



EUROPEAN CENTRAL BANK

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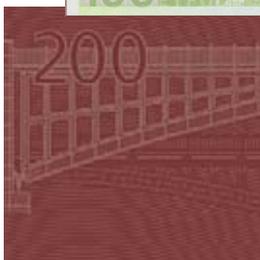
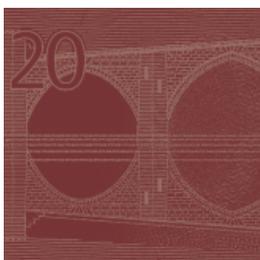
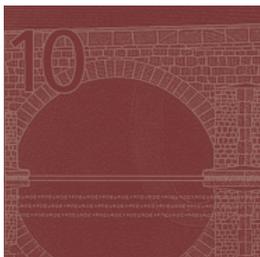
EUROPEAN CENTRAL BANK





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EUROSYSTEM



## ANNUAL REPORT 2010

In 2011 all ECB publications feature a motif taken from the €100 banknote.

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# CONTENTS

<b>FOREWORD</b>	<b>9</b>	<b>3 BANKNOTES AND COINS</b>	<b>109</b>
<b>CHAPTER 1</b>		3.1 The circulation of banknotes and coins and the handling of currency	<b>109</b>
<b>ECONOMIC DEVELOPMENTS AND MONETARY POLICY</b>		3.2 Banknote counterfeiting and counterfeit deterrence	<b>110</b>
		3.3 Banknote production and issuance	<b>111</b>
<b>1 MONETARY POLICY DECISIONS</b>	<b>16</b>	<b>4 STATISTICS</b>	<b>114</b>
<b>2 MONETARY, FINANCIAL AND ECONOMIC DEVELOPMENTS</b>	<b>24</b>	4.1 New and enhanced euro area statistics	<b>114</b>
2.1 The global macroeconomic environment	<b>24</b>	4.2 Other statistical developments	<b>114</b>
2.2 Monetary and financial developments	<b>29</b>	4.3 Statistical needs resulting from the financial crisis	<b>115</b>
2.3 Price and cost developments	<b>53</b>	<b>5 ECONOMIC RESEARCH</b>	<b>117</b>
2.4 Output, demand and labour market developments	<b>61</b>	5.1 Research priorities and achievements	<b>117</b>
2.5 Fiscal developments	<b>71</b>	5.2 Dissemination of research: publications and conferences	<b>118</b>
2.6 Exchange rates and balance of payments developments	<b>77</b>	<b>6 OTHER TASKS AND ACTIVITIES</b>	<b>120</b>
<b>3 ECONOMIC AND MONETARY DEVELOPMENTS IN NON-EURO AREA EU MEMBER STATES</b>	<b>82</b>	6.1 Compliance with the prohibition of monetary financing and privileged access	<b>120</b>
<b>CHAPTER 2</b>		6.2 Advisory functions	<b>120</b>
<b>CENTRAL BANK OPERATIONS AND ACTIVITIES</b>		6.3 Administration of the borrowing and lending operations of the European Union and the European Financial Stability Facility, and the pooled bilateral loans for the benefit of the Hellenic Republic	<b>124</b>
<b>1 MONETARY POLICY OPERATIONS, FOREIGN EXCHANGE OPERATIONS AND INVESTMENT ACTIVITIES</b>	<b>92</b>	6.4 Eurosystem reserve management services	<b>125</b>
1.1 Open market operations and standing facilities	<b>92</b>	<b>CHAPTER 3</b>	
1.2 Foreign exchange operations and operations with other central banks	<b>99</b>	<b>ENTRY OF ESTONIA INTO THE EURO AREA</b>	
1.3 The Securities Markets Programme	<b>100</b>	<b>1 ECONOMIC AND MONETARY DEVELOPMENTS IN ESTONIA</b>	<b>128</b>
1.4 The Covered Bond Purchase Programme	<b>100</b>	<b>2 LEGAL ASPECTS OF THE INTEGRATION OF EESTI PANK INTO THE EUROSISTEM</b>	<b>132</b>
1.5 Investment activities	<b>101</b>	<b>3 OPERATIONAL ASPECTS OF THE INTEGRATION OF EESTI PANK INTO THE EUROSISTEM</b>	<b>133</b>
<b>2 PAYMENT AND SECURITIES SETTLEMENT SYSTEMS</b>	<b>104</b>	<b>4 THE CASH CHANGEOVER IN ESTONIA</b>	<b>134</b>
2.1 The TARGET2 system	<b>104</b>		
2.2 TARGET2-Securities	<b>106</b>		
2.3 Settlement procedures for collateral	<b>107</b>		

<b>CHAPTER 4</b>		<b>CHAPTER 7</b>	
<b>FINANCIAL STABILITY AND INTEGRATION</b>		<b>INTERNATIONAL ISSUES</b>	
<b>1 FINANCIAL STABILITY</b>	<b>138</b>	<b>1 KEY DEVELOPMENTS IN THE</b>	
1.1 Financial stability monitoring	138	<b>INTERNATIONAL MONETARY SYSTEM</b>	<b>172</b>
1.2 Financial stability arrangements	140	<b>2 COOPERATION WITH COUNTRIES</b>	
<b>2 FINANCIAL REGULATION</b>		<b>OUTSIDE THE EU</b>	<b>176</b>
<b>AND SUPERVISION</b>	<b>142</b>	<b>CHAPTER 8</b>	
2.1 Banking	142	<b>ACCOUNTABILITY</b>	
2.2 Securities	143	<b>1 ACCOUNTABILITY VIS-À-VIS</b>	
2.3 Accounting	144	<b>THE GENERAL PUBLIC AND</b>	
<b>3 FINANCIAL INTEGRATION</b>	<b>146</b>	<b>THE EUROPEAN PARLIAMENT</b>	<b>180</b>
<b>4 OVERSIGHT OF PAYMENT SYSTEMS</b>		<b>2 SELECTED TOPICS RAISED AT MEETINGS</b>	
<b>AND MARKET INFRASTRUCTURE</b>	<b>150</b>	<b>WITH THE EUROPEAN PARLIAMENT</b>	<b>181</b>
4.1 Large-value payment systems and		<b>CHAPTER 9</b>	
infrastructure service providers	150	<b>EXTERNAL COMMUNICATION</b>	
4.2 Retail payment systems		<b>1 COMMUNICATION POLICY</b>	<b>184</b>
and instruments	152	<b>2 COMMUNICATION ACTIVITIES</b>	<b>185</b>
4.3 Securities and derivatives		<b>CHAPTER 10</b>	
clearing and settlement	152	<b>INSTITUTIONAL FRAMEWORK, ORGANISATION</b>	
4.4 Other activities	153	<b>AND ANNUAL ACCOUNTS</b>	
<b>CHAPTER 5</b>		<b>1 DECISION-MAKING BODIES AND</b>	
<b>EUROPEAN ISSUES</b>		<b>CORPORATE GOVERNANCE OF THE ECB</b>	<b>190</b>
<b>1 POLICY ISSUES</b>	<b>156</b>	1.1 The Eurosystem and the European	
<b>2 INSTITUTIONAL ISSUES</b>	<b>159</b>	System of Central Banks	<b>190</b>
<b>3 IMPROVING ECONOMIC GOVERNANCE</b>		1.2 The Governing Council	<b>191</b>
<b>IN THE EU</b>	<b>160</b>	1.3 The Executive Board	<b>194</b>
<b>4 DEVELOPMENTS IN AND RELATIONS</b>		1.4 The General Council	<b>196</b>
<b>WITH EU CANDIDATE COUNTRIES</b>	<b>161</b>	1.5 Eurosystem/ESCB committees,	
<b>CHAPTER 6</b>		the Budget Committee,	
<b>TASKS CONCERNING THE FUNCTIONING OF</b>		the Human Resources Conference	
<b>THE EUROPEAN SYSTEMIC RISK BOARD (ESRB)</b>		and the Eurosystem IT Steering	
<b>1 INSTITUTIONAL FRAMEWORK</b>	<b>164</b>	Committee	<b>197</b>
<b>2 ACTIVITIES OF THE ESRB PREPARATORY</b>		1.6 Corporate governance	<b>198</b>
<b>SECRETARIAT</b>	<b>166</b>	<b>2 ORGANISATIONAL DEVELOPMENTS</b>	<b>201</b>
<b>3 ANALYTICAL, STATISTICAL, LOGISTICAL AND</b>		2.1 Human resources management	<b>201</b>
<b>ADMINISTRATIVE SUPPORT TO THE ESRB</b>	<b>167</b>	2.2 Staff relations and social dialogue	<b>202</b>
		2.3 New ECB premises	<b>202</b>

2.4 The Eurosystem Procurement Coordination Office	203	2 Comparing recent developments in MFI loans to the non-financial private sector with previous episodes of economic decline and recovery	33
2.5 Environmental issues	203	Chart A Annual growth of real MFI loans to the non-financial private sector during major slowdowns and recoveries since 1990	33
2.6 Information technology service management	203	Chart B Annual growth of real GDP during major slowdowns and recoveries since 1990	34
<b>3 THE HUMAN RESOURCES CONFERENCE</b>	<b>205</b>	Chart C Annual growth of real MFI loans to households during major slowdowns and recoveries since 1990	34
<b>4 ESCB SOCIAL DIALOGUE</b>	<b>206</b>	Chart D Annual growth of real MFI loans to non-financial corporations during major slowdowns and recoveries since 1990	35
<b>5 ANNUAL ACCOUNTS OF THE ECB</b>	<b>208</b>	3 Developments in market-based measures of inflation expectations in 2010	41
Management report for the year ending 31 December 2010	209	Chart A Break-even inflation and inflation-linked swap rates	42
Balance Sheet as at 31 December 2010	214	Chart B Changes in break-even inflation rates and changes in nominal and real yields in 2010	42
Profit and Loss Account for the year ending 31 December 2010	216	Chart C Decomposition of long-term forward break-even inflation rates based on a term structure model	42
Accounting policies	217	Chart D Five-year forward break-even inflation rates five years ahead for the euro area and the United States	43
Notes on the Balance Sheet	222	4 Interpreting survey indicators of credit standards on loans to enterprises	49
Notes on the Profit and Loss Account	236	Chart A Changes in credit standards applied to the approval of loans or credit lines to enterprises	50
Auditor's report	239	Chart B Availability of bank loans to euro area firms	51
Note on profit distribution/allocation of losses	241	Chart C Restrictive and expansive credit standard regimes and credit standards on loans to euro area non-financial corporations	51
<b>6 CONSOLIDATED BALANCE SHEET OF THE EUROSISTEM AS AT 31 DECEMBER 2010</b>	<b>242</b>		
<b>ANNEXES</b>			
<b>LEGAL INSTRUMENTS ADOPTED BY THE ECB</b>	<b>246</b>		
<b>OPINIONS ADOPTED BY THE ECB</b>	<b>249</b>		
<b>CHRONOLOGY OF MONETARY POLICY MEASURES OF THE EUROSISTEM</b>	<b>257</b>		
<b>OVERVIEW OF THE ECB'S COMMUNICATION RELATED TO THE PROVISION OF LIQUIDITY</b>	<b>260</b>		
<b>PUBLICATIONS PRODUCED BY THE EUROPEAN CENTRAL BANK</b>	<b>265</b>		
<b>GLOSSARY</b>	<b>266</b>		
<b>LIST OF BOXES</b>			
1 Non-standard measures in 2010	17		
Chart Government bond spreads in 2010 and early 2011	18		



20	External financing of non-financial corporations broken down by instrument	<b>48</b>	45	Outstanding volume of monetary policy operations	<b>95</b>
21	Profit ratios of listed euro area non-financial corporations	<b>49</b>	46	Eligible collateral by asset type	<b>97</b>
22	Debt ratios of non-financial corporations	<b>52</b>	47	Collateral put forward in Eurosystem credit operations versus outstanding credit in monetary policy operations	<b>97</b>
23	Breakdown of HICP inflation: main components	<b>53</b>	48	Breakdown of assets (including credit claims) put forward as collateral by asset type	<b>98</b>
24	Contributions to HICP inflation from main components	<b>54</b>	49	Number of euro banknotes in circulation between 2002 and 2010	<b>109</b>
25	Breakdown of industrial producer prices	<b>59</b>	50	Value of euro banknotes in circulation between 2002 and 2010	<b>109</b>
26	Sectoral compensation per employee	<b>60</b>	51	Number of euro banknotes in circulation between 2002 and 2010 by denomination	<b>110</b>
27	Euro area labour costs	<b>60</b>	52	Number of counterfeit euro banknotes recovered from circulation between 2002 and 2010	<b>111</b>
28	Decomposition of the GDP deflator	<b>60</b>	53	Breakdown of counterfeit euro banknotes by denomination in 2010	<b>111</b>
29	Residential property price developments in the euro area	<b>61</b>			
30	Contributions to quarterly real GDP growth	<b>62</b>			
31	Confidence indicators	<b>62</b>			
32	Industrial production growth and contributions	<b>66</b>			
33	Unemployment	<b>67</b>			
34	Fiscal developments in the euro area	<b>74</b>			
35	Patterns in exchange rates and implied volatilities	<b>77</b>			
36	Euro nominal and real effective exchange rates	<b>78</b>			
37	Current account balance and its components	<b>79</b>			
38	Euro area exports volume to selected trading partners	<b>79</b>			
39	Euro area direct and portfolio investment	<b>80</b>			
40	Main items of the financial account	<b>80</b>			
41	Developments in ERM II EU currencies	<b>86</b>			
42	Developments in non-ERM II EU currencies vis-à-vis the euro	<b>87</b>			
43	Key ECB interest rates and the EONIA	<b>92</b>			
44	Liquidity factors in the euro area in 2010	<b>94</b>			

## 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
BPM5	IMF Balance of Payments Manual (5th edition)
c.i.f.	cost, insurance and freight at the importer's border
CPI	Consumer Price Index
ECB	European Central Bank
EEA	European Economic Area
EER	effective exchange rate
EMI	European Monetary Institute
EMU	Economic and Monetary Union
ESA 95	European System of Accounts 1995
ESCB	European System of Central Banks
EU	European Union
EUR	euro
f.o.b.	free on board at the exporter's border
GDP	gross domestic product
HICP	Harmonised Index of Consumer Prices
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
ULCM	unit labour costs in manufacturing

**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



In 2010 monetary policy operated in an environment characterised by the economic recovery in the euro area on the one hand and a persistence of tensions in financial markets on the other. The recovery in the real economy during 2010 turned out to be somewhat stronger than expected. This was partly related to the recovery in the world economy, but domestic developments also contributed to the prevailing positive momentum. Overall, euro area real GDP increased by around 1.7% in 2010, following a decline of 4.1% in 2009. As regards prices, inflation rates increased in the course of 2010, mainly reflecting rises in global commodity prices. At the same time, underlying domestic inflationary pressures remained moderate. As a consequence, the average annual inflation rate rose to 1.6% in 2010, up from 0.3% in 2009.

In this environment, in 2010 and early 2011 the Governing Council kept the rate on the main refinancing operations unchanged at

the historically low level of 1% that was set in May 2009. This was consistent with its assessment that the medium-term outlook for inflation remained in line with price stability in 2010. More favourable growth expectations and short-term inflation dynamics were thus not seen as threatening price stability in the medium term. Money and credit developments confirmed the assessment that inflationary pressures beyond the short term should remain contained. 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. This reflects favourably on the high degree of credibility of the ECB's monetary policy.

With regard to the non-standard monetary policy measures taken by the Eurosystem in response to the financial crisis, improvements in financial market conditions in 2009 and the first few months of 2010 allowed the ECB to reduce its intermediation role. Acute financial tensions resurfaced in May. These developments could be interpreted as resulting from growing market concerns about the sustainability of public finances, especially in Greece, with clear signs of contagion affecting other euro area government bond markets. Liquidity in those segments of the euro secondary debt market dried up. Moreover, rating revisions and price declines implied frequent margin calls and the downward revaluation of the assets of the banking system, leading to sudden and sharp reductions in the value of banks' collateral. Eventually, private repurchase agreement markets were affected. Money market spreads widened again, while volumes in the overnight segment declined, bid-ask spreads widened, and the covered bond market, as well as the corporate bond market, was affected. In response, the Governing Council reintroduced some non-standard measures that had already been phased out or were scheduled to be phased out. In particular, the Eurosystem decided to maintain the fixed rate tender procedure with full allotment in the regular three-month longer-term refinancing operations

for the period from end-May to end-December, and announced a new six-month refinancing operation with full allotment that took place in May. Moreover, the temporary liquidity swap lines with the US Federal Reserve System were also resumed and a Securities Markets Programme was launched. This programme has enabled the Eurosystem to intervene in bond markets to help restore a more appropriate functioning of the monetary policy transmission mechanism in the case of dysfunctional market segments. The liquidity effects stemming from these purchases have been fully neutralised by weekly liquidity-absorbing operations.

\*\*\*

Regarding financial reform, significant steps were undertaken in 2010 to increase the resilience of the financial sector. At the global level, the ambitious agenda agreed upon by the G20 ministers and governors gave the impetus for the milestones achieved. The agreement reached by the Basel Committee and approved by the Group of Governors and Heads of Supervision on the Basel III package constitutes a substantial strengthening of the capital and liquidity requirements for banks, forming a cornerstone of the new prudential framework. The ECB fully supports the new framework and is of the view that the agreed gradual implementation of the Basel III package should be a key priority.

Another important strand of work for strengthening the resilience of the financial system has been the work by the Financial Stability Board in developing an integrated framework to reduce the risks and externalities associated with systemically important financial institutions. The ECB, being a member of the Financial Stability Board, considers it important that a proper framework is developed that ensures a high degree of international consistency, thus promoting a level playing field and minimising the risk of regulatory arbitrage.

The reform of the framework for crisis prevention, management and resolution gained momentum in 2010. This reform aims at implementing an EU policy coordination framework and enhancing the EU's regulatory framework. The ECB has actively contributed to this work and the Eurosystem supported the development of an EU resolution framework.

The establishment of the European Systemic Risk Board (ESRB) on 16 December 2010 marked a major milestone in terms of Europe learning lessons from the crisis. The ESRB will conduct macro-prudential oversight in the EU, identify, assess and prioritise systemic risks, and issue warnings and recommendations under an "act or explain" regime. Together with the new European Supervisory Authorities (ESAs) and the national supervisory authorities, the ESRB forms part of the new European System of Financial Supervision (ESFS). The ECB ensures the Secretariat of the ESRB and provides the ESRB with analytical, statistical, logistical and administrative support. The preparatory work for the ESRB at the ECB started with the setting-up of the ESRB Preparatory Secretariat on 1 March 2010. The decision-making body of the ESRB held its first meeting on 20 January 2011.

The ECB continued to contribute to the key policy and regulatory initiatives aimed at enhancing the stability of financial market infrastructures, in particular as regards over-the-counter derivatives. In April 2010 the ECB published a report on the lessons learned from the financial crisis with regard to the functioning of European financial market infrastructures. Furthermore, an assessment of systemically important payment systems conducted by central banks showed that business continuity and crisis communication arrangements are maintained at high standards by the respective system operators. In addition, the ECB continued to act as a catalyst for private sector activities by facilitating collective action. With regard to the Single Euro Payments Area

(SEPA), the ECB strongly supported the work of European legislators to create the necessary momentum to complete the SEPA project. The envisaged regulation establishing end dates for the migration to SEPA, under which the usage of national payment instruments will be discontinued, is key to ensuring the timely and smooth adoption of SEPA.

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 23 EU central banks and their respective user communities to benefit from the same comprehensive and advanced services. Substantial progress was made in 2010 on the Eurosystem's programme for a new multi-currency securities settlement solution called TARGET2-Securities (T2S). Key policy issues were advanced or finalised during the year, with, for example, the decision on the pricing policy and the establishment of a governance framework laying down the ways in which the Eurosystem, non-euro area central banks, central securities depositories and market participants will be able to participate in the future development and operation of T2S. Work also progressed on the establishment of a single platform (CCBM2) for Eurosystem collateral mobilisation. This system, which is planned to go live in 2013, will allow the Eurosystem to provide efficient and cost-optimised collateral management and enhanced liquidity management services to Eurosystem counterparties.

\*\*\*

Turning to organisational issues, the ECB had 1,421.5 full-time equivalent positions at the end of 2010, compared with 1,385.5 positions at the end of 2009. The increase is mainly due to the new tasks assigned to the ECB in

relation to the ESRB Secretariat and support for the ESRB more generally. 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, 204 members of staff moved internally to other positions in 2010, while eight members of staff were seconded to other organisations for external work experience and 36 were granted unpaid leave to study or take up employment with other organisations 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.

Developments related to corporate culture focused on diversity and professional ethics. The ECB is fully committed to diversity and has made its policy public. An enhanced Ethics Framework for the members of staff of the ECB entered into force in 2010.

The ceremonial laying of the foundation stone on 19 May 2010 marked the official start of the main construction works for the new ECB premises. At the beginning of 2010 the respective public tender procedures were successfully finalised and the contracts for work representing around 80% of the calculated construction costs were awarded within the envisaged budget. The completion date for the new premises is scheduled for the end of 2013.

Regarding its financial accounts, the ECB earned a surplus of €1.33 billion in 2010, compared with a surplus of €2.22 billion in 2009. The Governing Council decided to transfer, as at 31 December 2010, an amount of €1.16 billion to the provision for foreign exchange rate, interest rate, credit and gold price risks, thereby increasing it to its ceiling of €5.18 billion, which was the value of the ECB's capital paid up by the euro area NCBS as at that date.

The size of this provision is reviewed annually. The ECB's net profit for 2010, following the transfer to the provision, was €170 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 2011

A handwritten signature in blue ink, appearing to read 'J. Trichet', with a stylized flourish on the left side.

Jean-Claude Trichet



The new ECB premises: view from the east, with the city centre of Frankfurt am Main in the background.

**CHAPTER I**

**ECONOMIC  
DEVELOPMENTS AND  
MONETARY POLICY**

## I MONETARY POLICY DECISIONS

In 2010 the Eurosystem was once again faced with a very challenging environment, with renewed tensions in financial markets. Severe stress was observed in some euro area bond markets, particularly from May 2010, reflecting the sovereign debt crisis. On the positive side, the outlook for inflation remained moderate, with neither deflationary nor inflationary pressures over the policy-relevant horizon. HICP inflation increased gradually over the year and stood at 1.6% on average in 2010, against 0.3% in 2009. Developments in economic growth were relatively favourable in 2010, especially taking into account the severe economic downturn in 2009, with data releases and surveys in the course of the year generally indicating a somewhat better economic performance than had been expected. In this environment, the Governing Council viewed the accommodative monetary policy stance as appropriate and therefore left the key ECB interest rates unchanged at the historically low levels that they reached in May 2009. The interest rate on the main refinancing operations stood at 1.00% throughout 2010, the rate on the deposit facility at 0.25% and the rate on the marginal lending facility at 1.75% (see Chart 1).

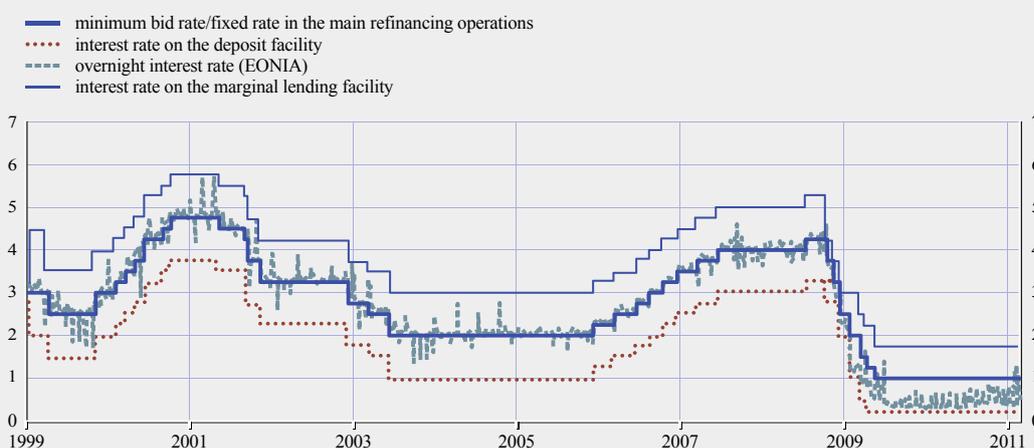
Taking a closer look at interest rate developments since the financial crisis

intensified following the collapse of the US financial institution Lehman Brothers on 15 September 2008, some key dates introducing a new phase of the financial crisis can be highlighted (see Chart 2).

Positive developments in the functioning of the money market in the course of 2009 paved the way for some of the non-standard measures taken to enhance the functioning of the monetary policy transmission mechanism to be phased out in early 2010. However, in May 2010 a new episode of the crisis started to unfold. As market concerns about the sustainability of public finances increased, particularly in some euro area countries, bond markets in these countries became severely dysfunctional. In view of the role of government bond markets in the monetary policy transmission mechanism, the ECB launched its Securities Markets Programme and reintroduced some of the non-standard measures that had been phased out in the preceding months (see Box 1). The Securities Markets Programme, like all other non-standard measures adopted since October 2008 during the period of acute financial market tensions, is, by construction, temporary in nature, and is fully consistent with the mandate of maintaining price stability in the medium term.

Chart 1 ECB interest rates and the euro overnight interest rate

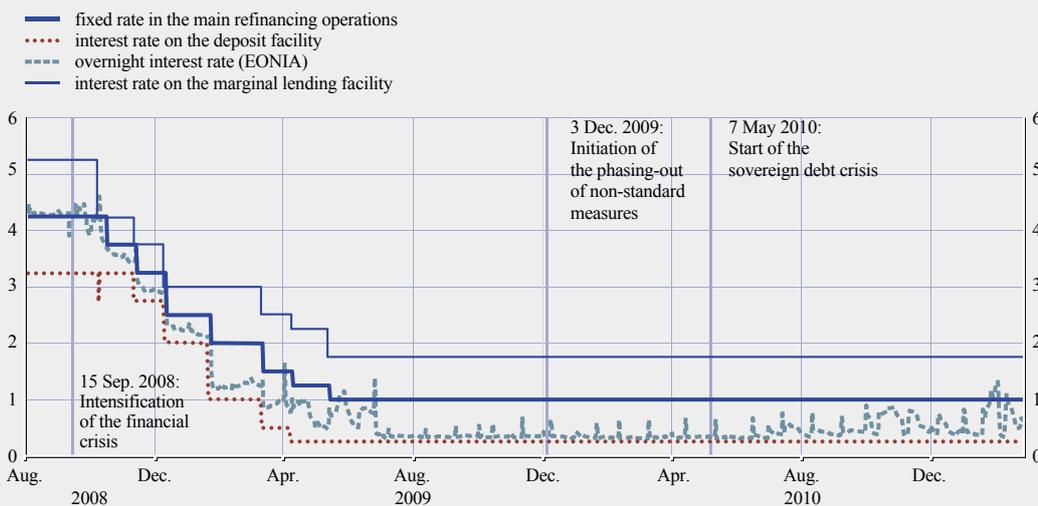
(percentages per annum; daily data)



Sources: ECB and Thomson Reuters.

**Chart 2 Interest rates since the intensification of the financial crisis**

(percentages per annum; daily data)



Sources: ECB and Thomson Reuters.

**Box 1**

**NON-STANDARD MEASURES IN 2010<sup>1</sup>**

The ECB's non-standard monetary policy measures have been an extraordinary response to exceptional circumstances. They are, by construction, temporary in nature. Indeed, in early 2010 some non-standard measures that were no longer needed were phased out, as had been decided by the Governing Council in December 2009, on the back of improved conditions in financial markets and evidence that the monetary policy transmission mechanism was working more normally again. Specifically, the Governing Council decided in December 2009: that the 12-month longer-term refinancing operation (LTRO) in that month would be the last one with that maturity; that only one more six-month LTRO would be conducted (in March 2010); and that the supplementary three-month LTROs would be discontinued. Furthermore, in coordination with other central banks, the ECB discontinued the temporary foreign currency liquidity-providing operations in February 2010. Moreover, in March 2010 it was decided to return to a variable rate tender procedure in the three-month LTROs. Finally, the Covered Bond Purchase Programme, which was initiated in May 2009 for a one-year period, was completed in June 2010, after the Eurosystem had bought €60 billion of euro-denominated euro area covered bonds as planned. At the same time, other elements of the ECB's enhanced credit support, such as the use of the fixed rate full allotment procedure in main refinancing operations, remained in place.

In spring 2010 tensions re-emerged in certain segments of the financial markets, in particular in some euro area government bond markets. Spreads for the ten-year government bonds of some euro

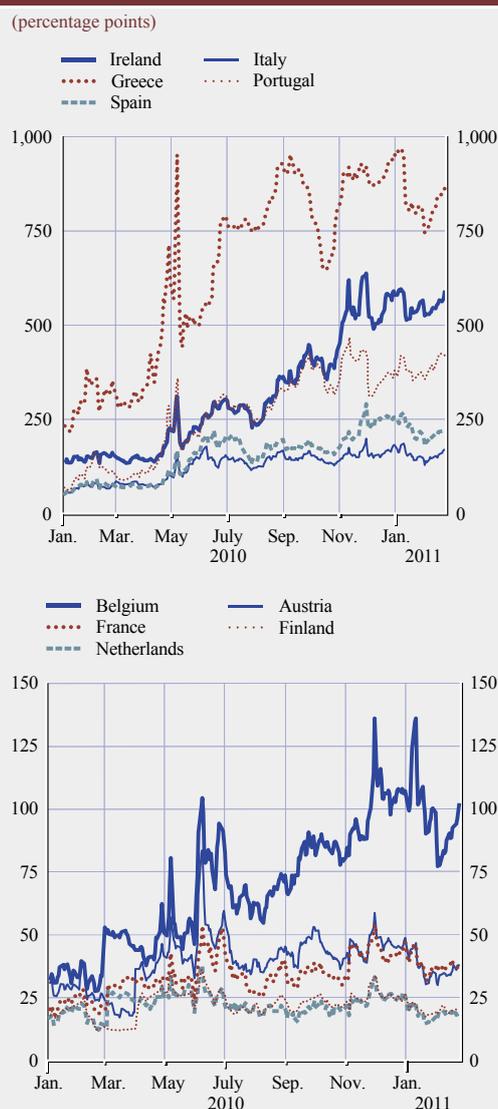
<sup>1</sup> More information on the ECB's response to the financial crisis, from the start of the crisis to early September 2010, can be found in the article entitled "The ECB's response to the financial crisis", *Monthly Bulletin*, ECB, October 2010.

area countries relative to German government bonds started to increase very quickly (see the chart). This was mainly driven by increased market concerns about the sustainability of public finances in some euro area countries, in view of rising government deficits and debt. The widening of spreads accelerated in April and early May 2010, and on 6 and 7 May they reached levels unprecedented since the start of EMU.<sup>2</sup> This led euro area governments to announce a comprehensive package of measures, including the European Financial Stability Facility, on 9 May.

In this context, on 10 May 2010 the Eurosystem announced the launch of the Securities Markets Programme. Under this programme, Eurosystem interventions can be carried out in the euro area public and private debt securities markets, with the aim of ensuring depth and liquidity in dysfunctional market segments and restoring the proper functioning of the monetary policy transmission mechanism. The government bond markets play an essential role in the monetary policy transmission process, operating through the following channels.

- Interest rates on government bonds are usually one of the main determinants of the interest rates that financial and non-financial firms have to pay when issuing their bonds (the “price channel”). When bond markets are severely disrupted, the short-term interest rates of the central bank are no longer passed on to the appropriate degree to longer-term rates that are relevant to decisions of households and firms, and, hence, to prices.
- The sharply lower bond prices that are implied by the much higher longer-term interest rates on account of disrupted bond markets cause significant losses in the portfolios of financial and non-financial sectors; this would reduce banks’ ability to provide loans to the economy (the “balance sheet channel”).

### Government bond spreads in 2010 and early 2011



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

<sup>2</sup> For more information, see the box entitled “Developments in financial markets in early May”, *Monthly Bulletin*, ECB, June 2010.

- Exceptionally low liquidity in government bond markets would constrain the use of government bonds as collateral in refinancing operations, thereby also hindering banks' supply of loans (the "liquidity channel").

Therefore, the decision to start intervening in bond markets was taken in order to help maintain the appropriate transmission of monetary policy to the real economy in the euro area by addressing the malfunctioning of some segments of the securities markets. In accordance with the provisions of the Treaty, any Eurosystem purchases of government bonds have been strictly limited to secondary markets.

Following the statements by euro area governments and by the ECB on 9 and 10 May 2010, tensions in financial markets abated for a short period of time, before spreads started widening again in a number of countries in the remainder of the year.

The increase in liquidity as a result of the bond purchases made in the context of the Securities Markets Programme is fully sterilised by means of specific operations to reabsorb it, as it is not the aim of the programme to inject additional liquidity into the banking system. The prevailing level of liquidity and the money market rates (in other words, the monetary policy stance) are therefore not affected by the programme, which consequently poses no inflationary risks. At the end of 2010 the Eurosystem had intervened in bond markets for an amount of €73.5 billion and had absorbed liquidity in the money market for exactly the same amount.

In addition to implementing this new non-standard measure, on 3 May 2010 the ECB suspended the application of the minimum credit rating threshold in the collateral eligibility requirements in the case of bonds issued or guaranteed by the Greek government after the joint EU and IMF programme for Greece had been finalised. Furthermore, in early May it reintroduced some of the non-standard measures that had been withdrawn earlier, in order to avoid negative spillovers from domestic sovereign bond markets to other financial markets. There was a risk that the normal functioning of markets could become impaired, notably the initial link in the monetary policy transmission mechanism between the central bank and credit institutions. In turn, this could have seriously impaired the ability of banks, which are the primary source of financing in the euro area, to provide credit to the real economy. In particular, the Eurosystem reintroduced the fixed rate tender procedure with full allotment in the regular three-month LTROs for the period starting at the end of May, and a new six-month refinancing operation with full allotment was conducted in May. The temporary liquidity swap lines with the Federal Reserve System were also resumed.

Given the continuing tensions in some government bond market segments and continued high uncertainty, the Governing Council decided in its meetings in September and December 2010 that all longer-term Eurosystem refinancing operations to be allotted in the last quarter of 2010 and the first quarter of 2011 respectively would be conducted as fixed rate tender procedures with full allotment. The rates in these LTROs were fixed at the average of the rates on the main refinancing operations over the life of the respective LTRO. Throughout 2010 the main refinancing operations were conducted at fixed rates with full allotment.

Following the sharp contraction experienced in 2008-09, euro area economic growth turned positive again at the end of 2009 and continued to grow in 2010. Quarterly real GDP growth rates in the first half of 2010 were better than expected, reflecting in part considerable support from fiscal stimuli and the accommodative monetary policy stance, as well as the rebound in global economic activity. In line with expectations, economic growth moderated somewhat in the second half of the year, while the underlying momentum of the euro area recovery remained positive. Overall, euro area real GDP increased by around 1.7% in 2010 after having contracted by 4.1% in 2009.

Inflationary pressures remained moderate in 2010, with some upward pressure emerging at the end of the year and in early 2011. The average annual inflation rate in 2010 stood at 1.6%. Month-on-month developments in the inflation rate were noteworthy, as annual HICP inflation gradually increased in 2010, rising from a low of 0.9% in February to 2.2% in December. The gradual increase in HICP inflation mainly reflected developments in commodity prices, driven by the global economic recovery and by base effects. Market-based and survey-based measures of long-term inflation expectations remained broadly anchored at levels consistent with the Governing Council's aim of keeping inflation rates below, but close to, 2% in the medium term.

The pace of monetary expansion in the euro area gradually increased in 2010. M3 growth, however, remained low, at an average rate of 0.6% in 2010. This supported the assessment that the underlying pace of monetary expansion was moderate and that inflationary pressures over the medium term were contained. The monetary analysis used as a basis for the analysis and assessment of money and credit developments has been greatly enhanced over time and this has deepened the ECB's medium-term-oriented monetary policy strategy.<sup>1</sup>

### **THE GRADUAL ECONOMIC RECOVERY AND THE PHASING-OUT OF SOME NON-STANDARD MEASURES**

Looking at monetary policy decisions in 2010 in more detail, information and analyses that had become available at the beginning of the year indicated that a moderate economic recovery was under way in the euro area, in part supported by temporary factors. Moreover, the recovery was likely to be uneven. In particular, economic growth rates and inflation developments diverged somewhat across euro area countries, although to a lesser extent than in 2009. The divergence mainly resulted from the ongoing rebalancing processes within the euro area, being the mirror image of the unsustainable growth patterns observed in some countries before the crisis.

Macroeconomic forecasts and projections for the euro area remained broadly unchanged in spring 2010. The March 2010 ECB staff macroeconomic projections foresaw annual real GDP growth in a range between 0.4% and 1.2% in 2010 and between 0.5% and 2.5% in 2011. Price developments were expected to remain subdued over the policy-relevant horizon, with HICP inflation projected to be between 0.8% and 1.6% in 2010, and between 0.9% and 2.1% in 2011.

The cross-check of the outcome of the economic analysis with the signals from the monetary analysis continued to confirm the assessment of low inflationary pressures over the medium term. The growth rates of money and credit remained low, although the growth rate of money somewhat overstated the deceleration in the underlying pace of monetary expansion owing to the steep slope of the yield curve, which caused shifts out of M3.

<sup>1</sup> For more information, see the article entitled "Enhancing monetary analysis", *Monthly Bulletin*, ECB, November 2010; and Papademos, L. and Stark, J. (eds.), *Enhancing monetary analysis*, ECB, 2010.

At the start of 2010 the Governing Council began to gradually phase out liquidity measures that were no longer needed to the same extent as in the past, in accordance with the decisions taken in December 2009. In particular, the number of longer-term refinancing operations was reduced. These steps were taken against the background of improving conditions in financial markets, including the money market, in the course of 2009. However, the Eurosystem continued to provide extraordinary liquidity support to the banking system of the euro area, facilitating the provision of credit to the euro area economy in an environment of continuing uncertainty. As a result, the overnight interest rate continued to stand close to the rate on the deposit facility, as it had done ever since the introduction of the fixed rate tender procedure with full allotment in October 2008. Prior to that, very short-term money market interest rates had been steered primarily by the minimum bid rate on the main refinancing operations.

#### **THE CRISIS IN SOME SOVEREIGN BOND MARKETS FROM MAY 2010**

High government deficits, rapidly increasing government debt-to-GDP ratios and rising contingent liabilities on account of guarantees for banks set the stage for a reintensification of the financial crisis. Market pressure had already been building up towards the end of 2009 and in early 2010, but it culminated in early May 2010, with the spreads of some euro area sovereign bonds against the German benchmark bond reaching levels not seen since the introduction of the euro. This was particularly the case for the yield on Greek government bonds, which reached very high levels compared with the German benchmark bond, but yields on the bonds of some other governments were also affected. In view of the role of government bond markets in the transmission of monetary policy to the economy and, ultimately, prices, the ECB launched its Securities Markets Programme, enabling the Eurosystem to purchase public and private bonds.

Macroeconomic developments in the first half of 2010 were more favourable than expected, in spite

of the impact of the sovereign debt crisis. These positive developments generally led to substantial upward revisions of macroeconomic forecasts and projections for the euro area published later in the year, including the June 2010 Eurosystem staff macroeconomic projections. At the same time, the remainder of the year was expected to witness somewhat lower growth rates, albeit with a positive underlying momentum. In the September 2010 ECB staff projections, annual real GDP growth was expected to be between 1.4% and 1.8% in 2010, and between 0.5% and 2.4% in 2011. This implied a substantial upward revision for 2010 compared with the June 2010 Eurosystem staff projections, which had included growth projections of between 0.7% and 1.3% for 2010.

Improving macroeconomic conditions were accompanied by more favourable credit developments. In the autumn of 2010 it became increasingly clear that a turning point in the annual growth rate of loans to the private sector had been reached earlier in the year. While the annual growth rate of loans to households had already reached a turning point in the third quarter of 2009, the annual growth rate of loans to non-financial corporations did not become less negative until the latter part of 2010. This pattern was broadly consistent with the lagged response of developments in loans to non-financial corporations to economic activity over the business cycle that had been observed in past cycles.

After broadly stabilising in the first half of 2010, the euro overnight index average (EONIA) increased slightly in the second half of the year, on account of a gradual reduction in the amount of excess liquidity. Given that in this period the ECB continued to supply unlimited amounts of liquidity to MFIs, against eligible collateral, at the fixed rate applied in the main refinancing operations, the developments in the EONIA were demand-driven. Therefore, they were not to be taken as a sign of a tightening of the monetary policy stance. Rather, the reduction in banks' demand for Eurosystem financing could be interpreted as reflecting improved access to

market-based funding, such as bank securities and interbank lending.

Towards the end of 2010 tensions intensified again in certain bond markets, reflecting increased concerns about the sustainability of public finances in some euro area countries, in part related to the need for financial support for ailing banking systems, but to some extent also pointing to uncertainty about various aspects of European sovereign crisis prevention and resolution mechanisms. Once again, yields on some government bonds rose sharply. The concurrent deterioration in the funding conditions of a number of banks led to an increase in recourse to the liquidity supplied by the Eurosystem.

The tensions in some segments of the financial markets, and their potential spillover to the euro area real economy, created additional downside risks to the economic outlook reported in the December 2010 Eurosystem staff projections, which was largely unchanged from the outlook for 2010 and 2011 reported in the September 2010 ECB staff projections. In the view of the Governing Council, risks to the economic outlook were tilted to the downside, with uncertainty remaining elevated. In addition to the financial market tensions, downside risks related to renewed increases in oil and other commodity prices, protectionist pressures and the possibility of a disorderly correction of global imbalances. On the other hand, global trade could grow more rapidly than expected, thereby supporting euro area exports. At the same time, the level of business confidence in the euro area remained relatively high.

As regards price developments, the December 2010 Eurosystem staff projections foresaw annual HICP inflation in a range between 1.3% and 2.3% in 2011. Risks to the outlook for price stability were seen by the Governing Council as being broadly balanced, with higher increases in prices expected in the months ahead. Upside risks related, in particular, to developments in energy and non-energy commodity prices. Furthermore, increases in

indirect taxes and administered prices could be greater than expected, owing to the need for fiscal consolidation in the coming years.

Against this background, the Governing Council decided in early September and early December 2010 to continue to conduct the main refinancing operations and the special-term refinancing operations with a maturity of one maintenance period as fixed rate tender procedures with full allotment in the quarter ahead. As a result, the modalities of these refinancing operations remained the same as those applied in May 2010. Furthermore, the Governing Council decided in the same meetings to conduct the three-month longer-term refinancing operations allotted in the last quarter of 2010 and the first quarter of 2011 as fixed rate tender procedures with full allotment. The rates in these operations were fixed at the average of the rates on the main refinancing operations over the life of the respective operation.

At the beginning of 2011 inflation rates continued to rise, mainly reflecting higher commodity prices. In March 2011 the Governing Council concluded on the basis of the economic analysis that risks to the outlook for price developments were on the upside, while the underlying pace of monetary expansion remained moderate. The underlying momentum of economic activity in the euro area remained positive, but uncertainty remained elevated. Strong vigilance was warranted with a view to containing upside risks to price stability. It was considered essential that the recent rise in inflation should not give rise to broad-based inflationary pressures over the medium term, and the Governing Council remained prepared to act in a firm and timely manner to ensure that upside risks to price stability over the medium term would not materialise. The continued firm anchoring of inflation expectations was considered to be of the essence.

The Governing Council also decided to continue conducting the main refinancing operations as fixed rate tender procedures with full allotment,

for as long as necessary, and at least until 12 July 2011. This procedure also remained in use for the special-term refinancing operations, which would continue to be conducted for as long as needed, and at least until the end of the second quarter of 2011. Furthermore, the Governing Council decided to continue conducting the three-month longer-term refinancing operations allotted in the second quarter of 2011 as fixed rate tender procedures with full allotment.

## 2 MONETARY, FINANCIAL AND ECONOMIC DEVELOPMENTS

### 2.1 THE GLOBAL MACROECONOMIC ENVIRONMENT

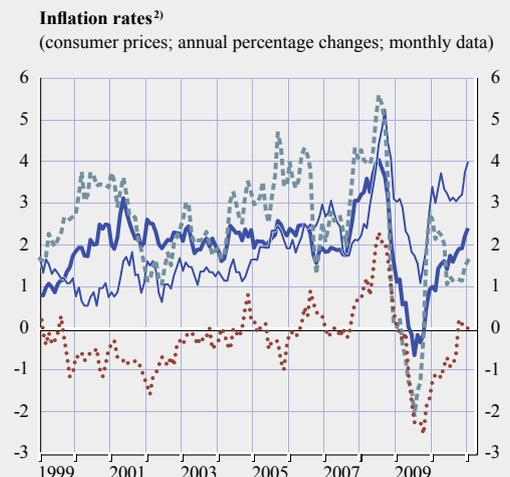
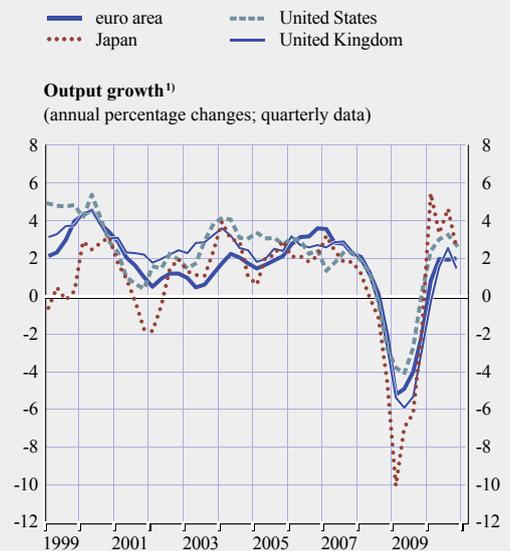
#### GLOBAL RECOVERY CONTINUED IN 2010

In 2010 global economic activity continued to recover from the severe recession recorded during the global financial crisis. Particularly in the first half of the year, the economic upturn was sustained by monetary and fiscal policy stimulus measures, some further normalisation of global financing conditions and improvements in consumer and business confidence. In addition, a prolonged inventory cycle supported the global economic recovery, as firms rebuilt their stocks in response to a more favourable global economic outlook. In fact, the restocking contributed significantly to GDP growth in major economies over this period. Accordingly, the global composite Purchasing Managers' Index (PMI) continued to recover in early 2010 and reached a peak of 57.7 in April, which was above the levels prevailing just before the intensification of the global economic crisis after the collapse of Lehman Brothers in September 2008. The overall improvement in the economic situation and the rebound in activity – which was led by the manufacturing sector – was accompanied by a strong recovery in world trade, as reflected in very buoyant export and import growth rates, particularly in the first half of the year. However, the pace of the recovery was rather uneven across regions. In advanced economies, the upturn remained fairly modest. At the same time, emerging economies, particularly in Asia, led the global recovery, even raising concerns about overheating pressures in several countries. Global employment indicators also gradually improved in the course of the year, following widespread job losses throughout the preceding two years.

In the second half of the year the global recovery temporarily lost some momentum (see the top panel of Chart 3) in the light of waning support from the global inventory cycle and the retrenchment of fiscal stimuli, but the recovery seemed to have moved onto a more self-sustained trajectory. Several countries also announced consolidation measures to address

the precarious fiscal situation. The process of balance sheet adjustment in various sectors and subdued labour market developments, particularly in advanced economies, further dampened the recovery of the world economy. Correspondingly, global trade dynamics also slowed down in the second half of 2010,

**Chart 3 Main developments in major industrialised economies**



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

expanding at a slower pace than in the first six months. However, available information suggests that the growth momentum picked up again at the turn of the year.

In spite of a gradual increase in commodity prices, mostly in the second half of the year, inflationary pressures in advanced economies remained subdued in 2010 (see the bottom panel of Chart 3) – with some notable exceptions, such as the United Kingdom – on account of well-anchored inflation expectations and the prevailing spare capacity. This contrasted with dynamic emerging markets where inflationary pressures were more pronounced, partly on account of higher commodity prices, as well as rising capacity constraints. Amid persisting concerns regarding inflation resulting from overheating, several central banks in emerging economies decided to withdraw some of the exceptional liquidity measures introduced in response to the crisis and to tighten their monetary policy stances. According to the latest available data, headline annual consumer price inflation in the OECD area declined gradually during 2010, from a peak of just above 2% in January 2010 to 1.6% in August, before edging up again to stand at 2.1% in December. This is also consistent with developments in the PMI for input prices, which also increased in the second half of 2010 and in January 2011 stood at the highest level in almost two and a half years. Higher food and energy prices contributed to this increase. Excluding food and energy, annual consumer price inflation in the OECD area declined throughout the year, from 1.6% at the beginning of 2010 to 1.2% in December.

#### **UNITED STATES**

In the United States, the economy continued to recover in 2010. A modest cyclical upswing gained traction, with the support of substantial macroeconomic policy stimuli and a gradual improvement in financial conditions. Real GDP expanded at a rate of 2.8%, following a 2.6% contraction in 2009. The recovery in private domestic demand was slow by historical standards, reflecting subdued growth in consumer spending. Household consumption

remained constrained by high unemployment, low confidence and continuing efforts to repair stretched balance sheets. A strong rebound in business investment in equipment and software was an important driver of the recovery, underpinned by improving access to credit, as well as solid corporate profitability against the background of cost-cutting measures implemented during the downturn. Growth was also supported by temporary factors such as government policies enacted to foster the economic recovery and the restocking of inventories. In net terms, trade subtracted from GDP growth in 2010 as the rebound in imports outpaced that in exports. Having contracted sharply during the recession, the current account deficit widened modestly with the onset of the recovery and averaged 3.3% of GDP in the first three quarters of 2010, up from 2.7% in 2009. The housing sector failed to improve: after tentatively increasing in the first half of the year, housing activity and prices weakened again in the second half following the expiration of some housing support initiatives.

In the context of a modest economic recovery, price developments remained subdued as upward cost pressures were limited by the persistent slack in product and labour markets. The annual change in the CPI for 2010 rose to 1.6%, from -0.4% the year before, on account of rising energy costs. Excluding food and energy, CPI inflation continued to slow and averaged 1.0% for the whole year, down from 1.7% in 2009.

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 2010 and continued to anticipate that economic conditions would be likely to warrant exceptionally low levels for the federal funds rate for an extended period. Although the special liquidity facilities created to support markets during the crisis were closed and the large-scale purchases of mortgage-related assets were concluded by mid-2010, in August 2010 the FOMC decided to maintain the Federal Reserve's holdings of

securities at their current level by reinvesting principal payments from agency debt and agency mortgage-backed securities in longer-term Treasury securities. It also decided to continue to roll over the Federal Reserve's holdings of Treasury securities as they mature. Later, in November 2010 the FOMC announced its intention to purchase a further USD 600 billion of longer-term Treasury securities by the end of the second quarter of 2011 in order to promote a stronger pace of economic recovery.

As regards fiscal policy, the federal budget deficit narrowed slightly to 8.9% of GDP in the 2010 fiscal year – which ended in September 2010 – compared with 10% in the previous year. This led to a further increase in the federal debt held by the public to 62% at the end of the 2010 fiscal year, from 53% in the previous fiscal year. In the context of high deficits, rising federal debt and the further enactment of fiscal stimuli (totalling USD 858 billion) in the short term, a report by the President's Fiscal Commission was issued in December 2010 with concrete proposals on how to address medium-term fiscal challenges and achieve fiscal sustainability over the long run.

#### **CANADA**

Economic activity in Canada picked up rapidly in early 2010, after emerging from the recession in mid-2009, supported by solid domestic demand, macroeconomic stimuli and a rebound in exports. By the third quarter of 2010, however, the recovery had lost momentum owing to a slowdown in construction activity, coupled with a negative net trade contribution to growth. Labour market conditions were relatively favourable, as they continued to improve gradually in parallel with the evolving economic upturn. However, despite declining to 7.6% in December 2010 (the lowest level since January 2009), the unemployment rate remained well above its pre-recession levels. Economic activity continued to be supported by a low interest rate environment (despite the Bank of Canada having taken steps towards a tighter policy stance from mid-2010), stable financial market conditions and a resilient banking system, which allowed

for a continued flow of credit to businesses and households. Turning to price developments, headline and core CPI inflation stayed within the central bank's target inflation range of 1% to 3%. Annual headline CPI inflation trended upwards in the second half of 2010 and stood at 2.4% in December, reflecting the impact of higher energy and food prices, while core inflation was 1.5% in December, following a gentle deceleration in the course of 2010.

#### **JAPAN**

In Japan, the economic recovery continued during the first three quarters of 2010, supported by the implementation of accommodative monetary policy and a substantial fiscal stimulus. The improvement in the economic situation in Japan was also aided by strong global demand, in particular from the Asian emerging economies, especially in the first half of 2010. In the second half of the year the contribution from the external sector declined, owing to the moderation of world trade growth, while domestic spending remained firm. However, towards the end of the year, as a result of volatility in domestic spending following the withdrawal of the government stimulus, the economic recovery in Japan hit a soft patch, resulting in a deterioration in business sentiment. Labour market conditions improved somewhat over 2010, although the unemployment rate remained rather high by historical standards.

As regards price developments, consumer prices fell throughout most of 2010 on a year-on-year basis, owing to substantial slack in the economy. In October, however, annual CPI inflation turned positive for the first time in almost two years, driven partly by an increase in tax on cigarettes and higher commodity prices, while annual CPI inflation excluding food and energy, although moderating, continued its deflationary trend.

