominations and technical specifications of euro coins intended for circulation (codification)	OJ C 114, 12.4.2011, p. 1
CON/2011/22	Council – A recommendation for a Council decision on the arrangements for the negotiation of a monetary agreement with the French Republic, acting for the benefit of the French overseas collectivity of Saint-Barthélemy	OJ C 213, 20.7.2011, p. 16

1 Consultations are numbered in the order in which the Governing Council adopted them.

Number[1]	Originator and subject	OJ reference
CON/2011/24	European Council – A draft European Council decision amending Article 136 of the Treaty on the Functioning of the European Union with regard to a stability mechanism for Member States whose currency is the euro	OJ C 140, 11.5.2011, p. 8
CON/2011/32	Council – A proposal for a regulation establishing technical requirements for credit transfers and direct debits in euro	OJ C 155, 25.5.2011, p. 1
CON/2011/42	Council – A proposal for a directive of the European Parliament and of the Council amending Directives 2003/71/EC and 2009/138/EC in respect of the powers of the European Insurance and Occupational Pensions Authority and the European Securities and Markets Authority	OJ C 159, 28.5.2011, p. 10
CON/2011/44	Council – A proposal for a regulation of the European Parliament and of the Council on the European system of national and regional accounts in the European Union	OJ C 203, 9.7.2011, p. 3
CON/2011/48	European Council – A Council recommendation on the appointment of the President of the European Central Bank	OJ C 182, 23.6.2011, p. 6
CON/2011/56	Council – A proposal for a Council decision on the signature and conclusion of the Monetary Agreement between the European Union and the French Republic on keeping the euro in Saint-Barthélemy following the amendment of its status with regard to the European Union	OJ C 213, 20.7.2011, p. 21
CON/2011/58	Council – A proposal for a directive of the European Parliament and of the Council on credit agreements relating to residential property	OJ C 240, 18.8.2011, p. 3
CON/2011/65	European Parliament and Council – A proposal for a regulation on the issuance of euro coins and a proposal for a regulation on denominations and technical specifications of euro coins intended for circulation	OJ C 273, 16.9.2011, p. 2
CON/2011/77	European Council – A Council recommendation on the appointment of a member of the Executive Board of the European Central Bank	OJ C 301, 12.10.2011, p. 2
CON/2011/100	European Council – A Council recommendation on the appointment of a member of the Executive Board of the European Central Bank	OJ C 364, 14.12.2011, p. 7
CON/2012/5	Council – A proposal for a directive on the access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms and a proposal for a regulation on prudential requirements for credit institutions and investment firms	Not yet published in the *Official Journal of the European Union*

(b) ECB opinions following a consultation by a Member State and own-initiative opinions in respect of legislation of a Member State[2]

Number[1]	Originator and subject
CON/2011/2	Cyprus – The sanctioning powers of the Cyprus Stock Exchange
CON/2011/3	Slovenia – Amendments to the Law on banking
CON/2011/4	Poland – Closed-end investment funds issuing non-public investment certificates
CON/2011/5	Belgium – The implementation of the principles for the development of financial supervisory structures in Belgium
CON/2011/7	Lithuania – Amendments to the national monetary policy operations framework with a view to further harmonising it with the Eurosystem
CON/2011/9	Poland – Amendments to the Polish Constitution concerning adoption of the euro
CON/2011/10	Italy – Italy's participation in International Monetary Fund programmes in response to the financial crisis
CON/2011/11	Poland – Including credit unions in the State Treasury support to financial institutions
CON/2011/14	Lithuania – Amendments to the legislation on settlement finality and financial collateral arrangements
CON/2011/15	Romania – Amendments to the legislation on the deposit guarantee fund
CON/2011/19	France – The recirculation of euro banknotes
CON/2011/20	Belgium – The Central Corporate Credit Register
CON/2011/21	Spain – The strengthening of the financial system
CON/2011/23	Poland – Payment services
CON/2011/25	Slovenia – Prevention of late payments
CON/2011/26	Romania – Amendments to the legislation on settlement finality and financial collateral arrangements
CON/2011/27	Cyprus – Legislation related to covered bonds
CON/2011/28	Belgium – The abolition of the task of the Nationale Bank van België/Banque Nationale de Belgique of acting as central depositary of deeds of protest
CON/2011/29	Cyprus – A special tax on banks and the setting-up of an independent financial stability fund
CON/2011/30	Belgium – The financing of a central register of bank account numbers

2 In December 2004 the Governing Council decided that ECB opinions issued at the request of national authorities would, as a rule, be published immediately following their adoption and subsequent transmission to the consulting authority.