Throughout 2010 the Bank of Japan maintained an accommodative monetary stance in order to stimulate the economy and fight deflation, lowering its uncollateralised overnight call rate to between 0% and 0.1% in October 2010

and establishing other measures such as a new asset purchase programme, as well as extending the fixed rate fund-supplying operation. On 15 September 2010 the Japanese authorities intervened in the foreign exchange market for the first time since March 2004 in order to curb the appreciation of the yen.

### **EMERGING ASIA**

Emerging Asia's resilience to the global economic and financial crisis was demonstrated by very strong economic performance across the region in 2010, with an area-wide GDP growth rate of 9.1%. While supportive fiscal and monetary policies were gradually withdrawn and the contribution of net exports declined in the second half of the year, domestic private demand and, notably, gross fixed investment took over as the main drivers of economic growth, especially in India and Indonesia. Overall economic performance remained robust in the second half of 2010, although the pace of expansion slowed down somewhat compared with the previous six months.

After recording very low consumer price inflation rates in 2009, inflationary pressures increased markedly during 2010. Annual CPI inflation for the region stood at 5% in December 2010, mainly on account of rising food and commodity prices. Most central banks in the region started to tighten their monetary stances in the second half of 2010, reducing the monetary stimuli introduced in the previous year. Given emerging Asia's strong macroeconomic performance and the declining risk aversion of international investors, the region also experienced a major rebound in capital inflows. A number of countries intervened in currency markets to stem the ensuing currency appreciation pressures, and also introduced capital controls and macro-prudential measures.

In China, real GDP growth accelerated to 10.3% in 2010, from 9.2% in 2009. The vigorous economic performance reflected increasing contributions from private investment and net exports, which counterbalanced the negative impact of the gradual withdrawal of policy

stimuli. However, the relative contribution of consumption to growth decreased and the current account surplus widened in nominal terms in 2010, evidence of the persistence of internal and external imbalances. Inflationary pressures increased during the year, with CPI inflation reaching 4.6% in annual terms in December, mainly on account of rising food prices. Property price pressures emerged against the background of ample liquidity, ongoing loose credit conditions and negative real interest rates on deposits. The authorities reacted by tightening their policy stance in the second part of the year. Among other things, this resulted in stricter quantitative limits on credit and increases in lending and deposit rates. Larger capital inflows, particularly in the last quarter of 2010, fuelled a rapid increase in foreign exchange reserves, which reached USD 2.85 trillion by the end of 2010. On 19 June 2010 China returned to a more flexible exchange rate arrangement for the renminbi, which appreciated by 3.6% against the US dollar and by 4.7% in real effective terms (CPI-deflated) in 2010.

### **LATIN AMERICA**

In Latin America, economic activity continued to recover rapidly in 2010. GDP growth was particularly robust in the first half of the year, mainly owing to buoyant domestic demand which more than offset the outstanding negative contribution of external demand (about 3 percentage points in the third quarter) to GDP growth. Thereafter, the growth momentum slowed down somewhat as policy stimulus measures were withdrawn and foreign demand weakened. In year-on-year terms, real GDP for the region as a whole increased by 6.0% on average in the first three quarters of 2010. Gross capital formation, including inventory accumulation, and private consumption were the main drivers of regional growth. Investment was spurred on by the improved growth outlook, the rise in commodity prices, the decline in real interest rates and the greater availability of financing, which, in some countries, was enhanced by lending by public banks. Private consumption growth was sustained by a rapid recovery in confidence, as well as employment and real wages.

In early 2010, notwithstanding sizeable differences across countries, inflation in most of the countries with inflation-targeting arrangements moved significantly closer to the respective target value. However, in the context of strong growth in economic activity and rising commodity prices, inflationary pressures started to rise later in the year and some countries began to reverse part of the monetary stimuli deployed during the crisis. From April onwards several central banks in the region initiated a cycle of official interest rate rises. As global financial conditions continued to improve and risk appetite returned, spreads on credit default swaps on Latin American sovereign debt narrowed, stock prices increased significantly and financial flows returned, resulting in currency appreciations. In late 2010, given that higher interest rates would risk fuelling strong capital inflows and owing to uncertainty relating to global economic developments, the process of tightening policy rates was interrupted in some countries and a number of measures to stem large capital inflows were introduced (e.g. reserve accumulation, macro-prudential policies and capital controls).

#### COMMODITY PRICES INCREASED IN 2010

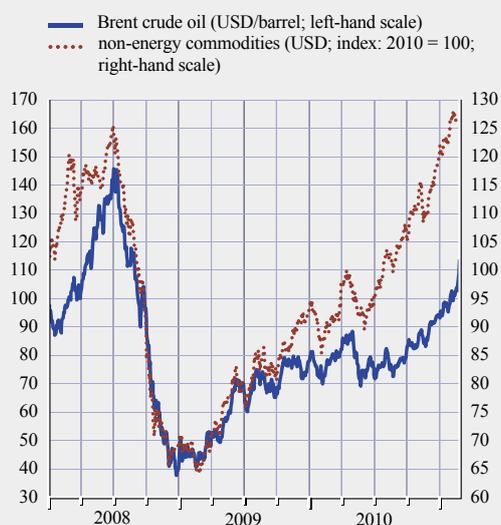
After having remained broadly stable amid some volatility in the first half of 2010, oil prices began to increase steadily in August, with the Brent crude oil price standing at USD 113 per barrel on 25 February 2011, compared with USD 78 per barrel at the beginning of 2010. In US dollar terms, the level reached at the end of February 2011 was broadly similar to that recorded in May 2008. For the year 2010 as a whole, the average price of Brent crude oil was USD 80 per barrel, i.e. 29% above the average of the previous year.

The oil price increases came against the background of a recovery in global oil demand, which strengthened throughout the year, and was supported by the global economic recovery, as well as by weather conditions in the northern hemisphere in the second part of the year. This growth in demand also led to a reassessment of future demand prospects,

which looked much more robust than one year earlier and suggested that the market might tighten in the future. One indication of this was the stream of repeated upward revisions of demand projections by the International Energy Agency, both for emerging and developed economies. On the supply side, the output in North America and in former Soviet Union countries proved to be higher than foreseen, but on the other hand, OPEC decided not to raise its production quotas in 2010, despite its ample spare capacity. In the context of buoyant demand, this led to a substantial drawdown in OECD inventories, which nevertheless remained at high levels by historical standards. In the first two months of 2011 geopolitical events in North Africa and the Middle East further tightened the supply side of the market, thereby accelerating the increase in prices.

The prices of non-energy commodities also increased in 2010 (see Chart 4), amid robust demand from emerging economies and supply constraints. Metal prices – in particular copper, nickel and tin – posted significant gains, which were also sustained by buoyant imports by

**Chart 4 Main developments in commodity prices**



Sources: Bloomberg and Hamburg Institute of International Economics.

emerging economies. On the back of supply constraints, food prices also increased, led in particular by maize, sugar and wheat. In aggregate terms, non-energy commodity prices (denominated in US dollars) were about 36% higher towards the end of February 2011 compared with the beginning of 2010.

## 2.2 MONETARY AND FINANCIAL DEVELOPMENTS

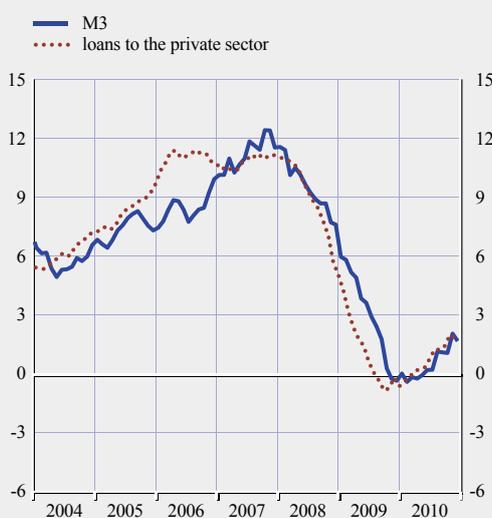
### MONETARY GROWTH SHOWED SIGNS OF A TENTATIVE RECOVERY

The annual growth rate of headline M3 turned positive during 2010, standing at 1.7% in December 2010, compared with -0.3% at the end of 2009. This development implies a recovery in monetary dynamics, although uncertainty regarding its strength increased towards the end of 2010, as growth was affected by certain special factors (asset transfers to “bad banks”<sup>2</sup> and repo activity owing to interbank transactions conducted via central counterparties). Overall, monetary developments in 2010 were largely

driven by three economic factors: the upward impact of both the pick-up in economic activity and the diminishing downward effect of the yield curve (with no further large-scale reallocation of funds from instruments within M3 to financial assets outside M3); and the downward impact of a dampening effect stemming from the unwinding of previously accumulated monetary liquidity. On the counterpart side, the annual growth rate of MFI loans to the private sector increased during 2010, reaching 1.9% in December 2010, up from -0.2% at the end of the previous year (see Chart 5). The subdued nature of the expansion in loans to the private sector reflected the stabilisation of the annual growth rate of loans to households and a slight strengthening of the annual growth rate of loans to non-financial corporations. The broadly parallel increases in the growth of M3 and loans imply that the decline in underlying monetary growth, which captures the monetary trends providing the relevant signal as regards risks to price stability, tapered off in 2010, giving way to a moderate recovery.

Chart 5 M3 and loans to the private sector

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



Source: ECB.

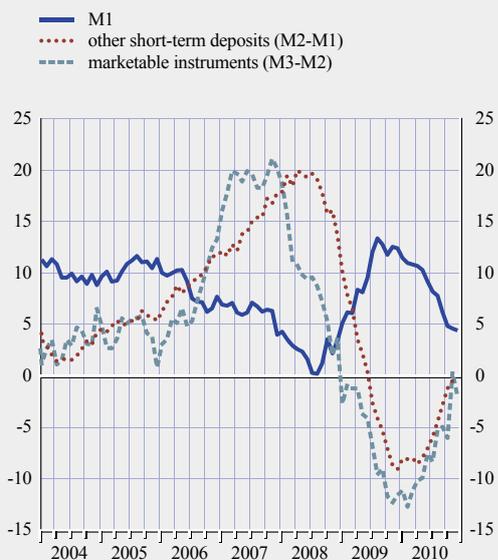
### THE IMPACT OF THE STEEP YIELD CURVE WEAKENED

Developments in the interest rate constellation affected not only shifts between assets included in M3 and those outside M3, but also shifts within M3. The gradual increase observed in the annual growth rate of M3 concealed strongly divergent trends in the annual growth rates of its components (see Chart 6). The annual growth rate of M1 declined significantly in 2010, but remained at robustly positive levels (standing at 4.4% in December), while that of marketable instruments and short-term deposits other than overnight deposits (i.e. M3 minus M1) became noticeably less negative (standing at -1.5% in December). As a result,

2 In the broadest sense, “bad banks” are dedicated schemes set up and backed by governments to facilitate the removal from credit institutions’ balance sheets of assets that are at risk of severe impairment or are difficult to value.

**Chart 6 Main components of M3**

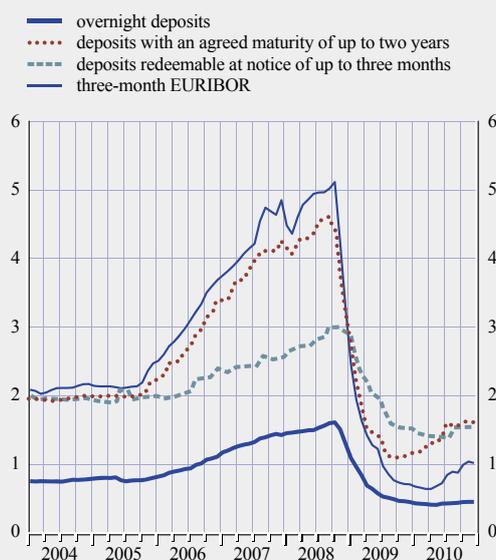
(annual percentage changes; adjusted for seasonal and calendar effects)



Source: ECB.

**Chart 7 MFI interest rates on short-term deposits and a money market interest rate**

(percentages per annum)



Source: ECB.

the gap between these growth rates narrowed significantly to stand at 6.1 percentage points in December, down from 22.0 percentage points at the end of 2009. This largely reflected interest rate developments (see Chart 7). The interest rate on overnight deposits remained broadly stable in 2010, while the remuneration of deposits with an agreed maturity of up to two years increased noticeably and the interest rate on deposits redeemable at notice of up to three months increased marginally. As a result, the opportunity cost of holding the most liquid deposit contained in M3 increased and the rebalancing within M3 in favour of such deposits waned. The impact of the steep yield curve weakened in 2010, halting large-scale shifts into financial assets outside M3, which had mainly come at the expense of marketable instruments and short-term deposits other than overnight deposits. Consequently, the annual growth rates of these assets became less negative. The annual growth rate of marketable instruments was also boosted by increased repo activity, especially

towards the end of the year, which largely reflected interbank transactions conducted via central counterparties (which are classified as non-monetary financial intermediaries other than insurance corporations and pension funds (referred to as “OFIs”)).

#### TRENDS IN SECTORAL MONEY HOLDINGS REMAINED DIVERGENT

The broadest aggregation of M3 components for which sectoral information is reported is short-term deposits and repurchase agreements (hereafter referred to as “M3 deposits”). The turnaround observed in the annual growth rate of M3 deposits in 2010 largely reflected a particularly strong contribution by OFIs. The annual growth rate of OFIs’ holdings of M3 deposits increased significantly to stand at 10.8% in December, compared with -3.1% at the end of 2009. This increase largely reflected strong interbank repo transactions in the second and fourth quarters, as well as increasingly strong inflows for overnight deposits in the first three quarters of the year.

By contrast with OFIs, the annual growth rate of households' M3 deposits declined marginally to stand at 1.9% in December, down from 2.0% at the end of 2009 (see Chart 8). This masked a decrease in the first half of 2010 and a recovery in the second half of the year. Developments in households' M3 holdings in 2010 largely reflected interest rate developments. The decline observed in the annual growth rate in the first half of 2010 reflected more muted inflows for overnight deposits as the impact of the steep yield curve waned. The slight recovery observed in the second half of the year reflected a significant decline in outflows for deposits with an agreed maturity of up to two years as the spread between the remuneration of these deposits and that of short-term savings deposits and other deposits outside M3 decreased.

The annual growth rate of the M3 deposits of non-financial corporations also declined in 2010. It exhibited some volatility in the first half of the year, while declining overall, before increasing only slightly in the second

half. It stood at 4.4% in December, down from 5.4% in December 2009. Developments in non-financial corporations' holdings of M3 reflected the pick-up in economic activity, and may also have been related to loan developments, as firms may have used their deposits to reduce their debt or as a substitute for bank credit in the first half of the year. The positive flow of loans in the second half of the year may have enabled firms to rebuild their liquidity buffers towards the end of the year.

### GROWTH IN CREDIT TO THE PRIVATE SECTOR INCREASED SLIGHTLY

As regards the counterparts of M3, the annual growth rate of MFI credit to euro area residents increased slightly in 2010, reaching 3.4% in December, up from 2.5% in December 2009 (see Chart 9). This increase, which primarily occurred in the second half of the year, mainly reflected the slight recovery observed in the annual growth rate of credit to the private sector. The annual growth rate of credit to general government ended the year at a level almost the

**Chart 8 Sectoral deposits**

(annual percentage changes; not adjusted for seasonal or calendar effects)

- non-financial corporations
- ... households
- - - OFIs



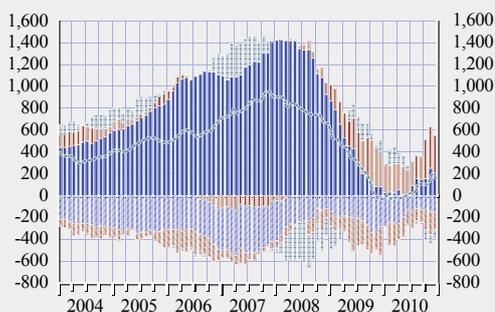
Source: ECB.

Note: The reporting sector comprises MFIs excluding the Eurosystem.

**Chart 9 Counterparts of M3**

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

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



Source: ECB.

Notes: M3 is shown for reference only (M3 = 1+2+3-4+5).

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

same as that recorded at the end of 2009, despite declining for most of 2010. This decline reflected MFIs scaling back their purchases of government securities, in the absence of any further steepening of the yield curve and in light of market tensions. This trend was reversed in the fourth quarter of the year, when credit to general government increased sharply as a consequence of MFI assets being transferred to “bad banks”.<sup>3</sup>

The slight recovery in the growth of credit to the private sector mainly reflected the slow but steady strengthening observed in the annual growth rate of loans. By contrast, the annual growth rate of MFIs’ holdings of private sector securities other than shares declined further in the first half of 2010 owing to the lower level of securitisation activity. Such activity recovered slightly in the second half of the year, partially reflecting asset transfers between MFIs and “bad banks”, contributing to the stabilisation of MFIs’ holdings of private sector securities other than shares.

The annual growth rate of MFI loans to the private sector, the largest component of credit to the private sector, increased gradually from the marginally negative rate recorded at the end of 2009 to stand at 1.9% in December 2010 (see Chart 5). This would be consistent with a modest recovery in loan demand and would also be supported by available evidence on the evolution of credit standards. In this respect, the euro area bank lending survey suggests that supply-side influences weakened in the course of the year. Given the low level of securitisation activity, the difference between the headline annual growth rate of loans to the private sector and the growth rate adjusted for the derecognition of loans from MFI balance sheets was modest in 2010.

At the sectoral level, the recovery in the annual growth rate of loans to the private sector is attributable primarily to lending to the non-financial private sector – i.e. households and non-financial corporations. In December 2010 the annual growth rate of loans to households

stood at 2.9% (up from 1.3% at the end of 2009), compared with -0.2% for lending to non-financial corporations (up from -2.2% in December 2009). The annual growth rate of loans to OFIs increased progressively in the second half of the year, but this development was attributable mainly to an increase in interbank repurchase agreements traded via central counterparties, which result in a commensurate increase in MFI loans to these financial intermediaries.

The recovery in private sector loan growth in the first half of the year was accounted for mainly by developments in loans to households, which were driven almost entirely by a recovery in loans for house purchase. This coincided with an upturn in the annual growth rate of euro area residential property prices. The continuation of the recovery in loans to the non-financial private sector in the second half of the year was due mainly to the turnaround observed in the annual growth of loans to non-financial corporations (albeit the growth rate remained negative). Adjusting for the derecognition of loans from MFIs’ balance sheets – which largely reflected transfers to “bad banks” – the annual growth rate of loans to non-financial corporations would have turned positive in 2010.

Overall, developments in loans to the non-financial private sector in 2010 remained broadly consistent with business cycle regularities. The turning point in the growth of loans to households typically takes place early in the economic cycle, while that of loans to non-financial corporations tends to lag behind it. Quarterly data on the annual growth rate of loans to non-financial corporations indicate that its turning point occurred in the second quarter of 2010, following that of loans to households one year earlier. In line with previous episodes, the improvement seen in lending to non-financial corporations in 2010 is likely to have been related to the growth observed in corporate investment and

<sup>3</sup> 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.

spending needs in the context of improving business expectations and the pick-up in economic activity. It may well also reflect changes in the relative attractiveness of market financing, as corporate yields have partly been affected by the rise in yields associated with the sovereign debt crisis. At the same time, loan dynamics varied across euro area countries, possibly reflecting uneven economic recoveries across countries and economic sectors of the

euro area, as well as differences in the extent to which individual sectors need and have recourse to bank loans, rather than financing themselves via internally generated funds and/or market-based funding. (See Box 2 for a comparison of recent developments in the annual growth rate of loans to the non-financial private sector and its main components with their behaviour during two previous periods of economic decline and recovery.)

## Box 2

### COMPARING RECENT DEVELOPMENTS IN MFI LOANS TO THE NON-FINANCIAL PRIVATE SECTOR WITH PREVIOUS EPISODES OF ECONOMIC DECLINE AND RECOVERY

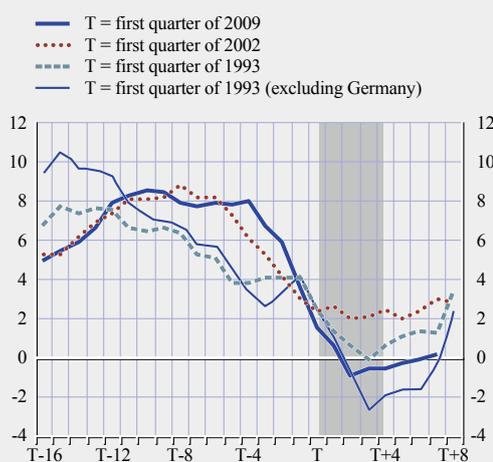
The magnitude and nature of the economic downturn that followed the financial crisis made it likely that developments in MFI loans would be exceptional. Against this background, this box compares recent developments in the annual growth rate of loans to the non-financial private sector and its main components with their behaviour during two previous episodes of economic decline and recovery: the early 1990s and the early 2000s. In order to allow greater comparability as regards the magnitude of these developments, this box focuses on real MFI loans (using the GDP deflator).

#### Developments in total loans to the non-financial private sector

The annual growth rate of real loans to the non-financial private sector fell by around 9 percentage points (from peak to trough) during the recent recession, ending up in negative territory. This decline was considerably stronger than those experienced during the economic downturns of the early 1990s and early 2000s, when the annual growth rate fell between 6 and 7 percentage points and remained in positive territory (see Chart A). Moreover, the bulk of the recent decline occurred in a relatively short period of time (six quarters), compared with more drawn-out declines in the past (sixteen quarters in the early 1990s and nine quarters in the early 2000s). However, neither the magnitude nor the speed of the latest decline appear excessive given the severity of the

**Chart A Annual growth of real MFI loans to the non-financial private sector during major slowdowns and recoveries since 1990**

(annual percentage changes)



Sources: ECB and ECB calculations.

Notes: The shaded area represents the confidence range around the average lead/lag quarter for which the correlation between the annual growth rates of the respective loan series and real GDP is at its highest. These confidence bands are computed as the correlation coefficient plus/minus standard error. See also footnote 2 in the text. "T" represents the quarter in which the trough in the real GDP growth cycle occurred.

recent recession. The annual growth rate of real GDP declined by almost 9 percentage points in the space of a year during the recent economic downturn, compared with 6 percentage points over four years in the early 1990s and 4 percentage points over almost two years in the early 2000s (see Chart B).

The fact that the annual growth rate of loans to the non-financial private sector declined to negative levels is unusual, but not unprecedented for euro area countries. In the recession of the early 1990s, loans to the non-financial private sector were boosted by significant growth in loans to German households following reunification. Excluding the German non-financial private sector, the annual growth rate of real loans to the non-financial private sector declined by 13 percentage points, falling to a level more negative than that observed during the recent recession (see Chart A).

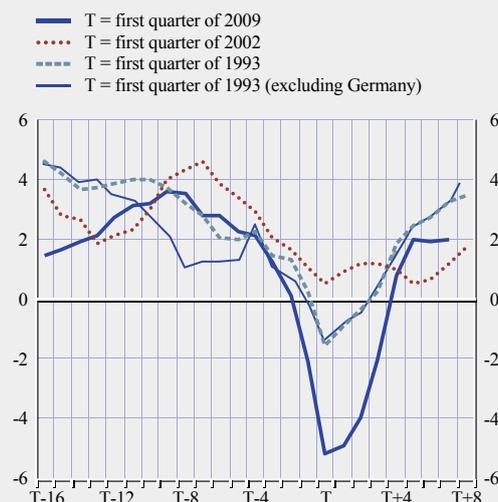
The turning point in the annual growth rate of real loans to the non-financial private sector occurred in the third quarter of 2009, in line with cyclical regularities.<sup>1</sup> In the case of both the recent recession and that of the early 2000s, the recovery in loans to the non-financial private sector came two quarters after a turning point in real GDP growth, while the recovery in the early 1990s lagged the turning point in real GDP by three quarters.

### Developments in loans to households

Compared with previous episodes of weak economic activity, developments in loans to households played a more prominent role in shaping the overall evolution of loans to the non-financial private sector during the recent recession and recovery. The peak-to-trough decline in the annual growth rate of real loans to households was more pronounced in the recent recession and the annual growth rate fell to negative levels, reflecting the greater severity of

**Chart B Annual growth of real GDP during major slowdowns and recoveries since 1990**

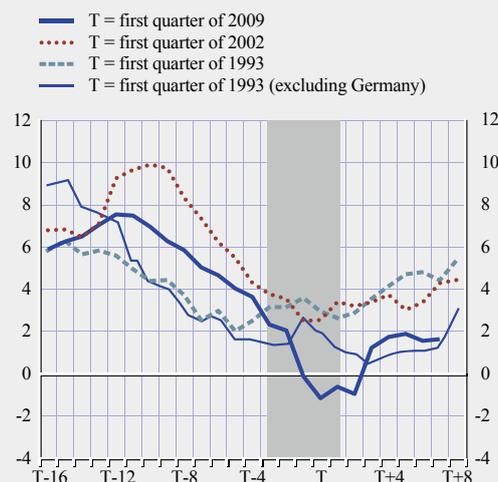
(annual percentage changes)



Sources: ECB and ECB calculations.

**Chart C Annual growth of real MFI loans to households during major slowdowns and recoveries since 1990**

(annual percentage changes)



Sources: ECB and ECB calculations.

Notes: The shaded area represents the confidence range around the average lead/lag quarter for which the correlation between the annual growth rates of the respective loan series and real GDP is at its highest. These confidence bands are computed as the correlation coefficient plus/minus standard error. See also footnote 2 in the text. "T" represents the quarter in which the trough in the real GDP growth cycle occurred.

<sup>1</sup> See the box entitled "Loans to the non-financial private sector over the business cycle in the euro area", *Monthly Bulletin*, ECB, October 2009.

the slowdown in the housing market (see Chart C). The turning point in the annual growth rate of real loans to households occurred in the third quarter of 2009, two quarters after the recovery in the annual growth rate of real GDP. This was somewhat later than in the other two periods considered and is not in line with the relationship typically observed between real loans to households and real GDP.

However, a relatively late turning point in the annual growth rate of real loans to households is not unprecedented. In the early 1990s, a clear turning point in the annual growth rate of real loans to non-German euro area households was not seen until three quarters after the recovery in the annual growth rate of real GDP. That period was also characterised by declining house prices, following significant booms in a number of euro area countries, indicating that the delayed recoveries may, in both cases, reflect some rebalancing of balance sheets on the part of households and banks. In each of the periods considered, the recovery in the annual growth rate of real loans to households was driven by loans for house purchase.

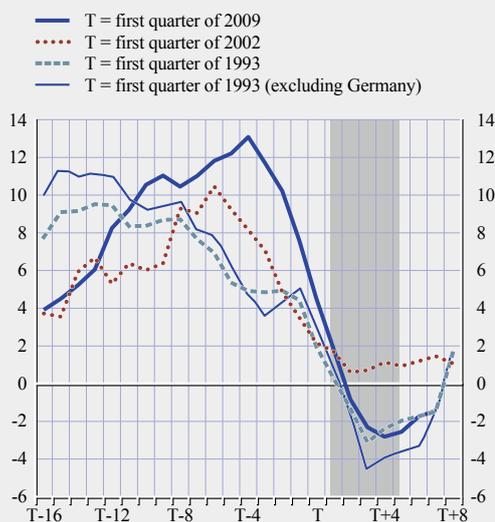
### Developments in loans to non-financial corporations

The overall trend in the annual growth rate of loans to non-financial corporations during the recent episode was broadly similar to those of previous episodes (see Chart D). However, the magnitude of the decline was more severe, as the annual growth rate of loans to non-financial corporations fell by 15 percentage points from peak to trough, compared with declines of 10 percentage points and 12 percentage points in the early 1990s and early 2000s respectively. The significant decline in real lending to non-financial corporations during the recent recession reflects the substantial decline observed in economic activity, particularly in the construction and real estate sectors, as well as increased recourse to market-based sources of financing.<sup>2</sup> These sectors are relatively loan-intensive and had been a key driver of lending to euro area non-financial corporations owing to strong housing booms in various euro area countries in recent years.

The turning point in the annual growth rate of real loans to non-financial corporations occurred in early 2010, four quarters after the recovery in the annual growth rate of real GDP. This is broadly in line with historical regularities, albeit slightly later than in the two previous episodes considered. Although the annual growth rate of real loans to non-financial corporations remained slightly

**Chart D Annual growth of real MFI loans to non-financial corporations during major slowdowns and recoveries since 1990**

(annual percentage changes)



Sources: ECB and ECB calculations.

Notes: The shaded area represents the confidence range around the average lead/lag quarter for which the correlation between the annual growth rates of the respective loan series and real GDP is at its highest. These confidence bands are computed as the correlation coefficient plus/minus standard error. See also footnote 2 in the text. "T" represents the quarter in which the trough in the real GDP growth cycle occurred.

<sup>2</sup> See Box 2, entitled "Real estate developments in the euro area and their impact on loans to the private sector", *Monthly Bulletin*, ECB, May 2010.

negative at the end of 2010, its recovery was faster and stronger than in the early 1990s. As in previous periods, the upturn in loan dynamics was driven by a noticeable improvement in the annual growth rate of short-term loans.

### Conclusion

The magnitude of the recent decline in the annual growth rate of loans to the non-financial private sector was substantial in absolute terms. However, it is consistent with past economic downturns when relative declines in real GDP are considered. Developments in the annual growth rate of real loans to households were slightly unusual, with that growth rate declining relatively strongly to stand at negative levels and its turning point lagging the recovery in the annual growth rate of real GDP. Both of these aspects are likely to reflect the specific role of the housing market in the recent recession. Overall, developments in real MFI loans to the non-financial private sector were broadly in line with behaviour observed during previous periods of economic decline and recovery.

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 noticeably in the course of the year to stand at 3.0% in December, down from 6.0% at the end of 2009. This was visible mainly for longer-term deposits (i.e. both deposits redeemable at notice of over three months and deposits with an agreed maturity of over two years), but also for longer-term MFI debt securities (i.e. those with a maturity of over two years). The deceleration observed for longer-term deposits is likely to have reflected the fact that their remuneration became less attractive as a result of the slight flattening of the yield curve in the course of the year, while that seen for longer-term securities may have been related to the perception of a higher level of risk for MFI securities.

Finally, the net external position of euro area MFIs recorded a further decline in 2010, decreasing by €89 billion. This was the result of a negative flow for external assets, which exceeded the decline observed in external liabilities. On balance, this means that the money-holding sector's interaction with the rest of the world via euro area MFIs resulted in a net capital inflow.

### MONEY MARKET CONDITIONS IMPROVED DESPITE SOME VOLATILITY

In 2010 the behaviour of euro area money market interest rates was affected by various

factors. Overall, the Eurosystem continued to provide extraordinary liquidity support to euro area banks. Given the improvements observed in financial market conditions in the course of 2009, the Eurosystem began, in early 2010, to gradually phase out those non-standard monetary policy measures that were no longer deemed necessary, with the average maturity of liquidity-providing operations being shortened as a result. However, the sovereign debt crisis in May caused severe tensions in the government bond markets of some euro area countries, with adverse effects on the transmission mechanism for monetary policy, as reflected in higher levels of perceived liquidity and credit risk. With the aim of addressing the malfunctioning of securities markets and restoring an appropriate transmission mechanism for monetary policy, the Eurosystem launched the Securities Markets Programme and reactivated some of the non-standard measures that it had previously phased out. Box 1 describes the non-standard measures employed in 2010, which were essential in limiting contagion as regards money market rates. In the second half of 2010 the automatic phasing-out of non-standard measures via the expiry of six-month and one-year longer-term refinancing operations led to lower levels of excess liquidity and higher money market rates.

Secured and unsecured money market interest rates declined somewhat across all maturities

in the first quarter of 2010, before increasing substantially over the remainder of the year. More specifically, looking at three-month unsecured rates, the three-month EURIBOR stood close to 0.70% at the beginning of January 2010, declined to 0.63% at the end of March, and then increased to 1.09% on 25 February 2011 (see Chart 10). As regards the secured segment of the money market, the three-month EUREPO stood at around 0.40% at the beginning of January 2010, before decreasing slightly in the first quarter of the year to stand at 0.34% at the end of March. It then increased strongly to peak at 0.80% in early November, before declining to around 0.56% in early January 2011, and it then increased again to stand at 0.81% on 25 February.

As a result of these developments, volatility was observed throughout the year in the spread between secured and unsecured money market rates, which stood somewhat lower on 25 February 2011 than at the beginning of

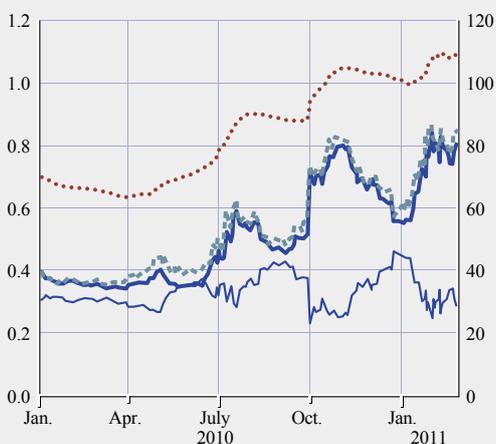
January 2010. However, it remained relatively high by historical standards. Over the course of 2010 and early 2011 the spread between the three-month EURIBOR and the three-month EUREPO fluctuated between 23 and 46 basis points, starting 2010 at around 30 basis points and standing at 28 basis points on 25 February 2011 (see Chart 10).

Looking at very short-term money market rates, developments in the EONIA in 2010 largely reflect the fact that the Eurosystem continued the generous liquidity support provided to euro area banks since October 2008. With few exceptions, the EONIA remained, in the presence of substantial excess liquidity, well below the fixed rate in the Eurosystem's main refinancing operations and close to the rate on the deposit facility (see Chart 11). Towards the end of June, as the six-month and one-year LTROs matured and banks chose not to fully roll over the maturing liquidity, excess liquidity declined and the EONIA began to display

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

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

- three-month EUREPO (left-hand scale)
- ... three-month EURIBOR (left-hand scale)
- - - three-month overnight index swap (left-hand scale)
- spread between three-month EURIBOR and three-month EUREPO (right-hand scale)

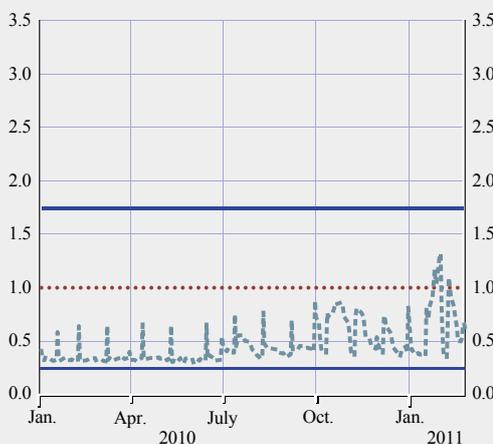


Sources: ECB, Bloomberg and Thomson Reuters.

**Chart 11 ECB interest rates and the overnight interest rate**

(percentages per annum; daily data)

- interest rate on the marginal lending facility
- ... fixed rate in the main refinancing operations
- - - overnight interest rate (EONIA)
- interest rate on the deposit facility



Sources: ECB, Bloomberg and Thomson Reuters.

some volatility. With declining levels of excess liquidity, the EONIA has 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 strongly related to banks' preference for the fulfilment of reserve requirements early in the maintenance period, behaviour that has been observed since the turmoil began in August 2007. This "frontloading" had no impact on market rates during the 12-month period covering the maturity of the first one-year LTRO (i.e. the period from mid-2009 to mid-2010), when the liquidity surplus was unprecedented, but did affect rates again when excess liquidity declined in the second half of 2010. Volatility in the EONIA continued into 2011, and on 25 January the EONIA exceeded the MRO rate for the first time since June 2009. In addition, throughout the year 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).

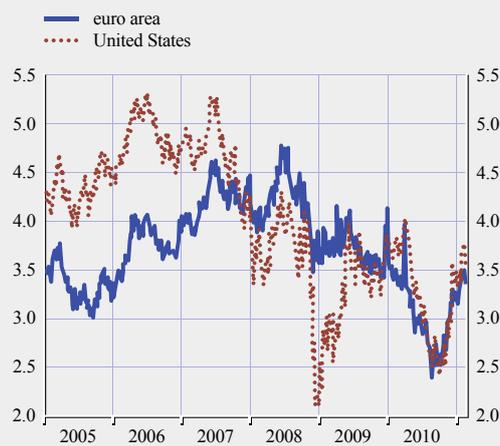
#### GOVERNMENT BOND MARKETS FACED STRONG TENSIONS IN SOME EURO AREA COUNTRIES IN 2010

By and large, bond market prices were driven by two major developments in 2010. The first, which was specific to the euro area, started with the emergence of turbulence in the sovereign debt markets of a number of euro area countries. The second, which was far broader in character, was to be found in the expected moderation of global economic growth in the second half of 2010.

At the end of 2010, ten-year benchmark bond yields in the United States and in the euro area (AAA-rated) stood at roughly similar levels, ranging between 3.2% and 3.4%. Overall, they ended the year approximately 50 and 40 basis points below the values prevailing in the respective economic regions at the end of 2009 (see Chart 12). The overall decline in yields hides opposing intra-year developments, namely a prolonged phase of decline until end-August, followed by a strong rebound, in particular towards the end of the year. Around the end of August, when

**Chart 12 Long-term government bond yields**

(percentages per annum; daily data)



Sources: Bloomberg, EuroMTS, Thomson Reuters and ECB.

Notes: The euro area ten-year bond yield is represented by the ten-year par yield derived from the AAA-rated euro area sovereign bond yield curve estimated by the ECB. For the United States, bond yields for the ten-year maturity are reported.

the phase of decline came to a halt, yields had fallen approximately 140 and 120 basis points respectively below the end-2009 levels. As a result of these opposing movements, implied bond yield volatility varied considerably in the course of 2010, peaking in May and September and generally rising from 5% to 7%, on average, in the two economic areas. Notwithstanding this increase, volatility in 2010 was far lower than the values recorded towards the end of 2008 and in the first half of 2009, when it had exceeded 10%, on average, in both areas.

It is remarkable that, overall, movements in ten-year government bond yields in the course of 2010 were generally rather similar in the United States and in the euro area, although their correlation varied significantly. More specifically, the correlation was rather low in the first four months of 2010, as yields were broadly stable in the United States, but declined in the euro area. In this part of the year, the growth of business activity was rather strong in both areas, as reflected, among other things, by the fact that equity prices in the United States and in the euro area moved virtually in parallel.

In the same period, however, AAA-rated euro area government bond yields were being pushed downwards by flight-to-safety considerations that stemmed from the aforementioned turbulence on some euro area sovereign debt markets, while US yields rose in reflection of the ongoing economic expansion. In the remainder of the year, especially as of July, when yields converged to similar values in the two economic areas and started to move in tandem, the correlation increased. In fact, a reassessment of the strength of the economic recovery in the United States and temporarily lower turbulence in the euro area sovereign debt market worked towards more synchronous movements in bond yields on the two sides of the Atlantic. Near the end of the year, however, when global economic activity was perceived to be picking up again, as signalled by, among other things, an increase in the Global PMI in December, US ten-year bond yields edged up more rapidly than those in the euro area. This development was mirrored in the equity markets, with the US equity prices rising at a far faster pace, possibly reflecting market concerns that European financial institutions, in particular, could suffer capital losses on account of the tensions that were again appearing on the euro area sovereign debt market.

Turning more specifically to the movements recorded in the course of the year, between approximately mid-November 2009 and early April 2010 government bond markets in the United States and in the euro area developed along somewhat different lines, with yields rising by approximately 50 basis points in the United States, while those in the euro area declined by around 25 points. In this part of the year, monetary policy rates on both sides of the Atlantic were expected to remain at low levels for an extended period of time, while macroeconomic releases confirmed that the recovery in growth was robust. Given these developments, the opposing movements recorded by long-term bond yields in the two areas can be explained primarily by intensifying market concerns about the sustainability of fiscal positions in some euro area countries, a development which generally exerted downward

pressure on the yields of the highest-rated euro area government bonds.

As of the beginning of April government bond yields in the United States started to decline as well. The pace of the decline in the US yields in this period was rather strong, so that the yield differential between the two areas fell from some 60 basis points at the end of March to around zero at the end of June. While economic developments in the euro area continued to be favourable and confidence indicators were improving overall, AAA-rated long-term euro area government yields declined amid the intensification of the turmoil in European sovereign debt markets. The turbulence eased somewhat after an EU support package for Greece was agreed on the weekend of 10-11 April, but it increased again in subsequent days when the downgrading of the sovereign debt of both Greece and Portugal – to speculative grade in the case of the former – contributed to the emergence of a crisis of confidence in the sustainability of the Greek fiscal position. The lack of confidence, in turn, fuelled an extensive reallocation of funds to AAA-rated euro area or US government bonds that eventually culminated in the large-scale flight-to-safety behaviour of investors on 6 and 7 May. It has to be noted that the yield on Greek ten-year bonds had already risen relative to that of corresponding German bonds in the first quarter of 2010, but yields had generally remained stable in the other euro area countries, as contagion risk had remained rather subdued. The situation changed significantly at the beginning of April when, looking beyond Greece, yields also edged upwards in Ireland and Portugal, as well as – to a lesser extent – in Spain, Italy and Belgium. The deterioration in the perceived debt sustainability of selected euro area countries in this period was well evidenced by the spreads on sovereign credit default swaps (CDSs), instruments used by investors to protect themselves against sovereign default risk.

Conditions improved noticeably in the course of May, on account of unprecedented measures taken at the EU level. Among these

were the decisions on the European Financial Stabilisation Mechanism and the European Financial Stability Facility, as well as several measures announced by the Eurosystem on 10 May to restore an appropriate monetary policy transmission mechanism, including the Securities Markets Programme, which paved the way for interventions in private and public debt securities markets in the euro area. Additional support for the euro area bond market in the course of July may also have originated from the publication of the results of the EU-wide stress tests and related information on banks' sovereign debt exposures. However, tensions did not subside completely, as was shown by, among other things, a continuing rise in yields in a number of euro area countries, despite the further decline of German bond yields. The latter may have been related not only to flight-to-safety considerations, but also to increasing signs of a slowdown in economic activity in the euro area and, particularly, in the United States, mainly evidenced by a renewed deterioration of the housing and labour markets there. The decelerating US business cycle, in fact, affected market sentiment in a number of other major economies and triggered strong capital flows into those government bond markets that were perceived to be less risky, also leading to expectations of a second round of quantitative easing measures.

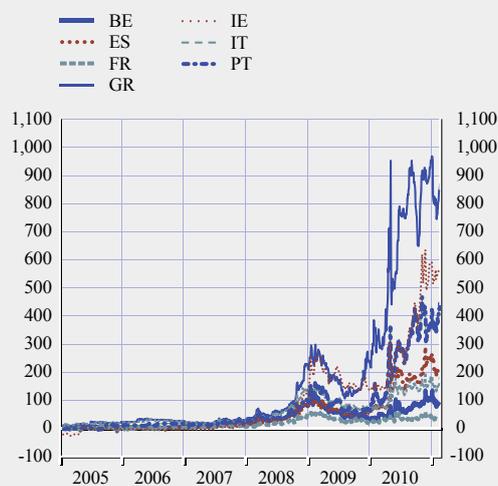
In the last quarter of the year yields began to rise on both sides of the Atlantic. The generally increasing yields in this period were consistent with the return to a more benign economic outlook, which was more clear-cut in the euro area than in the United States, where macroeconomic releases were positive overall, but also exhibited a great deal of heterogeneity. Compared with AAA-rated long-term sovereign debt, the yields on the bonds of most lower-rated euro area sovereign issuers recorded far sharper increases and much higher intra-period volatility in the last quarter of the year. Ten-year government bond spreads vis-à-vis German bonds rose especially markedly in the case of Ireland, namely by 280 basis points between the beginning

of September and the end of November, as market participants focused attention on this country on account of their growing concerns about the fiscal burden associated with the Irish government's support for its financial sector. The tensions also moved to Portugal and Spain, where spreads vis-à-vis German yields rose by 110 and 105 basis points respectively in the same period, while spillovers to other countries such as Greece, Italy and Belgium were limited, with spreads there rising by only 7, 42 and 65 basis points respectively (see Chart 13). Heightened market concerns in this final part of the year translated into an increase in implied bond yield volatility in both the United States and the euro area.

Relative to both nominal yields and developments in 2009, real yields fluctuated significantly less in 2010 and generally remained broadly stable at around 1.5% in the euro area. They declined by 50 basis points between January and September, but that decrease was reversed in full thereafter. The subsequent rise mirrored a more robust

**Chart 13 Government bond spreads of selected euro area countries**

(basis points; daily data)



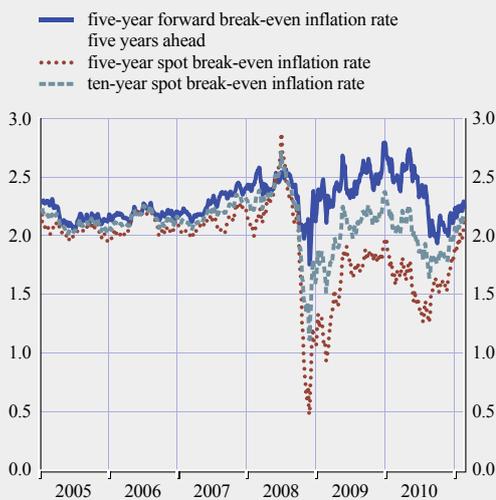
Source: Thomson Reuters.

Note: Yield spread between ten-year government bonds and the corresponding German government bond.

economic outlook, especially towards the end of the year. Given stable real yields, declining nominal yields imply that spot inflation expectations, as measured by break-even inflation rates, generally decreased over the year, a development that was particularly pronounced in July and August, with some stabilisation thereafter (see also Box 3 below). Five-year forward break-even inflation rates five years ahead remained stable at around 2.5% between January and July 2010 and subsequently fell to around 2% by the end of the year (see Chart 14). However, most of this decline seems to have been related to a reduction in inflation risk premia, rather than to changes in expected inflation rates. Also, some caution is warranted when discussing developments in inflation-linked bonds, especially in an environment characterised by distressed conditions. In this respect, the results of the survey about inflation expectations over medium to long-term horizons undertaken by Consensus Economics, although referring to a slightly different period of time, pointed

**Chart 14 Euro area zero coupon break-even inflation rates**

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



Sources: Thomson Reuters and ECB calculations.

towards a moderate increase in expected inflation, up from 1.9% in October 2009 to 2.1% in October 2010.

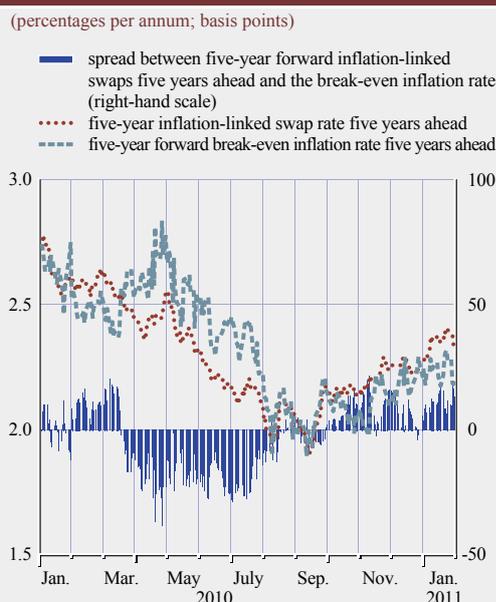
**Box 3**

**DEVELOPMENTS IN MARKET-BASED MEASURES OF INFLATION EXPECTATIONS IN 2010**

Market-based measures of inflation expectations are frequently used to assess the inflation outlook. In periods of financial stress, however, such measures must be interpreted with particular care. Although European financial markets experienced significant tensions in 2010, market-based measures of inflation expectations derived from inflation-linked swaps and those derived from nominal and real sovereign bonds were less volatile and less affected by liquidity distortions than during the period following the bankruptcy of Lehman Brothers. This box reviews developments in inflation expectations for the euro area in 2010, as implied by the prices of financial market instruments.

In the first half of the year, the five-year forward break-even inflation rate five years ahead, as derived from nominal and inflation-linked bonds, remained stable overall, oscillating around 2.5% (see Chart A). During the summer it dropped considerably, and recovered only partly towards the beginning of 2011. An alternative measure derived from inflation-linked swaps indicates similar, albeit somewhat less volatile, developments. Overall, volatility in market-based measures of inflation expectations was much lower in 2010 than in previous years. For example, the difference between five-year forward rates five years ahead derived from bonds and those derived from swaps did not significantly exceed 30 basis points in 2010, whereas it exceeded

**Chart A Break-even inflation and inflation-linked swap rates**

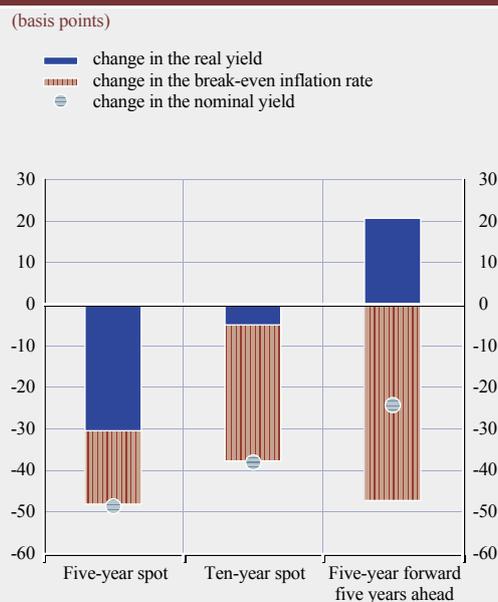


Sources: Thomson Reuters, EuroMTS and ECB.  
Note: Break-even inflation rates are seasonally adjusted.

70 basis points in the second half of 2008, at the peak of the crisis following the collapse of Lehman Brothers.

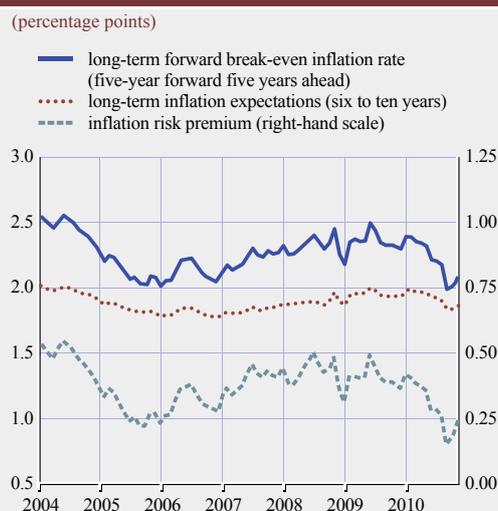
The drop in spot and forward break-even inflation rates in 2010 took place in an environment of somewhat decreasing five-year real bond yields and stable ten-year real yields (see Chart B). Thus, the drop in nominal yields largely reflected a reduction in the amount of compensation for future inflation demanded by market participants. This compensation comprises a component for expected inflation and an inflation risk premium. To disentangle these two components, Chart C presents the results of the decomposition of long-term forward break-even inflation rates, as implied by a term structure model.<sup>1</sup> The model-based break-even inflation rates, extracted from observations of market volatility, did indeed drop during 2010, with a slight rebound towards the beginning of 2011. These developments

**Chart B Changes in break-even inflation rates and changes in nominal and real yields in 2010**



Sources: Thomson Reuters, EuroMTS and ECB.  
Note: Break-even inflation rates and real yields are seasonally adjusted.

**Chart C Decomposition of long-term forward break-even inflation rates based on a term structure model**



Sources: Thomson Reuters and ECB calculations.  
Notes: Long-term forward break-even inflation rates and their components are considered for the horizon five-year forward five years ahead. For details of the term structure model, see the paper referred to in footnote 1.

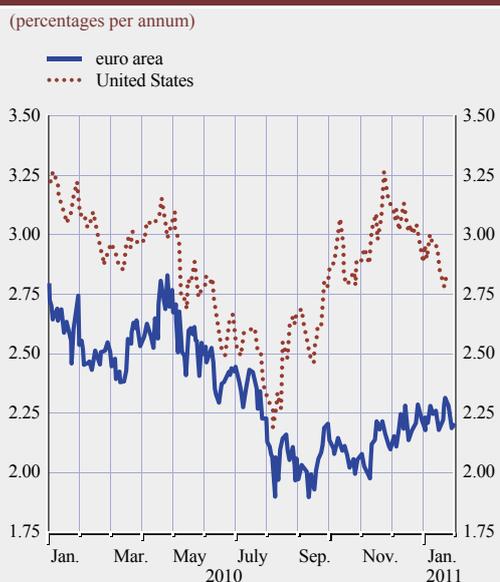
1 For details, see García, J.A. and Werner, T., "Inflation risks and inflation risk premia", *Working Paper Series*, No 1162, ECB, March 2010.

were largely due to changes in the inflation risk premium, rather than to changes in inflation expectations per se, which remained broadly stable and close to their long-term average. This conclusion is also confirmed by longer-term survey-based inflation expectations for the euro area, which remained fairly stable in 2010.

Break-even inflation rates in the euro area were somewhat more stable than in the United States in 2010 (see Chart D). While the decrease from May to August 2010 was part of a broad development that was also observed in US indicators, the stabilisation of long-term forward rates seen in the euro area in the latter part of the year and early 2011 was not observed in the United States.

Overall, market-based indicators of inflation expectations for the euro area suggest that the compensation for inflation and inflation risk demanded by market participants over the medium to longer term decreased in 2010, especially during the summer months. This development was largely caused by a decline in the inflation risk premium, while inflation expectations remained broadly stable around their long-term average and firmly anchored in line with the ECB's objective of maintaining price stability in the medium term.

**Chart D Five-year forward break-even inflation rates five years ahead for the euro area and the United States**



Sources: Thomson Reuters, Federal Reserve Board and ECB calculations.

In the first two months of 2011 long-term AAA-rated government bond yields in the euro area increased slightly, to above the levels prevailing at the end of 2010, while those in the United States remained broadly stable around those values. The broad stability of long-term yields in both economic areas in the first two months of 2011 hides some relatively large oscillations. In fact, yields reached a relative peak in early February, on account of positive economic releases and decreasing tensions within the euro area, which was almost fully reversed in the remainder of the month, also owing to increased geopolitical risks. Within the euro area, ten-year yield differentials vis-à-vis corresponding German yields narrowed further in the first two months of 2011, reflecting, among other factors, market participants' expectations of a possible extension of the scope and size of the EFSF, as well as debt

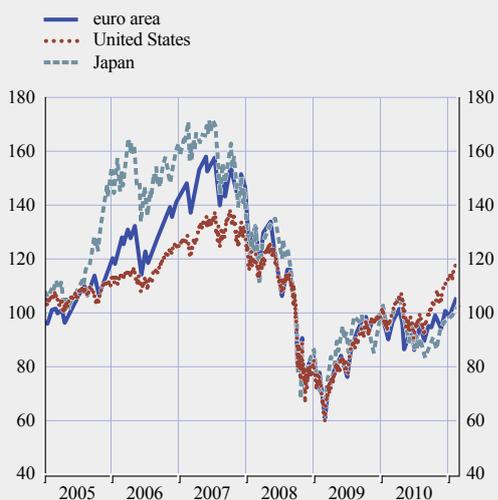
auctions that encountered higher than expected demand.

**THE SPEED OF THE RECOVERY IN EURO AREA STOCK PRICES DECREASED IN 2010**

While the gains posted by equity indices in both the United States and the euro area were comparable in 2009 (approximately 23.5% in both cases), developments in the two areas were rather different in 2010. With a growth rate of almost 13%, the performance of the US index was significantly better than the broadly flat outcome for the euro area index (see Chart 15). Notwithstanding the divergent developments recorded for 2010 as a whole, equity prices in both economic regions moved clearly sideways over the year, with gains and losses, relative to end-2009, reaching the order of 10%, so that there were significant swings in realised volatility. Reflecting these swings, as well as

**Chart 15 Major stock market indices**

(indices rebased to 100 on 1 January 2010; daily data)



Source: Thomson Reuters.

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

developments in investors' expectations about future tensions, implied equity price volatility also varied considerably throughout 2010, with a peak of close to 35% (annualised, on average, across the two economic areas) around the end of May. The volatility peak in 2010 was far lower than that between December 2008 and March 2009. Overall, throughout 2010 the future development of stock prices in the euro area was perceived to be more uncertain than that in the United States.

After positive developments in the latter part of 2009, equity prices in both the United States and the euro area declined in January and February 2010, possibly also because sentiment was increasingly influenced by the ongoing turbulence in the euro area sovereign debt market. In the euro area, the most pronounced decline in prices was recorded by the stocks of financial firms, whereas the performance in other sectors was rather mixed and no clear patterns emerged. In the United States, by contrast, the financial sector fared much better, especially on account of the robust earnings growth reported by major banks. When

debt-related concerns faded, stock prices in both economic areas again rose until approximately the beginning of May, reaching the highest levels since November 2008. These positive developments were also fuelled by data releases showing supportive economic developments in the first quarter of the year, as well as by an increase in the rate of growth of earnings, which – although remaining in negative territory – started to show the first signs of a recovery from very depressed conditions. For the companies listed in the Dow Jones EURO STOXX index, earnings growth moved from -40% in November 2009 to -22% in February 2010, while earnings expectations over the subsequent 12 months stood at a robust 27% on the latter date.

As debt-related tensions again escalated within the euro area in May, rising global risk aversion routed funds towards the markets for German and US government bonds, which were perceived to be relatively safer assets. As a result, massive sell-offs affected the international equity markets, overshadowing the positive contribution from favourable economic data releases, and prices declined significantly in both areas. As was also the case in January and February, euro area financial stock prices were the first to be affected by the emerging tensions, reflecting concerns about possible write-downs on banks' holdings of euro area government debt securities. However, the intensity of the turbulence recorded in this period also led to a decline in non-financial stock prices both in the euro area and in the United States.

Overall, between May and August, equity indices continued to oscillate in a narrow range, reflecting fluctuations in market sentiment and risk aversion. While easing tensions and more moderate expectations about future volatility made it possible for equity prices to initially recover the losses recorded in early May, there were subsequently renewed losses as global growth began to lose momentum and market participants again focused attention on debt-related problems in selected euro area countries. Over the same period, market expectations regarding the growth of earnings 12 months

ahead remained soundly positive at a rate above 20% in both the United States and the euro area, so that the decline in equity prices predominantly reflected a risk-related channel, which outweighed the positive contribution of favourable developments in expected dividends.

In the closing quarter of the year broad equity indices rose on both sides of the Atlantic. In the United States, stock market developments were driven by mixed, but generally positive, economic news and evidence of favourable developments in earnings across listed companies in the third quarter of the year. At the same time, this positive effect may have been partly offset by investors' uncertainty about the sustainability of the US recovery. In the euro area, the positive growth momentum supported equity prices, while rising long-term interest rates, as well as renewed sovereign debt market tensions, may have had a negative impact. However, the negative feedback from tensions in the European sovereign debt market to the European stock market in this period remained confined to the financial sector of those countries in which the turbulence had been highest, while other sectors and countries continued to enjoy the support of solid growth expectations. In fact, stock market investors continued to price in a fairly positive outlook for most corporate sectors other than the financial sector, and the decline in bank stock prices in Greece was, moreover, several times greater than that recorded for the French and German banking sectors. Overall, euro area financial stock prices decreased by around 15% in 2010, while non-financial stock prices increased by 7.5%. Over the same period, financial stock prices in the United States rose by 11%, while prices of non-financial stocks there gained around 15%.

In the first two months of 2011 equity prices rose in both the euro area and the United States. Unlike in the second half of 2010, however, when US equity prices grew by twice as much as in the euro area, the gains in the first two months of 2011 were broadly similar in the two economic areas, namely around 5%. Developments in equity prices reflected

primarily profit announcements which were generally better than anticipated by market participants, as well as continuing improvements in the economic outlook in both economic areas.

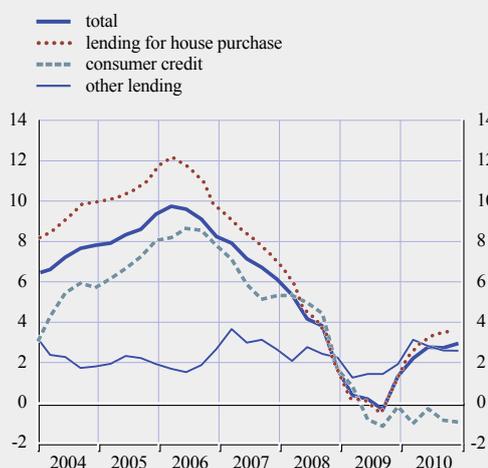
### HOUSEHOLD BORROWING LEVELLED OFF

The annual growth rate of total loans to households increased further in 2010, albeit at a moderate pace, standing at an estimated 2.8% in the fourth quarter of the year. This mainly reflected developments in MFI loans to households, while the annual growth rate of non-MFI loans declined further in 2010, largely reflecting the lower degree of securitisation.

Loans for house purchase remained the main driver of growth in MFI loans to households. The annual growth rate of mortgage loans stood at 3.7% in December 2010, up from 1.5% in December 2009 (see Chart 16). However, the magnitude of the inflows stabilised in the second half of the year. Developments in mortgage loans mirrored trends in residential property prices, which saw moderate increases in 2010 following significant declines in 2009. They were also in line with the information reported by the euro area bank lending survey,

Chart 16 MFI loans to households

(annual percentage changes)



Source: ECB.

which showed a reduction in the net percentage of banks reporting the tightening of their credit standards. The survey also reported increases in demand for loans for house purchase, especially in the first part of the year. Bank lending rates for household borrowing declined modestly in 2010: by 19 basis points in the case of loans for house purchase, and by 52 basis points in the case of loans for consumer credit.

By contrast with mortgage loans, the annual growth rate of loans for consumer credit failed to recover and remained below zero in 2010. Developments in consumer credit were also in line with economic factors – as indicated, for example, by the sharp declines seen in car sales (following the expiry in most countries of schemes offering incentives to scrap cars) or consumer survey results showing a fairly limited willingness to make major purchases. In addition, the bank lending survey suggested that demand for loans for consumer credit remained weak. These contrasting developments for loans for consumer credit and loans for

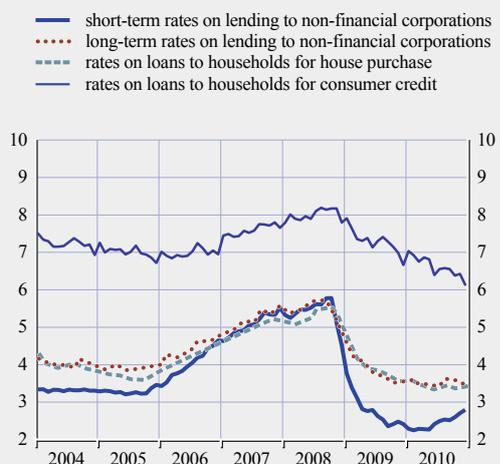
house purchase may, to some extent, also reflect interest rates. Loans for consumer credit tend to be more expensive to finance than loans for house purchase, as they tend not to be as well collateralised. However, lending rates on loans for consumer credit did decline in 2010, particularly for loans with maturities of less than one year (see Chart 17).

### HOUSEHOLDS' INDEBTEDNESS CONTINUED TO INCREASE, WHILE THEIR INTEREST BURDEN DECLINED FURTHER

In 2010 the increase in households' borrowing was moderate, but still outpaced the increase in their disposable income. As a result, households' indebtedness ratio edged up further to stand at an estimated 98.8% in the fourth quarter of the year (see Chart 18). By contrast, the ratio of household debt to GDP was broadly unchanged from the level observed in December 2009, as real GDP grew at a higher rate than households' disposable income. While the indebtedness of the household sector was broadly unchanged in the euro area and declined visibly in the United States and

**Chart 17 Interest rates on lending to households and non-financial corporations**

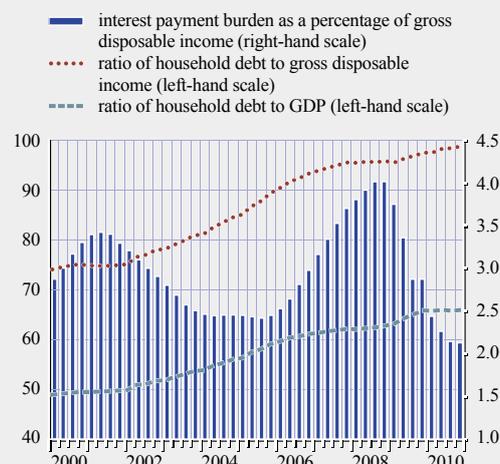
(percentages per annum; excluding charges; rates on new business)



Source: ECB.

**Chart 18 Household debt and interest payments**

(percentages)



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.

the United Kingdom, it remains lower in the euro area. At the same time, the indebtedness of the household sector continued to display considerable heterogeneity across euro area countries, remaining clearly above the euro area average in countries that also witnessed tensions in the sovereign debt market.

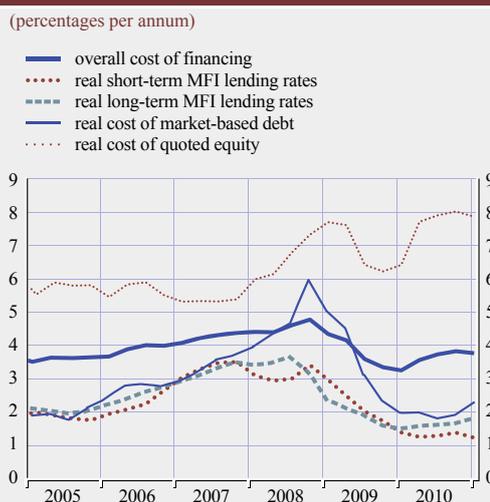
Households' interest payment burden (i.e. interest payments as a percentage of disposable income) declined moderately in 2010, albeit stabilising towards the end of the year. This reflected two factors: a further reduction in the interest rates applied to new or renegotiated loans as the pass-through from official interest rates ran its course; and the slight increase seen in households' disposable income.

#### HISTORICALLY LOW COST OF EXTERNAL FINANCING IN 2010

After the sharp decline in 2009, the real overall cost of external financing for non-financial corporations in the euro area rebounded somewhat amid heightened sovereign debt crisis-related tensions in financial markets in the course of 2010. This development concealed substantial differences across different sources of financing. While the decline in the real cost of both bank lending and debt securities issuance bottomed out in 2010, the real cost of issuing equity increased sharply, rising to record levels by the end of the year (see Chart 19). All in all, the real overall cost of external financing in 2010 remained at a low level by historical standards.

More precisely, where the cost of bank-based financing is concerned, real short-term MFI lending rates declined moderately from 1.62% in December 2009 to 1.40% in December 2010. Bank lending rates at short maturities primarily reflect developments in money market rates, which normally affect banks' short-term funding costs. Between the end of 2009 and the end of 2010 the three-month EURIBOR actually increased moderately by 33 basis points: it bottomed out at 0.64% in April 2010 and then rose slowly to 1.03% at the end of the year. Its development was closely mirrored by

**Chart 19 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 in the March 2005 issue of the ECB's Monthly Bulletin).

nominal short-term bank interest rates on loans to non-financial corporations, but gradually rising short-term inflation expectations led to a decline of 22 basis points in real short-term bank lending rates over the year.

Real long-term MFI lending rates bottomed out at the beginning of 2010, resulting in a slight increase from 1.56% at the end of 2009 to 1.71% at the end of 2010. Banks' longer-term lending rates tend to reflect mainly movements in government bond yields. The seven-year government bond yield derived from the euro area yield curve continued to decrease during most of 2010, reaching 2.11% in August, and then rose towards the end of the year, leading to an overall decline of 33 basis points between December 2009 and December 2010. Nominal long-term lending rates did not follow the same pattern, stabilising earlier in the year and showing a moderately rising trend towards the end of 2010. As a result, the spreads between long-term bank lending rates and comparable government bond yields tended to widen again and peaked at

more than 100 basis points during the sovereign debt crisis in the spring, thereby returning to the orders of magnitude that had been observed during the financial turmoil in 2008.

Developments in MFI lending rates in 2010 also largely reflected the gradually fading pass-through of past declines in key ECB interest rates to banks' rates for retail customers. Despite the financial turmoil, euro area banks appear to have passed on the reduction of key policy rates broadly in line with historical patterns.

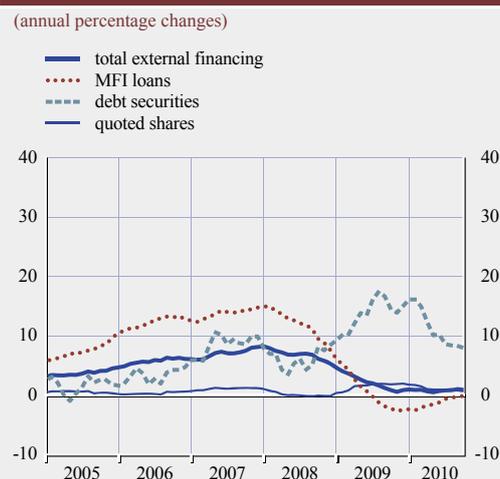
The real cost of market-based debt financing was influenced significantly by developments in corporate bond spreads (measured as the difference between the yields on corporate bonds and that on government bonds) throughout 2010. Despite increasing spreads between May and August 2010, amid intensifying tensions in the sovereign debt market which pushed financial investors towards more liquid and safer assets, the average real cost of market-based financing in 2010 stood below that of previous years and dropped to one of the lowest levels ever recorded.

By contrast, the real cost of issuing quoted equity increased markedly in 2010, driven by, in particular, a rapid recovery in corporate sector earnings expectations two to five years ahead. Between December 2009 and December 2010, this cost rose by 194 basis points and reached an all-time high on the back of heightened volatility in global financial markets.

#### EXTERNAL FINANCING CONTINUED TO DECLINE IN 2010

The annual rate of growth of the external financing of non-financial corporations in the euro area continued to decline in 2010, driven by the ongoing contraction of MFI lending, which was counterbalanced by positive but declining debt security and equity issuance (see Chart 20). Despite broad-based improvements in economic conditions, non-financial corporations' need for external financing continued to be limited by subdued investment expenditure and reduced activities

**Chart 20 External financing of non-financial corporations broken down by instrument**



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

in the field of mergers and acquisitions, as well as by an ongoing expansion of available internal funds. Towards the end of 2010 signals of gradual normalisation and increased corporate financing needs came to the fore. According to the bank lending survey, net demand for corporate loans turned positive, after having remained in negative territory for more than two years. Inventories and working capital, in particular, were reported to be contributing increasingly to this renewed demand for loans.

More specifically, one of the main factors driving the relatively low demand for external financing in 2010 was the broad-based pick-up in non-financial corporate sector sales and profitability, which significantly improved the availability of internal funds. Based on financial statements from listed non-financial corporations, profitability – measured by the ratio of net income to sales – rebounded strongly in 2010 (see Chart 21). The increase in available internal funds reflected higher money holdings, most probably stemming from both persistent cost-cutting and reduced net interest payments and dividends. The improvement in the financial situation of

**Chart 21 Profit ratios of listed euro area non-financial corporations**

(quarterly data; percentages)



Sources: Thomson Reuters and ECB calculations.

Notes: The calculation is based on aggregated quarterly financial statements of listed non-financial corporations in the euro area. Outliers have been removed from the sample. Compared with the operating income, which is defined as sales minus operating expenses, the net income refers to operating and non-operating income after taxation and extraordinary items.

firms needs to be qualified, as survey results showed that the profitability of small and medium-sized enterprises (SMEs) developed less favourably in 2010 than that of large firms, suggesting that SMEs may be more fragile than larger firms, or may be lagging somewhat behind them.<sup>4</sup>

In addition to benefiting from the improvement in the availability of internal funds, euro area non-financial corporations appear to have drawn on a broader range of sources of financing in recent years, replacing bank-based debt with

market-based financing and making increasing use of debt securities issuance in particular. This process of “disintermediation” started in 2009 and continued in 2010, translating into substantially lower demand for bank loans. Accordingly, the annual growth rate of loans, which bottomed out in the first quarter of the year, remained in negative territory throughout 2010. Short-term lending activity suffered particularly markedly, as the decline in demand for loans was amplified by an ongoing move from short to longer maturities. On average, the annual growth rate of short-term loans (i.e. loans with a fixed initial maturity of less than one year) declined to nearly -9% in 2010, while that of long-term loans (i.e. loans with a fixed initial maturity in excess of five years) actually remained positive at around 3%. However, taking into account the particular severity of the recent recession and this substitution process, developments in corporate sector loan growth appear to have remained broadly in line with historical regularities over the business cycle. The impact of the financial crisis was significant, but did not translate into an abrupt disruption of the provision of credit to the economy. In the course of the year, banks started to report a lower degree of tightening for loans to enterprises, mainly owing to the lower contribution of risk-based factors such as the general economic conditions or borrowers’ default risk (see Box 4).

<sup>4</sup> See “Survey on the access to finance of SMEs in the euro area”, ECB, October 2010 (available on the ECB’s website).

**Box 4**

**INTERPRETING SURVEY INDICATORS OF CREDIT STANDARDS ON LOANS TO ENTERPRISES**

The financial crisis prompted an exceptional tightening of euro area banks’ credit standards on loans to the private sector and, in particular, non-financial corporations in 2008. Since 2009 credit standards have continued to tighten, albeit to a gradually diminishing extent. This box reviews in detail developments in survey indicators of credit standards, notably in 2010, and interprets the extent to which they may provide evidence of credit supply constraints.

### A gradual normalisation of survey indicators of credit standards applied to loans

The detailed results of the bank lending survey published by the ECB include the net percentages of banks reporting a tightening of credit standards on loans to non-financial corporations, calculated as the difference between the percentages of respondents answering that they tightened their credit conditions somewhat or considerably and those responding that they eased their credit conditions somewhat or considerably. Hence positive figures indicate a net tightening and negative figures a net easing of credit standards. During the financial turmoil, the net percentage of banks reporting a tightening of credit standards increased dramatically, up to 64% at the end of 2008.

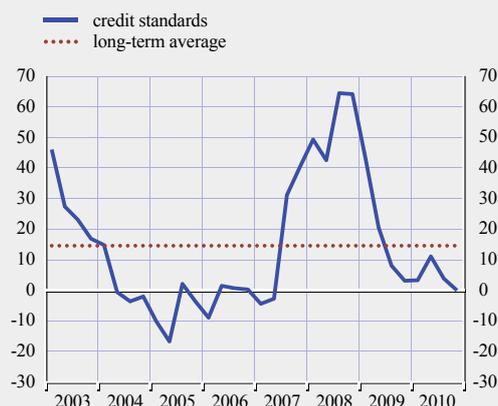
Since then, this net percentage has gradually decreased – without, however, turning into an easing of credit standards. In 2010 euro area banks maintained a moderate tightening stance throughout the year, with the net percentage of banks responding that they had tightened credit standards hovering at levels slightly below the long-term average (see Chart A). In the second quarter of the year, contrary to expectations, the downward trend in the net tightening of credit standards on loans to enterprises was temporarily reversed, amid tensions brought about by the sovereign debt crisis. After the negative developments in credit standards on loans to enterprises in the second quarter of 2010, data for the second half of the year pointed to stabilisation, with 4%, followed by 0%, of banks reporting a tightening of credit standards in net terms.

The pressure on capital ratios and funding positions associated with the financial turmoil that started in mid-2007 has pressed euro area banks to review their leverage ratios. Typically, banks have found themselves in a situation in which they have had to shed assets, starting with those of a more liquid shorter-term nature, while credit to firms and households, as longer-term assets, stood at the bottom of the list of assets to be shed. In general, such assets can only be reduced by calling in loans or restricting new lending. Hence, some of the recent tightening in credit standards can be explained by these “pure” supply-side constraints that are linked to banks’ balance sheet concerns. Detailed survey results indicate that in 2010 the perception of risks, i.e. banks’ assessment of the impact that macroeconomic conditions may have on borrowers’ risk profiles and creditworthiness, actually played a leading role in explaining the tightening of credit standards. Compared with 2008 and 2009, “pure” supply-side constraints appear to offer less of an explanation for the tightening of credit standards, pointing to a gradual normalisation of the willingness of banks to lend to the private sector. This is likely to further reduce the risk of a credit crunch, which did not materialise on account of a slump in demand for loans, while the impact of “pure” supply-side constraints was limited by the ECB’s non-standard monetary policy measures.

Evidence from the bank lending survey can be usefully complemented with results from the survey on the access to finance of small and medium-sized firms. The latest such survey of SMEs, which covered the period from March to September 2010, pointed to a mild improvement in the availability of bank loans (see Chart B). SMEs continued to perceive, on balance,

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

(net percentage of banks contributing to tightening standards)



Source: Euro area bank lending survey.

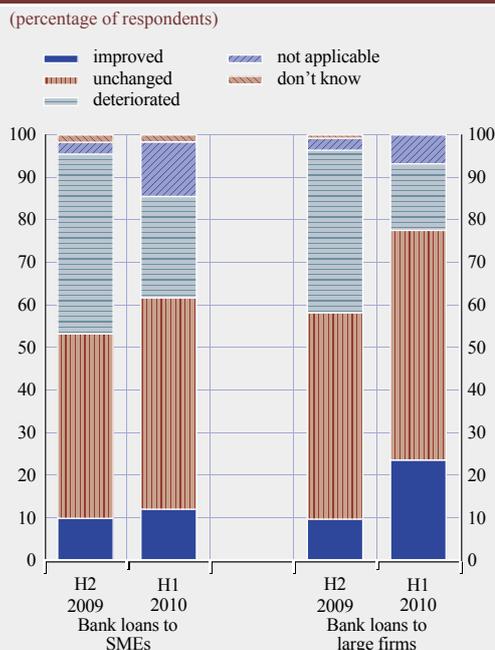
an overall worsening of this availability, but the number of respondents reporting a deterioration halved in comparison with survey rounds carried out in 2009. Where large firms are concerned, more companies reported an improvement in the availability of bank loans than a deterioration. Survey results also pointed to a higher success rate when applying for bank loans and to a slightly greater willingness of banks to provide loans.

### An alternative interpretation of survey results on credit standards

While 2010 survey results suggest a gradual normalisation of credit standards on loans, it is worth highlighting that these results focus on changes, and an assessment of the level of credit standards is not directly provided. Given that credit standards have been tightened continuously for more than two years, one may wonder whether and how the level of credit standards can affect the overall credit supply.

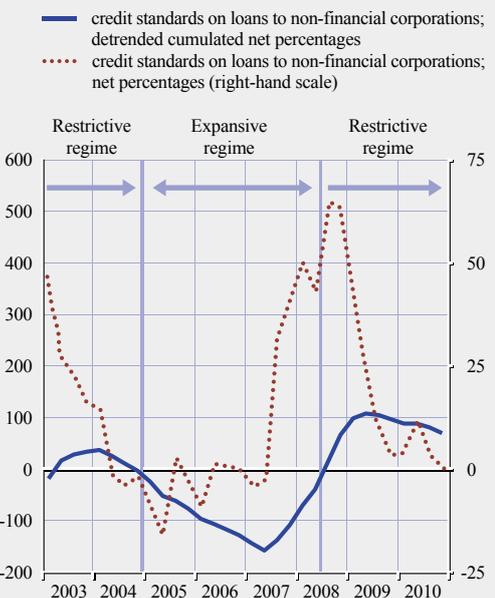
A proxy for the level of credit standards can, in principle, be derived by cumulating net percentage changes in credit conditions over time. In doing so, an upward trend in the series becomes apparent. This may indicate a bias in banks' answers towards tightening credit standards. The same phenomenon can actually be observed in the US equivalent of the bank lending survey for the euro area, the "Senior Loan Officer Opinion Survey on Bank Lending Practices". One can assume that the long-term average of credit standards (which stands at an average net tightening of 16%) is a very simple measure of this bias. At the same time, given the relatively short observation period available, this long-term average includes more tightening than easing cycles, and may thus overestimate the actual bias. Once detrended to take into account the possible bias, cumulated credit standards can be used to define different credit standard regimes, where negative deviations from the trend indicate an expansive credit standard stance and positive deviations a restrictive stance.

**Chart B Availability of bank loans to euro area firms**



Source: European Commission-ECB survey on the access to finance of SMEs in the euro area.  
Note: H1 2010 refers to the period from March to September 2010.

**Chart C Restrictive and expansive credit standard regimes and credit standards on loans to euro area non-financial corporations**



Source: ECB.

Based on such an analysis, the period from 2003 to 2004 may be identified as a “restrictive credit standard regime” for loans to enterprises, while that from early 2005 to mid-2008 corresponds to an “expansive credit standard regime” (see Chart C). Thereafter, the indicator points to a renewed period of credit restrictions and was still well above its historical trend at the end of 2010.

In general, a tightening of credit standards tends to curb loan growth, while an easing of credit standards leads to an increase in loan growth. Empirical evidence using the level indicator reveals additional non-linear effects. In particular, the impact of credit standards on loan growth appears to be mitigated depending on the credit standard regime: in the case of a regime of restrictive credit standards, the negative impact of net tightening of credit standards on loan growth is not as strong as it is during a period of expansive credit standards (as seen, for example, between mid-2007 and 2008). Similarly, the positive impact of a net easing in credit standards on loan growth is moderated under a restrictive credit standard regime and credit standards require a longer period of continued easing to positively impact on credit growth. This seems very relevant to actual developments in 2010. Owing to the lagged impact of the tightening of credit standards and to these apparent non-linear effects, the results of the 2010 bank lending survey point to a potential negative impact of supply-side factors on loan growth beyond the end of 2010 and into the first half of 2011, despite an apparent normalisation of changes in credit standards. Looking further ahead, it remains a challenge to expand the availability of credit to the private sector when demand firms up.

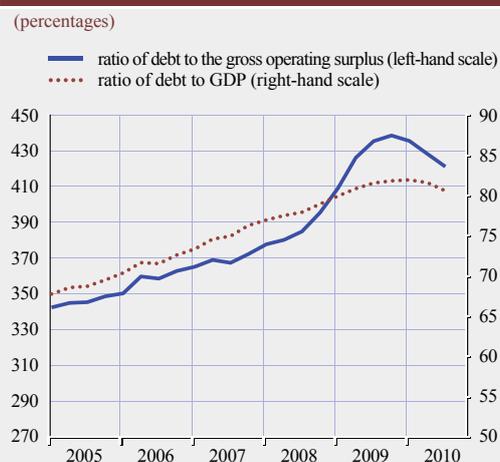
The annual growth of debt securities issuance actually peaked at 12.3% in the first quarter of 2010, and gradually slowed down over the rest of the year. Strong demand from investors throughout most of the year may have been supported by a search for a return on investment and by the improvement in corporate sector balance sheets. In the high-yield segment, issuance reached record highs in 2010. At the same time, issuance of quoted shares remained contained and tended to decrease, possibly dampened by the rising cost of issuing equity.

#### DECLINE IN CORPORATE INDEBTEDNESS

As the pick-up in corporate profits was not accompanied by a significant increase in investment, nor by robust growth in employees’ overall compensation, the rebound in income flows translated into a sharp increase in the savings ratio of the euro area non-financial corporate sector, which continued throughout 2010. In the second quarter of 2010 the rate of growth of total assets turned positive for the first time since early 2009, driven by an accumulation of cash. Owing both to deleveraging efforts by companies and to the rapid increase in corporate savings relative to GDP, the financing gap (broadly speaking, the extent to which

non-financial corporations need to have recourse to external sources of funding to cover their investment) turned positive in 2010, for the first time in more than a decade, mechanically suggesting that firms had enough internal funds to cover their financing needs for investment.

**Chart 22 Debt ratios of non-financial corporations**



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. Included is information up to the third quarter of 2010.

As a consequence, corporate indebtedness declined substantially in the course of 2010 (see Chart 22). In the third quarter of 2010 the debt-to-GDP and debt-to-gross operating surplus ratios dropped to 80.6% and 421.1% respectively. Nevertheless, expected default rates for euro area corporations remained at very high levels for most of 2010. Indeed, debt ratios remain at very high historical levels and suggest that the euro area corporate sector remains vulnerable to higher external financing costs or subdued economic activity.

### 2.3 PRICE AND COST DEVELOPMENTS

In 2010 annual HICP inflation increased to 1.6%, on average, after falling to 0.3% in 2009 from 3.3% in 2008 (see Table 1). This rise marks a move towards a normalisation in price developments, with positive annual HICP inflation in 2010 contrasting with the negative figures seen in the period from June to October 2009. Although annual HICP inflation in 2010 was below the average of 2.0% since 1999, it started to rise towards the end of the year.

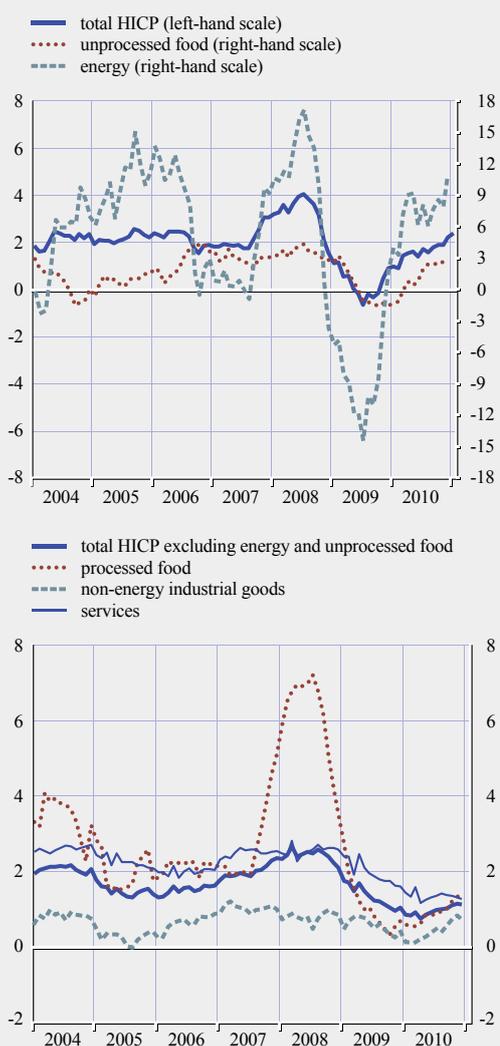
The increase in HICP inflation over 2010 stemmed largely from considerably higher commodity prices (especially for crude oil), compared with the low levels registered in 2009 (see Chart 23). The dynamics in commodity prices in turn reflected the recovery from the global economic downturn experienced in 2009, which had pushed those prices down. The contribution of higher commodity prices to HICP inflation in 2010 more than offset the lower pressures exerted on services prices, which were affected by the severe recession and deteriorating labour market conditions of 2009 with a lag. After declining gradually over the course of 2009, annual services price inflation fell slightly further at the beginning of 2010 and remained relatively unchanged thereafter.

Concerning wage growth in 2010, there are indications that the stabilisation of labour market conditions led to a bottoming-out in labour cost dynamics. Compensation per employee

grew in 2010 at a rate comparable to that seen in the previous year, being outpaced by labour productivity growth per person employed and thus allowing unit labour costs to fall and profit margins to rise. Nonetheless, growth in negotiated wages moderated markedly, probably capturing a lagged reaction of contractual settlements to market conditions. Growth in hourly wages also fell sharply, to some extent simply reflecting the effect of a higher number of hours worked.

**Chart 23 Breakdown of HICP inflation: main components**

(annual percentage changes; monthly data)



Source: Eurostat.

**Table 1 Price developments**

(annual percentage changes, unless otherwise indicated)

	2008	2009	2010	2009 Q4	2010 Q1	2010 Q2	2010 Q3	2010 Q4	2010 Dec.	2011 Jan.
<b>HICP and its components</b>										
Overall index <sup>1)</sup>	3.3	0.3	1.6	0.4	1.1	1.5	1.7	2.0	2.2	2.4
Energy	10.3	-8.1	7.4	-3.2	4.8	8.1	7.3	9.1	11.0	.
Unprocessed food	3.5	0.2	1.2	-1.5	-0.8	0.7	2.3	2.8	3.2	.
Processed food	6.1	1.1	0.9	0.5	0.6	0.8	0.9	1.3	1.5	.
Non-energy industrial goods	0.8	0.6	0.4	0.3	0.1	0.3	0.5	0.8	0.7	.
Services	2.6	2.0	1.4	1.7	1.5	1.2	1.4	1.3	1.3	.
<b>Other price and cost indicators</b>										
Industrial producer prices <sup>2)</sup>	6.1	-5.1	2.9	-4.7	-0.1	3.0	4.0	4.7	5.3	.
Oil prices (EUR per barrel) <sup>3)</sup>	65.9	44.6	60.7	51.2	56.0	62.6	59.6	64.4	69.6	72.6
Commodity prices <sup>4)</sup>	2.0	-18.5	44.7	3.1	29.0	48.2	51.5	48.6	49.6	45.7

Sources: Eurostat, Thomson Reuters, Hamburg Institute of International Economics and ECB calculations.  
Note: HICP data for 2011 include Estonia.

- 1) HICP inflation in January 2011 refers to Eurostat's flash estimate.
- 2) Excluding construction.
- 3) Brent Blend (for one-month forward delivery).
- 4) Excluding energy; in euro.

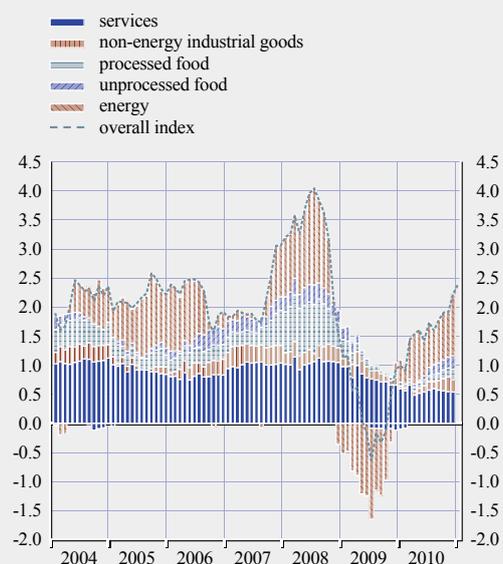
Consumer inflation perceptions and short-term expectations rose in 2010 from their very low levels of 2009. Long-term inflation expectations, as measured by surveys, were very stable, indicating that expectations remained firmly anchored to the Governing Council's aim of keeping inflation below, but close to, 2% over the medium term.

#### HICP INFLATION WAS ON THE RISE OWING TO ENERGY AND FOOD PRICE DEVELOPMENTS

A pronounced increase in commodity prices was the main factor pushing up euro area HICP inflation in 2010. Industrial, food and, in particular, energy commodity prices rose from the low levels reached in 2009 (see Box 5), with the result that HICP inflation increased, despite the dampening effects of easing wage growth and still low activity levels. The low level of labour cost pressures also affected annual services price inflation, which fell slightly further at the start of 2010 and remained at a rather low level for the rest of the year (see Table 1 and Chart 24).

**Chart 24 Contributions to HICP inflation from main components**

(annual percentage point contributions; monthly data)



Source: Eurostat.

Note: Due to rounding errors, the contributions do not add up exactly to the overall index.

## THE DYNAMICS OF COMMODITY PRICES AND THEIR IMPACT ON HICP INFLATION

Large swings in commodity prices have been a major concern in recent years. While both oil and non-oil commodity prices fell abruptly in the wake of the financial crisis, they have rebounded since 2009 (see Chart A). As commodity prices are an important factor for the dynamics of euro area HICP inflation, this box analyses recent developments in and the prospects for international commodity prices, assessing their impact on euro area HICP inflation, both conceptually and empirically.

### Developments in commodity prices

Oil prices rose from around USD 45 per barrel at the end of 2008 to USD 97 per barrel in January 2011. Metal and food commodity prices also rose sharply over the same period. These rises may have been related to more positive expectations about the global economic upturn. OPEC production cuts also supported oil prices in the course of 2010, while the surge in metal and food commodity prices is likely to have reflected growing demand from emerging economies, supply shortages and low inventory levels. The role of financial flows and speculation in commodity markets has been debated intensely, although their actual impact is difficult to measure empirically.

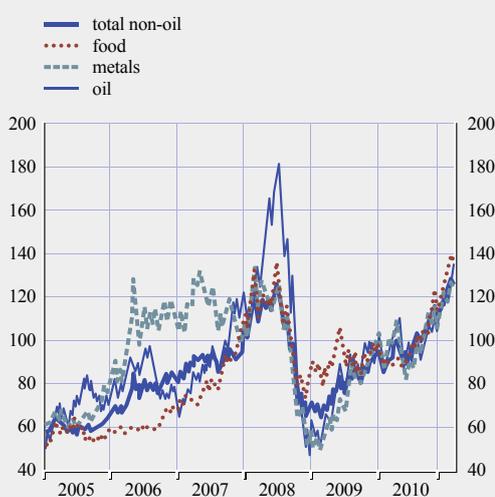
Looking ahead, the medium-term prospects for commodity prices are likely to be linked to the international outlook for economic activity. As the global recovery takes hold, the supply and demand balance in the oil market may tighten and non-oil commodity prices may face upward pressures. Although it is difficult to project the future course of commodity prices, various forward-looking indicators – such as futures prices and expectations of investment banks and other professional forecasters – consistently point to rising commodity prices over the medium term.

### The transmission of a commodity price shock: conceptual framework

The impact of a commodity price shock on consumer prices can be broken down into direct and indirect first-round and second-round effects.<sup>1</sup> Direct first-round effects refer to the impact of changes in the prices of primary commodities (e.g. food and oil) on consumer food and energy

Chart A Commodity price developments

(index: 2010 = 100)



Sources: Bloomberg and Hamburg Institute of International Economics.

Note: Last observation refers to 24 February 2011 for oil commodities and 18 February 2011 for the other commodities.

<sup>1</sup> See the article entitled "Oil prices and the euro area economy", *Monthly Bulletin*, ECB, November 2004, and the box entitled "Recent oil price developments and their impact on euro area prices", *Monthly Bulletin*, ECB, July 2004.

prices. Indirect first-round effects refer to changes in consumer prices that occur as a result of the impact of changes in commodity prices on producer costs (e.g. an oil price increase that raises input costs and the prices of goods and services that have a significant oil content, such as certain chemicals and transport services). First-round effects drive up price levels, but have no lasting inflationary effect.

Second-round effects capture the reaction of wage and price setters to the commodity price shock. Attempts by economic agents to compensate for the loss of real income caused by past inflation shocks may affect inflation expectations and further influence price and wage-setting behaviour. Thus, a transitory shock may become entrenched and more costly to eradicate. The likelihood of a commodity price shock leading to second-round effects depends on several factors, including the cyclical position of the economy, the flexibility of product and labour markets (particularly the presence of indexation mechanisms affecting wage bargaining and price setting), the reaction of inflation expectations and, crucially in connection with this, the credibility of the central bank.

### Oil price shocks and HICP inflation

Oil price fluctuations have a direct impact on HICP inflation via the energy component of the HICP. The direct pass-through of oil price shocks to pre-tax consumer energy prices is generally found to be complete, quick and symmetric.<sup>2</sup> Owing to the fact that energy prices at the consumer level, in particular those of transport and home heating fuels, also depend on factors such as refining and distribution costs and margins, as well as substantial excise taxes, the elasticity of the pass-through turns out to be a function of the level of crude oil prices (see the table). At €20 per barrel, the response of HICP energy prices to a 10% rise in crude oil prices is around 16%; at levels of €60 per barrel, it is around 33%. Were oil prices to increase to €100 per barrel, the elasticity would exceed 40%, assuming constant refining margins, distribution margins and excise taxes.

Estimating the indirect and second-round effects of changes in energy prices is more challenging and the results are surrounded by greater uncertainty. For example, according to simple, non-structural models, the cumulated indirect and second-round effects on HICP inflation, after

2 See Meyler, A., "The pass through of oil prices into euro area consumer liquid fuel prices in an environment of high and volatile oil prices", *Energy Economics*, Vol. 31, No 6, November 2009, pp. 867-881.

### Pass-through of crude oil prices to HICP energy prices

Crude oil (EUR per barrel)	Weighted average pass-through to HICP energy prices (%) <sup>1)</sup>	Petrol (2.6%) <sup>2)</sup>	Diesel (1.4%) <sup>2)</sup>	Heating fuel (0.7%) <sup>2)</sup>	Natural gas (1.8%) <sup>2)</sup>
20	16	15	19	39	24
40	26	26	32	56	39
60	33	35	41	66	49
80	38	41	48	72	56
100	42	47	54	76	61

Source: Eurosystem staff calculations.

Note: The weighted average is likely to slightly underestimate the extent of the pass-through, as, owing to the lack of a clear and robust relationship with oil prices, it assumes a zero pass-through for electricity and solid fuels.

1) Based on taxes (VAT, excise and other) as at the end of 2009, as well as median refining and distribution costs and margins since 1999. This assumes a comovement between HICP heat energy (0.6% weight) and natural gas.

2) Weight in the overall HICP.

three years of a 10% increase in oil prices, is around 0.2 percentage point.<sup>3</sup> However, more complex models, in which expectations play a formal role and the response of the real side of the economy, as well as its feedback effects on nominal variables, are explicitly captured, point to a smaller impact of around 0.1 percentage point, in so far as the energy price shock is perceived as transitory and inflation expectations remain firmly anchored following the change in energy prices.

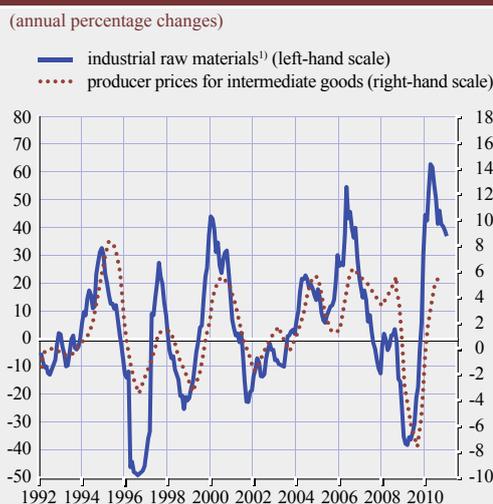
### The impact of changes in the prices of industrial raw materials and food commodities

Empirical evidence suggests that a permanent 10% increase in the prices of industrial raw materials (e.g. agricultural raw materials and metals) leads to a rise in the HICP of below 0.1 percentage point within three years, with a very small impact in the first year. Industrial raw materials are used in the production of a wide range of HICP items, either as direct inputs (e.g. metals for cars or textiles for garments) or as indirect inputs into equipment used to produce goods and services. In the early stages of the production process, industrial raw materials are of high relevance and there is a clear lagged relationship between movements in their prices and industrial producer prices for intermediate goods in the euro area (see Chart B). However, with regard to final consumption goods, the proportion of industrial raw material input is relatively small compared with other inputs, such as labour and energy, which explains the relatively low pass-through.<sup>4</sup>

A permanent 10% increase in food commodity prices is estimated to add around 0.5 percentage point to overall HICP food prices and, given that food items represent 19.2% of the HICP basket, 0.1 percentage point to overall HICP inflation in the first year after the shock. This estimate takes into account the fact that, for a number of food commodities produced directly in the EU (such as cereals, wheat and corn, as well as butter and skimmed milk), prices in international markets have historically been somewhat lower and significantly more volatile than those prevailing in the EU. To a large extent, the difference is attributable to the Common Agricultural Policy, which helps to cushion the transmission of global shocks to EU internal prices through price support mechanisms, such as intervention prices, import tariffs and quotas.<sup>5</sup>

Overall, the pass-through of commodity price shocks to consumer prices is complex and a result of many factors, including the source of the shock (whether it is demand or supply-driven), expectations in terms of whether it will be transitory or permanent, as well as structural aspects

**Chart B Industrial raw materials and producer prices for intermediate goods**



Sources: Hamburg Institute of International Economics, Eurostat and ECB calculations.

1) Series indicated with a six-month lead.

<sup>3</sup> *Energy markets and the euro area macroeconomy*, Structural Issues Report, ECB, June 2010.

<sup>4</sup> See Landau, B. and Skudelny, F., "Pass-through of external shocks along the pricing chain: A panel estimation approach for the euro area", *Working Paper Series*, No 1104, ECB, November 2009.

<sup>5</sup> 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.

of the economy, including the sectoral specialisation, and wage and price-setting institutions. While there is little monetary policy can do about the first-round effects of a commodity price shock, second-round effects must be avoided. In this regard, more flexible wage and price-setting mechanisms and a credible monetary policy are key to ensuring that one-off changes in commodity prices do not translate into higher inflation in the medium term.

Driven by global oil prices, the energy component of the HICP – constituting 9.6% of the overall HICP – was on the rise in 2010, reaching a 12-month average of 7.4%, a reversal from the fall of 8.1% in 2009. The impact of this increase was strongest on the prices of items directly connected to oil prices, such as liquid fuels, and fuels and lubricants for personal transport equipment, and with a lag in the case of consumer gas prices. Food prices also increased, especially unprocessed food prices, which rose by 1.2% on average in 2010, from only 0.2% in 2009. In addition to escalating global food commodity prices, consumer food price inflation reflected temporary adverse domestic weather conditions that weighed on fruit and vegetable prices. The acceleration in inflation over the last few months of 2010 was relatively modest in the processed food component – which includes items such as bread and cereals – so that the 12-month average (at 0.9%) was even lower in 2010 than the 1.1% reached in 2009.

Excluding energy and food prices, average HICP inflation was lower in 2010 than in 2009. This decline was driven by the dampening impact of domestic factors on services price inflation, coupled with relatively stable average annual inflation for non-energy industrial goods. It also masked the gradual increase in annual HICP inflation excluding energy and food from the very low level reached in the second quarter of 2010. This increase was attributable to upward price pressures along the supply chain, such as increases in the prices of intermediate goods and in capacity utilisation rates. Moreover, higher indirect taxes and the depreciation of the effective exchange rate of the euro weighed on annual inflation for non-energy industrial goods, which rose from a low of 0.1% throughout the first quarter of 2010

to stand at 0.7% in December. The increase in non-energy industrial goods prices was mitigated to some extent by subdued labour cost developments. In contrast to the rise in non-energy industrial goods inflation over the course of 2010, the intra-annual developments observed in annual services price inflation were very limited, following a slight further decline at the start of the year. As a result, annual services price inflation continued to moderate in 2010 as a whole, standing at 1.4%, after 2.0% in 2009. This lower rate of change in services prices was rather broad-based, reflecting more contained cost pressures, as well as greater competition for customers in the face of relatively weak demand. One exception was communication services, whose contribution, which is customarily negative, became less negative.

#### **PRODUCER PRICES INCREASED IN 2010**

Upward supply chain price pressures developed over 2010, owing primarily to higher global demand for raw materials. This led to a rise in producer prices at various stages of the production chain, which was magnified by the base effects stemming from constrained activity and greater competition in 2009.

The annual growth rate of producer prices for industrial goods (excluding construction) in the euro area was 2.9% in 2010, compared with a fall of 5.1% in 2009. The main driver of these price developments was oil prices, which pushed the annual rate of change in producer prices for energy items up to 6.4% in 2010, compared with a decrease of 11.8% in 2009.

Excluding construction and energy, the annual growth rate of industrial producer prices also increased, but to a far lesser extent (1.6% in 2010, compared with a fall of 2.9% in 2009).

**Chart 25 Breakdown of industrial producer prices**

(annual percentage changes; monthly data)



Source: Eurostat.

This swing was particularly marked in the intermediate goods component, and less so in the consumer and capital goods components (see Chart 25).

#### LABOUR COST DEVELOPMENTS WERE MUTED

Labour cost indicators for the euro area pointed to a moderation in labour cost developments in the course of 2010, with signs that wage dynamics bottomed out. While the annual growth rates of both negotiated wages and hourly wages declined considerably, growth in compensation

per employee in 2010 was comparable to the low level registered in the previous year.

Negotiated wages decelerated markedly in the course of 2010 to reach an annual growth rate of 1.6% in the fourth quarter, down from 2.6% in 2009. This indicator captures the main component of wages settled in advance through collective agreements. Its slowdown may reflect a lagged reaction of contractual settlements to the deteriorating labour market conditions, which led to a decrease in the bargaining power of workers (see Table 2).

The annual growth rate of compensation per employee was 1.5% in the third quarter of 2010, unchanged from 2009. Three types of activity displayed faster growth in compensation per employee, namely industry excluding construction, market services involved in trade and transport, and market services relating to finance and business activities. In the other sectors, growth in compensation per employee declined (see Chart 26).

As with negotiated wages, the annual growth rate of hourly labour costs slowed significantly, in contrast to what was witnessed in 2009, when increases in hourly wages remained elevated. The decline in hourly wage growth may simply partly reflect the impact of a higher number of hours worked, as longer hours worked do not necessarily result in the higher compensation of employees in the context of various schemes (such as flexible time accounts and government-subsidised short-time work schemes). The fall

**Table 2 Labour cost indicators**

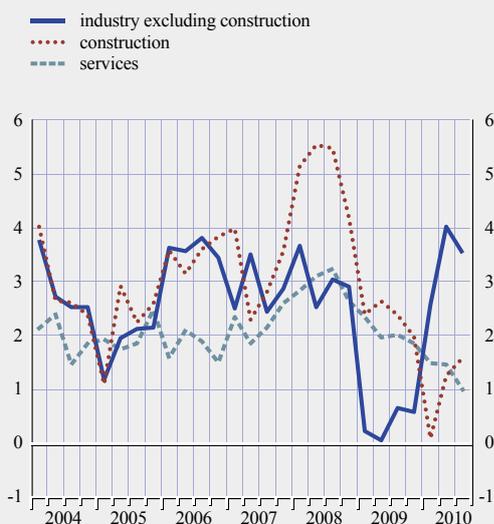
(annual percentage changes, unless otherwise indicated)

	2008	2009	2010	2009 Q4	2010 Q1	2010 Q2	2010 Q3	2010 Q4
Negotiated wages	3.3	2.6	1.7	2.1	1.8	1.9	1.5	1.6
Total hourly labour costs	3.4	2.9	.	2.0	1.9	1.6	0.8	.
Compensation per employee	3.2	1.5	.	1.4	1.5	1.9	1.5	.
<i>Memo items</i>								
Labour productivity	-0.3	-2.3	.	0.0	2.1	2.5	2.1	.
Unit labour costs	3.5	3.9	.	1.4	-0.5	-0.6	-0.5	.

Sources: Eurostat, national data and ECB calculations.

**Chart 26 Sectoral compensation per employee**

(annual percentage changes; quarterly data)

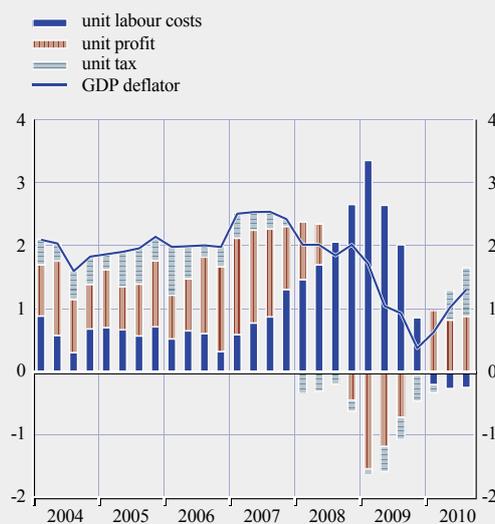


Sources: Eurostat and ECB calculations.

in the annual growth rate of hourly labour costs in the course of 2010 was driven by industrial activities. In 2009 the latter sector exhibited the highest hourly wage growth and made the most intensive use of flexible time measures.