Number[1]	Originator and subject
CON/2011/31	Slovenia – A tax on the total value of a bank's balance sheet
CON/2011/33	Hungary – The draft Constitution with regard to the Magyar Nemzeti Bank
CON/2011/34	Greece – The legal framework for the Loan and Consignment Fund and amendments to the enhancement scheme for the Greek economy's liquidity following the international financial crisis
CON/2011/35	Romania – The settlement risk management procedure for net settlement systems
CON/2011/36	Greece – Amendments to the Statute of the Bank of Greece
CON/2011/37	Netherlands – Strengthening the governance of De Nederlandsche Bank and the Authority for the Financial Markets
CON/2011/38	Austria – Amendments to the governance structure of the Oesterreichische Nationalbank
CON/2011/39	Ireland – Recovery and resolution measures for credit institutions
CON/2011/40	Slovenia – Amendments to the rules on the register of financial assets
CON/2011/41	Belgium – Amendments to the legislation on settlement finality and financial collateral arrangements
CON/2011/43	Malta – Various amendments to the Central Bank of Malta Act
CON/2011/45	Denmark – The introduction of a compensation scheme for distressed banking institutions
CON/2011/46	Lithuania – Financial market supervisory reform in Lithuania
CON/2011/47	Latvia – New legislation on the credit register
CON/2011/49	Slovakia – Národná banka Slovenska's role as regards financial supervision and consumer credit
CON/2011/50	Bulgaria – The capital and management structure of the Central Depository
CON/2011/51	Czech Republic – The circulation of banknotes and coins
CON/2011/52	Bulgaria – Exchange of information and cooperation obligations among national supervisory authorities
CON/2011/53	Hungary – The Hungarian State Audit Office in relation to its audit of the Magyar Nemzeti Bank
CON/2011/54	Spain – Cross-border transactions
CON/2011/55	Slovenia – The harmonisation of legislation related to TARGET2-Securities and Banka Slovenije's sanctioning powers relating to investment services
CON/2011/57	Poland – The conversion of foreign credit institutions' branches into subsidiaries

Number[1]	Originator and subject
CON/2011/59	Hungary – Cash recycling and the protection of national and foreign legal tender against counterfeiting
CON/2011/60	Netherlands – Crisis intervention measures for financial institutions in difficulty
CON/2011/61	Slovenia – Amendments to the Law on prevention of late payments
CON/2011/62	Poland – Amendments to the legal framework for payment systems and clearing and settlement systems
CON/2011/63	Poland – The introduction of omnibus accounts in the legal framework for clearing and settlement systems
CON/2011/64	Belgium – Protection against counterfeiting and the preservation of the quality of cash circulation
CON/2011/66	Slovakia – A special levy on financial institutions operating in Slovakia
CON/2011/67	Lithuania – Responsible lending requirements for credit institutions
CON/2011/68	Italy – Italy's ratification of an amendment to the Articles of Agreement of the International Monetary Fund and increase in quota
CON/2011/69	Ireland – New measures strengthening supervision and enforcement in financial regulation
CON/2011/70	Slovenia – Authorisation to act on the supervisory boards of banks
CON/2011/71	Belgium – The categories of intermediaries authorised to maintain accounts for dematerialised securities denominated in foreign currency or units of account
CON/2011/72	Greece – Amendments to the Greek resolution regime for credit institutions
CON/2011/73	Romania – Statistics and interbank money and government securities markets managed by Banca Națională a României, and the foreign exchange and minimum reserves regime
CON/2011/74	Romania – Lending to natural persons
CON/2011/75	Czech Republic – Minimum reserves
CON/2011/76	Own-initiative – Reform of the Dutch deposit guarantee scheme
CON/2011/78	Slovenia – Sanctions related to the protection of the euro against counterfeiting
CON/2011/79	Belgium – A State guarantee covering certain loans granted to Dexia SA and Dexia Crédit Local SA
CON/2011/80	Slovakia – The financial statements register
CON/2011/81	Slovenia – Changes of rules applicable to mortgage and municipal bonds

Number[1]	Originator and subject
CON/2011/82	Luxembourg – A State guarantee covering certain loans granted to Dexia SA and Dexia Crédit Local SA
CON/2011/83	Portugal – Early intervention measures and amendments to the resolution and winding-up regime for credit and financial institutions subject to supervision by the Banco de Portugal
CON/2011/84	Ireland – Recovery and resolution measures for credit institutions
CON/2011/85	France – A State guarantee covering certain loans granted to Dexia SA and Dexia Crédit Local SA
CON/2011/86	Romania – Stabilisation measures and bridge banks
CON/2011/87	Hungary – Foreign currency mortgages and residential property loan agreements
CON/2011/88	Ireland – The extension of the Irish State guarantee of eligible liabilities of credit institutions
CON/2011/89	Portugal – The payment by Banco de Portugal of an increase in Portugal's quota with the International Monetary Fund
CON/2011/90	Denmark – Loss guarantee in connection with an extended compensation scheme
CON/2011/91	Lithuania – Amendments to Lietuvos bankas' profit distribution rules
CON/2011/92	Germany – Protection against counterfeiting and the preservation of the quality of cash circulation
CON/2011/93	Cyprus – The management of financial crises and the setting-up of an independent financial stability fund
CON/2011/94	Italy – Protection against counterfeiting and the preservation of the quality of cash circulation
CON/2011/95	Portugal – The recapitalisation of credit institutions by the State
CON/2011/96	Slovakia – Fiscal responsibility
CON/2011/97	Estonia – Representation and the payment of quota shares in the International Monetary Fund
CON/2011/98	Belgium – Legislation governing the financing of the central register of bank account numbers
CON/2011/99	Lithuania – The revised amendments to Lietuvos bankas' profit distribution rules
CON/2011/101	Finland – Securities markets legislation
CON/2011/102	Romania – The payment of an increase in Romania's International Monetary Fund quota

Number[1]	Originator and subject
CON/2011/103	Belgium – The establishment and financing of a resolution fund and the amended calculation of contributions to the deposit guarantee scheme
CON/2011/104	Hungary – The Magyar Nemzeti Bank
CON/2011/105	Malta – The authentication of euro coins and handling of euro coins unfit for circulation and the imposition of administrative measures and penalties
CON/2011/106	Hungary/own-initiative – The Magyar Nemzeti Bank's independence
CON/2011/107	Greece – Amendments to the resolution regime for credit institutions
CON/2012/1	Cyprus – The salaries of civil servants
CON/2012/2	Germany – Measures for the stabilisation of the financial market
CON/2012/3	Luxembourg – Dematerialised securities
CON/2012/4	Italy – A guarantee scheme for the liabilities of Italian banks and the exchange of lira banknotes
CON/2012/6	Ireland – Pension reforms in the public sector

CHRONOLOGY OF MONETARY POLICY MEASURES OF THE EUROSYSTEM[1]

2 SEPTEMBER 2010

The Governing Council of the ECB decides that the interest rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 1.00%, 1.75% and 0.25% respectively. It also decides on the details as regards the tender procedures and modalities to be applied in its refinancing operations up to 18 January 2011, notably the adoption of a fixed rate tender procedure with full allotment in the three-month longer-term refinancing operations.

7 OCTOBER AND 4 NOVEMBER 2010

The Governing Council of the ECB decides that the interest rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 1.00%, 1.75% and 0.25% respectively.

2 DECEMBER 2010

The Governing Council of the ECB decides that the interest rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 1.00%, 1.75% and 0.25% respectively. It also decides on the details as regards the tender procedures and modalities to be applied in its refinancing operations up to 12 April 2011, notably to continue its fixed rate tender procedures with full allotment.

13 JANUARY AND 3 FEBRUARY 2011

The Governing Council of the ECB decides that the interest rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 1.00%, 1.75% and 0.25% respectively.

3 MARCH 2011

The Governing Council of the ECB decides that the interest rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 1.00%, 1.75% and 0.25% respectively. It also decides on the details as regards the tender procedures and modalities to be applied in its refinancing operations up to 12 July 2011, notably to continue its fixed rate tender procedures with full allotment.

7 APRIL 2011

The Governing Council of the ECB decides to increase the interest rate on the main refinancing operations by 25 basis points to 1.25%, starting from the operation to be settled on 13 April 2011. In addition, it decides to increase the interest rates on both the marginal lending facility and the deposit facility by 25 basis points, to 2.00% and 0.50% respectively, both with effect from 13 April 2011.

5 MAY 2011

The Governing Council of the ECB decides that the interest rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 1.25%, 2.00% and 0.50% respectively.

9 JUNE 2011

The Governing Council of the ECB decides that the interest rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 1.25%, 2.00% and 0.50%

1 The chronology of monetary policy measures taken by the Eurosystem between 1999 and 2010 can be found in the ECB's Annual Report for the respective years.

respectively. It also decides on the details as regards the tender procedures and modalities to be applied in its refinancing operations up to 11 October 2011, notably to continue its fixed rate tender procedures with full allotment.

7 JULY 2011

The Governing Council of the ECB decides to increase the interest rate on the main refinancing operations by 25 basis points to 1.50%, starting from the operation to be settled on 13 July 2011. In addition, it decides to increase the interest rates on both the marginal lending facility and the deposit facility by 25 basis points, to 2.25% and 0.75% respectively, both with effect from 13 July 2011.

4 AUGUST 2011

The Governing Council of the ECB decides that the interest rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 1.50%, 2.25% and 0.75% respectively. It also decides on several measures to address renewed tensions in some financial markets. In particular, it decides that the Eurosystem will conduct a liquidity-providing supplementary longer-term refinancing operation with a maturity of approximately six months as a fixed rate tender procedure with full allotment. It also decides on the details as regards the tender procedures and modalities to be applied in its refinancing operations up to 17 January 2012, notably to continue its fixed rate tender procedures with full allotment.

8 SEPTEMBER 2011

The Governing Council of the ECB decides that the interest rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 1.50%, 2.25% and 0.75% respectively.

6 OCTOBER 2011

The Governing Council of the ECB decides that the interest rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 1.50%, 2.25% and 0.75% respectively. It also decides on the details of its refinancing operations from October 2011 to 10 July 2012, notably to conduct two longer-term refinancing operations – one with a maturity of approximately 12 months in October 2011, and another with a maturity of approximately 13 months in December 2011 – and to continue to apply fixed rate tender procedures with full allotment in all of its refinancing operations. In addition, the Governing Council decides to launch a new covered bond purchase programme in November 2011.