**Chart 28 Decomposition of the GDP deflator**

(annual percentage changes; percentage points)

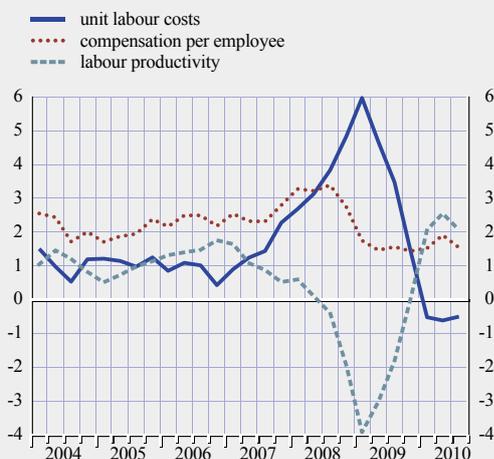


Source: Eurostat.

Labour productivity growth per employee exceeded the gains in compensation per employee in the euro area, thus implying that unit labour costs fell and that profit margins increased. Annual labour productivity growth per employee rose to 2.2% on average in the first three quarters of 2010, compared with a drop of 2.3% in 2009. Given the developments in compensation per employee, unit labour costs fell by 0.5% in the year to the third quarter of 2010, compared with a rise of 3.9% in 2009 (see Chart 27). Mirroring this decrease in unit labour costs, operating margins recovered, with the greater pricing power attested by the gradual increase in the annual growth rate of the GDP deflator. This increase also reflected a positive contribution from the unit tax component from the second quarter of 2010 (see Chart 28).

**Chart 27 Euro area labour costs**

(annual percentage changes; quarterly data)



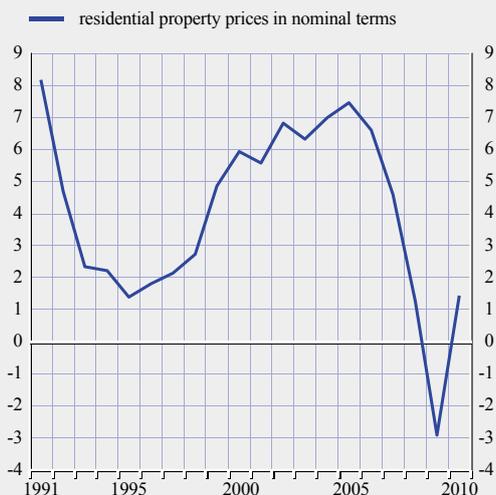
Source: Eurostat.

**RESIDENTIAL PROPERTY PRICES ROSE**

Euro area residential property prices, which are not included in the HICP, increased by 2.4% in the year to the third quarter of 2010, following a decline of 2.9% in 2009 (see Chart 29). However, the overall increase since the start of 2010 masks divergent developments across euro

**Chart 29 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 2010 include data up to the third quarter.

area countries and regions, with some of them continuing to experience declining house prices in 2010.

## DEVELOPMENTS IN INFLATION EXPECTATIONS

Data from professional forecasters show that survey-based long-term inflation expectations (five years ahead) were close to 2.0%, judging from Consensus Economics, the Euro Zone Barometer and the ECB Survey of Professional Forecasters. According to the latter, point estimates of inflation for 2015 by forecasters pooled by the ECB remained within a narrow range of 1.9% to 2% during 2010. Market-based indicators, such as break-even inflation rates derived from inflation-linked bonds and comparable rates extracted from inflation-linked swaps, also pointed to firmly anchored inflation expectations.

## 2.4 OUTPUT, DEMAND AND LABOUR MARKET DEVELOPMENTS

### EURO AREA GDP RECOVERED IN 2010

Euro area real GDP expanded by 1.9% in the year to the third quarter of 2010, following the severe contraction of 4.1% in 2009 (see Table 3). The recovery in activity in 2010 stemmed from various sources. First, euro area exports

**Table 3 Composition of real GDP growth**

(percentage changes, unless otherwise indicated; seasonally adjusted)

	2008			2009			2010			Quarterly rates <sup>2)</sup>				
	2008	2009	2010	2009 Q4	2010 Q1	2010 Q2	2010 Q3	2010 Q4	2009 Q4	2010 Q1	2010 Q2	2010 Q3	2010 Q4	
Real gross domestic product	0.4	-4.1	.	-2.0	0.8	2.0	1.9	2.0	0.2	0.4	1.0	0.3	0.3	
<i>of which:</i>														
Domestic demand <sup>3)</sup>	0.4	-3.4	.	-2.8	0.4	2.1	1.9	.	-0.1	0.9	0.9	0.2	.	
Private consumption	0.4	-1.1	.	-0.4	0.4	0.6	1.0	.	0.3	0.3	0.2	0.1	.	
Government consumption	2.4	2.4	.	1.7	1.1	0.6	0.4	.	-0.1	0.1	0.1	0.4	.	
Gross fixed capital formation	-0.8	-11.4	.	-9.6	-5.0	-0.8	0.2	.	-1.2	-0.4	2.0	-0.3	.	
Changes in inventories <sup>3),4)</sup>	-0.2	-0.8	.	-0.8	1.0	1.7	1.2	.	0.0	0.7	0.4	0.1	.	
Net exports <sup>3)</sup>	0.1	-0.7	.	0.7	0.3	-0.1	0.0	.	0.3	-0.5	0.1	0.2	.	
Exports <sup>5)</sup>	1.0	-13.2	.	-5.3	5.7	11.7	11.3	.	2.0	2.6	4.4	1.9	.	
Imports <sup>5)</sup>	0.8	-11.9	.	-7.1	4.8	12.4	11.7	.	1.2	4.2	4.3	1.5	.	
Real gross value added														
<i>of which:</i>														
Industry (excluding construction)	-2.2	-13.3	.	-6.8	3.6	6.8	5.2	.	0.6	2.0	2.0	0.4	.	
Construction	-1.2	-5.9	.	-5.8	-6.6	-4.2	-3.1	.	-1.7	-1.6	0.8	-0.7	.	
Purely market-related services <sup>6)</sup>	1.5	-3.1	.	-1.9	0.7	1.4	1.7	.	0.1	0.5	0.7	0.4	.	

Sources: Eurostat and ECB calculations.

Notes: The figures reported are seasonally and partly working day-adjusted, as not all euro area countries report quarterly national accounts series adjusted for the number of working days.

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. Since intra-euro area trade is not cancelled out in import and export figures used in national accounts, these data are not fully comparable with balance of payments data.

6) Includes trade and repairs, hotels and restaurants, transport and communication, financial intermediation, real estate, renting and business activities.

were driven by the recovery in global activity and demand. Second, inventories contributed positively, especially in the first half of the year, as businesses slowed down the pace of destocking. Third, domestic demand (excluding inventories) showed a modest recovery, with government consumption continuing to grow, and private consumption and investment no longer contracting as they had in 2009, but rather growing slightly (in annual terms) in the third quarter of 2010. The improvement in private consumption and investment partly reflected a rise in confidence from the previously very low levels. The recovery in euro area economic activity has also been supported by the accommodative monetary policy stance and the measures adopted to restore the functioning of the financial system.

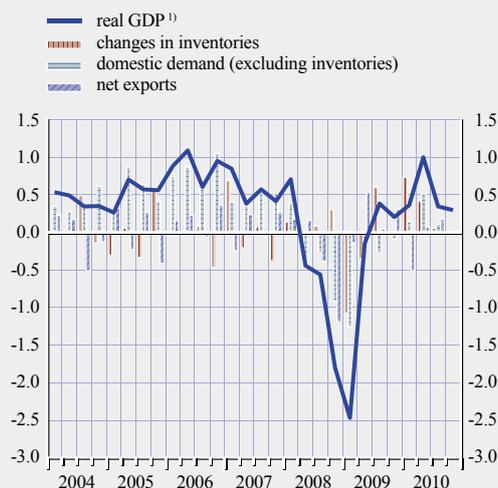
#### RISE IN GDP PREDOMINANTLY SUPPORTED BY EXPORTS AND INVENTORIES

The economic expansion of 2010 was largely driven by exports and inventories. Government consumption continued to increase, while both private consumption and investment displayed moderate annual growth in the third quarter of 2010, after contracting in 2009. The positive contribution from inventories was mostly limited to the first half of the year, as firms decided to destock more slowly than in 2009. Euro area exports benefited from the improvement in the external environment associated with the easing of the financial crisis. This was reflected in stronger growth in both developed and emerging countries. The surge in foreign demand led to a particularly sharp increase in exports in the course of 2010. However, this did not result in a positive contribution from net exports overall, owing to the increase in imports, which proceeded at a marginally faster pace. Private consumption and investment resumed positive growth, but did not fully recover from the impact of the recent unprecedented financial turmoil and the economic recession (see Chart 30).

Growth in private consumption was positive, at 1.0% in the year to the third quarter of 2010, following the contraction of 1.1% in 2009. This recovery was supported by real

**Chart 30 Contributions to quarterly real GDP growth**

(quarterly percentage point contributions; seasonally adjusted)

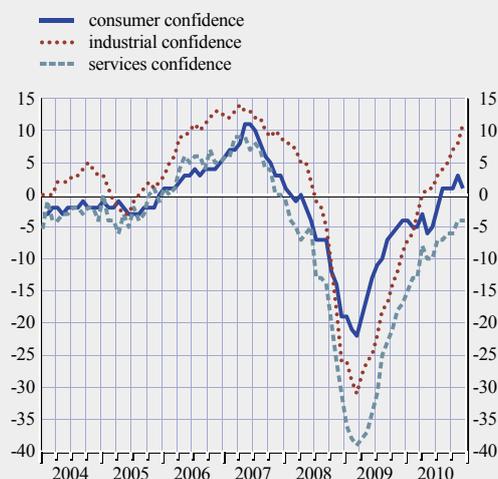


Sources: Eurostat and ECB calculations.  
1) Percentage change compared with the previous quarter.

disposable income growth and a decrease in precautionary savings in view of reduced uncertainty, owing to the gradual stabilisation seen in the labour market. Wealth effects from

**Chart 31 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.

improving asset markets may have been another supporting factor (see Box 6). The increase in private consumption was accompanied by improving consumer confidence in 2010 (see Chart 31). While overall real disposable income contributed to private consumption growth, the still weak labour market conditions were the main factor limiting the recovery

in household spending. Private consumption was especially dampened by household demand for cars, which continued to decline. However, this decline masked considerable divergence between countries, which can, in part, be traced back to differences in the withdrawal from fiscal stimulus packages, in particular car scrappage schemes.

## Box 6

### EURO AREA HOUSEHOLD SAVING BEHAVIOUR

During the 2008-09 recession the euro area household saving ratio rose sharply. On a four-quarter moving sum basis, the saving ratio peaked at 15.2% in the fourth quarter of 2009, which was 1.4 percentage points higher than at the start of the recession in the first quarter of 2008. In 2010 the saving ratio subsequently declined, falling to 14.2% in the third quarter (see Chart A). This box reviews the factors that shaped saving behaviour in the euro area during the recession and ongoing recovery, and discusses the likely evolution of saving in the future.

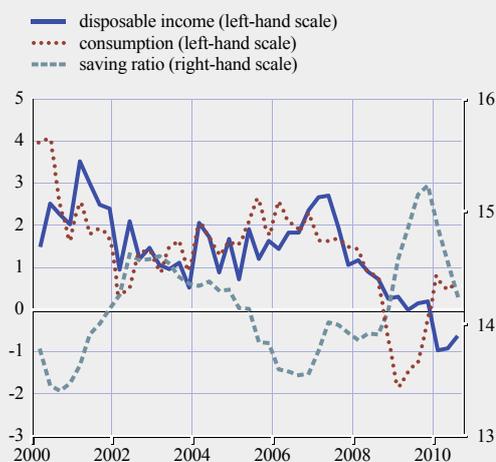
#### Theoretical motives behind household saving behaviour

Theory suggests a variety of motives for household consumption and saving decisions, which can be difficult to disentangle. A key principle is that people base their consumption on the real income they expect to receive over their entire lifetime. In this respect, household saving is a means of smoothing consumption in the face of variations in income, both over long horizons (for example, by saving for retirement) and over shorter periods (in case of temporary fluctuations in income).

However, fluctuations in income may not be the only determinant of a change in saving ratios. The saving levels of some households are affected by developments in their financial and non-financial wealth, as increases in the value of their net asset holdings are an important additional source of current and future purchasing power. They may also be affected by the degree of uncertainty surrounding future income (for example, in relation to employment prospects). This may lead households to hold higher cash reserves, which they can then use

**Chart A Household income, consumption and saving**

(year-on-year growth; percentages of disposable income)



Sources: Eurostat and ECB.

Note: Saving ratio is measured on a four-quarter moving average basis.

in the event of unexpected reductions in income – a tendency that is known as “precautionary saving”. Furthermore, household saving decisions are likely to be influenced by the decisions and actions of other economic agents. For example, changes in government finances can be an important factor: an increase in government debt may cause households to behave in a “Ricardian” fashion, i.e. to raise their saving levels, at least to some extent, in anticipation of future tax liabilities.

### Recent developments in euro area household saving

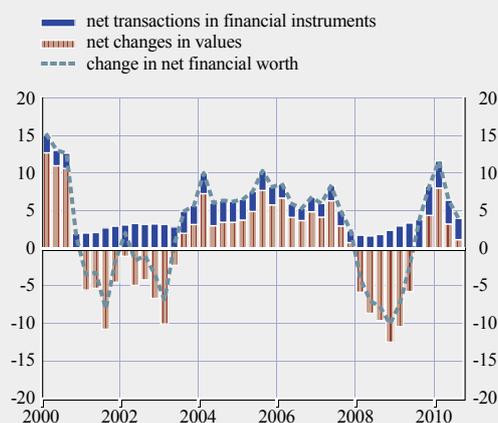
The rise in the saving ratio during the recession is not easy to reconcile with the notion of consumption smoothing in the face of a reduction in income. One key factor which may have influenced household saving decisions during the recession was uncertainty about future income prospects in the light of the financial crisis and the downturn in economic activity. Employment declined markedly during the recession and unemployment in the euro area increased. Job security was thus a particular concern for households, pushing them to reduce their expenditure and supplement their precautionary savings. Since the end of the recession, however, the European Commission’s consumer confidence indicator has suggested that households have become more optimistic about the economic situation and, in particular, unemployment developments in the euro area. This is likely to be one reason why household saving rates fell during 2010.

It is also possible that household behaviour in the recent cycle was affected by changing expectations with regard to future income. Households may have come to expect a permanent decline in housing wealth as a result of the corrections in housing markets in many euro area countries. In addition, falls in equity markets during 2008 and early 2009 led to a marked drop in households’ financial wealth. Both developments encouraged households to save more. Since then financial markets have rallied and the latest available information suggests some bottoming-out in house prices in the euro area as a whole. These two factors have contributed to a (year-on-year) rise in euro area households’ net worth (see Chart B) since the final quarter of 2009 and may partly explain the declines in saving observed during 2010. However, there may still be concerns about the state of balance sheets in some regions of the euro area, in particular those where asset prices and debt levels rose in the years prior to the financial crisis, which may be encouraging some households to continue with higher rates of saving.

A further source of uncertainty since the financial crisis began has been the implications of the large increases in government deficits. The operation of automatic stabilisers during the recession helped to cushion households’ income, for example, through reduced taxes and increased transfers. Certain discretionary government measures, for example the subsidies on car purchases provided in many euro area countries, also encouraged consumption during the recession. However,

**Chart B Household net financial worth**

(year-on-year growth; contributions to year-on-year growth)



Sources: Eurostat and ECB.

the overall implications for household saving rates would have depended on how households viewed the longer-term implications of government debt financing. The steep increase in government debt levels, as well as projections implying that deficits would remain high for a sustained period, may have heightened household concerns about the fiscal outlook. Future fiscal consolidation, either through tax increases or reduced government expenditure, affects household income in the years ahead, which may have encouraged households to build up their savings in advance. Such concerns may have been particularly prevalent during the periods of heightened uncertainty about sovereign debt in financial markets in early 2010 and also later in the year, perhaps pushing saving levels higher than they might otherwise have been.

### **The outlook for household saving in the euro area**

Following the declines in household saving during 2010, further modest falls in the euro area household saving ratio are expected in the future, with households being prompted to pare down their precautionary savings as the economic recovery gains traction and the labour market continues to improve.

Nevertheless, uncertainty about the course of household saving remains high. On the downside, a faster than expected recovery might improve confidence, leading households to increase their consumption and reduce the amount they save. However, it is also possible that the level of household saving could remain persistently higher than before the downturn, if the crisis has caused households to worry more than before about income prospects or pushed them to further rebuild balance sheets and reduce their debt levels – the adjustment over the past three years notwithstanding. In addition, following the bursting of bubbles in some asset markets, households may now have a less optimistic assessment of future wealth developments. Finally, savings may remain high if households are concerned about the implications for their future tax burden of the high levels of government debt and the large government deficits. Such concerns highlight how important it is that euro area governments provide credible fiscal consolidation strategies to correct the large fiscal imbalances that built up during the recession.

Government consumption growth continued to support economic activity in 2010, but was more moderate than in 2009. The moderation in government consumption reflected consolidation efforts aimed at limiting the deterioration of government budget balances.

Annual growth in total fixed investment has been on the rise, reaching a positive figure in the third quarter of 2010. Firms returned to expansion plans, given better business prospects, improving order books and easier access to financing. This notwithstanding, the speed of the recovery in investment has been rather limited. Growth in construction investment was muted, reflecting housing market adjustments in a number of euro area countries, following the steep declines

in house prices seen over the 2009 recession. Non-construction investment remained subdued, as this component was constrained by ongoing balance sheet restructuring and a slow increase in capacity utilisation.

Inventories played a prominent role in explaining the improvement in real GDP growth in the first half of 2010. They contributed to the quarterly rise in GDP in the first and second quarters of 2010 by an estimated 0.7 and 0.4 percentage point respectively. Behind the activity observed in the first half of 2010 were decisions by businesses to destock more slowly than in 2009, with the impact being felt in faster deliveries along the supply chain. National accounts data suggest that the improvement in

inventories lost considerable momentum in the third quarter of the year, when this component of aggregate demand contributed 0.1 percentage point to quarter-on-quarter real GDP growth.

Euro area exports of goods and services increased sharply, by 11.3% in the year to the third quarter of 2010, reversing a large fraction of the losses incurred in 2009. This increase was supported by both intra and extra-euro area trade, and can be traced back to the strong recovery in levels of global activity as the tensions arising from the financial crisis eased. Given that imports also increased sharply, the overall contribution to quarterly GDP growth from net exports turned out to be slightly negative over the first three quarters of 2010, with small positive contributions registered in both the second and third quarters. The increase in imports and exports was relatively broad-based across major product categories, with intermediate inputs displaying particularly large percentage rises.

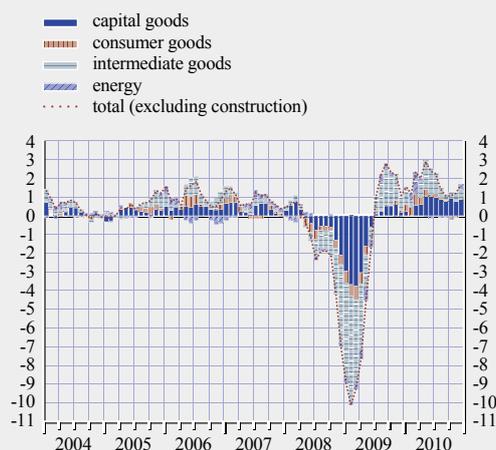
### INDUSTRIAL PRODUCTION RECOVERED

Taking a sectoral perspective, the expansion in output was predominantly driven by industrial activity, with value added in industry (excluding construction) rising by 5.2% in the year to the third quarter of 2010, compared with an increase of 1.7% for market-related services and a decline of 3.1% for construction in the same period. Capacity utilisation in the manufacturing sector increased to 76.8% in 2010 as a whole (according to survey data).

Output of intermediate goods recovered particularly sharply in reaction to the slower speed of destocking along the supply chain. Production of capital goods also rose sharply, benefiting from stronger external demand and, to a lesser extent, improving domestic economic prospects (see Chart 32). Construction output continued to contract, owing to housing market adjustments in a number of euro area countries. Overall, adverse developments in the residential construction sector have more than outweighed

**Chart 32 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.

the contribution of infrastructure projects put forward by governments.

### LABOUR MARKET CONDITIONS EVENTUALLY STABILISED

Following a sharp deterioration in 2009, conditions in the euro area labour market began to stabilise in the course of 2010 as employment stopped falling and the rise in unemployment rates lost momentum.

Euro area employment (measured in terms of the number of persons employed) was, on average, flat in the first three quarters of 2010, marking a considerable improvement from the fall of 1.8% in 2009 (see Table 4). During the 2009 recession, many firms preferred to hoard labour rather than face the costs (in terms of human capital lost or severance pay) associated with dismissing workers. Since a large proportion of the employment adjustment seen in 2009 took the form of cuts in the number of hours worked per person, the improvement over 2010 was greater in terms of total hours worked than the number of

**Table 4 Labour market developments**

(percentage changes compared with the previous period; percentages)

	2008	2009	2010	2009 Q4	2010 Q1	2010 Q2	2010 Q3	2010 Q4
Labour force	0.8	0.2	.	0.0	0.1	0.2	0.0	.
Employment	0.8	-1.8	.	-0.2	0.0	0.1	0.0	.
Agriculture <sup>1)</sup>	-1.7	-2.2	.	0.6	0.0	-1.1	-0.2	.
Industry <sup>2)</sup>	-0.7	-5.7	.	-1.0	-0.8	-0.3	-0.6	.
– excluding construction	-0.0	-5.3	.	-1.2	-0.8	-0.3	-0.4	.
– construction	-2.1	-6.6	.	-0.5	-1.0	-0.2	-1.1	.
Services <sup>3)</sup>	1.4	-0.5	.	0.0	0.3	0.3	0.2	.
<b>Rates of unemployment<sup>4)</sup></b>								
Total	7.5	9.4	10.0	9.9	9.9	10.0	10.0	10.0
Under 25 years	15.5	19.5	20.3	20.1	20.2	20.2	20.1	20.4
25 years and over	6.6	8.3	8.8	8.7	8.8	8.8	8.9	8.9

Sources: Eurostat and ECB calculations.

1) Includes fishing, hunting and forestry.

2) Includes manufacturing, construction, mining and quarrying, electricity, gas and water supply.

3) Excludes extra-territorial bodies and organisations.

4) Percentage of the labour force according to ILO recommendations.

persons employed (see Box 7, which compares recent labour market developments in the euro area with those in the United States). Labour productivity rose strongly (per hour worked, and even more so per person), contributing to a rise in the profitability of businesses in the context of muted wage developments.

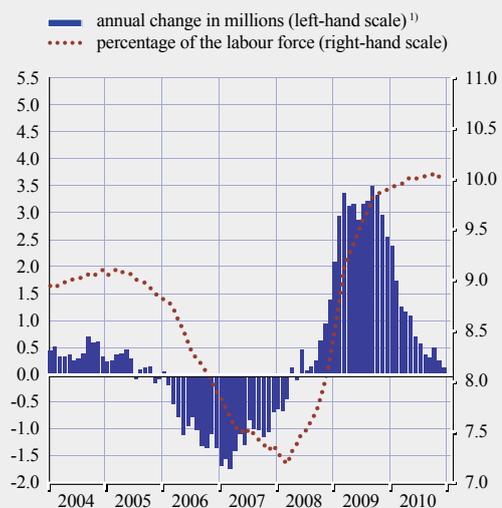
From a sectoral perspective, data for persons employed up to the third quarter of 2010 indicate that employment gains in 2010 took place in some services activities, namely public administration and market-related services relating to finance and business. These gains were offset by employment losses in agricultural activities, industry and market services associated with trade and transport. Among industrial activities, the most severely affected sector was construction.

The unemployment rate averaged 10.0% in 2010, up from 9.4% in 2009, with the monthly increases in this indicator having lost momentum since the second quarter of the year. Developments in the unemployment rate were fairly similar throughout the euro area, if subject to a number of country-specific

features. Moreover, the average monthly rise in the number of unemployed persons fell markedly from the figures registered in 2009 (see Chart 33).

**Chart 33 Unemployment**

(monthly data; seasonally adjusted)



Source: Eurostat.

1) Annual changes are not seasonally adjusted.

## Box 7

### RECENT LABOUR MARKET DEVELOPMENTS IN THE EURO AREA AND THE UNITED STATES: THE MAIN DIFFERENCES AND A HISTORICAL PERSPECTIVE

The latest recession, which was characterised by a severe slowdown in economic activity relative to previous recessions, significantly affected labour markets on both sides of the Atlantic. Job losses were spread across a number of sectors of the economy, some of which, such as construction and financial services, were hit particularly hard in both the euro area and the United States. Total hours worked declined sharply in both economic areas, although in the United States a significant part of the adjustment took place via job shedding, whereas in the euro area a reduction in the average number of hours worked per week played a relatively major role.<sup>1</sup> While labour force participation remained fairly stable in the euro area, owing to labour hoarding, it declined markedly in the United States, as many workers who lost their jobs have left the labour market, reflecting the lack of employment opportunities.

This box reviews recent labour market developments in the euro area and the United States by discussing the evolution of selected indicators in the course of the recent recession, compared with previous downturns since the early 1970s and the current recovery.

#### Strong adjustment in employment during the recession

During the recent recession, euro area employment fell by around 2.7 million (see the chart), or 0.8% (2.1% in terms of total hours), as shown in the table. This was associated with a 3.0% decline in real GDP,<sup>2</sup> which implies an elasticity of around 0.25 (or 0.7 in terms of hours). In other words, for each percentage point drop in GDP, employment in the euro area fell by 0.25 percentage point. The elasticity of employment to GDP for the euro area aggregate masks considerable heterogeneity across countries, with Spain and Germany at the two ends of the spectrum, having an elasticity of 2.2 and 0.1 respectively.<sup>3</sup> Job losses persisted in the euro area, even as the economy started to recover, until the end of 2009. The impact of the downturn on employment

#### Euro area and US employment developments



Sources: Eurostat, Bureau of Labor Statistics and ECB calculations.

1 See the box entitled "A comparison of employment developments in the euro area and the United States", *Monthly Bulletin*, ECB, July 2010.

2 Unless stated otherwise, figures are computed as an average of (annualised) quarterly/monthly growth rates.

3 For more details about heterogeneity across euro area countries, see the article entitled "Labour market adjustments to the recession in the euro area", *Monthly Bulletin*, ECB, July 2010.

was significantly stronger in the United States, where the level of employment (measured as civilian employment) declined by about 5.9 million in the course of the recession.<sup>4</sup> The 2.8% decline in employment in the United States (4.2% in total hours) was associated with a 2.7% decline in GDP, which translated into an elasticity of employment to changes in output of 1 (1.5 in terms of hours).

Compared with previous recessions since the early 1970s, the elasticity of employment to output was broadly in line with historical standards in the United States, but it turned out to be much lower in the euro area. In terms of hours worked, it was broadly comparable with previous recessions in the United States and, to a lesser extent, the euro area. The change in the employment response in the euro area partly reflects the very extensive use of shorter working hours schemes instituted in a number of euro area countries in a direct attempt to safeguard employment.

The recent recession has, however, had an impact on the labour market beyond the fall in employment. The euro area unemployment rate rose from 7.2% in the first quarter of 2008 to 9.3% at the end of the downturn in the second quarter of 2009, its highest level since the third quarter of 1998. It increased even more dramatically in the United States, by around 5 percentage points from peak to trough, reaching 9.5% in the second quarter of 2009. In addition, while the labour force participation rate in the euro area was fairly stable by historical standards, in the United States it declined significantly more than in previous recessions, suggesting that the rate of unemployment may understate the degree of slack in the labour market. Moreover, the sustained increase in unemployment translated into an increase in the share of total

4 The corresponding figure from peak to trough in employment (i.e. between the last quarter of 2007 and the last quarter of 2009) was close to 8 million.

### Labour market indicators in the euro area and the United States

(percentage changes; percentage points)

	Current expansion		Last recession		Previous recessions	
	Euro area	United States	Euro area	United States	Euro area	United States
Population over 16 years old	0.4	0.9	0.4	0.9	0.7	1.1
Participation rate (percentages)	<b>56.1</b>	<b>64.3</b>	<b>56.4</b>	<b>65.7</b>	<b>53.4</b>	<b>64.4</b>
Change in the participation rate	-0.2	-0.9	0.0	-0.2	-0.3	-0.1
Unemployment rate (percentages)	<b>9.8</b>	<b>9.4</b>	<b>9.3</b>	<b>9.5</b>	<b>9.5</b>	<b>7.9</b>
Change in the unemployment rate	0.3	-0.1	1.3	3.0	0.0	2.4
Unemployment: more than six months (percentage of total)	<b>65.0</b>	<b>44.5</b>	<b>58.6</b>	<b>29.8</b>	-	<b>12.9</b>
Change in unemployment: more than six months	6.3	9.8	-4.0	6.8	-	2.6
Employment	-0.5	-0.3	-0.8	-2.8	-0.6	-1.2
Total hours worked	-0.5	0.3	-2.1	-4.2	0.9	-1.9
Employment to population ratio (percentages)	<b>50.6</b>	<b>58.3</b>	<b>51.1</b>	<b>59.4</b>	<b>48.3</b>	<b>59.4</b>
Change in the employment to population ratio	-0.4	-0.7	-0.7	-2.2	-0.7	-1.6
Unit labour costs	-0.6	-0.9	4.4	1.7	10.8	6.3
Memo items:						
Real gross domestic product	1.8	3.0	-3.0	-2.7	-0.6	-1.2
Average duration (in quarters)	4.0	5.0	5.0	6.0	8.0	4.0

Sources: Eurostat, OECD, European Commission, Bureau of Labor Statistics and ECB calculations.

Notes: The dating of the cycles is taken from the National Bureau of Economic Research and the Centre for Economic Policy Research. Data on the current expansion are up to Q3 2010 for the euro area and up to Q4 2010 for the United States. Population refers to those over 15 years old in the United States. Unless stated otherwise, figures are computed as an average of (annualised) quarterly/monthly growth rates. The participation and employment rates are computed for the population above 16 and 15 years old respectively. Levels of participation, as well as employment and unemployment rates, are measured for the last quarter of the recovery and recession, rather than as an average, which is the case for changes and growth rates. Unit labour costs in the United States refer to the business sector.

unemployment held by those unemployed for longer than six months to levels which are exceptionally high by US standards, i.e. around 30% of the total number of unemployed. The share held by long-term unemployment has historically been much higher in the euro area than in the United States, but remained broadly unchanged in the recent recession at almost 59%. Over the recent recession, unit labour costs rose by 4.4% in the euro area (as, owing to labour hoarding, labour costs did not decrease as much as value added), a much faster pace than the 1.7% recorded for the United States, where employment downsizing led to a surge in productivity and labour cost growth slowed substantially.<sup>5</sup>

### **Modest employment gains at the start of the recovery**

Although it is too early to pass judgement on the current recovery from a labour market perspective, it is nevertheless interesting to note some characteristic features of the ongoing adjustments. As expected, given the typically lagged response of the labour market to a rise in economic activity, the deterioration in the performance of the euro area labour market has, to some extent, continued in the current recovery. Employment fell by 3.7 million between the second quarter of 2008 and the end of 2009. According to data from the EU Labour Force Survey, euro area unemployment fell to 9.8% of the total labour force in the third quarter of 2010, slightly below the peak observed in the first quarter of the year. Other signs of improvement emerging in the euro area are the positive growth in hours worked, as well as the reversal of the rise in unit labour costs. The US labour market situation started to improve at the beginning of 2010 (six months after the start of the recovery), with modest gains in employment and a slight decline in the unemployment rate.

The improvement in the labour markets is also reflected in developments in total hours worked, both in the euro area and the United States (see the table). The unemployment rate in the United States did not decline until the first quarter of 2010, and has since remained broadly stable. By contrast, it has continued to increase in the euro area, albeit at a slower pace in recent quarters. This is indicative of the slow improvement in the labour market, in which job creation is currently not sufficiently strong to reduce the number of unemployed persons. Another aspect pointing to the sluggishness of the labour market recovery is the fact that the labour force participation rate has remained low. This is especially true in the United States, although there have been signs of stabilisation in the last few months. At the same time, the share of total unemployment held by those out of work for over six months has continued to grow, reaching historically high levels in both the euro area and the United States (65% and just under 45% respectively – see the table). In both cases, while the origin of this rise is mainly seen as cyclical, it implies a deterioration in human capital, which may increase structural unemployment.

Overall, there have been some differences between labour market developments in the euro area and those in the United States. Firstly, although the decline in activity was more marked in the euro area than in the United States, the adjustment in the US labour market has been more pronounced. With regard to labour input in particular, the adjustment in the euro area was more to do with the number of hours worked per person than the number of persons employed – partly due to the extensive use of shorter working hours schemes – while in the United States it was, in relative terms, mainly accounted for by changes in the number of persons employed. Secondly, given the magnitude of the fall in output, the adjustment in the euro area can be seen as less marked than that observed in previous recessions, particularly regarding employment losses.

<sup>5</sup> For a detailed comparison of wage developments in the euro area and the United States, see the box entitled “Wage developments in the euro area and the United States during the recent economic downturn: a comparative analysis”, *Monthly Bulletin*, ECB, May 2010.

By contrast, the US labour market has shown much larger declines in labour force participation and significant increases in the duration of unemployment, while employment losses were broadly in line with previous recessions, after taking into account the depth of the fall in activity. Despite a less pronounced deterioration in the labour market, the proportion of those unemployed who have been out of work for more than six months has now reached exceptionally high levels in the euro area, which calls for an effective policy response. Unless this is addressed in a timely manner by active labour market policies and measures to promote lifelong learning, the risk of human capital erosion associated with long spells of unemployment may lead to an increase in structural unemployment. This would make it difficult to bring unemployment back down to pre-recession levels as the recovery matures.

## 2.5 FISCAL DEVELOPMENTS

### STABILISATION OF EURO AREA GOVERNMENT DEFICIT IN 2010

The shock of the recent financial and economic crisis resulted in sharp increases in government deficit-to-GDP and public debt-to-GDP ratios and, in 2010, financial market participants questioned the sustainability of public finances in some euro area countries. In response to the unfolding sovereign debt crisis and negative spillover effects, the most affected countries implemented additional consolidation and structural reform measures to restore credibility. The crisis showed that ensuring sound public finances is a prerequisite for overall macroeconomic and financial stability.

Following two years of sharp deterioration in budgetary positions, the aggregate government deficit for the euro area stabilised in 2010, although deficit levels varied greatly among countries. According to the European Commission's autumn economic forecast, published on 29 November 2010, the euro area average general government deficit ratio in 2010 was unchanged from 2009 at 6.3% of GDP (see Table 5). The stabilisation of the budget deficit was in part driven by a rebound in government revenue growth in a context of stabilising macroeconomic conditions, following the strong decline in revenues in 2009. At the same time, growth in government expenditure slowed down, as the phasing-out of fiscal stimulus measures implemented since end-2008 and new fiscal consolidation measures offset the still relatively

strong growth in social payments, capital transfers and interest payments. The expenditure restraint was particularly pronounced in government investment and compensation of government employees, with cuts in public employment as well as wage freezes or cuts in several countries. In terms of ratios to GDP, both total government revenue and total government expenditure were broadly unchanged from 2009, at 44.4% and 50.8% respectively.

The Commission's autumn 2010 fiscal forecasts are, for most countries, more favourable than the estimates presented in the updated stability programmes, which were submitted between December 2009 and March 2010. The latter pointed to a higher deficit for the euro area as a whole, amounting to 6.6% of GDP in 2010 against 6.3% presented by the Commission (see Table 5). In many cases, the more favourable forecasts of the Commission reflect stronger than previously expected economic growth feeding into higher tax receipts, while in the case of Portugal the fulfilment of the new government target is mainly attributable to a sizeable one-off measure, namely a transfer of the Portugal Telecom pension fund to the civil servants' pension system.

However, for some countries, the European Commission deficit forecasts are substantially higher than expected in the stability programmes or in the governments' updated targets. This is the case for Slovakia, owing to lower than expected revenues, but also for Greece and Ireland, which faced particularly large budgetary imbalances in 2010.

**Table 5 Fiscal positions in the euro area and euro area countries**

(as a percentage of GDP)

**General government surplus (+)/deficit (-)**

	European Commission forecast			Stability programme
	2008	2009	2010	2010
Belgium	-1.3	-6.0	-4.8	-4.8
Germany	0.1	-3.0	-3.7	-5.5
Ireland	-7.3	-14.4	-32.3	-11.6
Greece	-9.4	-15.4	-9.6	-8.0 <sup>1)</sup>
Spain	-4.2	-11.1	-9.3	-9.3 <sup>2)</sup>
France	-3.3	-7.5	-7.7	-8.2
Italy	-2.7	-5.3	-5.0	-5.0
Cyprus	0.9	-6.0	-5.9	-6.0
Luxembourg	3.0	-0.7	-1.8	-3.9
Malta	-4.8	-3.8	-4.2	-3.9
Netherlands	0.6	-5.4	-5.8	-6.1
Austria	-0.5	-3.5	-4.3	-4.7
Portugal	-2.9	-9.3	-7.3	-7.3 <sup>2)</sup>
Slovenia	-1.8	-5.8	-5.8	-5.7
Slovakia	-2.1	-7.9	-8.2	-5.5
Finland	4.2	-2.5	-3.1	-3.6
Euro area	-2.0	-6.3	-6.3	-6.6

**General government gross debt**

	European Commission forecast			Stability programme
	2008	2009	2010	2010
Belgium	89.6	96.2	98.6	100.6
Germany	66.3	73.4	75.7	76.5
Ireland	44.3	65.5	97.4	77.9
Greece	110.3	126.8	140.2	143.0 <sup>1)</sup>
Spain	39.8	53.2	64.4	65.9
France	67.5	78.1	83.0	83.2
Italy	106.3	116.0	118.9	116.9
Cyprus	48.3	58.0	62.2	61.0
Luxembourg	13.6	14.5	18.2	18.3
Malta	63.1	68.6	70.4	68.6
Netherlands	58.2	60.8	64.8	67.2
Austria	62.5	67.5	70.4	70.2
Portugal	65.3	76.1	82.8	83.5 <sup>3)</sup>
Slovenia	22.5	35.4	40.7	39.6
Slovakia	27.8	35.4	42.1	40.8
Finland	34.1	43.8	49.0	48.3
Euro area	69.8	79.2	84.2	84.3

Sources: European Commission's European Economic Forecast – autumn 2010, updated stability programmes 2009-10 and ECB calculations.

Note: Data are based on ESA 95 definitions.

1) IMF/EU programme target for Greece.

2) New government targets for Spain and Portugal.

3) According to the "Steering Report on the Budgetary Policy" (July 2010).

In Greece, persistent government deficits and high debt, misreporting of fiscal data up until 2009, as well as a postponement of much needed economic and social reform, severely undermined the credibility of the authorities. Greece increasingly faced rising borrowing costs and severe funding difficulties and, at the end of April, the government had to request financial support from the euro area countries and the

IMF. This support was granted subject to strong conditionality under an ambitious economic, financial, fiscal and public governance reform programme. Following a strong start, including major fiscal adjustment as well as pension and labour market reforms, several challenges arose in the programme implementation in the second half of the year and some structural reforms experienced delays. In particular, the carry-over

effect of the statistical upward revision of the 2009 government deficit, as well as revenue shortfalls and an accumulation of arrears by social security funds, is likely to have led to a higher than targeted 2010 government deficit in ESA 95 terms. For 2011 the authorities have adopted additional consolidation measures to fully compensate for the ground lost in 2010 and, as such, the programme remains broadly on track. However, additional measures in the amount of around 6% of GDP still need to be specified for subsequent years to meet the objective of reducing the government deficit to below 3% of GDP by 2014. Moreover, further ambitious efforts in the area of structural reforms are necessary.

In Ireland, the wide-ranging fiscal consolidation measures adopted by the government could not halt the deterioration of the fiscal situation, which reflects a combination of a weak underlying fiscal position, severe structural problems in the banking sector and a strong exposure of public finances to the financial sector. The very large deficit increase was partly caused by a steep decline in tax revenues on account of severely worsened cyclical conditions, a large fall in domestic demand and a reversal of past property-related tax revenue windfalls

following the bursting of the housing bubble. In addition, exceptional government assistance to the banking sector drove the government deficit to above 30% of GDP. As market confidence declined, the Irish government had to apply, in November, for EU-IMF financial assistance, subject to strong policy conditionality. The associated adjustment programme is based on a four-year fiscal consolidation and structural reform plan, including a major restructuring of the banking sector. The objective is to reduce the government deficit to below 3% of GDP by 2015 and to restore confidence in the sustainability of public finances in Ireland.

Ultimately, nearly all euro area countries recorded a deficit above the 3% of GDP reference value in 2010. By the end of 2010, 15 euro area countries were subject to an excessive deficit procedure, with deadlines for reducing deficit ratios to below the reference value of 3% of GDP ranging from 2011 to 2015 (see Table 6).

The euro area government debt ratio again rose considerably in 2010, albeit at a slower pace than in 2009. According to the European Commission's autumn 2010 forecast, the euro area average government debt-to-GDP ratio

**Table 6 Excessive deficit procedures in the euro area countries**

(as a percentage of GDP)				
	Budget balance 2010	Start	Deadline	Recommended average structural adjustment p.a.
Belgium	-4.8	2010	2012	$\frac{3}{4}$
Germany	-3.7	2011	2013	$\geq 0.5$
Ireland	-32.3	2010	2015 <sup>1)</sup>	2
Greece	-9.6	2010	2014	$\geq 10$ overall in 2009-14
Spain	-9.3	2010	2013	$>1.5$
France	-7.7	2010	2013	$>1$
Italy	-5.0	2010	2012	$\geq 0.5$
Cyprus	-5.9	2010	2012	$1\frac{1}{2}$
Luxembourg	-1.8	-	-	-
Malta	-4.2	2010	2011	$\frac{3}{4}$
Netherlands	-5.8	2011	2013	$\frac{3}{4}$
Austria	-4.3	2011	2013	$\frac{3}{4}$
Portugal	-7.3	2010	2013	$1\frac{1}{4}$
Slovenia	-5.8	2010	2013	$\frac{3}{4}$
Slovakia	-8.2	2010	2013	1
Finland	-3.1	2010	2011	$\frac{1}{2}$

Sources: European Commission's European Economic Forecast – autumn 2010 (column 1) and ECOFIN Council recommendations (columns 2, 3 and 4).  
 1) On 7 December 2010 the ECOFIN Council extended the excessive deficit procedure deadline for Ireland by one year to 2015.

increased from 79.2% in 2009 to 84.2% in 2010, as a consequence mainly of high deficits and to a lesser extent of the support provided to the financial sector and Greece. Unlike in previous years, in 2010 the increase in the debt ratio was less than that implied by the level of the deficit. The reason for this was that stock-flow adjustments, which, although lower, were still increasing the level of debt, were more than offset by the impact of nominal GDP growth on the denominator. That said, debt ratios were above the reference value of 60% of GDP at the end of 2010 in 12 out of 16 euro area countries, and well above 100% of GDP in Greece and Italy.

Despite the improvement in the fiscal outlook compared with earlier expectations for a number of countries, the euro area fiscal situation remains precarious. This has contributed to heightened tensions on the government bond markets. Concerns in the financial markets as reflected in government bond yields even intensified in 2010 and early 2011 in the case of some countries experiencing particularly adverse fiscal developments (see Section 2.2 of Chapter 1 for an analysis of government bond market developments).

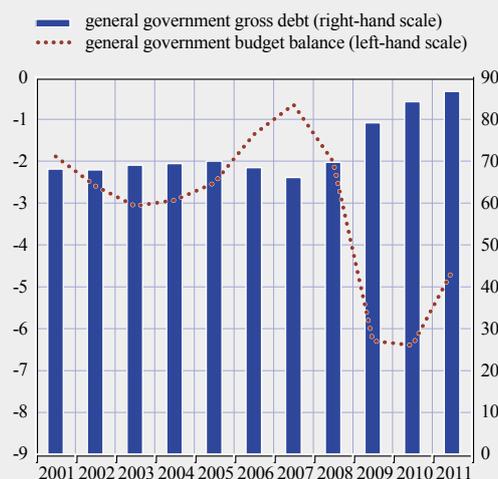
It is particularly difficult to distinguish between the cyclical and structural factors underlying the budgetary developments because of uncertainty regarding the identification of trend growth and the output gap in real time. Despite this uncertainty, according to the European Commission, the cyclical component of the deficit improved in 2010 for the first time since 2007. The fiscal stance for the euro area, in terms of the change in the cyclically adjusted primary budget balance (corrected for the exceptional bank recapitalisation measures in Ireland), is assessed to have been broadly neutral in 2010, thereby initiating a reversal from the expansionary stance in 2008-09 to an expected tightening in 2011.

#### FISCAL CONSOLIDATION EXPECTED IN 2011

In 2011 some improvement is expected in the euro area fiscal situation, though it is anticipated that the deficit will remain elevated. According

**Chart 34 Fiscal developments in the euro area**

(2001-11; as a percentage of GDP)



Source: European Commission's European Economic Forecast – autumn 2010.

Note: Figures for budget balances exclude proceeds from the sale of UMTS licences.

to the European Commission's autumn 2010 economic forecasts, the average general government deficit ratio in the euro area will decline by 1.8 percentage points to 4.6% of GDP (see Chart 34). The euro area average revenue ratio is projected to increase by 0.4 percentage point of GDP, whereas the primary expenditure ratio is anticipated to fall by 1.5 percentage points of GDP, reflecting mainly consolidation measures, and the euro area average interest expenditure ratio should rise by 0.1 percentage point of GDP. An overall improvement in the euro area budgetary position should result mainly from a tightening of the fiscal stance, while the impact of the economic cycle is judged likely to be favourable but small. Despite the expected improvement in the aggregate budgetary position, few euro area countries – notably Germany, Luxembourg, Malta and Finland – are expected to have government deficits at or below the reference value of 3% of GDP in 2011. The average government debt ratio in the euro area is projected to continue to rise in 2011, by 2.4 percentage points, to 86.5% of GDP, with debt ratios exceeding 100% of GDP in three countries, namely Belgium, Greece and Italy.

In Ireland, the consolidation measures that were adopted after the cut-off date for the Commission's forecasts are expected to keep the debt ratio below 100% of GDP in 2011.

### COMMITMENT TO FISCAL CONSOLIDATION ESSENTIAL

On account of the still precarious fiscal situation in a number of countries, the commitment to fiscal consolidation needs to be sustained. The fiscal consolidation set out in 2011 budgets is a first step in the right direction. However, the scale of the present fiscal challenges requires an ambitious multi-year consolidation effort in most countries. Not least given the sharp increase in expenditure ratios during the crisis, a strong emphasis on structural expenditure cuts, including a systematic reassessment of

the scope of public spending and the quality of public finances, appears warranted in many countries. This is all the more necessary in the light of the current severe fiscal imbalances: high sovereign debt ratios and the prospect of a lower trend growth rate make more acute the budgetary risks related to any further bank restructuring and the projected future costs of population ageing associated with unfunded public pension systems and healthcare. A credible and comprehensive reform strategy also helps to sustain market confidence, which could be particularly important in countries with vulnerable fiscal positions. Moreover, such a strategy is likely to have a favourable impact on financing conditions in the longer run that will offset the short-term costs in terms of lower economic growth (see Box 8).

#### Box 8

### MACROECONOMIC COSTS AND BENEFITS OF FISCAL CONSOLIDATION

Government deficit-to-GDP and debt-to-GDP ratios have increased significantly during the economic and financial crisis. Part of this increase is due to the automatic cyclical response of government revenue and spending to macroeconomic developments and to other transitory factors, such as temporary fiscal stimulus measures or government transfers to shore up the banking sector. However, the crisis has led to a substantial downward revision of most estimates of potential output, along with some losses in tax revenues (e.g. linked to property transactions), which may be viewed as permanent. For this reason, the bulk of the government deficits built up during the crisis should be considered as structural. This implies that substantial fiscal consolidation in the coming years is needed to put public finances on a sustainable footing.

It is widely accepted that fiscal consolidation is beneficial for economic growth in the long run. A reduction in government financing needs leads to lower long-term interest rates, thereby improving the financing conditions of the private sector and stimulating productive investment. For the government, a lower level of debt and associated interest payments frees up resources to reduce distortionary taxes and finance more productive expenditure. Moreover, with sound fiscal positions, households and firms can have confidence in the government's ability to help attenuate economic fluctuations through the operation of automatic stabilisers. Empirical studies across a wide range of industrial countries and time periods provide evidence of the growth-inhibiting effects of high government debt.<sup>1</sup>

<sup>1</sup> The correlation between high debt and lower growth is established for a very long time period by Reinhart, C.M. and Rogoff, K.S., "Growth in a time of debt", *Working Paper Series*, No 15639, National Bureau of Economic Research, 2010. For the euro area, econometric evidence is presented by Checherita, C. and Rother, P., "The impact of high and growing debt on economic growth: an empirical investigation for the euro area", *Working Paper Series*, No 1237, ECB, 2010.

By contrast, fiscal consolidation is usually characterised as having a dampening effect on economic growth in the short run. Cuts in government consumption and investment directly reduce aggregate spending, while higher taxes and lower government transfers reduce the disposable income of households and firms. Most empirical evidence points to tax and spending multipliers which are positive in the short to medium run, albeit declining over time. This is also reflected in the standard structural economic models used to analyse the economy and make economic predictions for the short to medium term.<sup>2</sup> However, under certain circumstances – particularly when fiscal tightening implies moving from a (near) unsustainable to a (more) sustainable fiscal position – it is possible that the traditional short-run “Keynesian” effects of fiscal consolidation are significantly dampened or even reversed. The theoretical case for “non-Keynesian” effects in the short run rests on the idea that spending cuts or tax increases may lead to an immediate offsetting increase in private consumption and investment if they give rise to the expectation of lower taxes – and thus higher disposable income – in future. This idea is closely related to the theory of “Ricardian equivalence”, according to which a rational private sector should internalise the government’s budget constraint.

Notwithstanding the difficulties involved in disentangling the impact of fiscal policy on the economy from other factors, there is little empirical evidence to suggest that non-Keynesian effects are dominant in normal economic times. The evidence nonetheless suggests that any negative short-run effects of fiscal consolidation on economic growth are likely to be much more muted when: i) the starting fiscal position is particularly precarious (giving rise to financial market concerns and high risk premia), ii) the private sector does not face credit constraints (so households and firms are able to smooth their consumption and investment over time), and iii) a favourable impact of fiscal consolidation on inflation – and inflation expectations – allows for a more accommodative monetary (and exchange rate) policy.

However, empirical work based on data samples covering more “benign” periods are unlikely to be a good guide for considering the impact of fiscal consolidation in the wake of a sovereign debt crisis.<sup>3</sup> A loss of confidence in public finances would affect the holders of government debt, such as banks, pension funds and individual investors, and thereby undermine financial stability and the outlook for the real economy. In these circumstances, it is simply not a viable option not to announce and start to implement significant fiscal adjustment. The counterfactual approach of inaction in periods of high fiscal stress is not a sustainable alternative, since financial market tensions would escalate, in all likelihood providing a much worse growth outcome than that resulting from fiscal consolidation. Indeed, postponing necessary fiscal consolidation only serves to amplify difficulties, possibly entailing a need for untimely harsh consolidation in the context of foregone opportunities to create needed fiscal space.<sup>4</sup>

<sup>2</sup> See the article entitled “The effectiveness of euro area fiscal policies”, *Monthly Bulletin*, ECB, July 2010.

<sup>3</sup> For a discussion, see Rother, P., Schuknecht, L. and Stark, J., “The benefits of fiscal consolidation in uncharted waters”, *Occasional Paper Series*, No 121, ECB, 2010.

<sup>4</sup> The concept of fiscal space, and its implications for debt sustainability and/or the onset of crisis, is outlined in Ostry et al., “Fiscal Space”, *Staff Position Note*, No 2010/11, IMF, September 2010.

The fiscal policy provisions of the Treaty and the Stability and Growth Pact are essential to guide policy-makers and underpin the trust of the public and of financial markets in the fiscal policies of EMU. Governments must strictly adhere to the

deadlines and targets set in ECOFIN Council recommendations, implementing all the planned measures and being prepared to take additional measures to meet targets if necessary. In this regard, the measures that have been announced

but not yet sufficiently specified should be presented in more detail. Moreover, countries with an improved macroeconomic environment should use the opportunity to correct excessive deficits before the deadlines. Subsequently, they should strive to move quickly towards their medium-term budgetary objectives, to create the fiscal space needed to tackle known challenges and also be well-positioned to cope with any unforeseen budgetary deterioration.