3 NOVEMBER 2011

The Governing Council of the ECB decides to decrease the interest rate on the main refinancing operations by 25 basis points to 1.25%, starting from the operation to be settled on 9 November 2011. In addition, it decides to decrease the interest rates on both the marginal lending facility and the deposit facility by 25 basis points, to 2.00% and 0.50% respectively, both with effect from 9 November 2011.

8 DECEMBER 2011

The Governing Council of the ECB decides to decrease the interest rate on the main refinancing operations by 25 basis points to 1.00%, starting from the operation to be settled on 14 December 2011. In addition, it decides to decrease the interest rates on both the marginal lending facility and the deposit facility by 25 basis points, to 1.75% and 0.25% respectively, both with effect from 14 December 2011. It also decides to adopt further non-standard measures, notably:

i) to conduct two longer-term refinancing operations with a maturity of approximately three years; ii) to increase the availability of collateral; iii) to reduce the reserve ratio to 1%; and iv) to discontinue, for the time being, the fine-tuning operations carried out on the last day of each maintenance period.

12 JANUARY, 9 FEBRUARY AND 8 MARCH 2012

The Governing Council of the ECB decides that the interest rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 1.00%, 1.75% and 0.25% respectively.

OVERVIEW OF THE ECB'S COMMUNICATION RELATED TO THE PROVISION OF LIQUIDITY[1]

For more details on the liquidity-providing operations conducted by the Eurosystem in 2011, see the "Open market operations" section of the ECB's website.

PROVISION OF LIQUIDITY IN EURO

3 MARCH 2011

ECB announces details of refinancing operations with settlement from 13 April to 12 July 2011.

31 MARCH 2011

ECB announces the suspension of the rating threshold for debt instruments of the Irish government.

9 JUNE 2011

ECB announces details of refinancing operations with settlement in the period from 13 July to 11 October 2011.

7 JULY 2011

ECB announces change in eligibility of debt instruments issued or guaranteed by the Portuguese government.

4 AUGUST 2011

ECB announces details of refinancing operations with settlement in the period from 12 October 2011 to 17 January 2012.

6 OCTOBER 2011

ECB announces new covered bond purchase programme and details of refinancing operations from October 2011 to 10 July 2012.

3 NOVEMBER 2011

ECB announces details of its new covered bond purchase programme.

8 DECEMBER 2011

ECB announces measures to support bank lending and money market activity.

16 DECEMBER 2011

ECB announces two one-day liquidity-providing fine-tuning operations.

PROVISION OF LIQUIDITY IN OTHER CURRENCIES AND AGREEMENTS WITH OTHER CENTRAL BANKS

29 JUNE 2011

ECB announces prolongation of US dollar liquidity-providing operations.

25 AUGUST 2011

ECB announces prolongation of swap facility agreement with the Bank of England.

15 SEPTEMBER 2011

ECB announces additional US dollar liquidity-providing operations over year-end.

30 NOVEMBER 2011

Coordinated central bank action to address pressures in global money markets.

1 Dates refer to the date of publication of the announcement.

PUBLICATIONS PRODUCED BY THE ECB

The ECB produces a number of publications which provide information about its core activities: monetary policy, statistics, payment and securities settlement systems, financial stability and supervision, international and European cooperation, and legal matters. These include the following:

STATUTORY PUBLICATIONS

- Annual Report
- Convergence Report
- Monthly Bulletin

RESEARCH PAPERS

- Legal Working Paper Series
- Occasional Paper Series
- Research Bulletin
- Working Paper Series

OTHER/TASK-RELATED PUBLICATIONS

- Enhancing monetary analysis
- Financial integration in Europe
- Financial Stability Review
- Statistics Pocket Book
- The European Central Bank: history, role and functions
- The international role of the euro
- The implementation of monetary policy in the euro area ("General Documentation")
- The monetary policy of the ECB
- The payment system

The ECB also publishes brochures and information materials on a variety of topics, such as the euro banknotes and coins, as well as seminar and conference proceedings.

For a complete list of documents (in PDF format) published by the ECB and the European Monetary Institute, the ECB's forerunner from 1994 to 1998, please visit the ECB's website at http://www.ecb.europa.eu/pub/. Language codes indicate the languages in which each publication is available.

Unless otherwise indicated, hard copies can be obtained or subscribed to free of charge, stock permitting, by contacting info@ecb.europa.eu

GLOSSARY

This glossary contains selected terms that are used in the Annual Report. A more comprehensive and detailed glossary can be found on the ECB's website.

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. The transactions considered are: those involving goods, services and income; those involving financial claims on, and liabilities to, the rest of the world; and those (such as debt forgiveness) that are classified as transfers.

Central counterparty (CCP): an entity that interposes itself, in one or more markets, between the **counterparties** to the contracts traded, becoming the buyer to every seller and the seller to every buyer and thereby guaranteeing the performance of open contracts.

Central government: the government as defined in the **European System of Accounts 1995**, but excluding regional and local governments (see also **general government**).

Central securities depository (CSD): an entity that: i) enables securities transactions to be processed and settled by book entry, ii) provides custodial services (e.g. the administration of corporate actions and redemptions), and iii) plays an active role in ensuring the integrity of securities issues. Securities can be held in a physical (but immobilised) form or in a dematerialised form (whereby they exist only as electronic records).

Collateral: assets pledged or otherwise transferred (e.g. by **credit institutions** to central banks) as a guarantee for the repayment of loans, as well as assets sold (e.g. by credit institutions to central banks) under **repurchase agreements**.

Correspondent central banking model (CCBM): a mechanism established by the **European System of Central Banks** with the aim of enabling **counterparties** to use eligible **collateral** in a cross-border context. In the CCBM, NCBs act as custodians for one another. This means that each NCB has a securities account in its securities administration for each of the other NCBs and the ECB.

Council of the European Union (EU Council): the institution of the EU made up of representatives of the governments of the EU Member States, normally the ministers responsible for the matters under consideration, and the relevant European Commissioner (see also **ECOFIN Council**).

Counterparty: the opposite party in a financial transaction (e.g. any party transacting with a central bank).

Covered bond purchase programme (CBPP): an ECB programme, based on the decision of the **Governing Council** of 7 May 2009 to purchase euro-denominated covered bonds issued in the **euro area**, in support of a specific financial market segment that is important for the funding of banks and was particularly affected by the financial crisis. The purchases under the programme were for a nominal value of €60 billion, and they were fully implemented by 30 June 2010. On 6 October 2011 the Governing Council decided to launch a second covered bond purchase programme, CBPP2. This programme allows the **Eurosystem** to purchase euro-denominated covered bonds issued in the euro area for an intended nominal value of €40 billion. The purchases are conducted in both the primary and secondary markets.

Credit institution: an undertaking the business of which is to receive deposits or other repayable funds from the public and to grant credit for its own account.

Credit risk: the risk that a **counterparty** will not settle the full value of an obligation – neither when it becomes due, nor at any time thereafter. Credit risk includes replacement cost risk and principal risk. It also includes the risk of the settlement bank failing.

Debt (general government): the total gross debt (currency, deposits, loans and **debt securities**) 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-to-GDP ratio (general government): the ratio of **debt** to **gross domestic product** at current market prices. It is the subject of one of the fiscal criteria laid down in Article 126(2) of the **Treaty** 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** budget balance (**deficit** or surplus) and the change in **debt**.

Deficit ratio (general government): the ratio of the **deficit** to **gross domestic product** at current market prices. It is the subject of one of the fiscal criteria laid down in Article 126(2) of the **Treaty** to define the existence of an excessive deficit (see also **excessive deficit procedure**). It is also referred to as the budget deficit ratio or the fiscal deficit ratio.

Deposit facility: a **standing facility** of the **Eurosystem** which **counterparties** may use to make overnight deposits at an NCB. Such deposits are remunerated at a pre-specified interest rate (see also **key ECB interest rates**).

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.

ECOFIN Council: the term often used to refer to the **Council of the European Union** meeting in the composition of the ministers of economics and finance.

Economic analysis: one pillar of the ECB's framework for conducting a comprehensive analysis of the risks to **price stability**, which forms the basis for the **Governing Council**'s monetary policy decisions. The economic analysis focuses mainly on the assessment of current economic and financial developments and the implied short to medium-term risks to price stability from the perspective of the interplay between supply and demand in goods, services and factor markets at those horizons. Due attention is paid to the need to identify the nature of shocks affecting the

economy, their effects on cost and pricing behaviour, and the short to medium-term prospects for their propagation in the economy (see also **monetary analysis**).

Economic and Financial Committee (EFC): a committee which contributes to the preparation of the work of the **ECOFIN Council** and the European Commission. Its tasks include reviewing the economic and financial situation of both the Member States and the EU, and contributing to budgetary surveillance.

Economic and Monetary Union (EMU): the process that led to the single currency, the euro, and the single monetary policy in the **euro area**, as well as to the coordination of the economic policies of the EU Member States. This process, as laid down in the **Treaty**, took place in three stages. Stage Three, the final stage, started on 1 January 1999 with the transfer of monetary competence to the ECB and the introduction of the euro. The cash changeover on 1 January 2002 completed the process of setting up EMU.

Effective exchange rate (EER) of the euro (nominal/real): a weighted average of the bilateral euro exchange rates against the currencies of the **euro area**'s main trading partners. The ECB publishes nominal EER indices for the euro against two groups of trading partners: the EER-20 (comprising the ten non-euro area EU Member States and ten trading partners outside the EU) and the EER-40 (composed of the EER-20 and 20 additional countries). The weights used reflect the share of each partner country in the euro area's trade in manufactured goods 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 mechanism which provides the framework for exchange rate policy cooperation between the **euro area** countries and the non-euro area EU Member States. ERM II is a multilateral arrangement with fixed, but adjustable, central rates and a standard fluctuation band of ±15%. Decisions concerning central rates and, possibly, narrower fluctuation bands are taken by mutual agreement between the EU Member State concerned, the euro area countries, the ECB and the other EU Member States participating in the mechanism. All participants in ERM II, including the ECB, have the right to initiate a confidential procedure aimed at changing the central rates (realignment).