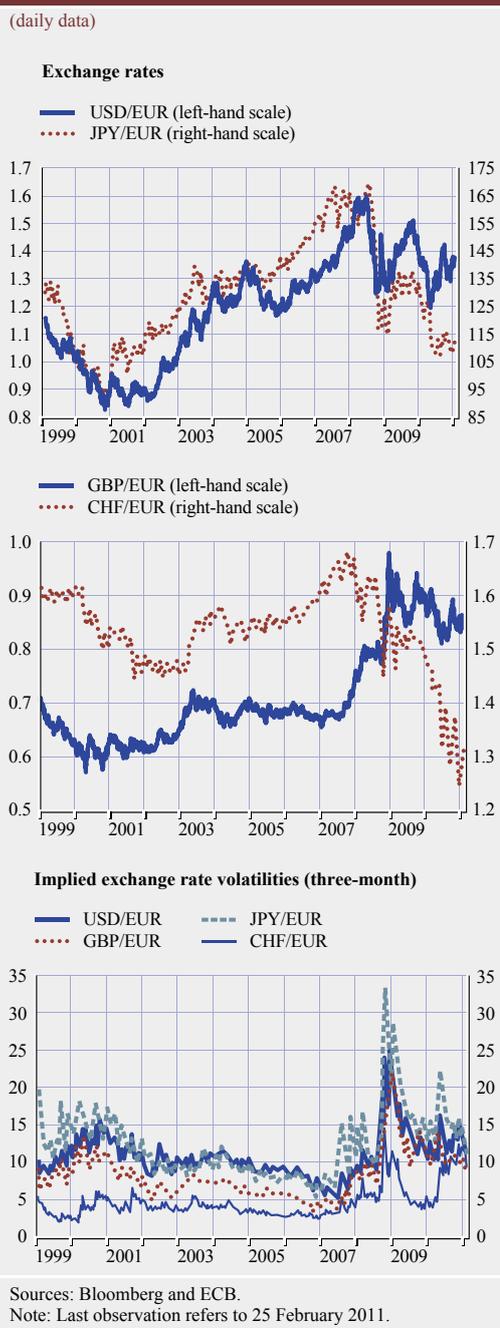
A strong political commitment to improve the sustainability of public finances, along with structural reforms addressing macroeconomic imbalances and weaknesses in the banking sector, is essential, not least because it provides an anchor for expectations. In the current context of heightened euro area sovereign strains, with the risk of spillover effects, it is essential that all countries attain and maintain sound fiscal positions to avoid any additional risks to financing conditions.

## 2.6 EXCHANGE RATES AND BALANCE OF PAYMENTS DEVELOPMENTS

### THE EFFECTIVE EXCHANGE RATE OF THE EURO DECLINED DURING THE YEAR

Exchange rate developments in 2010 were to a large extent shaped by the economic recovery, fiscal conditions and monetary policy around the world. Developments were somewhat volatile in many advanced economies, as the economic recovery was still vulnerable and dependent on the support of fiscal and monetary policies. In the first half of the year the euro depreciated against several major currencies (see Chart 35), reflecting rising concerns about the sovereign debt situation in some euro area countries. This uncertainty also resulted in an increase in the implied volatility of the euro exchange rate against major currencies in May and June (see Chart 35). In the second half of 2010 the euro rebounded, amid some volatility, owing mostly to the alleviation of concerns about sovereign debt, as well as more positive than expected macroeconomic news for the euro area. The overall appreciation

**Chart 35 Patterns in exchange rates and implied volatilities**



was driven mainly by developments in the USD/EUR exchange rate. In the course of 2010 the euro depreciated by 8.2% in effective terms as measured against the currencies of 20 of the euro

area's important trading partners (see Chart 36). As a consequence, the average level of the nominal effective exchange rate in 2010 was 6.3% lower compared with 2009. In 2010 the euro stood 5.5% higher than the historical average since 1999.

On 31 December 2010 the euro traded at USD 1.34, 7.3% lower than at the beginning of 2010 and 4.2% weaker than its 2009 average. The depreciation of the euro vis-à-vis the US dollar in the first half of 2010 was driven by a stronger macroeconomic recovery in the United States than in the euro area in early 2010. In the second half of 2010 the euro strengthened against the US dollar in response to the approval by the US authorities of an additional economic stimulus.

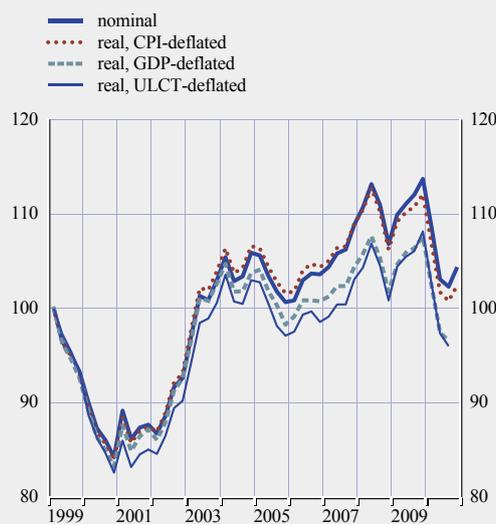
In the first half of 2010 the euro also continued to depreciate vis-à-vis the Japanese yen, completely reversing its appreciation in 2009 (see Chart 35). Throughout the remainder of 2010 the bilateral JPY/EUR exchange rate fluctuated within a rather narrow range, with the euro trading between JPY 105 and JPY 115. On 31 December 2010 the euro traded at JPY 108.65, 18.4% lower than at the beginning of the year and 16.7% below its average for 2009. Volatility in the JPY/EUR exchange rate increased sharply in May and June 2010, before declining in the second half of 2010.

In 2010 the euro depreciated against the pound sterling by 3.1%, from GBP 0.89 to GBP 0.86. The euro depreciated against the pound sterling in the first half of 2010 amid market concerns over fiscal sustainability in some euro area countries. In the second half of the year the euro recovered some of the earlier losses. By the end of 2010 the euro bilateral exchange rate against the pound sterling was still above its historical average since 1999, owing to the appreciation that occurred in 2008 and early 2009.

In 2010 the euro depreciated against the Swiss franc by 15.7%. Until June 2010 the depreciation was moderated as a result of interventions by the Swiss National Bank. In the second half of 2010

**Chart 36 Euro nominal and real effective exchange rates (EER-20)<sup>1)</sup>**

(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 2010 for "nominal" and "real, CPI-deflated" and the third quarter of 2010 for "real, GDP-deflated" and "real, ULCT-deflated", and are partly based on estimates. ULCT stands for unit labour costs of the total economy.

the euro further depreciated against the Swiss franc significantly, amid some volatility.

Between the beginning of the year and 31 December 2010 the euro depreciated against the Canadian dollar (by 11.9%), the Australian dollar (by 17.9%) and the Norwegian krone (by 6.0%), mainly owing to positive interest rate differentials vis-à-vis the euro area. The euro also depreciated against the Asian currencies that are linked to the US dollar, namely the Chinese renminbi (by 10.3%) and the Hong Kong dollar (by 7.0%). The euro also depreciated vis-à-vis the Korean won (by 10.7%).

The real effective exchange rate of the euro based on different cost and price measures declined in the first half of 2010 and stabilised thereafter (see Chart 36). By the end of 2010 the values of the real effective exchange rates were very close to their historical averages since 1999. The real effective CPI-deflated exchange rate was, on average, 6.9% weaker in 2010 than in 2009.

### THE CURRENT ACCOUNT DEFICIT INCREASED SLIGHTLY IN 2010

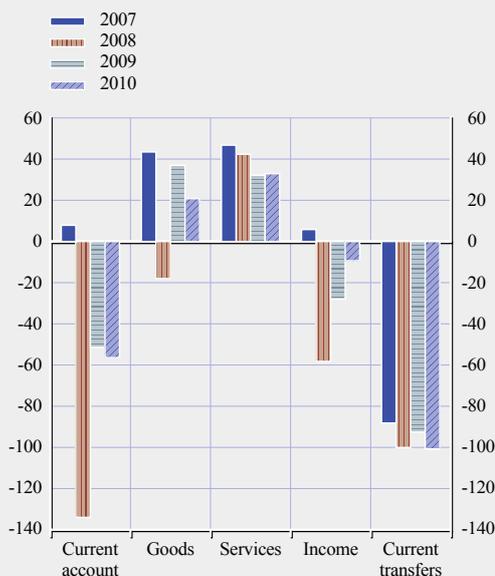
In 2010 the current account of the euro area recorded a deficit of €56.4 billion (or 0.6% of euro area GDP), compared with a deficit of €51.4 billion in 2009. These developments resulted from a decrease in the deficit in the income balance of €18.6 billion, while the trade balance in services remained somewhat stable (see Chart 37). However, the trade balance in goods worsened during 2010, counterbalancing the improvement in the income balance. After the rebound in trade in early 2009 and the improvement in the trade balance over 2009, the goods balance continued to register a surplus in 2010 that was €16.2 billion lower than the surplus recorded in 2009. Finally, the deficit in the current transfers balance deteriorated by €8.2 billion in 2010.

Year-on-year growth rates in euro area goods exports followed global trends in trade. They reached a peak in the first half of 2010 and then gradually decelerated. The most important driver of the export expansion in the first half of the year was the strong foreign import demand owing to temporary factors such as fiscal policy stimuli and the inventory cycle. However, the global slowdown in economic activity and the gradual fading-out of these temporary factors in the second half of 2010 contributed to the moderation of export growth rates. The growth in euro area exports continued to be supported by exports to Asia and OPEC, which continued to rise throughout the year (see Chart 38). While exports to the United States and the United Kingdom rose in the first quarter of 2010, they remained subdued thereafter. Meanwhile, the depreciation of the euro and the associated positive impact on euro area export price competitiveness in 2010 somewhat boosted foreign demand.

Developments in euro area goods imports in 2010 followed a similar path to those observed for exports. Year-on-year growth in import volumes continued to increase, peaking in the second quarter and moderating in the third quarter of 2010. This reflected subdued

**Chart 37 Current account balance and its components**

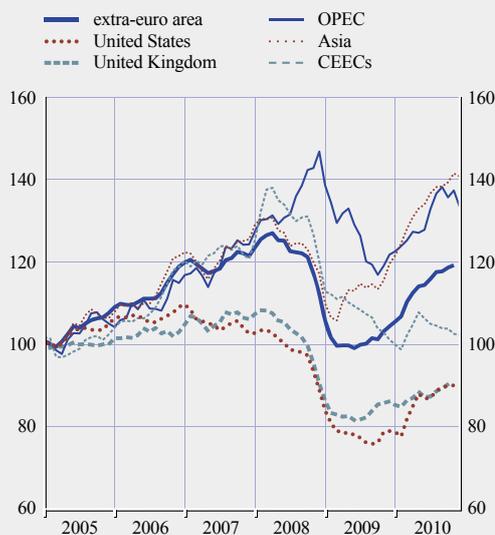
(annual data; EUR billions)



Source: ECB.

**Chart 38 Euro area exports volume to selected trading partners**

(indices: Q1 2005 = 100; seasonally adjusted; three-month moving average)



Source: ECB.

Notes: CEECs stands for central and eastern European countries. Last observation refers to December 2010, except for extra-euro area and the United Kingdom (November 2010).

developments in euro area domestic demand over the second half of the year. The reliance of euro area exports on imported inputs continued to boost euro area imports. Rising import prices also contributed to the increase in import values throughout the year. The higher import prices were partly due to the increase in oil prices seen throughout the year, which contributed to a widening of the oil trade deficit to €169.6 billion in the 12-month period to November 2010, well above the level of €132.1 billion registered a year earlier.

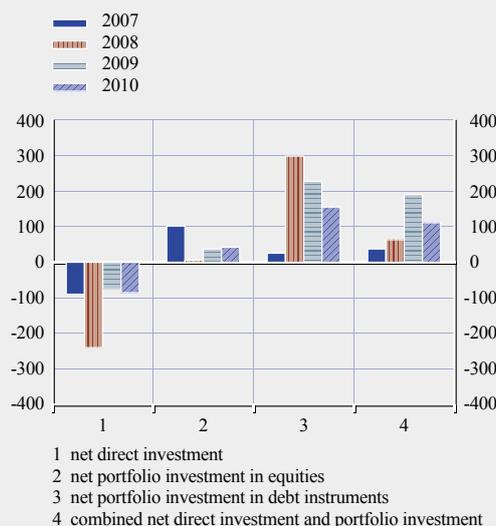
#### NET INFLOWS IN COMBINED DIRECT AND PORTFOLIO INVESTMENT DECLINED MARKEDLY IN 2010

In the financial account, the euro area experienced net inflows of €111.2 billion in combined direct and portfolio investment in 2010, compared with net inflows of €190.3 billion a year earlier. This reduction was primarily the result of a significant decline in net inflows in debt instruments (by €72.9 billion) and, to a lesser extent, of an increase in net outflows in foreign direct investment (FDI) (by €11.4 billion). This was partly offset by higher net inflows in equity instruments (by €5.1 billion; see Chart 39).

As regards portfolio investment, quarterly developments were very volatile in 2010, with market sentiment swinging considerably. Following some signs of a rebound in risk appetite and a subsequent revival of cross-border portfolio equity transactions in the first quarter of 2010, the reintensification of financial market tensions in May appeared to have caused a renewed increase in risk aversion on the part of investors. While euro area residents liquidated foreign equity positions and repatriated funds, non-euro area residents continued to invest in euro area portfolio instruments, resulting overall in a strong increase in net inflows in portfolio investment in the second quarter of 2010 (see Chart 40). In the second half of 2010 the balance in portfolio investment shifted from net outflows in the third quarter to net inflows in the fourth quarter. This mainly reflected developments in bonds and notes. Amid market concerns related to the sustainability of the debt of

**Chart 39 Euro area direct and portfolio investment**

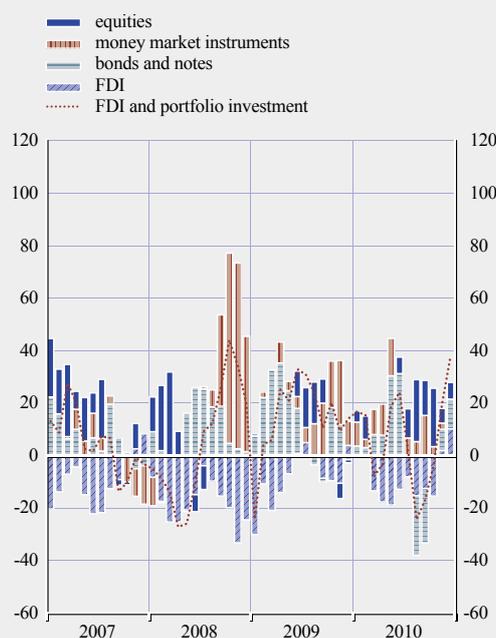
(annual data; EUR billions)



Source: ECB.

**Chart 40 Main items of the financial account**

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



Source: ECB.

some euro area countries, non-residents sold euro area bonds and notes in the third quarter, while euro area residents increased their investment in foreign bonds and notes. As financial tensions eased, non-residents resumed their purchases of euro area bonds in the fourth quarter. At the same time, the euro area recorded net inflows in equities in the second half of 2010, amid increased interest in euro area equities by foreign investors.

Direct investment activity remained relatively subdued in 2010 as both euro area and foreign companies decreased their investment in equity capital. Higher net outflows in direct investment in 2010 mainly reflected developments in other capital. While euro area companies increased their flows of loans to their foreign affiliates, foreign companies repatriated funds.

Data on the international investment position of the euro area vis-à-vis the rest of the world, available up to the third quarter of 2010, indicate that the euro area recorded net liabilities of €1,184 billion vis-à-vis the rest of the world (representing 13.0% of euro area GDP), compared with net liabilities of €1,448 billion (equal to 16.2% of euro area GDP) at the end of 2009.

### 3 ECONOMIC AND MONETARY DEVELOPMENTS IN NON-EURO AREA EU MEMBER STATES<sup>5</sup>

#### ECONOMIC ACTIVITY

In most non-euro area EU Member States output recovered in 2010 after a significant contraction in 2009, but with some volatility in the growth profile and significant cross-country differences (see Table 7). The recovery was supported mainly by exports, on the back of robust external demand, and the rebuilding of inventories after a significant drain on inventory levels in 2009. At the same time, domestic demand remained subdued in most countries, in spite of a marked improvement in confidence indicators. Weak domestic demand was a consequence of ongoing economic adjustment in the private sector, and in some countries also in the public sector. In the countries that had entered the recession period following an unsustainable boom, domestic demand continued to contract even in recent quarters, reflecting a prolonged economic adjustment.

Looking at the main components of domestic demand, private consumption remained subdued in most countries, reflecting to some extent weak labour market conditions and credit growth. Unemployment rates were in many countries higher than in 2009, although in some countries the improvement in overall economic activity brought a rebound in employment from

the second quarter of 2010. There were marked differences in the labour market performances of different sectors. In general, export-oriented sectors saw much greater labour demand, more favourable developments in employment figures and stronger wage dynamics. The growth of credit to the private sector continued to be relatively weak in most non-euro area EU countries, reflecting both tight supply and low demand. Capacity utilisation remained low, in particular in the non-tradable sectors, even though it increased strongly in the export sectors of many countries. Investment growth was in general subdued or in some countries even sharply negative, pointing to the ongoing adjustment in housing markets and a decline in the construction sector. In some countries the short-term impact of an ongoing fiscal adjustment contributed to the low growth of domestic demand.

Among the non-euro area EU Member States real GDP growth was particularly strong in the countries, such as Poland and Sweden, that had entered the recession with relatively small current account imbalances compared with most other

5 This section covers EU countries that did not form part of the euro area in 2010.

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

(annual percentage changes)									
	2006	2007	2008	2009	2010 <sup>3)</sup>	2010 Q1	2010 Q2	2010 Q3	2010 <sup>3)</sup> Q4
Bulgaria	6.5	6.4	6.2	-4.9	0.3	-0.8	-0.3	0.5	2.1
Czech Republic	6.8	6.1	2.5	-4.1	2.3	1.0	2.3	2.8	2.9
Denmark	3.4	1.6	-1.1	-5.2	.	-0.9	2.8	3.4	.
Estonia	10.6	6.9	-5.1	-13.9	3.1	-2.7	3.0	5.1	6.6
Latvia	12.2	10.0	-4.2	-18.0	-0.2	-5.1	-2.6	2.5	3.7
Lithuania	7.8	9.8	2.9	-14.7	1.3	-1.9	1.2	1.6	4.6
Hungary	3.6	0.8	0.8	-6.7	1.2	-0.6	0.8	2.2	2.4
Poland	6.2	6.8	5.1	1.7	3.8	3.1	3.8	4.7	4.3
Romania	7.9	6.3	7.3	-7.1	-1.2	-3.2	-1.5	-2.2	-0.5
Sweden	4.3	3.3	-0.6	-5.3	.	2.8	4.5	6.8	.
United Kingdom	2.8	2.7	-0.1	-4.9	1.3	-0.3	1.5	2.5	1.5
EU8 <sup>1)</sup>	6.6	6.0	4.0	-3.5	2.1	0.6	1.9	2.6	3.0
EU11 <sup>2)</sup>	4.0	3.5	0.9	-4.6	1.3	0.2	2.0	3.1	1.6
Euro area	3.0	2.8	0.4	-4.1	.	0.8	2.0	1.9	2.0

Source: Eurostat.

Note: Quarterly data are working day and seasonally adjusted, other than for Romania and the euro area (only seasonally adjusted).

1) The EU8 aggregate comprises the eight non-euro area countries (as at 31 December 2010) that joined the EU in 2004 or 2007.

2) The EU11 aggregate comprises the 11 non-euro area EU Member States as at 31 December 2010.

3) Figures for 2010 are flash estimates, i.e. preliminary data.

non-euro area EU countries. Some countries that had experienced very pronounced downturns in economic activity in 2009 also saw a strong rebound. The Baltic economies recovered after registering the most sizeable declines in activity of all EU countries in 2009. Their recovery was mainly driven by external demand, while domestic demand was weak or even contracted. The recovery in Bulgaria was slow and mainly driven by external demand, while domestic demand was dampened by the continuing adjustment in the private sector. Romania was the only non-euro area EU country where the economy continued to contract slightly in 2010, owing mainly to the ongoing fiscal adjustment.

Overall, the pronounced shift in the drivers of economic growth compared with the year before the global recession reflects the economic adjustment process that started during or, in some countries (e.g. the Baltic States), before the recession.

### PRICE DEVELOPMENTS

Average annual inflation increased in 2010 in most non-euro area EU Member States in spite of the continued weakness of domestic demand, still large spare capacity overall and the slack in the labour markets. The

main inflationary impulses came from rising food prices, but also from energy prices. In some countries, administered price and indirect tax changes added to inflation. The increase in international commodity prices tended to have a greater 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.

The cross-country variation in annual HICP inflation rates remained significant (see Table 8) in 2010. The highest average inflation rates were recorded in Hungary (4.7%), where excise taxes were raised in January and previous VAT increases also had a base effect, and Romania (6.1%), which introduced a substantial VAT increase in July. Inflation ranged between 2.2% and 3.3% in most of the other countries. In the Czech Republic, Lithuania and Sweden, the average inflation rate was positive but below 2%. Latvia was the only country with a negative average inflation rate in 2010, at -1.2%. The intra-year developments suggest an increasing trend in inflation in most countries. Inflation in Latvia returned to positive territory in September 2010, which was entirely the result of rising food and energy prices. Annual inflation rates excluding energy and

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

(annual percentage changes)									
	2006	2007	2008	2009	2010	2010 Q1	2010 Q2	2010 Q3	2010 Q4
Bulgaria	7.4	7.6	12.0	2.5	3.0	1.9	2.9	3.3	4.0
Czech Republic	2.1	3.0	6.3	0.6	1.2	0.4	0.9	1.6	2.0
Denmark	1.9	1.7	3.6	1.1	2.2	1.9	2.0	2.3	2.5
Estonia	4.4	6.7	10.6	0.2	2.7	0.0	2.9	3.1	5.0
Latvia	6.6	10.1	15.3	3.3	-1.2	-3.9	-2.3	-0.3	1.7
Lithuania	3.8	5.8	11.1	4.2	1.2	-0.4	0.5	1.8	2.9
Hungary	4.0	7.9	6.0	4.0	4.7	5.8	5.2	3.6	4.3
Poland	1.3	2.6	4.2	4.0	2.7	3.4	2.5	2.1	2.7
Romania	6.6	4.9	7.9	5.6	6.1	4.6	4.3	7.5	7.8
Sweden	1.5	1.7	3.3	1.9	1.9	2.7	1.8	1.3	1.8
United Kingdom	2.3	2.3	3.6	2.2	3.3	3.3	3.4	3.1	3.4
EU8 <sup>1)</sup>	3.2	4.4	6.6	3.7	3.2	2.8	2.8	4.6	5.2
EU11 <sup>2)</sup>	2.5	3.1	4.7	2.7	3.2	3.1	3.0	3.0	3.4
Euro area	2.2	2.1	3.3	0.3	1.6	1.1	1.5	1.7	2.0

Source: Eurostat.

1) The EU8 aggregate comprises the eight non-euro area countries (as at 31 December 2010) that joined the EU in 2004 or 2007.

2) The EU11 aggregate comprises the 11 non-euro area EU Member States as at 31 December 2010.

food prices remained contained in all countries, and were even negative in some countries (e.g. Latvia and Lithuania), which would suggest that demand-pull inflation pressures were subdued in 2010.

### FISCAL POLICIES

Apart from Estonia and Sweden, all non-euro area EU Member States are estimated to have posted general government deficit ratios above the 3% of GDP reference value in 2010. The United Kingdom is estimated to have continued recording a very large deficit, amounting to 10.5% of GDP. Deficit ratios declined in most non-euro area EU Member States in 2010 compared with 2009, partly as a result of stronger than previously expected economic growth leading to higher tax receipts, while government debt-to-GDP ratios continued to increase. In the majority of countries budgetary outcomes for 2010 were in line with the targets contained in the updated convergence programmes submitted at the end of 2009. The degree to which budget balances improved in 2010 compared with a year

earlier differed considerably across countries, depending on the extent of the improvement in the macroeconomic environment in conjunction with the country's fiscal response to the global financial and economic crisis. Whereas Bulgaria, the Czech Republic, the Baltic States and Romania all introduced expenditure cuts or restrained spending in 2010, in other countries the automatic stabilisers were generally allowed to operate. Moreover, in Denmark and Sweden discretionary fiscal stimuli were adopted in response to the crisis.

At the end of 2010 all non-euro area EU Member States other than Estonia and Sweden were subject to a Council decision on the existence of an excessive deficit. Deadlines to correct the excessive deficit situation are 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 (the financial year) 2014/15 for the United Kingdom.

**Table 9 Fiscal positions in the non-euro area EU Member States and the euro area**

(as a percentage of GDP)

	Budget balance					Gross debt				
	European Economic Forecast – autumn 2010				Updated 2009-10 convergence programmes 2010	European Economic Forecast – autumn 2010				Updated 2009-10 convergence programmes 2010
	2007	2008	2009	2010 <sup>3)</sup>		2007	2008	2009	2010 <sup>3)</sup>	
Bulgaria	1.1	1.7	-4.7	-3.8	0.0	17.2	13.7	14.7	18.2	14.6
Czech Republic	-0.7	-2.7	-5.8	-5.2	-5.3	29.0	30.0	35.3	40.0	38.6
Denmark	4.8	3.2	-2.7	-5.1	-5.3	27.3	34.1	41.5	44.9	41.8
Estonia	2.5	-2.8	-1.7	-1.0	-2.2	3.7	4.6	7.2	8.0	10.1
Latvia	-0.3	-4.2	-10.2	-7.7	-8.5	9.0	19.7	36.7	45.7	55.1
Lithuania	-1.0	-3.3	-9.2	-8.4	-8.1	16.9	15.6	29.5	37.4	36.6
Hungary	-5.0	-3.7	-4.4	-3.8	-3.8	66.1	72.3	78.4	78.5	79.0
Poland	-1.9	-3.7	-7.2	-7.9	-6.9	45.0	47.1	50.9	55.5	53.1
Romania	-2.6	-5.7	-8.6	-7.3	-6.3	12.6	13.4	23.9	30.4	28.3
Sweden	3.6	2.2	-0.9	-0.9	-3.4	40.0	38.2	41.9	39.9	45.5
United Kingdom	-2.7	-5.0	-11.4	-10.5	-12.0	44.5	52.1	68.2	77.8	82.1
EU8 <sup>1)</sup>	-1.9	-3.6	-6.8	-6.6	-5.8	35.7	37.7	43.7	48.5	47.0
EU11 <sup>2)</sup>	-1.4	-3.3	-8.4	-8.0	-8.9	40.9	45.6	56.9	63.3	65.7
Euro area	-0.6	-2.0	-6.3	-6.3	-6.7	66.2	69.8	79.2	84.2	83.9

Sources: European Commission's European Economic Forecast – autumn 2010, updated 2009-10 convergence programmes and ECB calculations.

Notes: Data are based on ESA 95 definitions. The 2010 figures in the convergence programme updates were established by national governments and hence could differ from the final outcomes.

1) The EU8 aggregate comprises the eight non-euro area countries (as at 31 December 2010) that joined the EU in 2004 or 2007.

2) The EU11 aggregate comprises the 11 non-euro area EU Member States as at 31 December 2010.

3) The data for 2010 are forecasts.

In 2010 government debt-to-GDP ratios are estimated to have increased in all non-euro area EU Member States apart from Sweden, though with the increase more moderate than in 2009 in most countries. The rise in the debt-to-GDP ratio was strongest in the United Kingdom (9.6 percentage points), Latvia (9.0 percentage points) and Lithuania (7.9 percentage points), reflecting mainly the large budget deficits in those countries. While the debt ratio remained above the 60% of GDP reference value in Hungary and rose further above this level in the United Kingdom, it remained below the reference value in the other non-euro area EU Member States.

#### BALANCE OF PAYMENTS DEVELOPMENTS

In 2010 the combined current and capital account balances of the non-euro area EU Member States (as a percentage of GDP) deteriorated in most countries (see Table 10). However, developments were very heterogeneous across countries. In Estonia, Latvia and Lithuania, the current and capital account surpluses decreased, reflecting the gradual recovery in these economies and strengthening domestic demand. The surplus also decreased in Sweden,

as a result of the deterioration in the trade balance due to the strong recovery in domestic demand. In the Czech Republic the combined current and capital account balance moved from surplus to deficit, owing to a rising income deficit and a smaller trade surplus. The current and capital account deficit widened in Poland, owing to strong domestic demand in 2010 and an increasing income deficit, in Romania, mainly owing to declining remittances, and in the United Kingdom, as a result of a weaker trade balance. In a number of countries, however, the balance improved. In Bulgaria the current and capital account shifted from a deficit to a surplus position on the back of strengthening exports and ongoing domestic adjustment. In Hungary, the surplus increased from 0.7% of GDP in 2009 to 3.0% in 2010, reflecting the largely export-led recovery. Denmark recorded a rise in its surplus from 3.5% in 2009 to 4.8% in 2010 on the back of stronger exports and still subdued domestic demand.

On the financing side, foreign direct investment inflows stabilised or increased in the course of 2010 in almost all the non-euro area countries that joined the EU in 2004 or later. Denmark and

**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			
	2007	2008	2009	2010	2007	2008	2009	2010	2007	2008	2009	2010
Bulgaria	-27.1	-22.3	-8.6	-0.7	28.7	17.5	9.6	5.6	16.8	16.9	-1.7	-2.5
Czech Republic	-2.6	0.2	0.1	-1.5	5.1	1.0	0.7	3.5	0.1	1.2	-1.0	-3.1
Denmark	1.4	2.7	3.5	4.8	-2.8	-3.5	-1.3	-1.2	3.3	2.0	3.8	12.1
Estonia	-16.2	-8.7	7.3	7.2	4.5	2.6	0.7	7.6	13.8	4.9	3.0	-6.8
Latvia	-20.4	-11.6	11.0	8.8	6.8	3.0	0.6	0.3	19.3	7.6	-9.8	-2.9
Lithuania	-12.8	-11.3	7.7	6.8	3.6	3.6	-0.1	0.7	13.0	5.8	-10.8	-14.7
Hungary	-6.2	-6.1	0.7	3.0	2.3	1.5	-0.1	2.6	5.4	18.2	8.8	-0.2
Poland	-3.6	-3.7	-0.5	-1.3	4.3	2.0	2.0	1.5	6.5	6.0	3.1	2.7
Romania	-12.8	-11.1	-3.7	-4.6	5.7	6.7	3.0	2.6	11.2	6.2	2.0	4.6
Sweden	8.4	8.6	7.4	6.5	-2.2	1.4	-4.9	-3.0	-3.0	8.7	-9.0	-7.3
United Kingdom	-2.4	-1.3	-1.5	-1.7	-4.4	-2.6	1.2	0.4	-0.8	-9.7	-3.0	-8.9
EU11 <sup>1)</sup>	-1.4	-0.4	0.4	0.3	2.6	-0.9	0.2	-1.1	-0.5	0.3	-7.3	-10.4
EU3 <sup>2)</sup>	0.0	0.7	0.5	0.3	2.1	-2.7	-0.8	-1.8	-1.5	-1.3	-11.4	-14.8
EU8 <sup>3)</sup>	-1.4	-1.1	-0.1	-0.1	4.1	5.5	3.6	1.8	3.3	5.9	7.4	5.4
Euro area	0.2	-1.3	-0.5	-0.4	-1.0	-2.6	-0.8	-1.1	0.3	1.4	-2.4	-0.2

Source: ECB.

Note: Data for 2010 refer to the four-quarter average up to the third quarter of 2010.

1) The EU11 aggregate comprises weighted contributions by the 11 non-euro area EU Member States as at 31 December 2010.

2) The EU3 aggregate comprises weighted contributions by Denmark, Sweden and the United Kingdom.

3) The EU8 aggregate comprises weighted contributions by the eight non-euro area countries as at 31 December 2010 that joined the EU in 2004 or 2007.

Sweden continued to be net exporters of direct investment. Increases in the more stable components of the financing of the current account were, in the Czech Republic, Lithuania and Poland, accompanied by considerable increases in net portfolio investment. As regards other investment flows, many countries posted further net outflows – mainly as a consequence of a stronger deleveraging process. In Latvia and Romania, private capital inflows in 2010 continued to be supplemented by financial support programmes provided by international organisations.

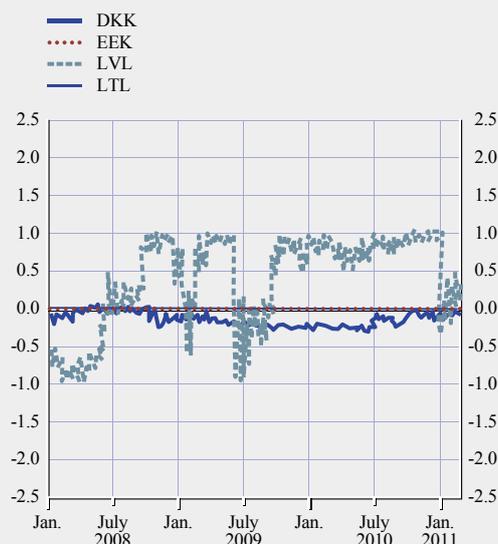
#### EXCHANGE RATE DEVELOPMENTS

Exchange rate developments in the non-euro area EU Member States in 2010 were strongly influenced by the exchange rate regimes of the individual countries. The currencies of Denmark, Estonia, Latvia and Lithuania participated in the exchange rate mechanism II (ERM II). They were subject to a standard fluctuation band of  $\pm 15\%$  around their central rates against the euro, except for the Danish krone, with a narrower band of  $\pm 2.25\%$  (see Chart 41). 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 Estonian kroon and the Lithuanian litas joined ERM II with their existing currency board arrangements 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  $\pm 1\%$ .

The Estonian kroon and the Lithuanian litas stayed at their central rates during 2010. The Latvian lats remained broadly stable within the unilaterally set band of  $\pm 1\%$  vis-à-vis the euro, fluctuating close to the weak limit of the band. The lats did not come under significant pressure in 2010, reflecting the stabilisation of macroeconomic conditions and improved investor sentiment vis-à-vis the Latvian economy. The further compliance with the conditions of the international financial

**Chart 41 Developments in ERM II EU currencies**

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



Source: ECB.

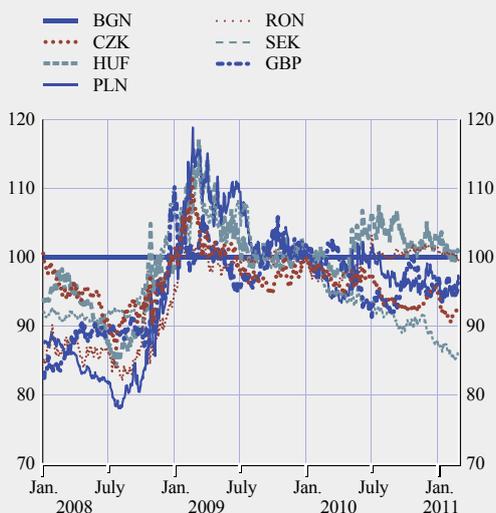
Notes: A positive (negative) deviation from the central rate against the euro implies that the currency is on the weak (strong) side of the band. For the Danish krone, a fluctuation band of  $\pm 2.25\%$  applies. For all other currencies, the standard fluctuation band of  $\pm 15\%$  applies. However, as part of a unilateral commitment, the fluctuation band for the Latvian lats is  $\pm 1\%$ ; for the Lithuanian litas a currency board arrangement is maintained; and for the Estonian kroon a currency board was in place until Estonia's adoption of the euro in January 2011. Last observation refers to 25 February 2011.

assistance programme led by the EU and the IMF also provided support and remains fundamental to the credibility of the exchange rate peg in the future.

Turning to the currencies of the non-euro area EU Member States that did not participate in ERM II, two groups of exchange rate developments can be identified. While the Czech koruna, the Polish zloty, the Swedish krona and the pound sterling continued to appreciate vis-à-vis the euro, the Hungarian forint and the Romanian leu were broadly stable (see Chart 42). The Czech koruna, the Polish zloty and the Swedish krona were supported by the growth performance of those economies. The pound sterling appreciated against the euro overall, but the exchange rate was highly volatile. With the exception of the

**Chart 42 Developments in non-ERM II EU currencies vis-à-vis the euro**

(daily data; index: 1 January 2010 = 100)



Source: ECB.

Notes: An increase (decrease) indicates a depreciation (appreciation) of the currency. Last observation refers to 25 February 2011.

Czech koruna and the Swedish krona, the appreciating currencies did not return to their pre-2008 levels vis-à-vis the euro.

The brief episodes of volatility in the HUF/EUR exchange rate reflected political tensions in Hungary, including the breakdown of talks between international organisations and the government, and downgrades by the major credit rating agencies. The Romanian leu remained broadly unchanged from January 2010, with short periods of heightened volatility due largely to political tensions and related risks regarding the implementation of fiscal consolidation measures agreed with international organisations. The Bulgarian lev remained unchanged against the euro, reflecting its euro-based currency board arrangement.

#### FINANCIAL DEVELOPMENTS

Financial market conditions generally improved in the non-euro area EU Member States in the course of 2010. Long-term interest rates, as

measured by ten-year government bond yields, declined in most countries, and spreads vis-à-vis euro area government bonds narrowed on average. The decline in long-term yields was most pronounced in Latvia and Lithuania, owing to the improved macroeconomic performance and also because of their very high levels at the beginning of 2010. Turning to money markets, rates declined significantly in most of the non-euro area EU Member States, partly owing to decreases in policy rates. A notable exception is Sweden, where policy rate hikes starting in the summer helped to push short-term market rates up by some 150 basis points.

The turbulence experienced in some euro area sovereign debt markets had only a limited impact on credit default swap (CDS) spreads for the non-euro area EU Member States. Seen over the year as a whole, most countries registered only small changes in premia. There are, however, some notable exceptions. In the Baltic States, premia declined by around 145 basis points on average, reflecting, among other factors, increased confidence in austerity measures and the improved macroeconomic situation. Conversely, continued concern about the sustainability of fiscal consolidation in Hungary caused Hungarian CDS spreads to widen by some 140 basis points over the course of the year. Stock markets in the non-euro area EU Member States on average outperformed euro area markets by a wide margin. This was most pronounced in the Baltic States, where stocks advanced by some 55% on average in 2010.

In early 2011 equity markets continued to strengthen in most countries, while developments in long-term government bond yields were mixed. Hungarian CDS spreads fell by around 75 basis points, supported by improved investor sentiment.

#### MONETARY POLICY

The primary objective for monetary policy in all non-euro area EU Member States is price stability. Monetary policy strategies, however,

**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: 3% $\pm$ 1 percentage point until end-2009; thereafter 2% $\pm$ 1 percentage point. Managed floating exchange rate.
Denmark	Exchange rate target	Danish krone	Participates in ERM II with a $\pm$ 2.25% fluctuation band around a central rate of DKK 7.46038 per euro.
Estonia	Exchange rate target	Estonian kroon	Participated in ERM II with a $\pm$ 15% fluctuation band around a central rate of EEK 15.6466 per euro and continued with its currency board arrangement as a unilateral commitment. On 1 January 2011 the euro became legal tender in Estonia, replacing the Estonian kroon at the irrevocably fixed exchange rate of EEK 15.6466 per euro.
Latvia	Exchange rate target	Latvian lats	Participates in ERM II with a $\pm$ 15% fluctuation band around a central rate of LVL 0.702804 per euro. Latvia is continuing with a fluctuation band of $\pm$ 1% as a unilateral commitment.
Lithuania	Exchange rate target	Lithuanian litas	Participates in ERM II with a $\pm$ 15% fluctuation band around a central rate of LTL 3.45280 per euro. Lithuania is continuing with its currency board arrangement as a unilateral commitment.
Hungary	Inflation target	Hungarian forint	Inflation target: 3% as a medium-term target since 2007. Free-floating exchange rate.
Poland	Inflation target	Polish zloty	Inflation target: 2.5% $\pm$ 1 percentage point (12-month increase in the CPI). Free-floating exchange rate.
Romania	Inflation target	Romanian leu	Inflation target: 3.5% $\pm$ 1 percentage point for end-2010, 3.0% $\pm$ 1 percentage point for end-2011 and end-2012, and 2.5% $\pm$ 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.

continued to differ considerably from country to country (see Table 11).

In the first half of 2010 many non-euro area EU central banks, including Česká národní banka, Danmarks Nationalbank, Latvijas Banka, the Magyar Nemzeti Bank and Banca Națională a României, decreased their key policy rates. Most of these rate reductions served the purpose of encouraging bank lending and supporting economic activity (in light of a significantly negative output gap in a number of countries). In the second half of 2010 and in early 2011 the easing cycle came to a halt in most non-euro area EU countries. With the exception of Latvijas Banka,

all non-euro area EU central banks that changed their key policy rates in this period, i.e. Danmarks Nationalbank, the Magyar Nemzeti Bank, Narodowy Bank Polski and Sveriges Riksbank, decided to increase them. Most rate increases were aimed at ensuring the fulfilment of the medium-term inflation objectives of the respective central bank. The central banks of Hungary and Romania maintained the highest policy interest rates in 2010 (at 5.75% and 6.25% respectively at the end of the year), reflecting higher inflation rates and risk premia compared with other non-euro area EU Member States. In the case of Romania the high policy rate also reflected the central bank's aim of counteracting the risk of

second-round effects from supply-side shocks (including the VAT rate increase in July 2010, as well as higher food and energy prices).

As regards non-conventional monetary policy measures, during 2010 the Bank of England maintained its stock of asset purchases financed by the issuance of central bank reserves at GBP 200 billion. This reflected the judgement of the Monetary Policy Committee of the Bank of England that the stance of monetary policy remained appropriate to hit the inflation target in the medium term, and that the balance of risks surrounding inflation had not shifted sufficiently to warrant a change in policy. Non-standard measures taken by Sveriges Riksbank (fixed interest rate loans to commercial banks with a 12-month maturity) expired in 2010. No new measures were introduced, reflecting the strong recovery of the economy and the pick-up in credit growth.



The new ECB premises, designed by COOP HIMMELB(L)AU, are due to be completed by 2013. The ensemble will consist of three main building elements, namely the double office tower, the former Grossmarkthalle and the entrance building.

## **CHAPTER 2**

# **CENTRAL BANK OPERATIONS AND ACTIVITIES**

# I MONETARY POLICY OPERATIONS, FOREIGN EXCHANGE OPERATIONS AND INVESTMENT ACTIVITIES

## I.1 OPEN MARKET OPERATIONS AND STANDING FACILITIES

The monetary policy instruments of the Eurosystem used in 2010 comprised open market operations, such as main refinancing operations (MROs), longer-term refinancing operations (LTROs) and fine-tuning operations, standing facilities and minimum reserve requirements. The Covered Bond Purchase Programme (CBPP) and the Securities Markets Programme (SMP) were introduced as temporary, non-standard measures aimed at repairing malfunctioning segments in the euro financial markets.

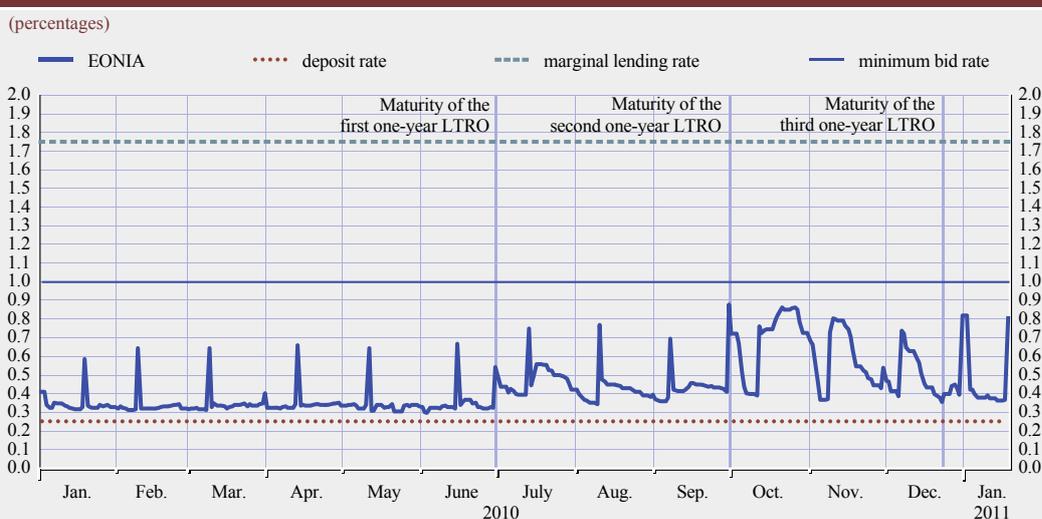
During 2010 the Governing Council did not change the key ECB interest rates (see Chart 43). The interest rate on the MROs, the interest rate on the marginal lending facility and the interest rate on the deposit facility remained unchanged at 1.00%, 1.75% and 0.25% respectively. The width of the corridor was thus kept at 150 basis points.

At the beginning of 2010 some of the non-standard monetary policy measures that had been introduced in response to the intensification

of the financial crisis in 2008 were gradually phased out. This involved discontinuing the six-month, the 12-month and the supplementary three-month LTROs and reintroducing variable rate tender procedures in the regular three-month LTROs, starting with the operation allotted on 28 April 2010. Meanwhile, full allotment and fixed rate tender procedures continued to apply to the MROs and the special-term refinancing operations (with a maturity of one maintenance period). Moreover, the foreign currency liquidity-providing operations (in Swiss francs and US dollars) conducted by the ECB were discontinued after 31 January 2010.

On 10 May 2010 the Governing Council decided on several measures to address the severe tensions that had emerged over the preceding weeks in certain financial market segments. Besides the decision to again conduct all refinancing operations as fixed rate tender procedures with full allotment, and to conduct a six-month LTRO with full allotment on 12 May 2010, the Governing Council announced the Securities Markets Programme as a new measure to address those tensions. In order to ensure that the monetary policy stance is not affected by

Chart 43 Key ECB interest rates and the EONIA



the interventions under the SMP, the liquidity injected through the SMP is absorbed through the weekly collection of fixed-term deposits from the banking sector. Moreover, the temporary swap lines with the US Federal Reserve System, which were discontinued after 31 January 2010, were reactivated in May 2010, in coordination with other central banks, and the ECB resumed US dollar liquidity-providing operations.

### LIQUIDITY NEEDS OF THE BANKING SYSTEM

When supplying liquidity through open market operations, the Eurosystem usually takes into account a daily assessment of the liquidity needs of the consolidated euro area banking system. These liquidity needs are determined by the sum of minimum reserve requirements, excess reserves and autonomous factors. 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 Eurosystem's liquidity management.

However, with the exception of the regular LTRO allotted on 28 April 2010, all of the Eurosystem's regular refinancing operations in 2010 were conducted as fixed rate tender procedures with full allotment.<sup>1</sup> As a consequence, the outstanding volume of refinancing operations continued to be driven not by the supply considerations of the Eurosystem, but rather by the demand from counterparties, thereby reflecting their underlying liquidity preferences. The level of current accounts above the minimum reserve requirement in 2010 stood on average at €1.26 billion, which was higher than the level of previous years (€1.03 billion in 2009<sup>2</sup> and €1.07 billion in 2008).

During 2010 the euro area banking system continued to borrow an aggregate surplus of liquidity and to deposit it back with the Eurosystem, paying the fixed rate on the main refinancing operations and receiving the rate on the deposit facility (which implied a spread of 75 basis points). The daily average

net recourse to the deposit facility of the Eurosystem – which can be seen as one measure of the aggregate liquidity surplus – increased from almost €180 billion in January 2010 to nearly €300 billion in June 2010. Thereafter, it declined significantly and steadily to just above €50 billion in December 2010.

The implicit decline in the aggregate liquidity surplus during the second half of 2010 shows that the reduction in the total outstanding refinancing brought about by the maturing of the one-year LTROs – the first on 1 July (€442.2 billion), the second on 30 September (€75.2 billion) and the third on 23 December (€96.9 billion) – was not compensated for by an equivalent increase in the outstanding volumes of the shorter-term refinancing operations conducted with full allotment fixed rate tender procedures (see Chart 44). This can be interpreted as evidence that counterparties' precautionary demand for liquidity from the Eurosystem eased throughout the year.

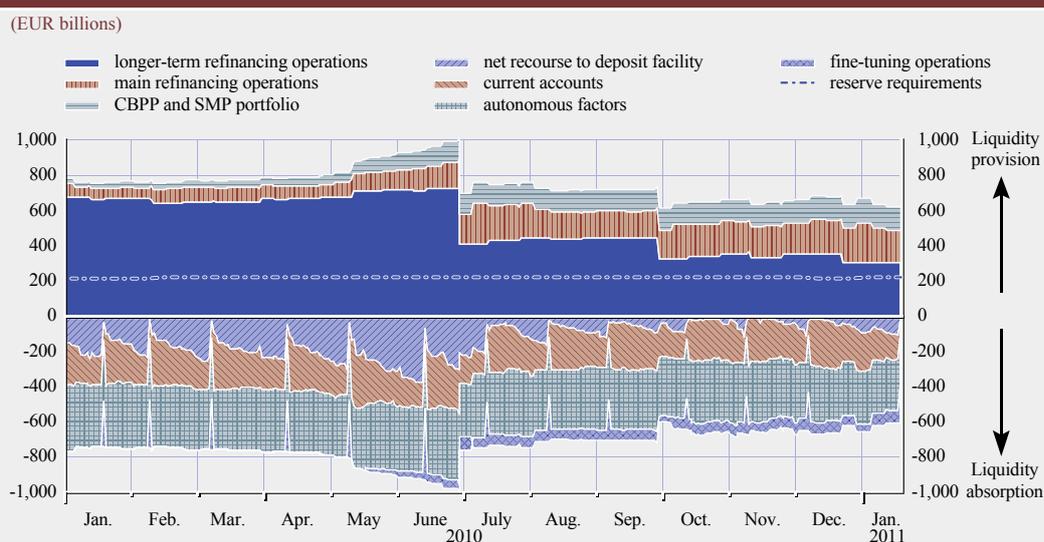
In 2010 the average daily liquidity needs of the euro area banking system amounted to €557 billion, 3.5% lower than in 2009. The main reason for the decrease was the decline in autonomous factors, by 9%, to €346 billion on average. Minimum reserve requirements slightly decreased on average in 2010, to €212 billion, compared with €216 billion in 2009 (see Chart 44).

### MINIMUM RESERVE SYSTEM

Credit institutions in the euro area are required to hold minimum reserves on current accounts with the Eurosystem. As has been the case since 1999, the minimum reserve requirements were equal to 2% of credit institutions' reserve base in 2010 and amounted to €212 billion on average, 2% lower

- 1 The LTRO allotted on 28 April 2010 was conducted with a minimum bid rate of 1.00%. This was a technical and transitional measure to avoid allotment rates below the fixed rate in the MRO in the presence of ample liquidity. The indicative allotment amount for this operation was €15 billion; as only €4.845 billion was bid, the ECB allotted all bids in full. The weighted average rate of this LTRO was 1.15%.
- 2 Slightly revised figure compared with the Annual Report 2009.

**Chart 44 Liquidity factors in the euro area in 2010**



than the 2009 average. Since for any maintenance period the Eurosystem remunerates reserve holdings at a rate which is the average of the marginal rates of the MROs over the maintenance period (if conducted as variable rate tender procedures) or at the fixed MRO rate (in the case of fixed rate tender procedures), the minimum reserve system does not impose a tax on the banking sector. At the same time, it fulfils two important functions in the operational framework for monetary policy implementation. First, it contributes to the stability in short-term money market rates, because the reserve requirements have to be fulfilled only on average over the maintenance period, allowing credit institutions to smooth out temporary and unexpected liquidity inflows and outflows. Second, it enlarges the liquidity deficit of the banking system, i.e. banks' overall need for refinancing from the Eurosystem, thereby ensuring under normal market conditions a smooth and predictable demand for refinancing from the Eurosystem, which facilitates the steering of short-term money market rates by the Eurosystem.

#### OPEN MARKET OPERATIONS

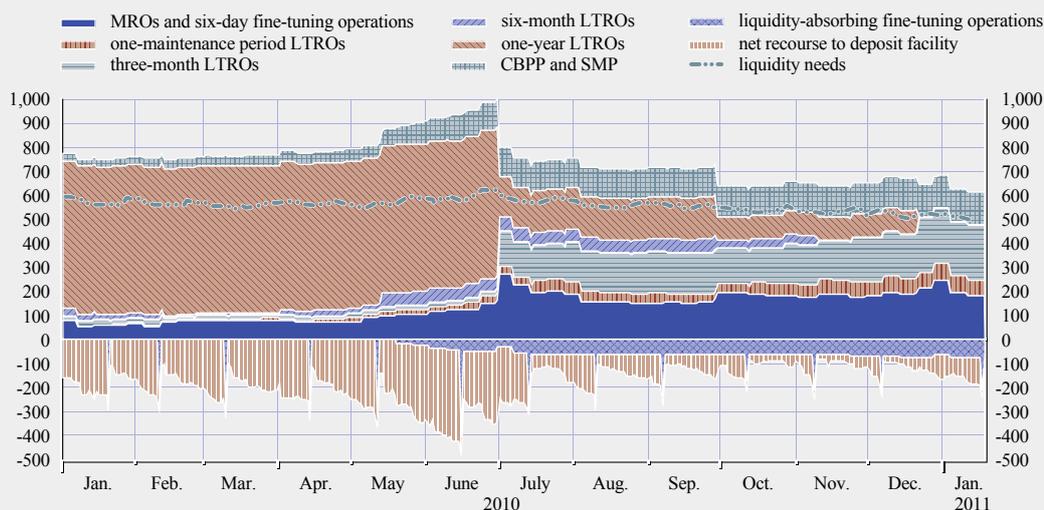
The Eurosystem currently uses MROs, LTROs, special-term refinancing operations and

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. Regular LTROs are monthly liquidity-providing operations with a three-month maturity. The gradual phasing-out of non-standard measures at the beginning of 2010 led to the discontinuation of supplementary LTROs with three-month and six-month maturities. However, special-term refinancing operations, introduced in September 2008, the maturity of which is synchronised with the respective maintenance period, were kept. The three liquidity-providing LTROs with a maturity of one year settled during 2009 matured on 1 July, 30 September and 23 December 2010. Four liquidity-providing fine-tuning operations were conducted on 1 July, 30 September, 11 November and 23 December to smooth the liquidity effect from the maturing of the six-month and one-year LTROs.