EURIBOR (euro interbank offered rate): the rate at which a prime bank is willing to lend funds in euro to another prime bank, as reported by a panel of contributing banks, computed daily for interbank deposits with different maturities of up to 12 months.

Euro area: the area formed by the EU Member States whose currency is the euro and in which a single monetary policy is conducted under the responsibility of the **Governing Council** of the ECB. The euro area currently comprises Belgium, Germany, Estonia, Ireland, Greece, Spain, France, Italy, Cyprus, Luxembourg, Malta, the Netherlands, Austria, Portugal, Slovenia, Slovakia and Finland.

Eurogroup: an informal gathering of the ministers of economics and finance of the EU Member States whose currency is the euro. Its status is recognised under Article 137 of the **Treaty** and in Protocol No 14. The European Commission and the ECB are regularly invited to take part in its meetings.

Europe 2020 strategy: the EU's strategy for employment and smart, sustainable and inclusive growth. It was adopted by the **European Council** in June 2010. Building on the earlier Lisbon strategy, it is intended to provide a coherent framework for EU Member States to implement structural reforms aimed at raising potential growth and for mobilising EU policies and instruments.

European Council: the institution of the EU consisting of the Heads of State or Government of the EU Member States and, as non-voting members, the President of the European Commission and the European Council's own President. It provides the EU with the necessary impetus for its development and defines the general political directions and priorities thereof. It does not have a legislative function.

European Financial Stabilisation Mechanism (EFSM): an EU facility, based on Article 122(2) of the **Treaty**, that allows the European Commission to raise up to €60 billion on behalf of the EU for lending to EU Member States experiencing, or being threatened with, exceptional circumstances beyond their control. EFSM lending is subject to strong conditionality in the context of joint EU-IMF programmes.

European Financial Stability Facility (EFSF): a limited liability company established by the **euro area** countries, on an intergovernmental basis, for the purpose of providing loans to euro area countries in financial difficulties. Such financial assistance is subject to strong conditionality in the context of joint EU-IMF programmes. The EFSF has an effective lending capacity of €440 billion, and its loans are financed through the issuance of **debt securities**, guaranteed by euro area countries on a pro rata basis.

European Monetary Institute (EMI): a temporary institution established at the start of Stage Two of **Economic and Monetary Union** on 1 January 1994. It went into liquidation following the establishment of the ECB on 1 June 1998.

European Stability Mechanism (ESM): an intergovernmental organisation established by the **euro area** countries on the basis of the Treaty establishing the European Stability Mechanism. It offers a permanent crisis management mechanism which will provide financial support to euro area countries if it is established that it is indispensable to safeguard **financial stability** in the euro area as a whole. It is foreseen that the ESM will enter into force on 1 July 2012. It will replace both the **European Financial Stability Facility** and the **European Financial Stabilisation Mechanism**, and will have an initial effective lending capacity of €500 billion. ESM lending will be subject to strict conditionality.

European System of Accounts 1995 (ESA 95): a comprehensive and integrated system of macroeconomic accounts based on a set of internationally agreed statistical concepts, definitions, classifications and accounting rules aimed at achieving a harmonised quantitative description of the economies of the EU Member States. The ESA 95 is the EU's version of the world System of National Accounts 1993 (SNA 93).

European System of Central Banks (ESCB): composed of the ECB and the NCBs of all 27 EU Member States, i.e. it includes, in addition to the members of the **Eurosystem**, the NCBs of those Member States whose currency is not the euro. The ESCB is governed by the **Governing Council** and the **Executive Board** of the ECB, and, as a third decision-making body of the ECB, by the **General Council**.

European System of Financial Supervision (ESFS): the group of institutions in charge of ensuring the supervision of the EU's financial system. It comprises the **European Systemic Risk Board**, the three European Supervisory Authorities, the Joint Committee of the European Supervisory Authorities, and the national supervisory authorities of the EU Member States.

European Systemic Risk Board (ESRB): an independent EU body responsible for the macro-prudential oversight of the financial system within the EU. It contributes to the prevention or mitigation of **systemic risks** to **financial stability** that arise from developments within the financial system, taking into account macroeconomic developments, so as to avoid periods of widespread financial distress.

Eurosystem: the central banking system of the **euro area**. It comprises the ECB and the NCBs of the EU Member States whose currency is the euro.

Excessive deficit procedure: the provision set out in Article 126 of the **Treaty** and specified in Protocol (No 12) on the excessive deficit procedure requires EU Member States to maintain budgetary discipline, defines the criteria for a budgetary position to be considered an excessive deficit and regulates steps to be taken following the observation that the requirements for the budgetary balance or government **debt** have not been fulfilled. Article 126 is supplemented by Council Regulation (EC) No 1467/97 of 7 July 1997 on speeding up and clarifying the implementation of the excessive deficit procedure, which is one element of the **Stability and Growth Pact**.

Executive Board: one of the decision-making bodies of the ECB. It comprises the President and the Vice-President of the ECB and four other members appointed by the **European Council**, acting by a qualified majority, on a recommendation from the **Council of the European Union**, after it has consulted the European Parliament and the ECB.