In 2010 all 52 MROs were conducted as fixed rate tender procedures in which all bids were

**Chart 45 Outstanding volume of monetary policy operations**

(EUR billions)



Source: ECB.

satisfied. The number of eligible counterparties increased to 2,267 in 2010, from 2,157 in 2009. On average, 115 counterparties participated in the MROs in 2010, compared with 401 in 2009. The average volume allotted in the MROs was €133.8 billion (see Chart 45), compared with €149.8 billion in 2009. The average allotment before the maturing of the first one-year LTRO (€88.4 billion) was about half the average volume allotted during the second half of 2010 (€179.3 billion). In 2010 the lowest number of counterparties (65) to participate in an MRO was recorded in the operation that settled on 3 March, and the lowest MRO volume (€54 billion) was allotted in the operation that settled on 6 January.

In the first half of the year, before the first one-year LTRO matured, the daily average outstanding volume of liquidity allotted in the LTROs, supplementary LTROs and special-term refinancing operations was €671 billion. In the second half of the year the daily average fell to €431 billion before the maturing of the second one-year LTRO on 30 September, and then decreased further to €333 billion during the last quarter of the year (see Chart 45).

Participation in the special-term refinancing operations (with a maturity equal to the length of the reserve maintenance period) increased significantly in the course of the year, from €5.7 billion allotted in January to €68 billion allotted in December, with an eightfold increase in counterparties' participation (from 7 to 56). Participation in the regular three-month LTROs was rather volatile throughout 2010, from a minimum of €2 billion allotted in March to a maximum of €149 billion allotted in December (an average of €45.1 billion). Finally, in the two six-month operations settled on 1 April and 13 May, counterparties participated for a total of €18 billion and €36 billion respectively (see Chart 45).

The Eurosystem central banks continued their outright purchases of euro-denominated covered bonds as part of the Covered Bond Purchase Programme, which began on 6 July 2009. The targeted amount of the CBPP of €60 billion, purchased on the primary and secondary markets over the 12-month life of the programme, was reached on 30 June 2010. Together with the SMP, €134.8 billion was provided in 2010 through outright purchases by the Eurosystem (see Chart 45).

The ECB may conduct liquidity-providing and liquidity-absorbing fine-tuning operations on an ad hoc basis to manage liquidity conditions in the market and to steer interest rates. The Governing Council's decision to widen access to fine-tuning operations as of 6 October 2008 by granting eligibility to all counterparties that are eligible to participate in Eurosystem open market operations based on standard tender procedures, and that additionally fulfil certain selection criteria specified by the respective NCBs, remained in effect in 2010.

In order to reabsorb the liquidity injected through the Securities Markets Programme, the ECB conducted liquidity-absorbing fine-tuning operations to collect one-week fixed-term deposits for a weekly amount corresponding to the settled size of the SMP itself. These fine-tuning operations were carried out as variable rate tender procedures with a maximum bid rate of 1%. Moreover, the ECB conducted regular 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, €232 billion was absorbed via these operations, with 171 counterparties participating (see Chart 45).

#### STANDING FACILITIES

Counterparties may 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 2010, 2,395 counterparties had access to the marginal lending facility and 2,789 counterparties had access to the deposit facility.

The rates for these facilities provide a ceiling and a floor for the overnight rate and therefore perform an important function for monetary policy implementation. The corridor formed by the rates of the two standing facilities, with a width of 150 basis points, was kept symmetric around the MRO rate, which was unchanged at 1.00%. This was done to ensure that the rate on the deposit

facility remained above zero, thus maintaining an incentive for counterparties to trade in the unsecured overnight market.

The use of the deposit facility was kept at high levels, in particular during the second quarter of 2010, when a new record of €384.3 billion was observed (on 11 June). The average daily use of the deposit facility was €145.9 billion (compared with €208.5 billion in the period from 9 October until 31 December 2008 and €109 billion in 2009). However, the use of the deposit facility declined significantly and steadily throughout the second half of the year. In 2010 recourse to 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 €0.62 billion (compared with €1 billion in 2009). This further decline may confirm a reduction in uncertainty about individual banks' liquidity needs, an improvement in the functioning of the unsecured overnight interbank market and, this year in particular, the ampleness of allotments in the refinancing operations.

#### ELIGIBLE ASSETS FOR MONETARY POLICY OPERATIONS

As required by 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, first, that the Eurosystem is to a large extent protected from incurring losses in its credit operations and, second, that sufficient collateral should be available to a wide set of counterparties, so that the Eurosystem can provide the amount of liquidity it deems necessary in its monetary policy operations and as intraday credit in payment system operations. To facilitate this, 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

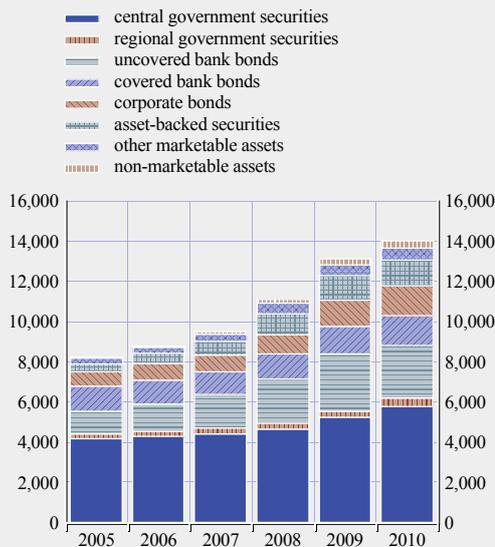
of counterparties, has been key in supporting the implementation of monetary policy in times of stress. The inbuilt flexibility of its operational framework allowed the Eurosystem to provide the necessary liquidity to address the impaired functioning of the money market without encountering widespread collateral constraints during the financial crisis. The temporary measures to expand the list of eligible collateral which were introduced at the end of 2008 remained in place until the end of 2010.

In 2010 the average amount of eligible collateral increased by 7%, compared with 2009, to a total of €14 trillion (see Chart 46). General government debt, at €5.8 trillion, accounted for 41% of the total, while the remainder of marketable collateral was in the form of uncovered bank bonds (€2.7 trillion, or 19%), covered bank bonds (€1.5 trillion, or 11%), corporate bonds (€1.5 trillion, or 11%), asset-backed securities (ABSs; €1.3 trillion, or 9%), and other bonds (€0.6 trillion, or 4%), such as those issued by supranational organisations. The overall volume of marketable assets which had become eligible as a result of the temporary measures introduced in 2008 stood at €1.3 trillion at the end of 2010. The list of eligible collateral also includes non-marketable assets, mostly credit claims (also referred to as “bank loans”). In contrast to marketable assets, it is not possible to assess the eligibility of credit claims as long as they are not registered with the Eurosystem. Therefore, the volume of potentially eligible non-marketable assets cannot easily be measured. Taking into account this caveat, the amount of non-marketable assets deposited by counterparties as collateral in Eurosystem credit operations reached €0.4 trillion in 2010, representing 3% of total eligible collateral in the Eurosystem. The lower credit threshold temporarily introduced to expand the list of eligible collateral was also applied to non-marketable assets.

The average value of marketable and non-marketable assets put forward by counterparties as collateral in Eurosystem credit operations slightly decreased, from €2,034 billion in 2009 to €2,010 billion in 2010. This decrease reflected mainly the fact that counterparties had

**Chart 46 Eligible collateral by asset type**

(EUR billions; annual averages)

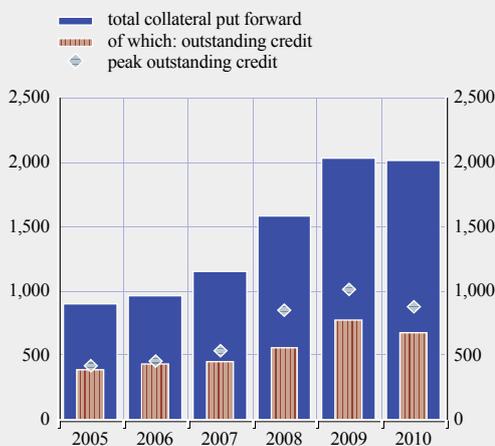


Source: ECB.

on average lower liquidity needs throughout 2010. However, despite decreased liquidity needs, counterparties kept, on aggregate, similarly large additional amounts of collateral

**Chart 47 Collateral put forward in Eurosystem credit operations versus outstanding credit in monetary policy operations<sup>1)</sup>**

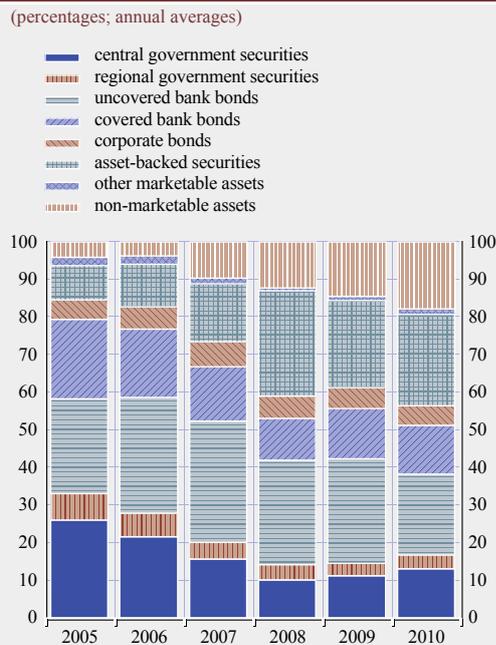
(EUR billions)



Source: ECB.

1) “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 48 Breakdown of assets (including credit claims) put forward as collateral by asset type**



Source: ECB.

with the Eurosystem as they did in response to the financial market turbulence (see Chart 47). The share of deposited collateral not used to cover credit from monetary policy operations therefore increased to significantly higher levels than in the years before. This suggests that a shortage of collateral has not been a systemic constraint on the Eurosystem's counterparties at the aggregate level.

As regards the composition of collateral put forward (see Chart 48), the average share of asset-backed securities slightly increased from 23% in 2009 to 24% in 2010, thereby becoming the largest class of asset put forward as collateral with the Eurosystem, while the overall amount submitted remained stable. Uncovered bank bonds further decreased to 21% of the collateral put forward in 2010. Non-marketable assets gained further importance, with their share rising from 14% in 2009 to 18% in 2010. In addition, also owing to the sovereign debt crisis in some euro area countries, the average share of central government bonds further increased from 11%

in 2009 to 13% in 2010. The asset classes which were temporarily eligible until the end of 2010 accounted for around 1% of the total marketable collateral put forward at the end of 2010.

### RISK MANAGEMENT ISSUES

The Eurosystem mitigates the risk of a counterparty default in a Eurosystem credit operation by requiring counterparties to submit adequate collateral. However, the Eurosystem is still exposed to a number of financial risks if a counterparty defaults, including credit, market and liquidity risk. In addition, the Eurosystem is exposed to currency risk in the context of liquidity-providing operations in foreign currencies against euro-denominated collateral, whenever these are conducted. In order to reduce all these risks to acceptable levels, the Eurosystem maintains high credit standards for assets accepted as collateral, values collateral on a daily basis and applies appropriate risk control measures. The establishment of the new Risk Management Committee has further contributed to the enhancement of the Eurosystem's risk management framework (see also Sections 1.5 and 1.6 of Chapter 10).

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 collateral and in line with the prospect of recovery. More generally, financial risks in credit operations are quantified and regularly reported to the ECB's decision-making bodies.

In 2010 the ECB made a number of adjustments to its eligibility criteria and risk control framework. The Governing Council decided to keep the minimum credit threshold for marketable and non-marketable assets in the Eurosystem collateral framework at investment-grade level (i.e. BBB-/Baa3) beyond the end of 2010, except in the case of asset-backed securities. As a consequence of this decision, the ECB announced on 8 April 2010 and published on 28 July 2010 a new schedule which duly

graduates haircuts according to differences in maturities, liquidity categories and the credit quality of the assets concerned, based on an updated assessment of the risk characteristics of eligible assets and the actual use of eligible assets by counterparties. Moreover, some changes were introduced in the definition of liquidity categories for marketable assets and the application of additional valuation mark-downs for theoretically valued assets. The new schedule came into force on 1 January 2011.

On 3 May 2010 the Governing Council decided to suspend, until further notice, the application of the minimum credit rating threshold in the collateral eligibility requirements for the purposes of the Eurosystem's credit operations in the case of marketable debt instruments issued or guaranteed by the Greek government. This decision was, also from a risk management perspective, a result of the positive assessment of the Governing Council on the economic and financial adjustment programme negotiated with the European Commission, in liaison with the ECB, and the IMF and approved by the Greek government, along with the strong commitment of the Greek government to fully implement the programme.

On 9 October 2010 the Governing Council decided on a number of further adjustments to the framework for the implementation of monetary policy in the euro area. These changes included clearer and more stringent provisions for the eligibility of ABSs, the introduction of additional exemptions from the prohibition of close links, the enhancement of the formulation regarding the suspension, limitation or exclusion of counterparties and assets on the grounds of prudence or a default, and clarifications regarding the treatment of cases where the counterparty fails to sufficiently collateralise a liquidity-providing operation.

With a view to increasing transparency with regard to ABSs, thus making it possible to make more informed risk assessments for such assets and helping to restore confidence in the securitisation markets, the Governing Council

decided on 16 December 2010 to establish loan-by-loan information requirements for ABSs in the Eurosystem collateral framework. The Governing Council intends to introduce the loan-by-loan information requirements within approximately 18 months of the aforementioned date, first for retail mortgage-backed securities and thereafter gradually for other ABSs.

When the necessary data-handling infrastructure to allow the processing, verification and transmission of the data has been established by market participants, the provision of loan-by-loan information will become an eligibility requirement for the instruments concerned. The Eurosystem will continue to accept securities not meeting the new information criteria until the obligation to submit loan-level data comes into force.

## **1.2 FOREIGN EXCHANGE OPERATIONS AND OPERATIONS WITH OTHER CENTRAL BANKS**

In 2010 the Eurosystem did not undertake any interventions in the foreign exchange market. Furthermore, the ECB did not undertake any foreign exchange operations in the currencies that participate in the exchange rate mechanism 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 only activated on one occasion in 2010.

The reciprocal currency arrangement (swap line) that the ECB established with the US Federal Reserve System in 2007 to counter strains in the European US dollar funding markets expired on 1 February 2010. In connection with the US dollar Term Auction Facility of the Federal Reserve System, and in close cooperation with other central banks, the Eurosystem provided the US dollar funding received via this swap line to its counterparties against collateral eligible for Eurosystem credit operations. In January 2010 the Eurosystem conducted four operations as fixed rate tender procedures with full allotment and a seven-day maturity. The decision to let

the liquidity swap line expire was taken against the background of improving conditions on financial markets in 2009. On 10 May, however, the temporary swap line was reactivated as part of a package to address the severe tensions in certain market segments that re-emerged in connection with the sovereign debt crisis in some euro area countries. In particular, the reactivation was designed to help alleviate pressures in US dollar funding markets and to prevent the spread of strains to other markets. These operations took the form of repurchase agreements and were carried out as fixed rate tender procedures with full allotment. Between May 2010 and 25 February 2011 the Eurosystem conducted 32 operations with a seven-day maturity, as well as one 14-day operation on 22 December and one 84-day operation on 18 May.

The Eurosystem continued to provide Swiss franc liquidity to its counterparties via four swap operations with a seven-day maturity in January 2010. These operations were conducted in the form of EUR/CHF foreign exchange swaps at a fixed price and with a maximum allotment amount, determined by the ECB in coordination with the Swiss National Bank. On 18 January 2010 the ECB announced that the Governing Council had decided, in agreement with the Swiss National Bank, to stop conducting one-week Swiss franc liquidity-providing swap operations after 31 January 2010, against the background of declining demand and improved conditions in funding markets.

The ECB and the Bank of England announced on 17 December 2010, within the framework of central bank cooperation, a temporary liquidity swap facility, under which the Bank of England could provide, if necessary, up to GBP 10 billion to the ECB in exchange for euro. The agreement, which expires at the end of September 2011, 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. This swap facility was not used in 2010.

On 31 December 2010 a liquidity-providing repurchase transaction of €1.8 billion, with a maturity of three days, was settled. This transaction was conducted by the ECB in connection with liquidity arrangements in place with central banks outside the euro area.

### 1.3 THE SECURITIES MARKETS PROGRAMME

The Governing Council decided in May 2010 to establish the Securities Markets Programme. The objective of this temporary and ongoing programme is to address the malfunctioning of certain euro area debt securities market segments and to ensure an appropriate monetary policy transmission mechanism. In practice, the programme is implemented by Eurosystem portfolio managers carrying out purchases of certain euro area debt securities in market interventions. By 31 December 2010 the Eurosystem had purchased securities under the SMP with a total settlement amount of around €73.5 billion.<sup>3</sup>

In order to reabsorb the liquidity injected through the Securities Markets Programme, the ECB conducted liquidity-absorbing fine-tuning operations to collect one-week fixed-term deposits for a weekly amount corresponding to the settled size of the SMP itself (see the “Open market operations” section earlier in this chapter).

### 1.4 THE COVERED BOND PURCHASE PROGRAMME

At the end of June the purchases carried out under another programme, the Covered Bond Purchase Programme, were completed. The Eurosystem purchased a nominal amount of €60 billion under the CBPP over the one-year period of its implementation, from 6 July 2009 to 30 June 2010. The aim of this programme,

<sup>3</sup> More information on the SMP can be found in the ECB's press release of 10 May 2010, the ECB's Decision of 14 May 2010 establishing a securities markets programme and the data published as part of the weekly financial statements of the Eurosystem.

which was one of the building blocks of the ECB's enhanced credit support approach, was to contribute to the revival of the covered bond market. One of the main signs of the success of the CBPP is the noticeable reactivation of primary market activity for covered bonds. Between the announcement of the CBPP and its termination, 175 CBPP-eligible new covered bonds and 55 taps of existing CBPP-eligible covered bonds were issued for an overall amount of around €184 billion.<sup>4</sup> Since March 2010 the securities held under the CBPP have been made available for lending on demand to eligible counterparties against eligible collateral. While this lending activity remained limited in terms of amounts, it is considered useful for proper market functioning that the securities held under the CBPP are in principle available for lending.

### 1.5 INVESTMENT ACTIVITIES

The ECB's investment activities other than those related to the SMP and CBPP (see above) 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. A set of rules and procedures (known as a "Chinese wall") ensures that inside information about monetary and foreign exchange policies of the ECB and of other central banks does not reach the staff members of the ECB's Investment Division or the staff members of the NCBs who are involved in the ECB's investment activities. Should inside information be passed on to these staff members, 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.<sup>5</sup> Eesti Pank expressed an interest in being involved in ECB foreign reserve management activities and established a pool together with Suomen Pankki – Finland's Bank for carrying out these activities together, whereby the two NCBs jointly manage a portion of the ECB's Japanese yen portfolio on behalf of the ECB.

The value of the ECB's net foreign reserve assets<sup>6</sup> at current exchange rates and market prices increased from €51 billion at end-2009 to €60.6 billion at end-2010, of which €43.2 billion was in foreign currencies (i.e. the Japanese yen and the US dollar) and €17.4 billion was in

4 More information on the CBPP can be found in: the monthly CBPP reports published between August 2009 and June 2010; the box entitled "Covered bond market developments and the covered bond purchase programme", *Monthly Bulletin*, ECB, August 2010; and "The impact of the Eurosystem's covered bond purchase programme on the primary and secondary markets", *Occasional Paper Series*, No 122, ECB, January 2011.

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.

gold and SDRs. Applying the exchange rates of end-2010, US dollar-denominated assets represented 76% of the foreign currency reserves, while those denominated in Japanese yen accounted for 24%. The 13% increase in the value of the foreign currency portfolio mainly reflected the appreciation of the Japanese yen (by 22.6%) and the US dollar (by 7.8%) versus the euro over the year, as well as positive contributions from the capital gains and interest income generated by portfolio management activities. The value of the gold and SDR holdings increased by around 37%. This increase was mostly due to the appreciation of gold by around 38% in 2010, as measured in euro terms. During 2010 the ECB's gold holdings did not change, but they increased at the start of 2011 when Eesti Pank transferred some gold to the ECB as part of its transfer of foreign reserve assets to the ECB.

In 2010 the list of eligible instruments in which the ECB's foreign reserve portfolio can be invested was unchanged. In October an automatic securities lending programme for the ECB's US dollar-denominated assets was started on the portion of the portfolio managed by the Deutsche Bundesbank on behalf of the ECB.

#### **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 and gold price risks. The purpose of this portfolio is to provide the ECB with income to help to 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 €11.8 billion at end-2009 to €13.3 billion at end-2010. The increase in market value was due to the increase in the ECB's paid-up capital effective on 29 December 2010, as well as to investment returns.

In 2010 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 CBPP and the SMP led to a partial freeze in the investment activities related to the ECB's own funds portfolio in 2010.

#### **RISK MANAGEMENT ISSUES**

The financial risks to which the ECB is exposed in its investment activities are closely monitored and measured in order to keep them within the levels specified by the ECB's decision-making bodies. For this purpose, a detailed limit structure is in place and limits are monitored daily. Regular reporting ensures that all stakeholders are adequately informed of the level of such risks.

In 2010 the ECB continued to enhance the IT infrastructure supporting the risk management framework for its investment operations. This framework, which had been extended to cover the portfolio of covered bonds purchased by the ECB under the Covered Bond Purchase Programme, now also covers the Securities Markets Programme.

One of the indicators used to monitor market risk is Value-at-Risk (VaR), which defines the loss for a portfolio of assets that will not be exceeded at the end of a specified period of time 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, the CBPP portfolio and the SMP portfolio, on 31 December 2010, 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 €10.867 billion. Computing the same indicator with a five-year instead of a one-year sample would result in a VaR of €10.427 billion. The largest part of this market

risk is due to currency and gold price risk. 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 2010.

The overall level of risks faced by the ECB has increased in view of the increased volatility in foreign exchange rates, interest rates and gold prices, as well as higher credit risk. This was one of the main reasons why the ECB decided to increase its subscribed capital by €5 billion with effect from 29 December 2010. As the maximum size of the ECB's provision and reserves is equal to the level of its paid-up capital, this decision will allow the Governing Council to augment the provision by an amount equivalent to the capital increase, thus further strengthening the financial buffers of the ECB.

## 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 3 and 4 of Chapter 4).

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. To this end, the Eurosystem operates the TARGET2 system and the correspondent central banking model (CCBM), is in the process of establishing TARGET2-Securities (T2S) and is developing a new Collateral Central Bank Management system (CCBM2).

### 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 Banca d'Italia, the Banque de France and the

Deutsche Bundesbank – jointly provide the SSP and operate it on behalf of the Eurosystem.

By December 2010 TARGET2 had 928 direct participants. The overall number of banks (including branches and subsidiaries) that can be addressed worldwide through TARGET2 remained stable at some 52,000. In addition, TARGET2 settled the cash positions of 67 ancillary systems.

#### TARGET2 OPERATIONS

The TARGET2 system functioned smoothly in 2010 and settled a large number of euro payments. The system's market share increased slightly, with 91% of the total value of payments in euro large-value payment systems being executed via TARGET2. In 2010 the system processed a total of 88,591,926 transactions, with a daily average of 343,380 transactions. Compared with the previous year, the overall volume of transactions was more or less the same, rising only marginally, by 0.1%. The total value of TARGET2 traffic in 2010 was €593,194 billion, with an average daily value of €2,299 billion. Compared with 2009, the overall value of the transactions processed by the system increased by 7.6%. Table 12 provides an overview of payment traffic in the TARGET2 system in 2010, comparing it with traffic in the previous year.

**Table 12 Payment traffic in TARGET2<sup>1)</sup>**

Value (EUR billions)	2009	2010	Change (%)
<b>TARGET2 overall</b>			
Total	551,174	593,194	7.6
Daily average	2,153	2,299	6.8
<b>Volume (number of transactions)</b>			
<b>TARGET2 overall</b>			
Total	88,517,321	88,591,926	0.1
Daily average	345,771	343,380	-0.7

Source: ECB.

1) There were 256 operating days in 2009 and 258 operating days in 2010.

In 2010 the overall availability<sup>7</sup> of TARGET2 reached 99.68% and was affected only by incidents occurring in relation to national proprietary home accounting systems,<sup>8</sup> while the SSP itself achieved 100% availability. 100% of the payments in the SSP were processed within five minutes. The system's very positive performance, which has improved continuously since migration to TARGET2, 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 2010. In addition, joint meetings of the Eurosystem 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. 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 October 2010 the Eurosystem launched a user consultation on a possible strategy for improving TARGET2's compliance with ISO 20022 standards.

On 22 November 2010 the fourth release of the SSP was implemented.<sup>9</sup> The main innovation of this release was the introduction of internet-based access to TARGET2. This consists of an alternative form of direct access to the main services of TARGET2, without, however, requiring connection to the SWIFT network. The Eurosystem developed internet-based access to meet the needs of small and medium-sized banks.

In November 2010 the Eurosystem also finalised the contents of the fifth release, which is due

to be implemented on 21 November 2011. This release will include the provision of a network linking the participating central banks that will give them direct access to the main TARGET2 services in the event of a SWIFT outage, as well as various other enhancements requested by the user community.

#### **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. In 2002 the Governing Council of the ECB confirmed the right of non-euro area EU central banks to 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.

At the current juncture 23 central banks of the EU and their respective user communities are connected to TARGET2: the 17 euro area national central banks, the ECB and five national central banks from non-euro area countries.<sup>10</sup> In February 2010 Българска народна банка (Bulgarian National Bank) and its national user community connected to TARGET2. Recently, contacts have been established with Banca Națională a României, since it has expressed an interest in joining TARGET2. Romania's connection to

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

8 Proprietary home accounting systems, in which some payment transactions can be settled until May 2012, are operated by some national central banks.

9 The system updates introduced in the fourth release were reflected in Guideline ECB/2010/12 of 15 September 2010 amending Guideline ECB/2007/2 on a Trans-European Automated Real-time Gross settlement Express Transfer system (TARGET2). The Guideline also takes into account the technical changes required following the entry into force of the Treaty.

10 Bulgaria, Denmark, Latvia, Lithuania and Poland.

TARGET2 is scheduled for July 2011, following completion of the necessary preparatory work.

## 2.2 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 September 2014. 30 central securities depositories (CSDs) are presently involved in the project and it is expected that almost all traded securities in Europe will be settled in T2S, leading to significant economies of scale and very low settlement costs. By removing the distinction 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.

Much progress was achieved on the technical side in 2010. The T2S user requirements were finalised early on in the year, enabling four Eurosystem central banks – the Deutsche Bundesbank, the Banco de España, the Banque de France and the Banca d'Italia – to begin the IT software development work. T2S is now on course to launch user testing in January 2014 and go live in September of the same year.

Significant headway was made in 2010 on the key policy aspects of the project, particularly issues such as how T2S will be governed, how much T2S will charge for the settlement of securities transactions, how T2S will be legally set up, and how participants will be able to connect to T2S.

The governance of T2S is of central importance to all T2S stakeholders. The four main stakeholder groups are: i) the Eurosystem

as system owner and operator, ii) non-euro area central banks which provide their currencies in T2S, iii) CSDs which outsource their securities accounts to T2S, and iv) market participants more widely (i.e. banks, custodians, central counterparties, etc.). In the proposed future governance set-up, each of the groups will have an appropriate degree of influence over T2S, while at the same time facilitating a timely decision-making process and ensuring safe and efficient infrastructure.

In November 2010 the Eurosystem came to a decision on the prices for the future T2S settlement services. After taking into account the development and future running costs, together with the expected settlement volumes on the platform, the Eurosystem set the price for the settlement of delivery-versus-payment (DvP) instructions at 15 cent, provided that the following conditions are fulfilled: i) currencies other than the euro add at least 20% to the euro settlement volume, ii) the securities settlement volume in the EU is no more than 10% lower than the volumes projected by the T2S Programme Office, which are based on information provided by market participants, and iii) the Eurosystem will not be charged VAT for T2S services. This price will be fixed for the period from September 2014, when T2S is due to go live, to December 2018. In order to provide assurance to market participants about T2S prices after 2018, the Governing Council has made a commitment not to increase T2S fees by more than 10% per year until September 2022. Pricing DvP settlement instructions at a low price of 15 cent each – a price which is identical for both national and cross-border settlement – means that even when including add-on charges from CSDs and from connectivity charges, the end-to-end price of settlement should be lower than the current price of national settlement anywhere in Europe. T2S will reduce the cost of settling cross-border transactions by around 90% on average. Combined with the positive effects on competition across the whole post-trading value chain, T2S will, therefore, deliver a major boost to cost-efficiency in securities settlement throughout Europe.

In 2010 substantial progress was also made on the legal framework for T2S. On 21 April 2010 the Governing Council of the ECB adopted the T2S Guideline.<sup>11</sup> The T2S Guideline is the cornerstone of the legal framework for T2S and the basis for all other legal agreements to be concluded in the future. It is binding for all of the Eurosystem central banks, but does not bestow any obligations on third parties.

The work carried out on governance and pricing was also a key ingredient in the legal work involved in negotiating the contractual arrangements for T2S: negotiations between the Eurosystem and those CSDs that intend to use T2S, as well as negotiations between the Eurosystem and those non-euro area central banks that are considering making their currencies available for settlement in T2S. Once the negotiations with the CSDs have been completed, the Governing Council of the ECB will endorse the Framework Agreement and then submit it to the CSDs for assessment and signature by autumn 2011. Negotiations on the Currency Participation Agreement with the non-euro area central banks progressed well during 2010 and it is anticipated that the Governing Council will submit the Agreement to non-euro area central banks in June 2011 for assessment and signature by autumn 2011.

The Eurosystem has also been working on the framework for the selection of external network providers for T2S. These are the entities that will provide the infrastructure to enable CSDs, central banks and directly connected participants to send instructions to – and receive messages from – the T2S platform.

Finally, the T2S Programme Office, with the strong commitment and dedication of the T2S Advisory Group, was heavily involved in promoting the further harmonisation of securities settlement across Europe.<sup>12</sup> Participation in the European Commission's Clearing and Settlement Advisory Monitoring Expert Group II, as well its successor, the Expert Group on Market Infrastructures, ensures that harmonisation activities in T2S are in line with

the overall public and private initiatives in the field.<sup>13</sup> The T2S Advisory Group worked on the implementation of the corporate action standards on transaction management, the development of the ISO messages for T2S, and the improvement of cross-border shareholder transparency. Progress has also been made in terms of the harmonisation of the settlement finality rules for CSDs participating in T2S. The T2S Advisory Group also launched work to identify and overcome any remaining obstacles to smooth cross-border settlement in T2S. The outcome of this work is essential to ensuring efficient processing in T2S. Furthermore, at the end of 2010 the T2S Advisory Group identified key priorities for further harmonisation work in the coming years.

### 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 settlement of collateral in the euro area is conducted mainly via the 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 December 2010 the amount of cross-border collateral (including both marketable and non-marketable assets) held by the Eurosystem decreased to €762 billion, down from €866 billion in December 2009. Overall, at the end of 2010 cross-border collateral represented 35.0% of the total collateral provided to the Eurosystem.

11 Guideline ECB/2010/2 of 21 April 2010 on TARGET2-Securities.

12 The T2S Advisory Group advises the decision-making bodies of the ECB on both technical and policy issues concerning T2S. The T2S Advisory Group consists of approximately 90 senior representatives from national central banks, CSDs and market participants which have signalled their interest in joining T2S.

13 For further details, see Section 3 of Chapter 4 on financial integration.

## **EUROSYSTEM COLLATERAL MANAGEMENT SERVICES**

The CCBM remained the main channel for transferring cross-border collateral in Eurosystem monetary policy and intraday credit operations in 2010, accounting for 24.1% of the total collateral provided to the Eurosystem in that year. Assets held in custody through the CCBM decreased from €569 billion at the end of 2009 to €507 billion at the end of 2010.

Commencing operations in 1999, the CCBM was set up as an interim arrangement based on the principle of minimum harmonisation. In order to introduce a more harmonised level of service, the Eurosystem decided in 2008 to launch CCBM2, which is based on a single platform. The development and operation of CCBM2 on behalf of the Eurosystem was assigned to the Nationale Bank van België/Banque Nationale de Belgique and De Nederlandsche Bank.

CCBM2 will enhance harmonisation and increase the efficiency of collateral mobilisation, as well as allowing Eurosystem counterparties, particularly banks operating in multiple countries, to optimise their collateral use and improve their liquidity management. Moreover, it will allow central banks to monitor the collateral used in credit operations more closely. The platform will be fully compatible with TARGET2 and TARGET2-Securities. Following approval by the Governing Council, the major project milestones were announced in October 2010. These include testing at the central bank and market level in 2012 and going live in 2013. Migration to CCBM2 is scheduled to take place in two waves in the second and third quarters of 2013.

## **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 decreased from €129 billion in December 2009 to €109 billion at the end of 2010. This accounted for 5.0% of the total collateral (both cross-border and domestic) held by the Eurosystem at the end of 2010, compared with 5.7% at the end of 2009.

In 2010 no new eligible links were added to the 54 direct and 7 relayed links already available to counterparties.

## 3 BANKNOTES AND COINS

### 3.1 THE CIRCULATION OF BANKNOTES AND COINS AND THE HANDLING OF CURRENCY

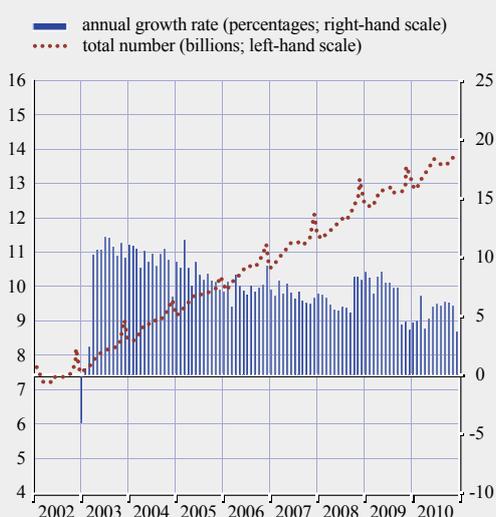
#### DEMAND FOR EURO BANKNOTES AND COINS

At end-2010 there were 14.2 billion banknotes in circulation, with a total value of €839.7 billion. This compares with 13.6 billion banknotes, with a total value of €806.4 billion, at end-2009 (see Charts 49 and 50). In 2010 the annual growth rate of euro banknotes in circulation, in terms of both value and volume, was in the region of 4%. The €50 and €100 banknotes showed the strongest growth, with annual growth rates of 6.7% and 5.4% respectively at end-December 2010, while the previously strong demand for €500 banknotes slackened markedly, with an annual growth rate of 2.1% being recorded by the end of the year. By the end of 2010 the €50 banknote had the largest share in total circulation in volume terms (39.2%), while the €500 banknote had the largest share in terms of value (34.3%), closely followed by the €50 banknote (33.0%).

Banknote demand from regions outside the euro area, which is strongly focused on high-value banknotes as a store of value, decreased slightly in 2010. Although it remained constant from mid-2009 to mid-2010, inflows of euro cash exceeded outflows in the second half of 2010. This could be a result of a reversal of the earlier hoarding of euro banknotes, which had been in demand as a safe haven following the financial turmoil in 2008. It is estimated that 20-25% of the euro banknotes in circulation in value terms are used outside the euro area, especially in neighbouring regions.

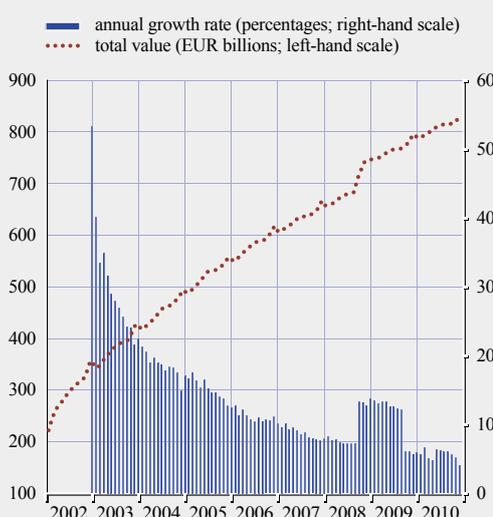
In 2010 the total number of euro coins in circulation (i.e. net circulation excluding stocks held by the euro area NCBs) increased by 6.2% to stand at 92.9 billion, while their total value rose by 4.5% to stand at €22.3 billion. With a 61% share in the total volume of coins in circulation, the number of low-value coins – 1, 2 and 5 cent coins – remained high.

**Chart 49 Number of euro banknotes in circulation between 2002 and 2010**



Source: ECB.

**Chart 50 Value of euro banknotes in circulation between 2002 and 2010**



Source: ECB.

**Chart 51 Number of euro banknotes in circulation between 2002 and 2010 by denomination**



Source: ECB.

### BANKNOTE HANDLING BY THE EUROSISTEM

In 2010 the euro area NCBs issued 33.6 billion banknotes, while 33.1 billion banknotes were returned to them. 34.2 billion banknotes were processed using fully automated banknote processing machines, which checked the banknotes for both authenticity and fitness for circulation. In that process, some 5.8 billion banknotes were identified as being unfit for circulation and destroyed. At 17.1%, the unfit rate<sup>14</sup> remained close to the rate recorded in 2009. The average return frequency<sup>15</sup> of banknotes in circulation decreased further, falling from 2.59 at end-2009 to 2.46 at end-2010, meaning that, on average, a banknote returned to a euro area NCB every five months. The high-value banknotes, which are frequently hoarded, showed low return frequencies (0.34 for €500 banknotes, 0.51 for €200 banknotes and 0.76 for €100 banknotes), while the return frequencies of the denominations which are typically used for transactions were higher (1.87 for €50 banknotes, 3.77 for €20 banknotes, 4.39 for €10 banknotes and 2.50 for €5 banknotes).

### 3.2 BANKNOTE COUNTERFEITING AND COUNTERFEIT DETERRENCE

#### COUNTERFEIT EURO BANKNOTES

In 2010 the National Analysis Centres<sup>16</sup> received some 752,000 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 52. Closer analysis shows that the upward trend in quantity which began to emerge in 2008 was reversed in 2010. Counterfeiters tended to target the €50 and €20 banknotes, which accounted for 43% and 40%

14 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.

15 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.

16 Centres established in each EU Member State for the initial analysis of counterfeit euro banknotes at the national level.

**Chart 52 Number of counterfeit euro banknotes recovered from circulation between 2002 and 2010**

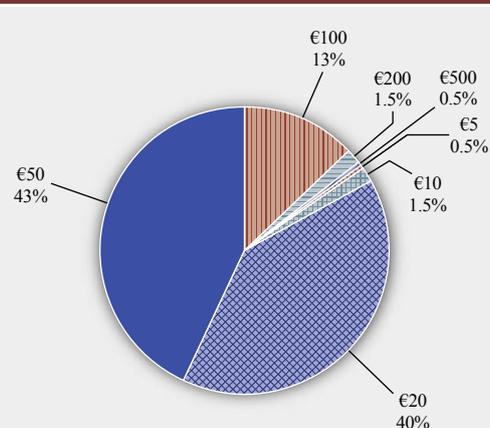


Source: ECB.

of total counterfeits respectively. Details of the denominational breakdown are shown in Chart 53.

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

**Chart 53 Breakdown of counterfeit euro banknotes by denomination in 2010**



Source: ECB.

rise to complacency. The ECB continues to advise the public to remain alert to the possibility of fraud, to remember the “feel-look-tilt” test described on the ECB’s website,<sup>17</sup> 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 (CBCDG).<sup>18</sup> The ECB hosts the International Counterfeit Deterrence Centre (ICDC), which acts as the technical centre for the CBCDG. The ICDC maintains a public website<sup>19</sup> 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 2010 the production of a total of 7.1 billion euro banknotes, with a value of €264.9 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).

<sup>17</sup> <http://www.ecb.europa.eu/euro/banknotes/security/html/index.en.html>

<sup>18</sup> A group comprising 32 central banks and banknote printing authorities that work together under the auspices of the G10.

<sup>19</sup> For details, see <http://www.rulesforuse.org>

**Table 13 Allocation of euro banknote production in 2010**

Denomination	Quantity (millions of banknotes)	NCB commissioning production
€5	1,309.9	ES, FR, NL, PT
€10	1,540.1	DE, IE, GR, FR, IT, AT
€20	1,898.0	DE, FR, CY, LU, MT, NL, SI, SK, FI
€50	1,700.0	BE, DE, ES, IT
€100	500.0	IT
€200	100.0	DE
€500	100.0	AT
<b>Total</b>	<b>7,148.0</b>	

Source: ECB.

#### ROADMAP FOR GREATER CONVERGENCE OF NCB CASH SERVICES

On the basis of a medium-term roadmap adopted by the Governing Council in 2007, the Eurosystem continued its work to achieve greater convergence as regards the cash services offered by euro area NCBs.

In particular, the Eurosystem is in the process of finalising an interface between euro area NCBs' local IT applications for the electronic exchange of data with credit institutions. The data in question concern cash lodgements and withdrawals where cash services are offered free of charge by NCBs. The interface will allow credit institutions to use the IT application that they use with their domestic NCB for cash transactions with other euro area NCBs (for cash services provided free of charge by NCBs). Besides, since 1 January 2011 orientation-independent banknote lodgements and withdrawals have been classified as a common service provided free of charge by NCBs.

#### RECIRCULATION OF BANKNOTES

On 1 January 2011 Decision ECB/2010/14 on the authenticity and fitness checking and recirculation of euro banknotes became applicable and replaced the "Framework for the detection of counterfeits and fitness sorting by credit institutions and other professional cash handlers" (also known as the "Banknote Recycling Framework" or "BRF"). On 31 December 2010, at the end of the transitional period provided to the credit

institutions and other professional cash handlers of some euro area countries allowing them to adapt their procedures and machines to the BRF, the requirements laid down in the BRF were fully applied in all euro area countries. Thus, all euro banknotes recirculated via ATMs or over the counter at branches of credit institutions will now have been checked for authenticity and fitness, which is an important guarantee for the public.

Decision ECB/2010/14 lays down the procedures referred to in Article 6(1) of Regulation (EC) No 1338/2001, as amended in 2008.<sup>20</sup>

Cash handlers are required to comply with these procedures, ensuring both "that euro banknotes they have received and which they intend to put back into circulation are checked for authenticity and that counterfeits are detected". The Decision does not introduce major changes compared with the BRF, except that it applies to a larger number of addressees pursuant to Article 6(1) of Regulation (EC) No 1338/2001.

#### THE EXTENDED CUSTODIAL INVENTORY PILOT PROGRAMME IN ASIA

Following its withdrawal from the wholesale banknote business, the Extended Custodial Inventory (ECI) site of HSBC Bank USA in Hong Kong was closed down in October 2010.<sup>21</sup> The remaining ECI sites, which are operated 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), will continue their operations as part of the pilot programme until end-January 2012.

#### THE SECOND SERIES OF EURO BANKNOTES

The Eurosystem continued work on a new series of euro banknotes in 2010, focusing on developing the origination materials (i.e. the master materials used for banknote production) and carrying out test prints to assess the ability

<sup>20</sup> Council Regulation (EC) No 44/2009 of 18 December 2008 amending Regulation (EC) No 1338/2001 laying down measures necessary for the protection of the euro against counterfeiting.

<sup>21</sup> An ECI is a cash depot maintained by a private bank holding currency on a custodial basis.

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 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.

## 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 and various tasks of the ESCB. These statistics are also used extensively by public authorities, financial market participants, the media and the general public. In 2010 regular euro area statistics continued to be provided in a smooth and timely manner,<sup>22</sup> while significant efforts were devoted to further improving the ESCB's statistical framework in accordance with the annually reviewed ESCB work programme for European statistics. A particular challenge in this respect was the fact that growing data demands have placed considerable pressure on the resources available to compilers. One of the main work streams in 2010 concerned financial stability statistics. In this area, the ECB, with the support of NCBs, carried out the necessary preparations with a view to providing statistical support to the European Systemic Risk Board (ESRB) as of 1 January 2011 (see Chapter 6) and contributed, under the auspices of the G20, to global initiatives addressing statistical gaps identified following the financial and economic crisis.

The implications of the financial and economic crisis as regards the production, use and publication of statistics were the central theme of both the Fifth ECB Conference on Statistics and the international seminar hosted by the ECB on World Statistics Day on 20 October 2010.

### 4.1 NEW AND ENHANCED EURO AREA STATISTICS

As a result of the statistical work conducted in 2010, further euro area statistics were made available, such as new statistics on MFI loans to non-financial corporations broken down by branch of activity on the basis of the NACE Rev. 2 classification and new external debt statistics for the euro area broken down by sector and instrument. Data on the Short-Term European Paper (STEP) initiative (see also Section 3 of Chapter 4), a market initiative fostering financial integration in this market segment, were also developed further. STEP

statistics, which have been published since September 2006, were complemented in September 2010 by the weekly publication of outstanding amounts for individual STEP programmes, including a breakdown by currency of issuance.

In 2010 the implementation of enhanced euro area statistics under the amended ECB regulations on MFI balance sheet, MFI interest rate and loan securitisation statistics continued. Statistical reporting by financial vehicle corporations engaged in securitisation transactions began in early 2010, and MFIs' reporting of an extended statistical dataset for balance sheet and interest rate statistics began in mid-2010. These new data and related indicators will provide more detailed breakdowns (e.g. for collateralised loans and new loans to non-financial corporations) that will support the enhancement of monetary analysis. These statistics are due to be published for the first time in mid-2011 following an appropriate data quality review by the ESCB.

### 4.2 OTHER STATISTICAL DEVELOPMENTS

In February and October 2010 the ECB published the results of the second and third waves of its biannual survey on euro area firms' access to finance, which was conducted in cooperation with the European Commission. This survey provides predominantly qualitative evidence on the financing conditions faced by small and medium-sized firms compared with large firms, and the results are broken down, among other things, by firm size, type of economic activity and firm age, with a country breakdown provided for certain euro area countries.

Further progress was made in 2010 with the implementation of the Eurosystem's survey

<sup>22</sup> Statistics were released by means of 74 monthly, quarterly and annual press releases, as well as being published in the Monthly Bulletin, the Statistics Pocket Book and the ECB's Statistical Data Warehouse (see the statistics section of the ECB's website).

on household finance and consumption. This survey is currently being conducted by the NCBs of all euro area countries (in a few cases in collaboration with national statistical institutes). This survey aims to provide micro-level data on households' (financial and real) assets and debts, together with complementary information on issues such as income, consumption, employment, pension entitlements, savings and inheritance. The public dissemination of aggregate indicators for the whole of the euro area and the provision of microdata to researchers is expected in the second half of 2012.

Progress was also made towards establishing the collection and compilation of statistics on securities holdings on the basis of security-by-security information. A pilot project to compile experimental statistics on the basis of currently available data is ongoing. Moreover, options for developing a harmonised, cost-efficient steady-state solution are being investigated. These data will allow the production of more harmonised and higher-quality statistics and the analysis of the securities holdings of institutional sectors and sub-sectors at a granular level.

In the first quarter of 2010 a quarterly list of financial vehicle corporations was published for the first time, complementing the daily list of EU MFIs and the quarterly list of investment funds, which the ESCB keeps up to date and intends to transform into a fully fledged register of financial institutions. The lists of financial vehicle corporations and investment funds include a number of additional features compared with the list of MFIs, in particular security-by-security information (in the form of ISIN codes) on the securities issued by those institutions. This project is linked to the development by the European Commission of a statistical register of multinational firms, the EuroGroups Register, in which steps are now being taken to remove legal obstacles to the mutual exchange of information for statistical purposes.

The ECB continued its close cooperation with other international organisations for

the development of international statistical standards. Together with Eurostat, the ECB focused mainly on the ongoing 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 Manual. Together with the BIS and the IMF, the ECB also published the second part of a handbook on securities statistics, which covers holdings of debt securities.

#### **4.3 STATISTICAL NEEDS RESULTING FROM THE FINANCIAL CRISIS**

As a result of the financial crisis, there has been an increase, at both European and global level, in user demand for statistics for the purposes of financial stability analysis. In addition to the work referred to in previous sections, a number of initiatives were conducted in 2010 with the aim of enabling the ECB to ensure the performance of the secretariat function for the ESRB and thereby provide the ESRB with the necessary statistical and analytical support as soon as it was established (see Chapter 6).

The ESCB also cooperates with supervisory authorities with the aim of bridging and reconciling statistical and supervisory requirements. As a result of cooperation with the Committee of European Banking Supervisors, a new classification system was published in 2010. Over time, this will help to reduce the reporting burden on entities that are required to provide data to both the Eurosystem and supervisory authorities. In addition, the reporting frequency of the consolidated banking dataset, as published in the ECB's report on EU banking sector stability, has been increased from annual to biannual for a core set of banking indicators. The timeliness and data content of the annual dataset have also been enhanced. Moreover, the ECB has, in close cooperation with the other members of the Eurosystem, developed statistics on insurance corporations and pension funds. These statistics are based on existing sources, mostly supervisory authorities – i.e. they do not require the collection of new data from reporting agents. For the

further development of these statistics, and in the light of increasing user needs (for the purposes of both macroeconomic and financial stability analysis), the ECB cooperates closely with the European Insurance and Occupational Pensions Authority, the successor of the Committee of European Insurance and Occupational Pensions Supervisors, in order to ensure that future statistical reporting requirements are consistent with Solvency II and to minimise the reporting burden.

In the context of worldwide international cooperation, the ECB participates in the statistical initiatives supported by the finance ministers and central bank governors of the G20 with a view to identifying and addressing information gaps. As a member of the Inter-Agency Group on Economic and Financial Statistics, it worked together with the BIS, the European Commission (i.e. Eurostat), the IMF, the OECD, the United Nations and the World Bank to formulate an action plan submitted to the G20 summit held in June 2010. That action plan contains timetables for the implementation of a number of recommendations on how to address the measurement of risks in the financial sector, international financial linkages and the vulnerability of economies to shocks, as well as the communication of official statistics. The ECB is also helping to enhance the Principal Global Indicators website, which focuses on the G20 economies.

## 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. In 2008 the ECB initiated a multi-year revision of its research agenda in order to absorb the lessons of the financial crisis and its aftermath. This later also included activities to support the work of the ESRB. In 2010 a great deal of effort was devoted to the analysis of financial issues, with a particular focus on constructing and deploying tools for the purposes of macro-prudential and systemic risk assessment.

### 5.1 RESEARCH PRIORITIES AND ACHIEVEMENTS

Economic research at the ECB is performed in a decentralised manner: all business areas conduct research projects 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. The Director General Research 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 established for 2010 were unchanged from 2009, namely: forecasting and model development; enhancing monetary analysis; understanding the transmission mechanism of monetary policy; financial stability and macro-prudential supervision and regulation; the efficiency of the European financial system; payment and settlement issues; international linkages;

and fiscal issues. However, as regards the implementation of these priorities, the number of research activities on topics related to financial and macro-prudential issues was higher than in previous years. In particular, emphasis was placed on the development and deployment of tools to monitor and assist decision-making relating to financial issues. The number of research projects on enhancing monetary analysis also saw a substantial increase.

Research on monetary analysis concentrated on the development and use of quantitative tools to assess monetary developments, with emphasis on providing high-quality analytical input for the preparation of policy decisions. In 2010 one focus of this research priority was on the design of exit strategies for the current non-standard measures and analysis of the interaction between macroeconomic policies and financial stability. Two research forums tackled these issues.<sup>23</sup> Work in this area resulted in the publication of a book entitled “Enhancing monetary analysis”, which was edited by Executive Board members Lucas Papademos and Jürgen Stark.<sup>24</sup>

With regard to the monetary policy transmission mechanism, projects were initiated or continued on a variety of topics: asset price dynamics and risk premia; the role of the banking sector; the financial decisions of non-financial firms; and diversity, competitiveness and adjustment at the country level. Other projects continued from previous years included the Household Finance and Consumption Network,<sup>25</sup> a Eurosystem network established in 2009 which collects and analyses micro-level information on a wide range of household decisions, and an ECB research forum on central bank communication policies.

<sup>23</sup> Research forums are formal internal channels for sharing experiences and the results of ECB research projects on a specific topic.

<sup>24</sup> <http://www.ecb.europa.eu/pub/pdf/other/enhancingmonetaryanalysis2010en.pdf>

<sup>25</sup> Research networks coordinate the research activities of Eurosystem/ESCB researchers and help to disseminate results. They may also involve external researchers.

The links between financial stability and monetary policy were also explored, with a focus on the development of financial stability indicators and analysis of the interaction between financial stability and overall macroeconomic performance. The development of financial stability indicators includes work on early warning models, stress-testing tools and models of contagion and systemic risk. New areas of research are being explored in order to enhance existing models capturing the interaction between financial stability and macroeconomic performance. Many projects in this area fall under the umbrella of the new ESCB Macro-prudential Research Network, which was established in March 2010 (see Box 10 in Chapter 6).

Research on the efficiency of the financial system focused on understanding the money market and improving the design of operational frameworks, including analysis of exit strategies and money market spreads.

The ECB continued research work on the Single Euro Payments Area and TARGET2 under the umbrella of the Payment Economics Network.<sup>26</sup> A conference on these topics was organised in 2010.

As regards the research priority relating to international issues, the main areas of interest were globalisation, financial and trade linkages, and the international role of the euro. Globalisation and financial and trade linkages were the focus of two ECB research forums. The discussion on trade linkages informs the work carried out on tools to model trade flows in the Eurosystem/ECB projections.

On the fiscal front, further work was undertaken on the development of tools for the monitoring and analysis of public finances and their efficiency and sustainability. A new research topic in 2010 was the interaction between fiscal and monetary policy, particularly during the implementation of exit strategies.

## 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. 138 Working Papers and 14 Occasional Papers were published in 2010. A total of 104 Working Papers were written or co-written by ECB staff, a large number together with 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.<sup>27</sup> As is now the well-established norm, most of the papers are eventually expected to be published in leading peer-reviewed academic journals. In 2010 ECB staff published more than 113 articles in academic journals. Furthermore, in 2010 the ECB continued, together with a large number of other central banks, to provide editorial support for the International Journal of Central Banking.

Another regular ECB publication is the Research Bulletin, which is used to disseminate research work of general interest to a wide audience. Issues were published in March, June and November 2010. Topics tackled included: the reporting of results from the Wage Dynamics Network; the analysis of fiscal stimulus; financial-related issues and their impact on policy (e.g. analysis of risk as priced in markets, bank lending standards and money markets during the crisis); the incorporation of financial frictions in DSGE models; and the combination of forecasts.<sup>28</sup>

<sup>26</sup> Further information on this network can be found at <http://www.paymenteconomics.org>

<sup>27</sup> External researchers visit the ECB on an ad hoc basis or in the context of formal programmes such as the Lamfalussy Research Fellowship.

<sup>28</sup> The full set of topics can be found at <http://www.ecb.europa.eu/pub/scientific/resbull/html/index.en.html>

The ECB organised or co-organised 15 conferences and workshops on research topics in 2010. Co-organised conferences involved the Centre for Economic Policy Research, the BIS and other central banks, both within and outside the Eurosystem. Furthermore, a large number of workshops and seminars were organised to disseminate research within the ECB. 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.<sup>29</sup>

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.

<sup>29</sup> <http://www.ecb.europa.eu/events/conferences>

## 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 2010 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, at the Banco de Portugal, there was a placement of a seven-day deposit of USD 12.5 million with a Portuguese public sector bank on 13 May 2010. This was due to an operational mistake. Second, advance payments were made by De Nederlandsche

Bank in the context of the operation of the Dutch deposit insurance scheme. Legislation to make the Dutch deposit insurance scheme compliant with the monetary financing prohibition is necessary. Third, at the Central Bank of Cyprus, remuneration of the current account balance of the deposit guarantee scheme took place above comparable market rates, which is not in line with the objectives of the monetary financing prohibition. In this respect, the Central Bank of Cyprus reported that it had taken a decision to remunerate this account at market rates by the beginning of 2012. Fourth, the scheme for the remuneration of government deposits at the Banca d'Italia led to remuneration above comparable market rates. In this respect, the Banca d'Italia reported that the remuneration scheme is currently being revised. The revision should be finalised as soon as possible, in order to be in line with the objectives of the monetary financing prohibition.

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.<sup>30</sup> 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.

In 2010 the ECB adopted 95 opinions on proposed EU or draft national legislation falling within the ECB's fields of competence: ten opinions were issued on proposed EU legislation and 85 were issued on draft national legislation. This compares with 100 opinions in

<sup>30</sup> 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.

2009. A list of the opinions adopted in 2010 and early 2011 is annexed to this Annual Report.

The ECB opinions issued at the request of the Council, the European Parliament and the European Commission concerned, *inter alia*, the ongoing reform of economic governance and financial regulation, as well as legislation on the introduction of the euro in Estonia and the conversion rate between the euro and the Estonian kroon<sup>31</sup> (see Chapter 3).

The ECB welcomed the European Commission's proposal to enhance the quality of statistical reporting in the context of the excessive deficit procedure, which is part of the Stability and Growth Pact, as part of the continuing reform of economic governance in the EU.<sup>32</sup> In another opinion,<sup>33</sup> the ECB welcomed a comprehensive package of legislative proposals to strengthen the framework for economic and budgetary surveillance in the EU. These proposals included the introduction of a framework for macroeconomic surveillance, which the ECB particularly welcomed, as it closes an important lacuna in the EU's economic governance. At the same time, the ECB called on the EU legislator and the Member States to take advantage of the ongoing legislative process to strengthen economic governance to the maximum extent allowed under the Treaties. The ECB noted that the proposals made should provide for greater automaticity and suggested in particular that the Council, or at least the Eurogroup, should, by means of a declaration, commit itself, as a rule, to following Commission proposals and recommendations to continue procedures against non-compliant Member States. The ECB also provided drafting suggestions in respect of all proposals.

As regards the reform of supervision in the EU, the ECB supported the objective of the proposed "omnibus directive" amending 11 financial sector directives to ensure the proper functioning of the European Supervisory Authorities (ESAs) and the European Systemic Risk Board.<sup>34</sup> The ECB's drafting proposals focused on matters of relevance to the ECB/ESCB and

the ESRB, such as the removal of legal obstacles to information sharing between the ECB/ESCB, the ESRB, the three ESAs and the national supervisory authorities. The ECB also commented on the necessary amendments to the rules on the supplementary supervision of financial entities in a financial conglomerate in order to close certain supervisory gaps, for example the inclusion of asset management companies as part of financial conglomerates within the scope of the supervision.<sup>35</sup>

In the context of the post-crisis regulatory reform of the financial services market, the ECB issued opinions on several proposals, including the revision of regulatory capital requirements and the regulation of credit rating agencies.<sup>36</sup> The ECB supported efforts to create a robust regulatory framework in order to prevent future financial crises, while calling for the preservation of a level playing field and for global regulatory convergence where feasible. The ECB stressed the need to maintain sound risk assessment practices for assets covered by the Eurosystem collateral framework, including the possibility for central banks to access loan-level information on structured finance instruments. On the proposed regulation on over-the-counter (OTC) derivatives, central counterparties (CCPs) and trade repositories, the ECB welcomed this step towards implementing the G20 agreement of September 2009 that standardised OTC derivative contracts should be traded on exchanges or electronic trading platforms where appropriate and cleared through CCPs by the end of 2012.<sup>37</sup> Nevertheless, the ECB also expressed a number of concerns, particularly about the lack of consideration given to the ECB's and NCBs' oversight powers and regarding the provisions on access to central bank facilities.

The ECB also responded to a significant number of consultations by national authorities, some of

31 CON/2010/52.

32 CON/2010/28.

33 CON/2011/13. See also Chapter 5 of this Annual Report.

34 CON/2010/23.

35 CON/2011/6.

36 CON/2010/65 and CON/2010/82.

37 CON/2011/1.

which concerned developments in supervisory structures in Ireland, Greece, France and Austria.<sup>38</sup> The ECB noted the merger of the supervisory authorities in France and welcomed the new Prudential Control Authority, which is to be headed by the Governor of the Banque de France.<sup>39</sup> The proposed framework is likely to enhance the Banque de France's ability to contribute to analytical support for the ESRB. The ECB also welcomed the proposed restructuring of the Central Bank and Financial Services Authority of Ireland<sup>40</sup> so as to make the central bank fully responsible for the supervision of credit and financial institutions. The ECB made detailed observations on central bank independence and the prohibition of monetary financing.

The ECB was also consulted on a number of measures relating to financial market stability, some in connection with the financial crisis.<sup>41</sup> In particular, the ECB issued an opinion<sup>42</sup> on the Greek draft law establishing the Financial Stability Fund in order to maintain the stability of the Greek banking system by means of the recapitalisation of credit institutions. The ECB welcomed the close links between the Fund and the banking supervisory framework. Taking into account the Bank of Greece's existing supervisory powers, the law should ensure that capital adequacy requirements are properly maintained. The ECB also welcomed the initiating role of the Bank of Greece's Governor in the appointment of the Fund's board members.

Commenting on draft German legislation on compensation systems in credit and financial institutions and insurance companies,<sup>43</sup> the ECB emphasised the general importance of aligning the relevant requirements with international standards and EU legislation to avoid regulatory arbitrage and contribute to limiting excessive risk-taking. Other opinions on procedures for financially distressed credit institutions highlighted the importance of an efficient resolution regime for safeguarding the stability of the financial system.<sup>44</sup> In its opinions on a new winding-up regime for failing credit

institutions in Denmark<sup>45</sup> and the restructuring of banks in Germany,<sup>46</sup> the ECB welcomed the further disengagement of the state in favour of resolution regimes primarily based on financing by the credit institution sector. Where a crisis situation requires the supplementary use of public funds, the banking sector should be called upon to reimburse the state. This should promote additional market discipline and address the risk of moral hazard. In its opinion on draft amendments to state support measures in Poland,<sup>47</sup> the ECB expressed concern that these measures would effectively be converted into open-ended measures, contrary to the requirement that national support measures be temporary in nature. Avoiding the renewal of a temporary regime would deprive the prolongation of such a regime of the necessary review with regard to monetary policy and financial stability aspects.

In the area of statistics, the ECB was consulted on the establishment of the Hellenic Statistical System and an independent statistical authority in Greece.<sup>48</sup> The ECB emphasised that the credibility of budgetary surveillance in the EU – and ultimately the credibility and the sound functioning of Monetary Union – depends on the reliable and timely compilation of statistics relating to the excessive deficit procedure, which should be independent of political cycles.

38 CON/2010/30, CON/2010/48, CON/2010/33, CON/2010/4 and CON/2010/57.

39 CON/2010/4.

40 CON/2010/30 and CON/2010/48.

41 CON/2010/3, CON/2010/7, CON/2010/10, CON/2010/11, CON/2010/12, CON/2010/21, CON/2010/26, CON/2010/29, CON/2010/31, CON/2010/35, CON/2010/41, CON/2010/45, CON/2010/50, CON/2010/53, CON/2010/54, CON/2010/62, CON/2010/63, CON/2010/64, CON/2010/71, CON/2010/75, CON/2010/83, CON/2010/86, CON/2010/92, CON/2010/93 and CON/2010/95.

42 CON/2010/54.

43 CON/2010/41 and CON/2010/63.

44 CON/2010/12, CON/2010/31 and CON/2010/35.

45 CON/2010/45.

46 CON/2010/83.

47 CON/2010/95.

48 CON/2010/17.

In its opinion on a new legal framework for the production of national statistics in Estonia,<sup>49</sup> the ECB stressed the importance of securing the independence of the Estonian National Statistical Institute, as this would be of particular significance for the smooth functioning of the EMU framework following the adoption of the euro.<sup>50</sup>

The ECB adopted several opinions concerning the NCBs, including amendments to the statutes of the Bulgarian, Danish, Estonian, Irish, French, Lithuanian, Hungarian and Polish NCBs.<sup>51</sup> The ECB noted that the uncertainty regarding the legal status of Lietuvos bankas' real property undermines the NCB's institutional and financial independence.<sup>52</sup> The ECB welcomed the increase in the Banque de France's capital and statutory reserve.<sup>53</sup> A number of opinions concerned the remuneration of NCB staff in the context of legislation aimed at restoring budgetary balance.<sup>54</sup> The ECB welcomed the efforts to achieve fiscal consolidation and stressed that, to protect an NCB's autonomy in staff matters, the draft legislative provisions on the remuneration of NCB staff must be decided in close and effective cooperation with the NCB, taking due account of the NCB's views to ensure its ongoing ability to independently perform the tasks conferred on it by the Treaty, the Statute of the ESCB and national legislation. In its opinion concerning the Portuguese austerity measures,<sup>55</sup> the ECB elaborated on the necessity of effective cooperation and stressed that the absence of such effective cooperation would constitute a serious infringement of the principle of central bank independence. With regard to Hungary, the ECB voiced concerns regarding the frequent changes to the Law on the Magyar Nemzeti Bank, stating that a consideration in the context of central bank independence is a stable legal framework for the central bank, and cautioned against measures seeking to influence the Governor and the other members of the Magyar Nemzeti Bank's decision-making bodies in contradiction of central bank independence under Article 130 of the Treaty.<sup>56</sup> The ECB also noted that salary cuts for NCB staff must comply with the prohibition of monetary

financing under Article 123 of the Treaty.<sup>57</sup> Since 2008 information regarding clear and important cases<sup>58</sup> of non-compliance with the obligation to consult the ECB on draft national and EU legislation has also been included in the Annual Report.

In 2010 the ECB recorded two such cases of non-consultation on proposed EU legislation, including one case in which the ECB issued an opinion on its own initiative. The first case of non-consultation concerned a proposed Commission regulation implementing Regulation (EC) No 177/2008 on a common framework for business registers for statistical purposes in the context of the exchange of confidential data between Eurostat and central banks.<sup>59</sup> The ECB considers that the Regulation is relevant to the ECB's cooperation with EU institutions, bodies, offices and agencies for the collection of statistics necessary to undertake the ESCB's tasks under Article 5 of the Statute of the ESCB and that it should therefore have been consulted at an appropriate stage in the legislative process.

The second case of non-consultation concerned a proposal for a directive amending Directives 2006/48/EC and 2006/49/EC as regards capital requirements for the trading book and for

49 CON/2010/2.

50 The ECB was also consulted on several draft legislative measures in connection with the preparations for the introduction of the euro in Estonia. For details, see Section 2 of Chapter 3.

51 CON/2010/25, CON/2010/24, CON/2010/20, CON/2010/30, CON/2010/48, CON/2010/44, CON/2010/42, CON/2010/56, CON/2010/91 and CON/2010/37.

52 CON/2010/42.

53 CON/2010/88.

54 CON/2010/42, CON/2010/51, CON/2010/56, CON/2010/69 and CON/2010/80.

55 CON/2010/80.

56 CON/2010/91.

57 CON/2010/51, CON/2010/69 and CON/2010/80.

58 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) in which, if consultation had taken place, the ECB would have made significant critical comments on the substance of the legislative proposal; or ii) which are of general significance to the ESCB.

59 Commission Regulation (EU) No 1097/2010 of 26 November 2010 implementing Regulation (EC) No 177/2008 of the European Parliament and of the Council establishing a common framework for business registers for statistical purposes, as regards the exchange of confidential data between the Commission (Eurostat) and central banks, OJ L 312, 27.11.2010, p. 1.

re-securitisations, and the supervisory review of remuneration policies.<sup>60</sup> The ECB had been consulted on an earlier draft and issued an opinion<sup>61</sup> on 12 November 2009. On 7 July 2010 the European Parliament adopted the directive, which contained a number of amendments, and the directive was then subject to the Council's formal adoption.<sup>62</sup> In view of the obligation to reconsult the ECB on important amendments to proposed legislative acts falling within its fields of competence, the ECB issued an opinion on the amended proposal on its own initiative on 6 August 2010.<sup>63</sup>

In 2010 the ECB recorded ten cases of non-consultation on draft national legislation and issued one opinion on its own initiative. The following five cases were considered clear and important.

The Bulgarian authorities failed to consult the ECB on a law related to the composition and functions of the Financial Supervision Commission and, in particular, the parameters of the Financial Stability Advisory Council, a matter of general significance to the ESCB.

The ECB was not consulted on a Portuguese law assigning certain new tasks to the central bank. The law is of general significance to the ESCB, as it relates to the financial independence of the NCB, and the ECB would have made significant critical comments.

With regard to financial crisis-related measures, the ECB was not consulted in three cases. The Greek authorities failed to consult the ECB on two occasions: first, a draft law on the reform of the public sector recruitment system, which affected the Bank of Greece's exclusive competence to recruit a specific category of staff; and second, a draft law providing, inter alia, for restrictions in the recruitment of staff by public sector entities, including the Bank of Greece, as a means of containing the adverse effects of the ongoing budgetary crisis. The Slovenian authorities failed to consult the ECB on legislation related to the provision of state guarantees and loans to credit institutions. The ECB considers that these cases

are of general significance to the ESCB, as they concern the financial crisis and rescue measures undertaken by Member States.

As of 2010 information regarding clear and repetitive cases of failure by Member States to consult the ECB is also included in the Annual Report. 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 case of non-consultation in each year under consideration. The ECB recorded, for both Greece and Hungary, two cases of non-consultation on draft national legislation in 2009 and three cases in 2010.

### **6.3 ADMINISTRATION OF THE BORROWING AND LENDING OPERATIONS OF THE EUROPEAN UNION AND THE EUROPEAN FINANCIAL STABILITY FACILITY, AND THE POOLED BILATERAL LOANS FOR THE BENEFIT OF THE HELLENIC REPUBLIC**

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 as last amended by Council Regulation (EC) No 431/2009 of 18 May 2009, the ECB continues to have responsibility for the administration of the borrowing and lending operations of the European Union under the medium-term financial assistance facility, as set out in Decision ECB/2003/14 of 7 November 2003 as amended by Decision ECB/2009/17 of 19 June 2009. In 2010 the ECB received four disbursement payments on behalf of the EU and transferred these amounts to the borrower countries (Romania and Latvia). For eight of the loans under this facility, interest payments became due and were processed

60 COM(2009) 362 final.

61 CON/2009/94.

62 Directive 2010/76/EU of the European Parliament and of the Council of 24 November 2010 amending Directives 2006/48/EC and 2006/49/EC as regards capital requirements for the trading book and for re-securitisations, and the supervisory review of remuneration policies, OJ L 329, 14.12.2010, p. 3.

63 CON/2010/65.

by the ECB accordingly. The total amount of outstanding EU lending operations under the medium-term financial assistance facility as at 31 December 2010 was €12.1 billion.

In the context of the loan facility agreement between the Member States whose currency is the euro<sup>64</sup> and Kreditanstalt für Wiederaufbau (KfW)<sup>65</sup> 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, the ECB is responsible for processing all related payments on behalf of the lenders and the borrower. In 2010 the ECB received two disbursement payments from the lenders and transferred these amounts to the borrower. For both loans, interest payments became due and were processed by the ECB accordingly. The balance outstanding as at 31 December 2010 in respect of the pooled bilateral loans for the benefit of the Hellenic Republic amounted to €21 billion.

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, the ECB is responsible for the administration of the borrowing and lending operations of the EU under the European Financial Stabilisation Mechanism (EFSM). The ECB opened an account for the European Commission in this context in accordance with Article 2 of Decision ECB/2010/17 of 14 October 2010. No operations were carried out under the EFSM in 2010.

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 ECB is responsible for the administration of European Financial Stability Facility (EFSF) loans to Member States whose currency is the euro. The ECB opened an account for the EFSF in this context in accordance with Article 1 of Decision ECB/2010/15 of 21 September 2010. No operations were carried out under the EFSF in 2010.

#### 6.4 EUROSISTEM RESERVE MANAGEMENT SERVICES

In 2010 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 2010. With regard to the services themselves, there were slight increases in customers' total cash balances (including deposits) and securities holdings.

<sup>64</sup> Other than the Hellenic Republic and the Federal Republic of Germany.

<sup>65</sup> Acting in the public interest, subject to the instructions of and with the benefit of the guarantee of the Federal Republic of Germany.



View of the Grossmarkthalle from the south, prior to the start of the main construction works. 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.

## CHAPTER 3

# ENTRY OF ESTONIA INTO THE EURO AREA

## I ECONOMIC AND MONETARY DEVELOPMENTS IN ESTONIA

On 13 July 2010 the Council of the European Union adopted a decision allowing Estonia to adopt the euro as its currency from 1 January 2011, increasing the number of euro area countries from 16 to 17. The Council's decision was based on the convergence reports published by the ECB and the European Commission in May 2010, and followed discussions by the European Council, an opinion of the European Parliament, a proposal from the European Commission and a recommendation by the Eurogroup. On the same day, the Council also adopted a regulation fixing the irrevocable conversion rate between the Estonian kroon and the euro. This conversion rate was set at EEK 15.6466 to the euro. This was also the central rate of the Estonian kroon throughout the country's membership of the exchange rate mechanism II (ERM II).

For several years, Estonia was one of the EU's fastest-growing economies. However, the strong economic expansion, with clear signs

of overheating throughout 2005-07, proved unsustainable. In 2007 economic growth already started to decelerate but remained strong. Owing to these unsustainable macroeconomic developments and the collapse of world trade, Estonia experienced a pronounced turnaround in economic activity and a severe contraction in 2009 (see Table 14). As a consequence, Estonia underwent a significant economic adjustment that contributed to the unwinding of some of the external and internal imbalances that had built up in the years of very fast growth. In 2010 economic activity started to recover: annual real GDP growth turned positive in the second quarter of 2010 and stood at 6.6% in the fourth quarter. Looking at external developments, Estonia recorded a very large average deficit of 10% of GDP in the combined current and capital account balance between 2000 and 2008. Correcting these large deficits has been a key feature of the necessary adjustment process that Estonia has been undergoing following the overheating period. After a strong

**Table 14 Main economic indicators for Estonia**

(annual percentage changes, unless otherwise indicated; period averages, unless otherwise indicated)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Real GDP growth	-0.3	10.0	7.5	7.9	7.6	7.2	9.4	10.6	6.9	-5.1	-13.9	3.1 <sup>3)</sup>
<i>Contribution to real GDP growth (in percentage points)</i>												
Domestic demand (excluding inventories)	-4.3	8.0	7.0	12.5	10.7	7.3	10.1	15.8	7.7	-7.3	-19.6	.
Net exports	5.3	-1.1	-2.9	-5.9	-2.7	-0.7	-0.5	-6.0	-5.6	5.7	11.3	.
HICP inflation	3.1	3.9	5.6	3.6	1.4	3.0	4.1	4.4	6.7	10.6	0.2	2.7
Compensation per employee	9.1	14.5	9.6	9.1	11.7	12.2	10.9	14.1	24.6	10.1	-3.3	.
Nominal unit labour costs	4.6	2.5	2.9	2.4	5.3	4.6	3.4	8.7	17.4	16.3	1.1	.
GDP deflator	7.5	4.5	5.3	3.3	4.2	3.6	5.5	8.3	10.5	7.2	-0.1	.
Import deflator	1.4	5.8	2.0	-0.1	-0.2	1.5	3.3	4.1	3.3	5.9	-1.1	.
Unemployment rate (percentage of labour force)	11.3	13.6	12.6	10.3	10.0	9.7	7.9	5.9	4.7	5.5	13.8	16.9
Total employment	-4.4	-1.5	0.8	1.3	1.5	0.0	2.0	5.4	0.8	0.2	-9.9	.
Current and capital account balance (percentage of GDP)	-4.3	-4.9	-4.9	-10.1	-10.6	-10.6	-9.2	-13.2	-16.2	-8.7	7.3	.
General government balance (percentage of GDP) <sup>2)</sup>	-3.5	-0.2	-0.1	0.3	1.7	1.6	1.6	2.4	2.5	-2.8	-1.7	-1.0
Public debt (percentage of GDP) <sup>2)</sup>	6.0	5.1	4.8	5.7	5.6	5.0	4.6	4.4	3.7	4.6	7.2	8.0
Nominal three-month money market rate (percentage)	7.8	5.7	5.3	3.9	2.9	2.5	2.4	3.2	4.9	6.7	5.9	1.6
Nominal exchange rate against the euro <sup>1)</sup>	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6

Sources: ECB, Eurostat and European Commission.

1) Estonian kroon per euro.

2) European Commission, European Economic Forecast – autumn 2010.

3) Flash estimate.

fall in domestic demand, which led to lower imports, the deficit decreased and turned into a surplus, which stood at 8.4% of GDP in the third quarter of 2010.

The inflation performance of the Estonian economy over the past decade has been very volatile. HICP inflation, which had followed a broadly downward trend between the mid-1990s and 2003, started to rise in 2004 as a result of hikes in administered prices, partly related to EU accession, rising energy prices and signs of overheating. In 2008, despite a sharp slowdown in growth, inflation continued to increase and peaked at 10.6%, reflecting the rise in global commodity prices, tax harmonisation measures and the lagged response of wages to the changing economic environment. As the economy edged further into recession, annual inflation declined rapidly and turned negative during some months, reaching 0.2% on average in 2009. In the second half of 2010 HICP inflation increased significantly again, reflecting the impact of higher commodity prices in world markets, increases in administered prices and excise duties, as well as the recovery in economic activity. For 2010 as a whole, HICP inflation stood at 2.7%.

Reflecting the sharp economic adjustment of recent years, Estonia's unemployment rate is currently high, standing at 13.6% on average in the fourth quarter of 2010. While the Estonian labour market is relatively flexible, regional differences in employment and unemployment and skill mismatches continue to persist. These factors contributed to high wage growth over the period 2005-08. Weak economic activity and the increase in unemployment have supported the sharp deceleration of growth in both private and public sector wages. This adjustment is necessary to ensure that the temporarily high level of unemployment in Estonia does not become permanent.

Over the period from 2000 to 2009, Estonia generally ran a sound fiscal policy, thereby achieving budgets close to balance or in surplus until 2007. Nevertheless, the general government

balance deteriorated in 2008 in conjunction with the marked economic downturn. The public deficit increased to 2.8% of GDP in 2008 and then declined to 1.7% of GDP in 2009, on account of significant consolidation measures undertaken by the government, which amounted to around 9% of GDP (of which approximately one-third are estimated to be of a temporary nature). The deficit was then among the lowest of the euro area in 2009 and Estonia is one of the few EU countries currently not subject to an excessive deficit procedure. The public debt-to-GDP ratio stood at 7.2% of GDP in 2009. According to the European Commission, in 2010 the Estonian public deficit is likely to decrease to 1.0% of GDP, while gross public debt is projected at 8.0% of GDP. Looking forward, additional consolidation measures should be specified in order to return to a surplus position in line with the medium-term objective by 2013, thereby allowing Estonia to maintain its sustainable public finance position.

Economic and monetary policy choices have played an important role in shaping the convergence process of Estonia over the past decade. With the adoption of a currency board arrangement in 1992, the kroon was pegged first to the Deutsche Mark, and after 1999 it was pegged to the euro. In addition, the orientation of monetary policy towards the achievement of price stability, as the primary objective of monetary policy, was enshrined in the central bank law in 2003. During the period 2005-08, however, the monetary policy conditions in Estonia under the currency board arrangement became, overall, too expansionary. Despite a relatively sound record of fiscal balances, the country's overall policy stance was not sufficiently tight to contain demand pressures and support price stability. This led to excessive credit growth and increases in asset prices, notably in housing markets, with the resulting imbalances being unwound in the context of a severe adjustment recession.

The policy framework of Eesti Pank implied that ECB interest rate decisions were directly influencing the interest rate for the Estonian

economy. For many years, money market interest rates in Estonia had broadly followed comparable euro area rates. However, following the intensification of the financial crisis in the autumn of 2008, risk premia rose, market rates became increasingly detached from euro area money markets and spreads vis-à-vis the euro area increased. From November 2009 money market spreads started to narrow significantly – reflecting fiscal consolidation efforts, a decline in global risk aversion and changing market expectations about Estonia’s prospects of adopting the euro. Amid some fluctuations, this narrowing gradually led to the convergence of Estonian money market interest rates with the euro area.

In order to fully reap the advantages of the euro and to allow adjustment mechanisms to operate efficiently within the enlarged currency area, Estonia needs to conduct economic

policies that are fully geared towards ensuring the sustainability of the convergence process. Ensuring a low-inflation environment is crucial in that respect. It is imperative that policy areas other than monetary policy provide the Estonian economy with the ability to cope with potential country-specific shocks and avoid the reoccurrence of macroeconomic imbalances. Importantly, the Estonian authorities have publicly underlined that their overarching goal is to ensure an economic environment that is conducive to sustainable output and employment growth in the medium term, in the context of balanced macroeconomic conditions, and price stability. To this end, the Estonian authorities need to be firmly committed to a framework consisting of: i) further fiscal consolidation, ii) continuing structural reform, and iii) a further strengthening of financial sector policies to ensure financial stability and avoid the build-up of possible risks.

#### Box 9

##### STATISTICAL IMPLICATIONS OF THE ENLARGEMENT OF THE EURO AREA TO INCLUDE ESTONIA

Estonia’s entry into the euro area on 1 January 2011 is the fifth occasion on which statistical series for the euro area have had to be amended to include additional member countries (Greece entered in 2001, Slovenia in 2007, Cyprus and Malta in 2008, and Slovakia in 2009). The preparation of statistics for the enlarged euro area has been coordinated, where necessary, with the European Commission.

The entry of Estonia into the euro area means that Estonian residents – both natural and legal persons – have become residents of the euro area. This affects statistics recording transactions (flows) and positions of euro area residents among themselves and vis-à-vis non-euro area residents, such as monetary, balance of payments and international investment position statistics, as well as financial accounts. In these cases, transactions and positions between residents of Estonia and other euro area residents must now be “consolidated” to ensure a proper definition of euro area residency in all statistics concerned.

As of January 2011 Estonia has to meet all the statistical requirements of the ECB, i.e. to provide fully harmonised and comparable national data.<sup>1</sup> Since the preparatory work for new statistics requires a long lead time, Eesti Pank and the ECB started the statistical preparations well before Estonia joined the EU. After becoming a member of the ESCB in 2004, Eesti Pank intensified its preparations to fulfil the requirements of the ECB in the fields of monetary and financial

<sup>1</sup> The statistical requirements of the ECB are summarised in the document “ECB statistics: an overview”, April 2010.

statistics, external statistics, government finance statistics and financial accounts. In addition, it had to carry out the necessary preparations for the integration of Estonian credit institutions into the ECB's minimum reserve system and to fulfil the relevant statistical requirements in this area.

For the data reporters and NCBs of the other euro area countries, the enlargement of the euro area means that since January 2011 they have to report transactions (or flows) and positions vis-à-vis residents of Estonia as part of the euro area data, instead of transactions and positions vis-à-vis non-euro area residents as they did earlier.

In addition, Estonia and all other euro area countries provided backdata with sufficient geographical and sectoral detail, dating back as far as 2004, the year Estonia joined the EU. These historical data will enable the compilation of aggregates for the euro area in its new composition for a few years before the enlargement.

Regarding the publication of euro area statistics, the ECB has granted users online access to two sets of time series, one containing data for the current euro area (i.e. including Estonia) as far back as available, and one linking the various compositions of the euro area, starting with the 11 countries in 1999.

## 2 LEGAL ASPECTS OF THE INTEGRATION OF EESTI PANK INTO THE EUROSISTEM

Pursuant to Article 140 of the Treaty, the ECB reviewed the statute of Eesti Pank and other relevant Estonian legislation for compliance with Article 131 of the Treaty. The ECB made a favourable assessment of the compatibility of Estonian legislation with the Treaty and with the Statute of the ESCB, under the assumption that further legislative amendments to Estonian legislation would enter into force in time, as stated in its Convergence Report published in May 2010. The ECB noted that on 22 April 2010 the Estonian parliament adopted these legislative amendments.

The ECB and Eesti Pank put in place a number of legal instruments with a view to ensuring the integration of Eesti Pank into the Eurosystem on 1 January 2011. The Eurosystem's legal framework was adapted as a consequence of the decision taken by the ECOFIN Council on 13 July 2010 to abrogate the derogation of Estonia.<sup>1</sup> The ECB adopted the necessary legal instruments to provide for the paying-up of the remaining capital and the transfer of foreign reserves to the ECB<sup>2</sup> and established the banknote allocation key applying from 1 January 2011.<sup>3</sup> Pursuant to Article 27.1 of the Statute of the ESCB, the Governing Council adopted a recommendation on Eesti Pank's external auditors for the annual accounts starting from the financial year 2011.<sup>4</sup> The ECB also reviewed its legal framework and introduced, where necessary, amendments resulting from Eesti Pank's membership of the Eurosystem. This included a review of Estonian legislation implementing the Eurosystem's legal framework for monetary policy and TARGET2, which enabled Estonian counterparties to participate in the Eurosystem's open market operations from 3 January 2011. The ECB also adopted a decision on transitional provisions for the application of minimum reserves by the ECB following the introduction of the euro in Estonia.<sup>5</sup> Finally, the ERM II Agreement<sup>6</sup> was terminated for Eesti Pank.

The introduction of the euro in Estonia and the integration of its central bank into the Eurosystem also required changes to some Estonian legal instruments. The ECB was consulted on national

legislation governing the euro changeover, rounding rules and currency circulation in Estonia, as well as the minimum reserves framework.<sup>7</sup>

By the end of 2010 Eesti Pank's law and statute had been brought into line with recommendations in the ECB's 2004, 2006, 2008 and 2010 Convergence Reports. Eesti Pank consulted the ECB on the draft amendments to the law and the statute of Eesti Pank on 10 February 2010 and the ECB adopted an opinion proposing certain changes, which were reflected in the final version of the law and the statute.<sup>8</sup>

The ECOFIN Council consulted the ECB on its proposals to amend the Council Regulations<sup>9</sup> which enabled the introduction of the euro in Estonia and determined the irrevocably fixed exchange rate of the euro vis-à-vis the Estonian kroon.<sup>10</sup> The ECB welcomed the proposed regulations and noted that they would enable the introduction of the euro as the currency of Estonia following the abrogation of Estonia's derogation in accordance with the procedure set out in Article 140(2) of the Treaty.

1 Council Decision 2010/416/EU of 13 July 2010 in accordance with Article 140(2) of the Treaty on the adoption by Estonia of the euro on 1 January 2011, OJ L 196, 28.7.2010, p. 24.

2 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.

3 Decision ECB/2010/29 of 13 December 2010 on the issue of euro banknotes (recast), OJ L 35, 9.2.2011, p. 26.

4 Recommendation ECB/2010/16 of 8 October 2010 to the Council of the European Union on the external auditors of Eesti Pank, OJ C 282, 19.10.2010, p. 1.

5 Decision ECB/2010/18 of 26 October 2010 on transitional provisions for the application of minimum reserves by the ECB following the introduction of the euro in Estonia, OJ L 285, 30.10.2010, p. 37.

6 Agreement of 13 December 2010 between the ECB and the national central banks of the Member States outside the euro area amending the Agreement of 16 March 2006 between the ECB and the national central banks of the Member States outside the euro area laying down the operating procedures for an exchange rate mechanism in stage three of economic and monetary union, OJ C 5, 8.1.2011, p. 3.

7 CON/2010/16 and CON/2010/60.

8 CON/2010/20.

9 Council Regulation (EU) No 671/2010 of 13 July 2010 amending Regulation (EC) No 2866/98 as regards the conversion rate to the euro for Estonia, OJ L 196, 28.7.2010, p. 4, and Council Regulation (EU) No 670/2010 of 13 July 2010 amending Regulation (EC) No 974/98 as regards the introduction of the euro in Estonia, OJ L 196, 2.7.2010, p. 1.

10 CON/2010/52.

### 3 OPERATIONAL ASPECTS OF THE INTEGRATION OF EESTI PANK INTO THE EUROSISTEM

Following the ECOFIN Council's decision of 13 July 2010 on the adoption of the euro by Estonia on 1 January 2011, the ECB conducted technical preparations with a view to fully integrating Eesti Pank into the Eurosystem. In line with the provisions of the Treaty, Eesti Pank joined the Eurosystem with exactly the same rights and obligations as the NCBs of the EU Member States that had already adopted the euro.

The technical preparations for the integration of Eesti Pank into the Eurosystem covered a wide range of areas, notably financial reporting and accounting, monetary policy operations, foreign reserve management and foreign exchange operations, payment systems, statistics and banknote production. In the field of operations, preparations involved extensive testing of the instruments, procedures and technical systems for the implementation of monetary policy and foreign exchange operations.

#### MONETARY POLICY OPERATIONS

Following the adoption of the euro by Estonia on 1 January 2011, 18 Estonian credit institutions, a list of which is published on the ECB's website, became subject to the Eurosystem's reserve requirements as from that date. The entry of Estonia into the euro area changed the liquidity conditions in the Eurosystem only slightly. The aggregate reserve requirements of euro area credit institutions increased by less than 0.2% (€223 million). Net autonomous liquidity factors in Estonia for the period from 1 to 18 January 2011 were liquidity-absorbing, increasing the liquidity needs of the entire euro area banking sector by €1.1 billion on average.

Given the liquidity surplus, Estonian counterparties did not submit any bids in the open market operations conducted at the beginning of 2011, except for a small amount in the operation that was settled on 19 January.

On entering the euro area, Eesti Pank also adopted the collateral framework of the Eurosystem, but reported no assets to be eligible for Eurosystem credit operations as at 1 January 2011.

#### CONTRIBUTION TO THE ECB'S CAPITAL, RESERVES AND FOREIGN RESERVE ASSETS

Eesti Pank's total subscribed share amounts to €19.3 million, equivalent to 0.1790% of the ECB's subscribed capital of €10.761 billion as at 1 January 2011. Upon joining the ESCB on 1 May 2004, Eesti Pank paid up 7% of its share of the subscribed capital of the ECB as a contribution to the ECB's operational costs; in conjunction with the ECB's capital increase on 29 December 2010 this contribution has been reduced to 3.75%. In accordance with Article 48.1 of the Statute of the ESCB, Eesti Pank is asked to pay up the remaining part of its subscription, which is equal to €18.5 million. On 1 January 2011 Eesti Pank paid up the first instalment of its subscription, equal to €12.6 million, and the rest of the subscribed capital will be paid in two further instalments.

At the beginning of 2011, in accordance with Articles 30 and 48.1 of the Statute of the ESCB, Eesti Pank, on the basis of its share of the ECB's subscribed capital, transferred to the ECB foreign reserve assets equivalent to a total of €145.9 million (85% in Japanese yen-denominated assets and 15% in gold). Eesti Pank has opted to conduct the operational activities related to the management of its share of the ECB's Japanese yen reserve assets in a pooled management arrangement with Suomen Pankki – Finlands Bank. As a result of the transfer of foreign reserve assets to the ECB, Eesti Pank was credited with a euro-denominated claim on the ECB in accordance with Article 30.3 of the Statute of the ESCB.

## 4 THE CASH CHANGEOVER IN ESTONIA

### THE LOGISTICS OF THE CASH CHANGEOVER

Following the abrogation of the derogation for Estonia by the ECOFIN Council on 13 July 2010, Estonia adopted the euro as its currency on 1 January 2011. The cash changeover went smoothly and, following a two-week period during which Estonian kroon and euro cash circulated in parallel, the euro banknotes and coins became the sole legal tender in Estonia. Virtually all automated teller machines (ATMs) only dispensed euro banknotes as of 1 January 2011. The cash changeover modalities had been laid down in a changeover plan established jointly with the relevant stakeholders.

Suomen Pankki – Finlands Bank, which acted as the logistical counterpart, provided 44.9 million banknotes worth €1.47 billion. Eesti Pank will repay that loan in the form of banknotes in 2012. The banknotes to be commissioned by Eesti Pank will carry the letter “D” in their serial numbers. Eesti Pank procured 194 million euro coins worth €58.4 million from the Mint of Finland.

In terms of value, 13% of the borrowed euro banknotes and nearly half of the procured euro coins were frontloaded to the banking sector for filling the ATMs and for sub-frontloading. In addition, 700,000 starter kits each containing euro coins with a value of €12.79 were produced for distribution to the general public in order to reduce the amount of change to be kept by retailers in the first few days of January.

In connection with the introduction of the euro in Estonia, NCBs exchanged, free of charge, Estonian kroons for euro at par value from the first working day of 2011 until 28 February 2011.<sup>11</sup> The amount exchanged was limited to €1,000 for any given party and transaction on any one day. Furthermore, in December 2010 individuals were able to exchange kroons for euro free of charge at the irrevocably fixed exchange rate at all banks in Estonia. Estonian post offices also took part in the changeover process during the first 15 days

of January to ensure cash supply in rural areas.

From 1 January 2011, for a period of six months, kroons can be exchanged for euro at the fixed exchange rate free of charge at all bank branches providing cash services. Thereafter, from July to December 2011, kroons can be exchanged for euro at certain bank branches.

Eesti Pank will continue to redeem Estonian kroon banknotes and coins for an unlimited period of time.

### THE INFORMATION CAMPAIGN ON THE INTRODUCTION OF THE EURO

The ECB worked closely with Eesti Pank to prepare a comprehensive information campaign in preparation for the introduction of the euro. The communication tools used in the campaign took into account the experience gained in past changeovers and included public opinion surveys, different types of printed publication and dedicated internet pages. For the first time since the Euro 2002 Information Campaign, TV advertising was used (four adverts were aired between November 2010 and mid-January 2011). The euro information campaign organised by the ECB and Eesti Pank aimed to familiarise cash handlers and the general public with the visual appearance and security features of the euro banknotes and coins, as well as with the cash changeover arrangements. Communication partners (mainly banks and public authorities) were given access to the high-quality print files of the ECB’s publications, which they were able to adapt and use in their own communication activities.

Following contacts with blind associations, including the Estonian Blind Association, the ECB developed a “talking card” for the visually

<sup>11</sup> Article 52 of the Statute of the ESCB requires that the Governing Council of the ECB take the necessary measures to ensure that banknotes denominated in currencies with irrevocably fixed exchange rates to the euro are exchanged by the euro area NCBs at par value. Against this background, the Governing Council adopted a guideline on the exchange of such banknotes on 24 July 2006.

impaired (an embedded MP3 file reads out basic information requested on the changeover and the euro cash).

To mark the launch of the euro information campaign in Estonia, on 19 September 2010 a symbolic star containing euro banknotes was handed over by President Trichet to Governor Lipstok.



Interior view of the Grossmarkthalle's concrete grid facade. The restoration of the Grossmarkthalle is an important aspect of the construction works. The fundamental appearance of the building will be retained, with its facades and surfaces being restored in line with the preservation order.

## CHAPTER 4

# FINANCIAL STABILITY AND INTEGRATION

# I 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, the new European supervisory framework came into being on 1 January 2011 with the creation of three European Supervisory Authorities (ESAs) covering banks, securities markets, and insurance and pension funds. This framework will produce a substantial strengthening of the European supervisory structure both at the micro-prudential and, for the first time, at the macro-prudential level, as the ESRB has been given a mandate to identify and prioritise systemic risks to the EU financial sector, to issue warnings and, where appropriate, to suggest recommendations for remedial action to contain those risks. The ECB will “ensure the secretariat of the ESRB and thereby provide analytical, statistical, logistical and administrative support to the ESRB” (see Chapter 6).<sup>1</sup>

## I.1 FINANCIAL STABILITY MONITORING

### I.1.1 THE EURO AREA BANKING SECTOR

The key activities of the ECB, in collaboration with the ESCB’s Banking Supervision Committee (BSC), are monitoring risks to financial stability and assessing the financial system’s shock-absorbing capacity.<sup>2</sup> The main focus of the analysis 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.

During 2010 continued distress in the euro area government bond and bank funding markets tested market confidence in the ability of the euro

area banking sector to deal with future risks. However, the commitment of euro area countries to undertake or accelerate fiscal consolidation, the establishment of the European Financial Stabilisation Mechanism (EFSM) and the European Financial Stability Facility (EFSF), the launch of the ECB’s Securities Markets Programme (SMP) in May, under which interventions are conducted in the euro area public and private debt securities markets, and the overall positive results of the EU-wide stress tests that were announced in July all made important contributions to the stabilisation of markets over the summer.<sup>3</sup> Moreover, the conclusion of an agreement on a revision of the regulatory regimes for internationally active banks (the Basel III rules), to be implemented gradually over time so that the banking sector can keep providing credit to the economy, reduced uncertainty about the future capital and liquidity needs of banks. These developments notwithstanding, the overall economic and financial situation in the euro area remained fraught with risks for financial stability, and concerns about the interplay between sovereign debt problems and banking sector vulnerabilities in some euro area countries re-emerged in the second half of the year.<sup>4</sup> Furthermore, the re-emergence of global imbalances during 2010 represented another important source of risks, along with the associated high exchange rate volatility and the possibility of disorderly unwinding of the imbalances.

1 Council Regulation (EU) No 1096/2010 of 17 November 2010, OJ L 331, 15.12.2010, p. 162.

2 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. In 2010 it also published structural indicators for the EU banking sector, its annual report on EU banking sector stability and its annual report on EU banking structures, which this year included an ad hoc appendix on the profitability of banks, “Beyond RoE: How to measure bank performance”. These publications present the main findings of the monitoring by the BSC of the structure and stability of the banking sector, and are available on the ECB’s website.

3 The EU-wide stress test exercise was coordinated by the Committee of European Banking Supervisors (CEBS) in close collaboration with the ECB and the European Commission. Detailed descriptions of the methodology are available on the websites of the CEBS and the ECB, and the results are available on the websites of the CEBS and participating national authorities.

4 This interplay culminated in Ireland applying for an EU/IMF financial support programme on 21 November.

Notably, developments in the euro area financial sector in 2010 pointed to significant discrepancies between member countries, which to a large extent reflected the ongoing process of correction of past imbalances in some countries. In such an environment, the timing and phasing of exits from remaining public sector support measures posed particular challenges for the euro area financial system. However, those measures will have to be withdrawn over the medium term; otherwise they would maintain an uneven playing field between banks and between countries. In the meantime, the main risks continued to include the possibility that concerns about the sustainability of public finances would persist or even increase, with a potential for further adverse feedback loops between public finances and the financial sector. Although the adverse interaction between vulnerabilities relating to economic growth, fiscal imbalances and bank funding conditions was particularly prevalent in only a limited number of euro area countries, risks of contagion spreading to other euro area countries remained.

Nonetheless, going forward, the central scenario for euro area financial stability is broadly favourable, supported in part by a more benign macroeconomic environment, by the increased transparency of financial institutions' asset exposures and by additional financial backstop mechanisms set up by euro area governments and central banks. However, the degree of uncertainty surrounding this outlook remains high.

The earnings of euro area large and complex banking groups (LCBGs) started to recover in the first three quarters of 2010, mainly driven by buoyant net interest income, lower (albeit still high) average loan loss provisions, and steady fee and commission income. Net interest income continued to be supported by the steep yield curve and the still relatively wide margins applied by banks to new lending. In addition, indications emerged that growth in bank lending for house purchase may have passed a turning point in mid-2010, albeit with substantial differences between member countries, while bank lending to non-financial corporations recovered far more sluggishly.

Finally, LCBGs benefited from a significant decrease in the cost of risk, due both to a positive evolution of the credit cycle and to the economic recovery (e.g. a stabilisation of default rates and lower non-performing loans). However, LCBGs experienced a remarkable drop in trading revenues in the second quarter of 2010, which was only partially reversed in the third quarter. This was driven by lower trading volumes, and many institutions continued to post losses on some of their asset holdings. The solvency ratios of LCBGs improved further across the board in the first three quarters of 2010, supported by retained earnings and banks' efforts to raise capital. A setback to the recent recovery in the profitability of LCBGs would adversely impact the provision of credit to the real economy. Moreover, the recovery in the quality of banks' credit risk exposures remains fragile in a number of countries.

#### **1.1.2 OTHER FINANCIAL INSTITUTIONS**

Turning to other financial institutions, the condition of the euro area insurance sector stabilised in 2010. However, the performance across insurers was varied and the moderate economic activity continued to weigh on underwriting performance. Insurers' financial results were, however, supported by relatively contained losses and stable investment income. All in all, the profitability of large insurers remained stable throughout 2010. In addition, capital positions also remained steady and appeared, on average, to include a reasonable amount of shock-absorption capacity.

Looking ahead, some risks and challenges for the euro area insurance sector remain, and this is contributing to some uncertainty about the outlook. In particular, the low levels of yields on AAA-rated government bonds continue to pose challenges for insurers (and pension funds) that have a large stock of guaranteed-return contracts with guaranteed rates close to or above current long-term risk-free rates. At the same time, the moderate recovery in economic activity, and the uncertainty surrounding it, is continuing to weigh on the underwriting performance of euro area insurers.

The hedge fund sector continued to recover in 2010. Average investment performances were not as impressive as in 2009, but investors continued to return to the sector and annual net flows became positive again. However, investors tended to prefer larger hedge funds, the growth of which may also imply higher concomitant risks to financial stability. Furthermore, amid low nominal interest rates and increasing tolerance of counterparty credit risk across prime broker banks, the limited data available on hedge fund leverage pointed to a gradual releveraging of the hedge fund sector with the associated higher vulnerability to various leverage-related risks.

## 1.2 FINANCIAL STABILITY ARRANGEMENTS

In 2010 the EU launched a major overhaul of the EU framework for crisis prevention, management and resolution. The reform – covering a time horizon of a few years, as laid down in the ECOFIN Council conclusions of 18 May 2010 – focuses on three main areas of work: i) the implementation of an EU policy coordination framework, ii) the enhancement of the EU regulatory framework, and iii) the establishment of mechanisms to ensure that the financial sector bears the net cost of financial crises. The ECB has participated actively in all three areas throughout the year.

In particular, the ECB supported the implementation of a holistic EU-wide policy coordination framework for crisis prevention, management and resolution, implying a stronger coordinating role for the ECOFIN Council in financial stability policies, as well as the setting-up of coordination arrangements for the clear articulation of the roles and responsibilities of the various EU and national bodies. In that context, the establishment of cross-border stability groups (CBSGs) – as defined in the 2008 memorandum of understanding on cross-border financial stability<sup>5</sup> – for all large EU cross-border financial groups by mid-2011, accompanied by the signing of cross-border cooperation agreements (“Voluntary Specific Cooperation

Agreements”), was considered useful for strengthening policy coordination on a bilateral/multilateral basis.<sup>6</sup>

In the field of regulation, in February 2010 the Eurosystem contributed to the Commission’s public consultation on an EU framework for cross-border crisis management in the banking sector.<sup>7</sup> The Eurosystem supported the Commission’s objective of taking the initiative to develop an EU resolution framework and to address obstacles to the effective management of crises affecting EU cross-border financial institutions. The Eurosystem also suggested several possible ways to address issues in the areas of early intervention tools, intra-group asset transfers, “bank resolution”<sup>8</sup> and insolvency.

In May 2010 the Commission published its “Communication on bank resolution funds”, suggesting the establishment of an EU-wide network of prefunded schemes as the best use of financial levies to ensure that future bank failures do not come at the cost of the taxpayers or destabilise the financial system. In the same vein, the European Council agreed in June that Member States should introduce systems of levies and taxes on financial institutions to ensure fair burden-sharing and to create incentives to contain systemic risk.<sup>9</sup> In that context, the ECB acknowledged the need to

5 See Memorandum of Understanding on Cooperation between the Financial Supervisory Authorities, Central Banks and Finance Ministries of the European Union on Cross-Border Financial Stability (ECFIN/CEFCPE(2008) REP/53106), Brussels, 1 June 2008.

6 On 17 August 2010 the first CBSG – the Nordic-Baltic Cross-Border Stability Group – was set up with the signing of an agreement between the authorities of Denmark, Estonia, Finland, Iceland, Latvia, Lithuania, Norway and Sweden.

7 On 20 October 2009 the European Commission launched a public consultation on its communication entitled “An EU Framework for Cross-Border Crisis Management in the Banking Sector”, which addresses a range of issues in three main areas: i) early intervention, ii) bank resolution, and iii) insolvency.

8 “Bank resolution” refers to measures taken by national resolution authorities to manage a crisis in a banking institution, to contain its impact on financial stability and, where appropriate, to facilitate an orderly winding-up of the whole or parts of the institution.

9 With the exception of the Czech Republic, which reserved the right not to introduce these measures.

ensure the coordination of the various initiatives already undertaken by countries to mitigate the risk of competitive distortions arising between national banking markets and of cross-border cooperation being hampered during crises. For this purpose, the ECB has actively contributed to the work of the Economic and Financial Committee (EFC) ad hoc working group on crisis management by monitoring the different systems of levies in the EU and providing recommendations on possible options to address short-term issues, such as double taxation and a level playing field.

In October 2010 the Commission released a communication on “An EU Framework for Crisis Management in the Financial Sector” which sets out the main elements of the reform that will be part of EU legislative proposals in 2011. Beyond the immediate priority of putting in place efficient crisis management arrangements in all Member States, the communication also includes a “roadmap” providing a longer-term view of some of the major challenges which will need to be overcome in order to ensure the smooth handling of crises. The Eurosystem supports the proposal put forward by the Commission aimed at enhancing the EU regulatory framework for crisis management and resolution. A comprehensive crisis management framework would ensure, inter alia, that, ultimately, resolution would be a credible option, even in the case of a systemically important cross-border institution. The achievement of this goal requires not only a more effective toolkit for authorities, but also provisions that foster cooperation between Member States in crisis situations. A public consultation on the technical details of this proposal was launched by the Commission on 6 January 2011.<sup>10</sup> In December 2010, in its conclusions on crisis prevention, management and resolution, the ECOFIN Council supported the Commission in its forthcoming legislative work, and invited the EFC to continue its monitoring of national systems of levies and taxes, in particular with regard to a level playing field and coordination.<sup>11</sup>

10 For further details, see the European Commission’s website (<http://ec.europa.eu>).

11 Council conclusions on crisis prevention, management and resolution, 3054th ECOFIN Council meeting, Brussels, 7 December 2010.

## 2 FINANCIAL REGULATION AND SUPERVISION

### 2.1 BANKING

During 2010 banking regulation followed the agenda set by the G20 at the London and Pittsburgh summits in 2009 with the final objective of building a more resilient financial system that supports strong and stable economic growth. To this end, the Group of Governors and Heads of Supervision (GHOS), the oversight body of the Basel Committee on Banking Supervision, agreed on a substantial strengthening of existing capital requirements and the introduction of global liquidity risk regulation.<sup>12</sup> This reform package, commonly referred to as “Basel III”, is a cornerstone of the new international prudential framework.