Financial stability: the condition in which the financial system – comprising financial intermediaries, markets and market infrastructures – is capable of withstanding shocks and the unravelling of financial imbalances, thereby mitigating the likelihood of disruptions in the financial intermediation process which are severe enough to significantly impair the allocation of savings to profitable investment opportunities.

Fine-tuning operation: an **open market operation** executed by the **Eurosystem** in order to deal with unexpected liquidity fluctuations in the market. The frequency and maturity of fine-tuning operations are not standardised.

GDP deflator: **gross domestic product** (GDP) expressed in current prices (nominal GDP) divided by the volume of GDP (real GDP). It is also known as the implicit price deflator of GDP.

General Council: one of the decision-making bodies of the ECB. It comprises the President and the Vice-President of the ECB and the governors of all the NCBs of the **European System of Central Banks**.

General government: a sector defined in the **European System of Accounts 1995** 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.

Governing Council: the supreme decision-making body of the ECB. It comprises all the members of the **Executive Board** of the ECB and the governors of the NCBs of the EU Member States whose currency is the euro.

Gross domestic product (GDP): a measure of economic activity, namely the value of an economy's total output of goods and services, less intermediate consumption, plus net taxes on products and imports, in a specified period. 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.

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, its maturity date and the 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.

Key ECB interest rates: the interest rates set by the **Governing Council**. They are the rates on the **main refinancing operations**, the **marginal lending facility** and the **deposit facility**.

Longer-term refinancing operation: a credit operation with a maturity of more than one week that is executed by the **Eurosystem** in the form of **reverse transactions**. The regular monthly operations have a maturity of three months. During the financial market turmoil that started in August 2007, supplementary operations with maturities ranging from one **maintenance period** to 36 months were conducted, the frequency of which varied.

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/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 procedure and normally have a maturity of one week.

Maintenance period: the period over which **credit institutions**' compliance with **reserve requirements** is calculated. The maintenance period begins on the settlement day of the first **main refinancing operation** following the meeting of the **Governing Council** at which the monthly assessment of the monetary policy stance is pre-scheduled. The ECB publishes a calendar of the reserve maintenance periods at least three months before the start of the year.

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 (see also **key ECB interest rates**).

Market risk: the risk of losses (in both on and off-balance-sheet positions) arising from movements in market prices.

MFIs (monetary financial institutions): financial institutions which together form the money-issuing sector of the **euro area**. These include the **Eurosystem**, resident **credit institutions** (as defined in EU 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 rate tenders.

Monetary analysis: one pillar of the ECB's framework for conducting a comprehensive analysis of the risks to **price stability**, which forms the basis for the **Governing Council**'s monetary policy decisions. The monetary analysis helps to assess medium to long-term trends in inflation, in view of the close relationship between money and prices over extended horizons. The monetary analysis takes into account developments in a wide range of monetary indicators, including **M3**, its components and counterparts, notably credit, and various measures of excess liquidity (see also **economic analysis**).

Monetary income: income accruing to the NCBs in the performance of the **Eurosystem**'s monetary policy function, derived from assets earmarked in accordance with guidelines established by the **Governing Council** and held against banknotes in circulation and deposit liabilities to **credit institutions**.

Money market: the market in which short-term funds are raised, invested and traded, using instruments which generally have an original maturity of up to and including one year.

Non-standard measures: temporary measures taken by the ECB to support the effectiveness of interest rate decisions and their transmission to the wider **euro area** economy in the context of a dysfunctional situation in some financial market segments and the financial system more broadly.

OFIs (other financial intermediaries): corporations or quasi-corporations (other than insurance corporations or pension funds) that are engaged mainly in financial intermediation by incurring liabilities in forms other than currency, deposits and/or close substitutes for deposits from institutional entities other than **MFIs**. OFIs include in particular corporations engaged primarily in long-term financing (such as financial leasing), securitised asset holdings, other financial holdings, securities and derivatives dealing (on their own account), venture capital and development capital.

Open market operation: an operation executed on the initiative of the central bank in the financial market. With regard to their aims, regularity and procedures, **Eurosystem** open market operations can be divided into four categories: **main refinancing operations**; **longer-term refinancing operations**; **fine-tuning operations**; and structural operations. As for the instruments used, **reverse transactions** are the main open market instrument of the Eurosystem and can be employed in all four categories of operation. In addition, the issuance of debt certificates and outright transactions are available for structural operations, while outright transactions, foreign exchange swaps and the collection of fixed-term deposits are available for the conduct of fine-tuning operations.

Over-the-counter (OTC) trading: a method of trading that does not involve a regulated market. In over-the-counter markets, such as those for OTC derivatives, participants trade directly with each other, typically through telephone or computer links.

Price stability: the maintenance of price stability is the primary objective of the **Eurosystem**. The **Governing Council** defines price stability as a year-on-year increase in the **Harmonised Index of Consumer Prices** 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.

Projections: the results of exercises conducted four times a year to project possible future macroeconomic developments in the **euro area**. **Eurosystem** staff projections are published in June and December, whereas ECB staff projections are published in March and September. They form part of the **economic analysis** pillar of the monetary policy strategy of the ECB and are thus one of several inputs into the **Governing Council**'s assessment of the risks to **price stability**.

Real-time gross settlement (RTGS) system: a settlement system in which processing and settlement take place on a transaction-by-transaction basis in real time (see also **TARGET**).

Reference value for M3 growth: the annual growth rate of **M3** over the medium term that is consistent with the maintenance of **price stability**. At present, the reference value for annual M3 growth is 4½%.

Repurchase agreement: the process of borrowing money by combining the sale of an asset (usually a fixed income security) with the subsequent repurchase of that same asset on a specified date for a slightly higher specified price (which reflects the borrowing rate).

Reserve base: the sum of the eligible balance sheet items (in particular liabilities) that constitute the basis for calculating the **reserve requirement** of a **credit institution**.

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.

Reverse transaction: an operation whereby the central bank buys or sells assets under a **repurchase agreement** or conducts credit operations against **collateral**.

Securities Markets Programme (SMP): a programme for conducting interventions in the **euro area** public and private **debt securities** markets to ensure depth and liquidity in dysfunctional market segments with a view to restoring an appropriate monetary policy transmission mechanism.

Securities settlement system (SSS): a system which allows the transfer of securities, either free of payment or against payment (delivery versus payment).

Securitisation: the pooling of financial assets, such as residential mortgage loans, and their subsequent sale to a special-purpose vehicle, which then issues fixed income securities for sale to investors. The principal and interest of these securities depend on the cash flows produced by the pool of underlying financial assets.

Settlement risk: the risk that settlement in a transfer system will not take place as expected, usually owing to a party defaulting on one or more settlement obligations. This risk includes, in particular, operational risks, **credit risks** and liquidity risks.

Stability and Growth Pact: intended to serve as a means of safeguarding sound government finances in the EU Member States in order to strengthen the conditions for **price stability** and for strong, sustainable growth conducive to employment creation. To this end, the Pact prescribes that Member States specify medium-term budgetary objectives. It also contains concrete specifications on the **excessive deficit procedure**. The Pact consists of the Resolution of the Amsterdam **European Council** of 17 June 1997 on the Stability and Growth Pact and three Council Regulations, namely i) Regulation (EC) No 1466/97 of 7 July 1997 on the strengthening of the surveillance of budgetary positions and the surveillance and coordination of economic policies, ii) Regulation (EC) No 1467/97 of 7 July 1997 on speeding up and clarifying the implementation of the excessive deficit procedure, and iii) Regulation (EU) No 1173/2011 of 16 November 2011 on the effective enforcement of budgetary surveillance in the euro area. The Stability and Growth Pact is complemented by the **ECOFIN Council**'s report entitled "Improving the implementation of the Stability and Growth Pact", which was endorsed by the Brussels European Council of 22 and 23 March 2005. It is also complemented by a Code of Conduct entitled "Specifications on the implementation of the Stability and Growth Pact and Guidelines on the format and content of stability and convergence programmes", which was endorsed by the ECOFIN Council on 11 October 2005.

Standing facility: a central bank credit facility available to **counterparties** at their own initiative. The **Eurosystem** offers two overnight standing facilities: the **marginal lending facility** and the **deposit facility**.

Straight-through processing (STP): the automated end-to-end processing of trades/payment transfers – including, where relevant, the automated completion of confirmation, matching and generation of orders, clearing and settlement.

Systemic risk: the risk that the inability of one participant to meet its obligations in a system will cause other participants to be unable to meet their obligations when they become due, potentially with spillover effects (e.g. significant liquidity or credit problems) threatening the stability of or confidence in the financial system. That inability to meet obligations can be caused by operational or financial problems.

TARGET (Trans-European Automated Real-time Gross settlement Express Transfer system): the **Eurosystem**'s **real-time gross settlement system** for the euro. The first-generation TARGET system was replaced by **TARGET2** in May 2008.

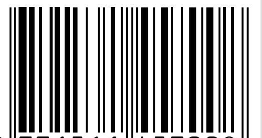
TARGET2: the second-generation **TARGET** system. It settles payments in euro in central bank money and functions on the basis of a single shared IT platform, to which all payment orders are submitted for processing.

TARGET2-Securities (T2S): the **Eurosystem**'s single technical platform enabling **central securities depositories** and NCBs to provide core, borderless and neutral securities settlement services in central bank money in Europe.

Treaties: unless stated otherwise, all references in this report to the "Treaties" refer to both the **Treaty** on the Functioning of the European Union and the Treaty on European Union.

Treaty: unless stated otherwise, all references in this report to the "Treaty" refer to the Treaty on the Functioning of the European Union, and the references to article numbers reflect the numbering in effect since 1 December 2009.

Treaty of Lisbon (Lisbon Treaty): amends the EU's two core treaties: the Treaty on European Union and the Treaty establishing the European Community. The latter has been renamed the **Treaty** on the Functioning of the European Union. The Treaty of Lisbon was signed in Lisbon on 13 December 2007 and entered into force on 1 December 2009.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