The Basel III package includes a new definition of regulatory capital which focuses on those elements with the highest loss-absorbing capacity, such as common equity and its equivalents for non-joint stock companies. In addition to this qualitative enhancement, the amount of capital required has also been increased significantly. The new minimum common equity Tier 1 ratio has been set at 4.5% of risk-weighted assets, complemented by a capital conservation buffer of 2.5% to withstand future periods of stress. Together with other Tier 1 and Tier 2 equity elements, the effective total capital ratio will rise from the current 8% to 10.5% of risk-weighted assets. An additional counter-cyclical buffer, to be activated in circumstances of excessive credit growth, could add up to 2.5% of risk-weighted assets, depending on national developments in the credit cycle. In response to the Commission’s consultation on its proposal on counter-cyclical capital buffers, the Eurosystem supported work at the international and EU level with regard to developing a counter-cyclical capital buffer (CCB) mechanism and stressed the need for consistent implementation at the EU and international level. While ensuring a level international playing field by laying down the requirements for the setting of CCBs in as much detail as possible in the Capital Requirements

Directive (CRD) itself, the ESRB and the European Banking Authority (EBA), in their respective roles within the European supervisory framework, could issue policy principles and technical standards to specify additional requirements that would allow the framework to be responsive to the evolution of the financial system and the different shocks it faces.<sup>13</sup>

Moreover, in line with the mandate of the G20, the risk-based requirements would be supplemented with a transparent and internationally comparable non-risk-based leverage ratio.

The regulation of liquidity risk consists of two key quantitative standards, focusing on limiting misalignments in terms of short-term liquidity needs and imposing a structural, longer-term liquidity requirement with the aim of reducing banks’ dependence on wholesale and other volatile funding sources, and promoting stable longer-term funding. To facilitate the monitoring of the liquidity risks and the exchange of information between supervisors, the quantitative measures are supplemented with a set of monitoring tools.

In line with these regulatory developments, the European Commission launched two consultations. The first was launched in February 2010 and concerned proposed amendments to the CRD regarding liquidity standards, the definition of capital, leverage ratios, changes in the treatment of counterparty credit risk, counter-cyclical measures (including through-the-cycle provisioning for expected credit losses), a single rulebook and systemically important financial institutions (SIFIs). The second consultation,

12 For further information, see “Basel III: A global regulatory framework for more resilient banks and banking systems” and “Basel III: International framework for liquidity risk measurement, standards and monitoring”, both published on 16 December 2010, available on the BIS website (<http://www.bis.org>).

13 See “Countercyclical capital buffer – position of the Eurosystem on the Commission’s consultation document”, available on the ECB’s website.

launched in October 2010, relates to the introduction of a counter-cyclical buffer.

The ECB fully supports the GHOS agreement and considers it a crucial step towards successfully fulfilling the G20 mandate. The crisis clearly showed that measures to make the financial system more resilient should be a key priority. Notwithstanding the costs of regulatory reform, some of which are of a transient nature, the new framework will benefit the global economy by substantially mitigating the risks associated with future financial crises.

Nonetheless, the ECB considers that the gradual implementation of the package, envisaged over the period 2013-19, will remain key and that any further development has to be evaluated against the set of measures already under way. During the transition period, capital measures, the liquidity ratios and the leverage ratio will require careful assessment with regard to their impact on particular business models, specific banking sectors, financial markets and economic growth. At the same time, special attention will have to be devoted to ensuring that the new rules are implemented consistently across different jurisdictions at the international level.

In line with the G20 mandate, the Financial Stability Board (FSB) focused its efforts in 2010 on another strand of work, namely developing a well-integrated framework to reduce the risks and externalities associated with SIFIs. The new framework will comprise the following building blocks: i) tools for the effective resolution of SIFIs, ii) more intensive and effective supervision and oversight, iii) robust core financial market infrastructures to reduce contagion risk, and iv) supplementary prudential and other requirements to enhance loss absorbency. In September 2010, in a press release following the agreement on the calibration of the new prudential regime, the GHOS remarked that SIFIs should have loss-absorbing capacity beyond the standards agreed in Basel III.

The ECB welcomes and supports the work of the FSB in this important field. Given the

global scale of the activities pursued by SIFIs, it remains crucial that the regulatory community cooperates closely, under the aegis of the FSB, to ensure a high degree of international consistency in this domain, in order to limit potential deviations from a level playing field and minimise the risks of regulatory arbitrage.

## 2.2 SECURITIES

In 2010 work continued on hedge funds, credit rating agencies (CRAs) and short-selling regulation. The G20 reaffirmed its commitment to improving the oversight of hedge funds and CRAs.<sup>14</sup> At the European level, concerns about the potential harm of short selling were addressed by the Committee of European Securities Regulators (CESR).<sup>15</sup>

As regards hedge funds, agreement<sup>16</sup> on the Alternative Investment Fund Managers Directive (AIFM Directive) was reached in the Council in October, and on 11 November 2010 the European Parliament voted in favour of the proposal. The objectives of the AIFM Directive are, inter alia: to ensure that all managers of alternative investment funds above a certain size are subject to appropriate authorisation and registration requirements; to improve risk management and governance safeguards; to enhance investor protection; and to design a framework for monitoring macro-prudential risks. Subject to these requirements, AIFMs would obtain a passport allowing them to market funds to professional investors across the Single Market. The Eurosystem contribution to the European Commission's consultation on hedge funds strongly welcomed more transparency and macro-prudential oversight of the hedge fund industry and stressed that the introduction of a comprehensive and harmonised regulatory framework for AIFMs in the EU could act

<sup>14</sup> *The G-20 Toronto Summit Declaration*, G20, 26-27 June 2010.

<sup>15</sup> *Proposal for a Pan-European Short Selling Disclosure Regime*, CESR, March 2010.

<sup>16</sup> Between the Council, the European Commission and the European Parliament's Economic and Monetary Affairs Committee.

as a first step towards a global consensus. Furthermore, it emphasised the importance of continuing the international dialogue in order to ensure a globally coordinated framework.<sup>17</sup>

With regard to CRAs, the European Commission has issued a proposal to amend the existing CRA Regulation.<sup>18</sup> In its opinion on the proposal,<sup>19</sup> the ECB broadly welcomed the measures aimed at strengthening the regulatory framework, in particular that granting comprehensive powers to the European Securities and Markets Authority (ESMA) as regards the registration and surveillance of CRAs, and that concerning increased transparency and competition in the market for ratings of structured finance instruments.

In response to concerns regarding the impact of short selling in the extreme market conditions created by the financial crisis, regulatory authorities around the world adopted a series of measures. In Europe, the CESR proposed a pan-European disclosure regime in March 2010. The European Commission also published a consultation document on 14 June 2010. The Eurosystem's reply of 5 August 2010 welcomed the proposed transparency regime for EU shares. It was stressed that the ESMA, together with other appropriate authorities, should play a central role in emergency situations, and that short-selling bans or restrictions should be limited in time and scope to exceptional circumstances. The Eurosystem broadly supported their enforcement against settlement failures of uncovered short selling and the assignment of powers to competent authorities to allow them to restrict short selling temporarily. The Commission's subsequent proposal for a regulation was aimed at increasing harmonisation, coordination and transparency, as well as reducing systemic risks, risks to market integrity and settlement risks.<sup>20</sup>

### 2.3 ACCOUNTING

The main developments in 2010 related to the ongoing work of the Financial Accounting

Standards Board (FASB) and the International Accounting Standards Board (IASB) in response to the request of the G20 to address weaknesses identified in the wake of the financial crisis and to bring their standards more into line with one another.

In response to the G20 request to improve the involvement of interested stakeholders in the standard-setting process, the IASB further increased its outreach efforts with a view to encouraging broad stakeholder involvement in standard-setting.

In this context, on many occasions the ECB provided views to the IASB on several key accounting projects (notably the accounting of financial instruments) and, more generally, on the convergence efforts of the FASB and the IASB.

In April 2010 the ECB provided comments on the IASB suggestion to accommodate regulatory concerns by introducing a "regulatory income statement". The ECB stressed the importance of maintaining the good collaboration between the IASB and regulators on the issues of fair value measurement and forward-looking provisioning within the accounting framework. On the other hand, the ECB did not support the introduction of a regulatory income statement, since the disclosure requirements of the new capital framework (Basel III) already address the disclosure issues raised by the IASB in its proposal and a regulatory income statement could potentially create additional complexity and uncertainty, and might result in confusion on the market, which should be avoided.

Both the FASB and the IASB strengthened their efforts to reduce the complexity of

<sup>17</sup> *European Commission's consultation on hedge funds – Eurosystem contribution*, ECB, 25 February 2009.

<sup>18</sup> Regulation (EC) No 1060/2009 of the European Parliament and of the Council of 16 September 2009 on credit rating agencies.

<sup>19</sup> Opinion of the European Central Bank of 19 November 2010 on a proposal for a regulation of the European Parliament and of the Council amending Regulation (EC) No 1060/2009 on credit rating agencies (CON/2010/82).

<sup>20</sup> Proposal for a regulation of the European Parliament and of the Council on short selling and certain aspects of credit default swaps, European Commission, 15 September 2010.

current accounting for financial instruments by developing new standards on the classification and measurement of financial instruments.

In 2010 the two boards continued their work on strengthening the accounting recognition of loan loss provisions (impairment). In this regard, the ECB repeatedly conveyed its clear support for a move towards an expected loss model. In addition, the ECB continued to contribute to the accounting work of the Basel Committee, which is aimed, among other things, at addressing the operational challenges posed by the introduction of an expected loss approach.

## 3 FINANCIAL INTEGRATION

The Eurosystem contributes 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 April 2010 the ECB published its fourth annual report on “Financial integration in Europe”.<sup>21</sup> The main purpose of the report is to contribute to 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 further foster financial integration. The report first assesses the state of financial integration, based on a set of indicators that are also published semi-annually on the ECB’s website. In 2010 these indicators were further developed to include, for example, risk indicators for the bond market. The report also contains in-depth analyses of selected issues: i) banking integration and supervision in the EU, ii) European covered bonds, iii) harmonisation in the post-trading sector, and iv) stability implications of financial market integration and development. The report concludes with an overview of the Eurosystem’s contribution towards the achievement of more integrated and developed financial markets in Europe during 2009.

The ECB continued its involvement in the Research Network on Capital Markets and Financial Integration in Europe, which 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’s 13th conference on “Macro-prudential Regulation as an Approach to Contain Systemic Risk: Economic Foundations, Diagnostic Tools and Policy Instruments” took

place on 27 and 28 September 2010 in Frankfurt and was hosted by the ECB. As in previous years, the ECB awarded 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 Eurosystem continued to support the Single Euro Payments Area (SEPA) initiative, which aims to allow individuals, corporations and public administrations to make cashless payments in euro throughout the participating countries from a single account using a single set of payment instruments as easily, efficiently and safely as they can make them today at the national level.

The Eurosystem published the seventh SEPA Progress Report in October 2010.<sup>22</sup> This report provides an assessment of the progress achieved in the implementation of SEPA since the publication of the previous report in November 2008, highlighting accomplishments and pointing out deficiencies. Furthermore, in the annex to the report, the Eurosystem has identified a (non-exhaustive) list of milestones that need to be attained between the fourth quarter of 2010 and the end of 2013 in order to facilitate the finalisation of SEPA implementation and migration. The main conclusions of the report relate to the migration towards SEPA credit transfers (SCTs) and SEPA direct debits (SDDs), cards, innovation and the security of retail payments. For the latter, among other things, the Eurosystem has established

<sup>21</sup> *Financial integration in Europe*, ECB, April 2010.

<sup>22</sup> *Single Euro Payments Area: Seventh Progress Report – Beyond theory into practice*, ECB, October 2010, available on the ECB’s website.

a forum for monitoring market developments and fostering the harmonisation of security expectations in Europe. Furthermore, the Eurosystem welcomed the European Commission's initiative to impose an end date for migration by means of an EU regulation.<sup>23</sup>

The SEPA credit transfer scheme accounted for 13.9% of total euro credit transfer payments in December 2010. In addition to the euro area SCT indicator, national SCT indicators show that the take-up of SCTs in individual countries still varies considerably.<sup>24</sup> Furthermore, since the launch of the SEPA direct debit scheme in November 2009, the use of SDDs has remained fairly modest, amounting to well below 1% of all euro direct debits in December 2010.

The introduction of the SCT and SDD schemes has laid foundations on which further innovations can be built, e.g. pan-European online payment solutions, mobile payments and e-invoicing. In 2010 the Eurosystem discussed the status of the various initiatives in the field of innovative payments with market participants. To this end, the ECB conducted an eSEPA online survey in cooperation with NCBs to gain an insight into the different solutions available in various countries.

Further progress needs to be made, in particular in the area of SEPA for cards. One of the building blocks is the completion of the migration of chip cards, automated teller machines and point-of-sale terminals to the EMV standard<sup>25</sup>, for which the industry set itself a deadline of the end of 2010. According to the SEPA card indicators, a large number of countries have already achieved 100% migration to EMV. In 2010 a second meeting was held with stakeholders to discuss a SEPA certification framework for cards and terminals with a view to achieving a single evaluation and certification process. Moreover, the Eurosystem provided further clarity on the principle of the separation of card schemes from processing entities. The Eurosystem expects at least one additional European card scheme to emerge which meets its requirements and the

requirements of the other stakeholders to achieve a competitive card market in SEPA; several market initiatives are already under way and their progress will continue to be monitored.

In March 2010 the Eurosystem and the European Commission agreed on the creation of the SEPA Council with the aim of addressing the need for proper governance of the SEPA project and increasing the involvement of end users. This new overarching body is co-chaired by the ECB and the European Commission and brings together high-level representatives from the supply and demand sides of the payments market.<sup>26</sup>

#### SECURITIES MARKETS

The market for short-term paper in Europe is largely domestic in nature. 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 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 Eurosystem has supported STEP in two ways. First, until June 2010, on the basis of a temporary arrangement, the Eurosystem assisted the STEP Secretariat with the STEP-labelling of programmes, although ultimate responsibility

23 For further details, see the section entitled "Advice on the legislative and regulatory framework for the financial system and direct rule-making" later in this chapter.

24 A critical mass, i.e. a market share of more than 50%, has only been achieved in Luxembourg and Cyprus. In a further three countries (Slovenia, Belgium and Spain), the market share has reached double figures.

25 The "EMV standard" is a set of specifications developed by the consortium EMVCo, which is promoting the global standardisation of electronic financial transactions – in particular the global interoperability of chip cards. "EMV" stands for "Europay, MasterCard and Visa".

26 For further details, please consult the SEPA Council's website (<http://www.sepacouncil.eu>).

for granting and withdrawing the STEP label always rested fully with the STEP Secretariat. Since July 2010 the STEP Secretariat has managed the labelling process on its own. Second, the ECB provides statistics on the STEP market (see Section 4 of Chapter 2).

STEP debt securities came through the financial market turmoil relatively unscathed and the total amount outstanding in December 2010 was €411 billion, slightly above the total amount outstanding one year earlier. 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 accepted by the Eurosystem as a non-regulated market for collateral purposes. The decision of the ECB's Governing Council in October 2008 to temporarily expand the list of assets eligible as collateral in Eurosystem credit operations to include STEP securities issued by credit institutions, i.e. certificates of deposit, was discontinued as from 1 January 2011.

The STEP label was introduced in 2006, and there were 173 active STEP-labelled programmes in December 2010.

In 2010, to increase transparency in the area of asset-backed securities (ABSs), the Eurosystem launched a public consultation on introducing an eligibility requirement for ABS originators so as to provide loan-level data on the assets underlying such instruments. The response to the consultation was generally positive and the ECB has continued to work towards the implementation of such a requirement. In December 2010 the Governing Council of the ECB decided to establish loan-by-loan information requirements for ABSs in the Eurosystem collateral framework. A well-functioning securitisation market, backed by standardisation and enhanced transparency, 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**

The ECB has continued to participate in the European Commission's Clearing and Settlement Advisory Monitoring Expert Group II (CESAME II) and its successor, the Expert Group on Market Infrastructures (EGMI). The EGMI has a mandate to contribute to the development of an efficient, safe and sound post-trade market in the EU. This will be done by giving advice to the European Commission on various issues in relation to post-trade services and market infrastructures in the EU. This work is closely linked to the implementation of TARGET2-Securities (T2S), the Eurosystem's planned platform for core, borderless and neutral securities settlement services, and is aimed at fostering harmonisation in the post-trade environment.

Since harmonisation of the European legal framework for payments forms the basis for SEPA, the Eurosystem takes a strong interest in EU legislation in this area. The Eurosystem has repeatedly drawn attention to the need for an ambitious but realistic end date to be set for the migration to the SCT and SDD schemes in order to reap the benefits of SEPA. The Eurosystem has supported the Commission's proposal to impose an end date for migration to SCTs and SDDs by means of an EU regulation.<sup>27</sup> The Eurosystem expects the SCT and SDD schemes to become the credit transfer and direct debit schemes used for euro payments in the EU. After the migration end date, they will have replaced national legacy credit transfer and direct debit schemes for euro payments.

<sup>27</sup> See the European Commission's proposal for a regulation of the European Parliament and of the Council establishing technical requirements for credit transfers and direct debits in euros and amending Regulation (EC) No 924/2009 (COM(2010) 775 final), available on the Commission's website (<http://ec.europa.eu>).

## 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 to be 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 2010 (see Section 2.1 of Chapter 2).

T2S will have an important impact on the harmonisation and integration of the post-trading environment in Europe. T2S will remove many of the "Giovannini barriers"<sup>28</sup> 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 model comprising delivery versus payment in central bank money to all national and cross-border transactions. In 2010 several sub-groups of the T2S Advisory Group comprising Eurosystem and industry experts continued to work on the development and implementation of standards and market practices for the harmonisation of instructions and processes in the context of T2S. As work on implementing T2S has progressed, new areas have regularly been identified in which harmonisation is required, and these have either been tackled directly within the scope of the project or referred to CESAME II or its successor, the EGMI (see Section 2.2 of Chapter 2), or to other relevant bodies.

Finally, in the area of collateral management, work continued in 2010 on the establishment of a single platform, Collateral Central Bank Management (CCBM2), for euro area NCBS with a view to consolidating and increasing the efficiency of the Eurosystem's internal systems and enhancing counterparties' liquidity management and collateral management (see Section 2.3 of Chapter 2).

28 The "Giovannini barriers" are a number of barriers hindering the integration of the EU clearing and settlement infrastructure as identified by the Giovannini Group, a group of financial market experts advising the European Commission. The specific barriers identified can be found in two reports by the Giovannini Group: *Cross-border Clearing and Settlement Arrangements in the European Union*, November 2001, and *Second Report on EU Clearing and Settlement Arrangements*, April 2003. See also the website of the European Commission (<http://ec.europa.eu>).

## 4 OVERSIGHT OF PAYMENT SYSTEMS AND MARKET INFRASTRUCTURE

Payment 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. Promoting the smooth operation of payment systems is a key task of the Eurosystem. 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.

Through its oversight function, the Eurosystem aims to ensure the safety and efficiency of payment and securities settlement systems, central counterparties processing the euro and payment instruments, by monitoring and assessing them and, where necessary, inducing change.

In September 2010 the ECB published a book entitled "The payment system – payments, securities and derivatives and the role of the Eurosystem" which gives a comprehensive overview of key concepts in market infrastructure, the euro area landscape and the role of the Eurosystem, including, inter alia, its oversight function.

### 4.1 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 systems 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 in 2001. The CPSIPS are complemented by the Business Continuity Oversight Expectations (BCOE) for systemically important payment systems which the Governing Council adopted in 2006, giving the industry a deadline of June 2009 for implementation.

The overall operational performance and provision of services of the key payment systems settling euro-denominated transactions (TARGET2, EURO1 and the Continuous Linked Settlement (CLS) system) and infrastructure service providers (such as SWIFT) were stable and resilient in 2010.

#### TARGET2

In 2010 the Eurosystem's TARGET2 overseers focused on the aspects of operational risk which, according to the Risk-Based Prioritisation Tool,<sup>29</sup> most warranted oversight attention. Therefore, one of the main oversight activities was the finalisation of the assessment against the BCOE, which confirmed that the business continuity framework of TARGET2 is generally well-established and ensures that a sufficiently high and consistent level of resilience is achieved, although improvements to some areas of the framework were recommended. The overseers also discussed with the operator the follow-up to the comprehensive assessment carried out in 2009 and, in particular, the recommendation related to the business continuity framework. Moreover, in the context of regular oversight activities, the methodology for incident monitoring was revised.

In addition, a new TARGET2 software release went live on 22 November 2010. Prior to its launch, the overseers assessed the new functionalities and, in particular, the provision of internet access to TARGET2, against the applicable CPSIPS. The overseers concluded that, overall, the new release will not adversely

<sup>29</sup> The Risk-Based Prioritisation Tool allows overseers to concentrate on the components and areas that pose the highest risks. The tool has been applied to TARGET2 since 2009.

affect the compliance of TARGET2 with the CPSIPS, and several of the changes eliminate certain weaknesses of the system and will result in better services for TARGET2 customers.

The TARGET2 Simulator, an analytical tool based on payment data, was gradually rolled out to the Eurosystem central banks as of 1 July 2010. Once fine-tuned, the tool will enable overseers, in particular, to closely replicate and stress-test the settlement process of TARGET2, using a pan-European dataset of TARGET2 activity, including all transactions, liquidity information and participant information.

#### **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 the EBA Clearing Company, which was set up by the Euro Banking Association. 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.

Three main oversight activities relating to EURO1 were performed in 2010. First, the assessment of the system's compliance with the BCOE was completed. As a result of this assessment, a few minor recommendations on EURO1 were communicated to the EBA Clearing Company for action, in order to achieve full compliance with the BCOE. Second, 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, launched the process for a full assessment of EURO1 against the CPSIPS. Finally, the ECB, together with the Banca d'Italia, assessed one major change that was made to EURO1 in 2010. This comprised the migration of its end-of-day settlement process from the FIN-based Participant Interface to the XML-based Ancillary System Interface (ASI) in TARGET2. The oversight assessment concluded that this migration will not adversely

affect the compliance of EURO1 with the CPSIPS. Since 7 June 2010 EURO1 has been successfully settling its daily activities via the ASI in TARGET2. Overall, the EURO1 system operated smoothly throughout 2010.

#### **CONTINUOUS LINKED SETTLEMENT SYSTEM**

The Continuous Linked Settlement system was launched in September 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, the US dollar, the Japanese yen, the pound sterling and the Swiss franc.

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 2010 CLS cooperative oversight activities focused mainly on the enhancement of CLS' operational capacity (in response to the peaks reached in May 2010 in terms of the number of daily transactions) and 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 its participation in the G10 cooperative oversight of SWIFT, the ECB contributes to various

oversight activities carried out by the cooperative oversight group, with the Nationale Bank van België/Banque Nationale de Belgique being the overseer with primary oversight responsibility. In 2010 the group's activities focused on the implementation of the Distributed Architecture programme aimed at redesigning SWIFT's technical architecture, mainly through the implementation of two messaging zones (European and transatlantic), the construction of an additional operations centre in Europe and the establishment of a new command and control centre in Asia. Other major activities performed in 2010 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 on the resilience and availability of messaging services of a cost optimisation programme launched by SWIFT. The level of availability of the SWIFTNet FIN network in 2010 was 99.99%.

#### **4.2 RETAIL PAYMENT SYSTEMS AND INSTRUMENTS**

The Eurosystem also has oversight responsibility for retail payment systems and payment instruments.

STEP2 is a retail payment system for cross-border payments operated by the EBA Clearing Company, for which the ECB has primary oversight responsibility. The ECB continued to monitor STEP2 services in 2010, ensuring their availability and smooth functioning. One major development that took place in 2010 was the deployment of a new multi-cycle functionality for the SEPA credit transfer service that enables STEP2 banks to exchange and settle SEPA credit transfers several times a day.

In 2010 the Eurosystem made further progress with the individual oversight assessments of card payment schemes operating in the euro area against its oversight standards for such

schemes, which were adopted in January 2008. Following a peer review process, a report on the overall results of the assessments is expected to be published in 2011.

The Eurosystem has published the final version of the oversight frameworks for direct debit and credit transfer schemes and will apply these frameworks to the SEPA credit transfer scheme and the SEPA direct debit scheme. Individual NCBs may also elect to apply these standards for the oversight of national (non-SEPA) payment instruments, if they deem it appropriate.

#### **4.3 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 used as collateral for Eurosystem operations could jeopardise the implementation of monetary policy, the smooth functioning of payment systems and the maintenance of financial stability.

#### **MARKET INFRASTRUCTURES FOR OTC DERIVATIVES**

In response to the G20 commitments announced at the Pittsburgh and Toronto summits to ensure effective progress towards electronic trading and the use of central counterparties (CCPs) for standardised over-the-counter (OTC) derivatives, as well as the reporting of all OTC derivatives contracts to trade repositories, extensive follow-up work was conducted throughout 2010. This included legislative initiatives in major jurisdictions – including, notably, the EU and the United States – aiming to establish mandatory obligations for the central clearing of all eligible OTC derivatives, the effective reporting of all contracts to trade repositories and the establishment of requirements to ensure the safety and soundness of OTC derivatives infrastructures. In the EU, where the common framework for CCPs had previously been based on the non-binding recommendations of the ESCB

and the Committee of European Securities Regulators, legislative efforts regarding OTC derivatives infrastructures were complemented by proposals for a broader set of common rules for EU CCPs applicable to all types of financial product. The European Commission issued a proposal for a regulation on OTC derivatives, CCPs and trade repositories on 15 September 2010. The ECB was closely involved in the development of this legislative proposal. A Eurosystem contribution to a Commission consultation on this matter was issued in July 2010.

In order to support the convergence of legislative approaches across jurisdictions, the international standard-setting bodies have worked intensively to develop common guidance for OTC derivatives infrastructures. In May 2010 the CPSS and the International Organization of Securities Commissions (IOSCO) issued two documents for public consultation: "Guidance on the application of the 2004 CPSS-IOSCO Recommendations for Central Counterparties to OTC derivatives CCPs" and "Considerations for trade repositories in OTC derivatives markets". The results of this work, which was co-chaired by the ECB, will be incorporated in the CPSS-IOSCO general review of the international standards for financial market infrastructures, and a draft of the revised standards is expected to be issued for consultation in early 2011. Given the global nature of OTC derivatives markets and the consequent need to preclude any possible scope for regulatory arbitrage, it will be critical to ensure that all national and regional legislation is implemented in such a way as to ensure close congruence with the CPSS-IOSCO standards.

To the same end, the Financial Stability Board has developed proposals to ensure that authorities take a common approach to the implementation of the G20 recommendations to promote standardisation, central clearing, organised platform trading and the reporting of OTC derivatives contracts to trade repositories. The ECB participated in the FSB working group that developed these proposals, which were issued on 25 October 2010.

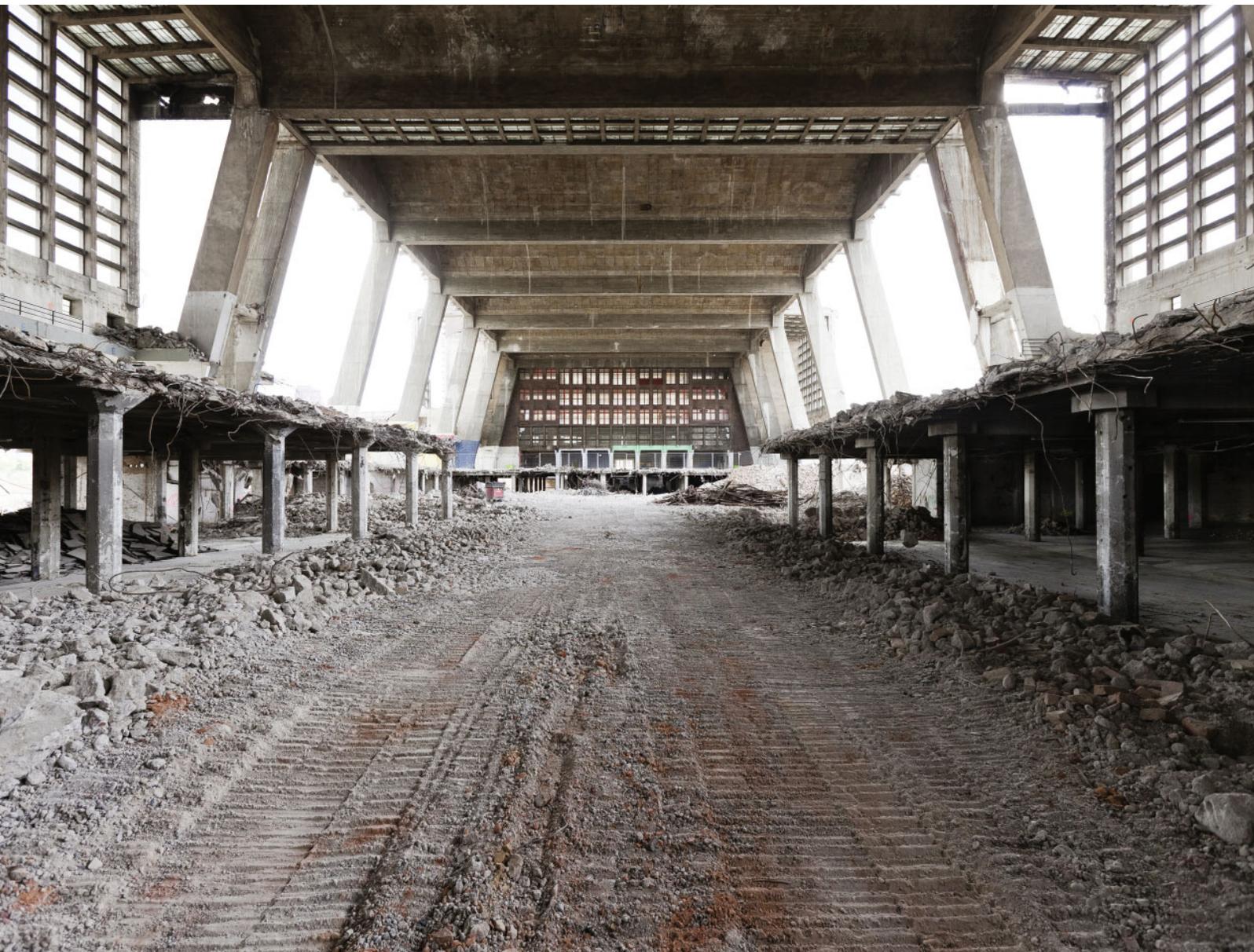
#### **TARGET2-SECURITIES**

TARGET2-Securities aims to provide a single, borderless pool of securities and a core, neutral settlement process.

More detailed information regarding the design and the operational and legal framework of T2S was published in the course of 2010, and the Eurosystem held workshops with participants from central banks and supervisors to explore the criticality of T2S for payment infrastructures and central securities depositories (CSDs) that will use T2S services. Moreover, since T2S will offer cross-border services to both euro area and non-euro area CSDs and payment infrastructures, a large number of supervisors, overseers and central banks of issue of the currencies eligible to be settled in T2S will have an interest in receiving T2S data so that they can perform their statutory duties. So far, all competent authorities have supported the idea of establishing a cooperative framework for the oversight and supervision of T2S services. The cooperative framework under discussion would not touch upon the statutory powers of individual authorities over national systems, or upon the enforcement of such powers. T2S stakeholders will be informed as soon as the details of the cooperative framework have been agreed. A preliminary review of the T2S design was launched during the development phase by all the authorities involved.

#### **4.4 OTHER ACTIVITIES**

In September 2010 the ECB published a report that summarises the results of a comprehensive assessment of the implementation of the BCOE by systemically important payment systems operating in euro area countries. In addition to TARGET2 and EURO1, the assessment covered systemically important retail payment systems. The results confirmed that the business continuity and crisis communication arrangements of the assessed systems are maintained at a high standard by the system operators. Recommendations were issued to address a number of identified deficiencies which do not pose a significant risk.



The Grossmarkthalle is to house a visitors' centre, staff restaurant, cafeteria and conference rooms. These areas will be integrated into the former market hall as a separate house-in-house system, necessitating a new and stronger structural framework. The original hall floor and its substructures were therefore removed in 2010.

## **CHAPTER 5**

# **EUROPEAN ISSUES**

## I POLICY ISSUES

In 2010 the ECB continued its regular contacts with European institutions and fora, in particular with the European Parliament, the Eurogroup, the ECOFIN Council and the European Commission. The President of the ECB participated on a regular basis in meetings of the Eurogroup, as well as in ECOFIN Council meetings when matters relating to the objectives and tasks of the ESCB were discussed. In addition, the President of the ECB was invited to attend meetings of the European Council, as well as informal meetings at the level of Heads of State or Government, when issues related to the EU's policy response to the economic and financial crisis were addressed. The President of the Eurogroup and the Commissioner for Economic and Monetary Affairs attended meetings of the Governing Council when they deemed it appropriate.

### EU POLICY RESPONSE TO THE FINANCIAL CRISIS

The economic and financial crisis entered a new stage in early 2010 as fiscal imbalances in certain euro area countries began to be reflected in increasing tensions in sovereign debt markets. In particular, the rise in Greek sovereign debt yields created a risk of negative spillover effects that threatened to endanger the wider stability of the euro area. In response, on 2 May 2010 euro area countries agreed to activate, together with the IMF, a three-year financial support programme for Greece.<sup>1</sup> The financial package made available €80 billion of bilateral loans from euro area countries and an IMF Stand-by Arrangement of up to €30 billion. The disbursement of funds was made conditional on the Greek authorities implementing the ambitious programme of fiscal adjustment and comprehensive structural reforms negotiated by the European Commission, in liaison with the ECB, and the IMF.<sup>2</sup> The ECB participated in the related review missions to Greece together with the European Commission and the IMF.

In spite of these measures, tensions in financial markets continued to mount and escalated abruptly on 6 and 7 May 2010. In response, on 7 May the Heads of State or Government of the euro area countries mandated the ECOFIN

Council to decide on a stabilisation mechanism to preserve financial stability in Europe. On 9 May Member States agreed to establish two general facilities to provide financial support to EU countries experiencing severe economic or financial disturbances. Firstly, the ECOFIN Council adopted a Regulation setting up the European Financial Stabilisation Mechanism (EFSM), which allows the European Commission to raise up to €60 billion on behalf of the EU for providing financial assistance to EU Member States experiencing or threatened with serious difficulties caused by exceptional circumstances beyond their control. Secondly, the euro area Member States, on an intergovernmental basis, established the European Financial Stability Facility (EFSF). The EFSF was set up as a limited liability company authorised to issue debt securities, guaranteed up to a total of €440 billion by euro area countries on a pro rata basis, for lending to euro area countries. Loans from the EFSM and the EFSF are subject to strong conditionality and take place in the context of joint programmes with the IMF, which is expected to provide financing amounting to at least 50% of the EU/euro area contribution to each programme.

On 21 November Ireland requested financial assistance from the IMF, the EU and the euro area countries. The ECB welcomed this request and concurred with the European Commission, the ECOFIN Council and the Eurogroup that providing assistance to Ireland was warranted to safeguard financial stability in the EU and in the euro area. The programme was concluded with the Irish authorities by the Commission and the IMF, in liaison with the ECB, and is subject to strong policy conditionality.

On 16 and 17 December the European Council agreed to establish a European Stability Mechanism (ESM) to replace the EFSF and the EFSM from June 2013. The European

<sup>1</sup> Slovakia decided not to participate in the programme.

<sup>2</sup> See Section 6.3 of Chapter 2 for the outstanding amount of loans to Greece.

Council called for euro area finance ministers and the Commission to finalise work on an intergovernmental arrangement to establish the ESM by March 2011. Non-euro area countries will, if they so wish, be involved in this work. They may decide to participate in operations conducted by the mechanism on an ad hoc basis. The European Council agreed on the text of a limited Treaty change to reflect this decision, which will be adopted via the simplified revision procedure.

### THE STABILITY AND GROWTH PACT

On 16 February 2010 the ECOFIN Council took decisions within the framework of fiscal surveillance regarding two euro area countries (Greece and Malta) and five non-euro area countries (Latvia, Lithuania, Hungary, Poland and Romania). The Council extended the deadline for correcting the countries' excessive deficits from 2010 to 2011 in the case of Malta and from 2011 to 2012 for Lithuania and Romania, on account of a worse than expected deterioration of their economies. With regard to the two latter countries, the Council found on 19 October that action taken was adequate and no additional steps in the excessive deficit procedures (EDPs) were needed at that stage. Moreover, the Council assessed the action taken by Latvia, Hungary and Poland and decided that all three countries had up to that point acted in accordance with the EDP recommendations and that no additional steps were necessary. Regarding Greece, the Council issued a recommendation referring to the Broad Economic Policy Guidelines and made it public. Furthermore, it identified a list of structural and fiscal measures that Greece should adopt to correct its excessive deficit by 2012. Greece was also invited to submit to the Council and the European Commission a report spelling out the measures in greater detail and providing the implementation timeline for achieving the 2010 budgetary targets. Finally, Greece was required to report regularly and publicly on the measures taken.<sup>3</sup>

In May 2010, following considerable volatility in sovereign debt markets, Member States

expressed their strong political commitment to fiscal consolidation. In their statement of 7 May, the Heads of State or Government of the euro area countries stressed their commitment to ensuring the stability, unity and integrity of the euro area and agreed to take all measures needed to meet their fiscal targets in line with EDP recommendations. In the conclusions of the ECOFIN Council of 9 May, the Member States reaffirmed their strong commitment to accelerating fiscal consolidation, where warranted.

On 13 July the Council decided that excessive deficits existed in two further euro area countries (Cyprus and Finland), as well as two non-euro area countries (Bulgaria and Denmark), and set deadlines (2011 for Bulgaria and Finland, 2012 for Cyprus and 2013 for Denmark) for them to bring their general government deficits below the reference value of 3% of GDP. The Council also assessed the action taken by 11 euro area countries (Belgium, Germany, Ireland, Spain, France, Italy, the Netherlands, Austria, Portugal, Slovenia and Slovakia) and two non-euro area countries (the Czech Republic and the United Kingdom) subject to EDPs. It decided that all countries had up to that point acted in accordance with the EDP recommendations and that no additional steps in the EDPs were necessary at that stage. However, in the case of Ireland, the Council decided on 7 December to extend the deadline for the correction of the excessive deficit by one year, to 2015, in view of unexpected adverse economic events with major unfavourable consequences for government finances.

Following these decisions, all Member States, except Estonia, Luxembourg and Sweden, were subject to EDPs, with deadlines for correction ranging from 2011 to 2015.

The ECB welcomes the decisions regarding the new EDPs. As for the assessment of effective action, the structural adjustment in 2010 for

<sup>3</sup> On 10 May 2010 the Council extended the deadline for the correction of the excessive deficit in Greece to 2014.

some countries was somewhat smaller than required in the Council recommendations, while planned structural efforts also fell short of the recommendations.

### **EUROPE 2020 STRATEGY**

On 17 June 2010 the European Council adopted “Europe 2020: a strategy for jobs and smart, sustainable and inclusive growth”. The strategy aims at raising potential growth and provides a coherent framework for Member States to implement structural reforms and mobilise policies and instruments at the EU level. It builds on the experiences of its predecessor, the Lisbon strategy, and addresses some of the weaknesses of the latter, notably by strengthening the role of the European Council and relying to a greater extent on EU-level policy initiatives, in particular the seven thematic “flagship initiatives”. To guide policy-making, the European Council has set a number of quantitative targets to be reached over the strategy’s horizon related to employment, R&D, climate change and energy, education and poverty. The Europe 2020 strategy will be implemented as of early 2011. The ECB welcomes the changes in governance, in particular the stronger role of the European Council and the introduction of the “European semester”. During the European semester (the first six months of a year), the European Council will identify the main economic challenges and give strategic advice on policies, which Member States should take into account in their policies. Moreover, the ECB welcomes the introduction of new instruments such as the EU-level thematic pillar, which will focus on structural reforms in the fields of innovation and R&D, energy and climate change, employment, education and social inclusion. The EU-level thematic pillar is supported by seven flagship initiatives proposed by the Commission, which aim to support the reform efforts of Member States in these areas, and should reinforce the surveillance framework for Member States and thus be conducive to achieving the strategy’s goals. However, not all elements emphasised in earlier discussions, such as the need to better communicate the strategy, have been equally

fully developed. As before, the success of the strategy will eventually hinge on the forceful implementation of ambitious reform strategies by Member States.

### **RELAUNCHING THE SINGLE MARKET**

Efforts to complete the EU Single Market gained fresh impetus in 2010. Mario Monti, a former member of the European Commission who was, inter alia, responsible for the internal market, financial services and taxation, was invited by the President of the Commission, José Manuel Barroso, to prepare a report on the future of the Single Market, which he presented in May 2010. The report called on the EU Member States to overcome the apparent “integration fatigue” and to drive economic integration forward at the EU level. To this end, the report puts forward a number of proposals, including completing the Single Market for services and enhancing citizens’ support for the Single Market.

Following up on Mr Monti’s report, the Commission in October 2010 proposed a series of measures designed to relaunch the Single Market in the form of a “Single Market Act”. In line with the Europe 2020 strategy, the ultimate goal of the Act is to stimulate growth and boost employment in the Member States. Following a public consultation, the Commission is expected to present legislative proposals in spring 2011. Among the proposed priorities are the creation of an EU patent, the access of small and medium-sized enterprises to capital, and the mutual recognition of professional qualifications. Moreover, there are several initiatives that aim at reducing barriers to electronic commerce and stimulating growth in the digital economy. Together with the ongoing implementation of the Services Directive in Member States, these initiatives are important steps towards deeper economic union and are fully supported by the ECB.

## 2 INSTITUTIONAL ISSUES

In November 2010 the reform of the EU supervisory architecture was adopted by the European Parliament and the Council. Three new European Supervisory Authorities were created to strengthen micro-prudential supervision in the areas of banking (the European Banking Authority), insurance and occupational pensions (the European Insurance and Occupational Pensions Authority), as well as securities and markets (the European Securities and Markets Authority), while the newly created European Systemic Risk Board (ESRB) will reinforce macro-prudential supervision. The ECB is entrusted with the specific task of ensuring the performance of the secretariat function for the ESRB. Further information on these issues can be found in Chapter 6.

### 3 IMPROVING ECONOMIC GOVERNANCE IN THE EU

The economic and financial crisis and the turmoil in sovereign debt markets also highlighted the challenges to the economic governance of the euro area and the EU. In response, the European Council, at its meeting in March 2010, mandated its President, Herman Van Rompuy, to establish, in cooperation with the European Commission, a task force with representatives of the Member States, the rotating Council Presidency and the ECB to make proposals to strengthen the EU surveillance framework, in particular that for budgetary surveillance, and to improve the crisis resolution framework. In June 2010 the ECB presented a number of proposals to strengthen decisively governance and enforcement structures in the economic policy framework of the euro area.

The task force report put forward proposals in five areas: greater fiscal discipline, broadening economic surveillance to encompass macroeconomic imbalances and competitiveness, deeper and broader coordination (notably during the European semester), a robust framework for crisis management, as well as stronger institutions for more effective economic governance. In October 2010 the European Council endorsed the task force report and called for a “fast track” approach in the adoption of secondary legislation needed for the implementation of its recommendations.

In this context, the Commission had already issued proposals in September 2010 relating to the reform of the fiscal surveillance framework and to the establishment of a new surveillance mechanism to identify and correct emerging macroeconomic imbalances within the EU and the euro area. Moreover, on 28 and 29 October 2010, the Heads of State or Government agreed on the need for the Member States to establish a permanent crisis management mechanism. A limited Treaty change is foreseen.

While the proposals put forward by the Commission represent a strengthening of the existing framework for fiscal and macroeconomic surveillance in the EU, they do not go as far as the “quantum leap” called for by the Eurosystem

towards strengthening the institutional foundations of EMU, and thus towards a deeper economic union that is commensurate with the degree of economic integration and interdependency already achieved through Monetary Union.<sup>4</sup> The Eurosystem is particularly concerned about insufficient automaticity in the implementation of procedures and calls for the introduction of political and reputational measures on top of financial sanctions to foster early compliance with the surveillance framework. Moreover, the quality and independence of surveillance should be assessed by an independent advisory body at EU level. In the field of fiscal surveillance, the room for discretion left to the Council when assessing the existence of an excessive deficit or when assessing the debt criterion should be reduced and consideration should be given to reversing the changes to the Stability and Growth Pact made in 2005, which allowed Member States greater leeway under the Pact. Moreover, requirements to achieve a country’s medium-term budgetary objective should be ambitious, in particular in Member States with high government debt. To facilitate compliance with their obligations under the Pact, euro area countries should swiftly implement strong national budgetary frameworks and improve the quality of their government statistics.

With regard to the macroeconomic surveillance procedure, the new system of mutual surveillance would need to focus firmly on euro area countries experiencing large current account deficits, significant losses of competitiveness and high levels of public and private debt, as well as other vulnerabilities that could threaten the stability of the euro area. The mutual surveillance should involve transparent and effective trigger mechanisms. It would be essential that the assessments of macroeconomic imbalances and recommendations for corrective action be given broad publicity at all stages of the surveillance process. An earlier and more gradual application of financial sanctions is needed to provide clear incentives for appropriate macroeconomic policies.

<sup>4</sup> Opinion of the European Central Bank of 16 February 2011 on economic governance reform in the European Union (CON/2011/13).

## 4 DEVELOPMENTS IN AND RELATIONS WITH EU CANDIDATE COUNTRIES

The ECB continued its policy dialogue with the central banks of the EU candidate countries through bilateral meetings and within the overall institutional framework for the enlargement process set up by the EU.

Accession negotiations with Croatia began in October 2005. Negotiations on the 35 individual chapters of the *acquis communautaire* were started in June 2006 and continued to advance towards their final stage; by the end of 2010, 28 of them had been provisionally closed. The ECB continued its fruitful relations with the Croatian National Bank, in the context of bilateral staff visits and an annual high-level policy dialogue.

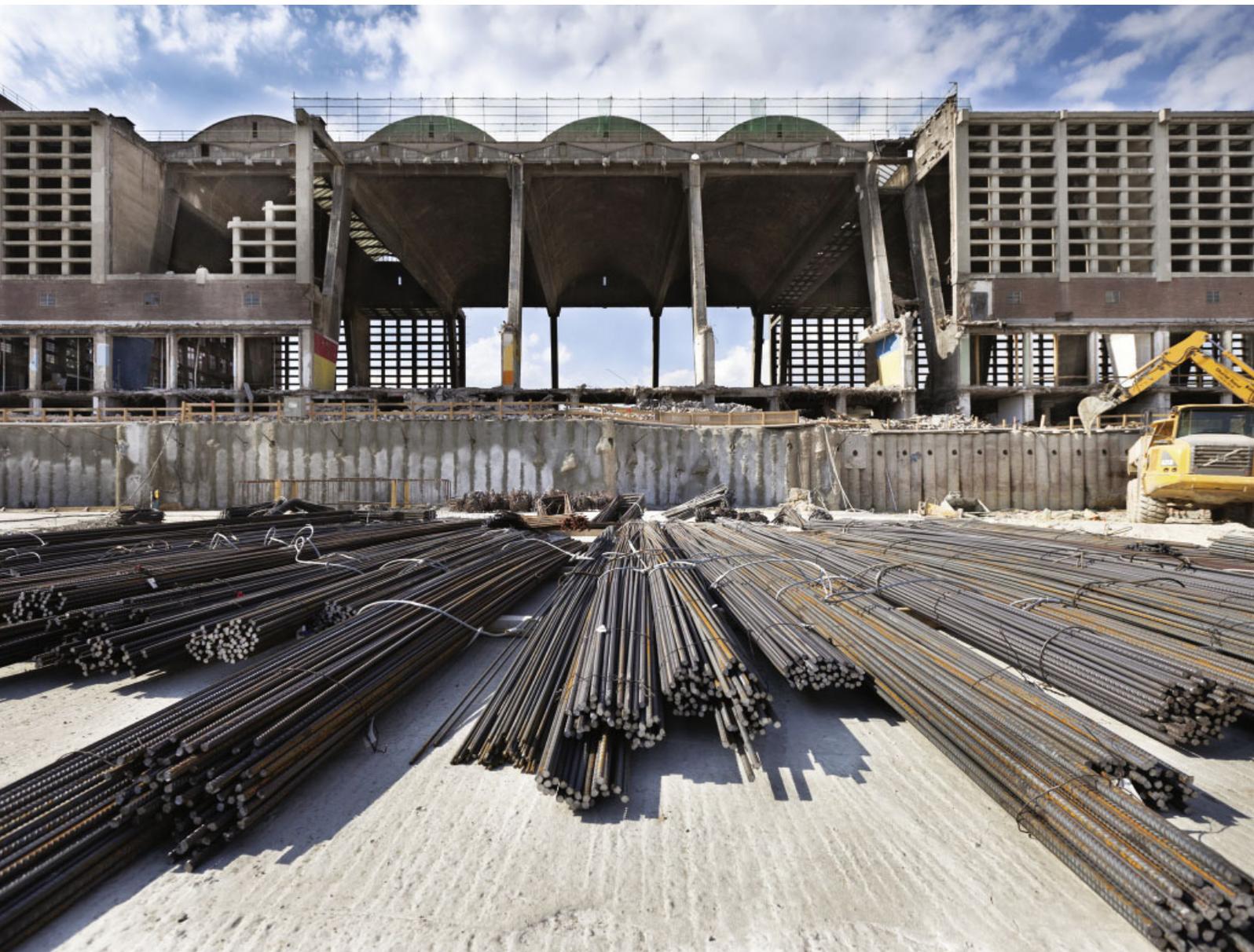
After opening accession negotiations with Turkey in October 2005, the European Commission started negotiations on the individual chapters of the *acquis communautaire* in June 2006, provisionally closing one chapter in the same month. In December 2006 the European Council decided, owing to the lack of progress in the extension of the customs union to the EU Member States, to suspend talks for 8 out of the 35 chapters and to put the provisional closing of any further chapters on hold. At the end of 2010 negotiations were open on 13 chapters and provisionally closed on one chapter. The ECB continued its long-standing high-level policy dialogue with the Central Bank of the Republic of Turkey.

The former Yugoslav Republic of Macedonia was granted candidate status in 2005. In October 2009 the European Commission recommended the opening of accession negotiations. However, the starting date for formal accession negotiations remains open, as the European Council has postponed its decision twice: in December 2009 and in June 2010. Staff-level contacts between the ECB and the National Bank of the Republic of Macedonia remain strong.

Iceland became a candidate country on 17 June 2010. Accession negotiations were formally opened on 27 July 2010 and the process

of screening Iceland's legislation started in November 2010. As Iceland is already a member of the European Economic Area, its legislation is already in line with EU legislation in several important areas.

On 17 December 2010 the European Council decided to grant Montenegro the status of candidate country, as recommended by the Commission in its opinion of 9 November 2010. A decision on the date for opening accession negotiations has not yet been made.



The foundation plate for the double office tower is about three metres thick. Approximately 4,200 tonnes of steel were required to reinforce the concrete.

**TASKS CONCERNING  
THE FUNCTIONING OF  
THE EUROPEAN SYSTEMIC  
RISK BOARD (ESRB)**

# I INSTITUTIONAL FRAMEWORK

## LEGAL FRAMEWORK AND MANDATE

The European Systemic Risk Board (ESRB) was established on the basis of Regulation (EU) No 1092/2010 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<sup>1</sup> and Council Regulation (EU) No 1096/2010 conferring specific tasks upon the European Central Bank concerning the functioning of the European Systemic Risk Board.<sup>2</sup> The two regulations entered into force on 16 December 2010, the day after their publication in the Official Journal of the European Union.

Together with the European Supervisory Authorities (ESAs), established on 1 January 2011, the Joint Committee of the European Supervisory Authorities, and the national supervisory authorities composing the ESAs, the ESRB is part of the European System of Financial Supervision (ESFS), the purpose of which is to ensure the supervision of the EU financial system.

Within the ESFS, the ESRB is an independent body responsible for the macro-prudential oversight of the EU financial system. It contributes to the prevention or mitigation of systemic risks to financial stability that arise from developments within the financial system so as to avoid periods of widespread financial distress.

The ESRB is in charge of collecting and analysing all the relevant and necessary information, identifying and prioritising systemic risks, and issuing warnings and recommendations for remedial action in response to the risks identified. Warnings and recommendations may be either public or confidential. They may be of a general or a specific nature, and may be addressed to the Union as a whole or to one or more Member States, or to one or more of the ESAs, or to one or more of the national supervisory authorities. Recommendations may also be addressed to the Commission in respect of the relevant Union legislation.

The addressees of the recommendations must communicate to the ESRB and to the Council the actions undertaken in response to the recommendations and must provide adequate justification for any inaction (“act or explain”). If the ESRB decides that its recommendation has not been followed, it shall, subject to strict rules of confidentiality, inform the addressees, the Council and, where relevant, the ESA concerned.

## ESRB STRUCTURE

For the first five years of its existence, the President of the ECB is the Chair of the ESRB. The first Vice-Chair of the ESRB is Mervyn King, the Governor of the Bank of England, also for a term of five years. The second Vice-Chair of the ESRB is the Chairperson of the Joint Committee of the European Supervisory Authorities, i.e. currently Andrea Enria as Chairperson of the European Banking Authority, according to the annual rotational scheme foreseen by the legislation.

The structure of the ESRB comprises: the General Board, the Steering Committee, the Advisory Scientific Committee (ASC), the Advisory Technical Committee (ATC) and the Secretariat.

The General Board is the ESRB’s sole decision-making body. It had its inaugural meeting on 20 January 2011. The Steering Committee, which prepares in particular the meetings of the General Board, and the ATC, which brings together the same institutions as the General Board and will provide advice and assistance on issues relevant to the work of the ESRB, in particular the regular review of financial stability conditions in the EU, have also started their activities. For the other advisory committee, the ASC, which will anchor the analysis of academics in the policy activity of the ESRB, the selection of members took place during the

1 Regulation (EU) No 1092/2010 of the European Parliament and of the Council of 24 November 2010, OJ L 331, 15.12.2010, p. 1.  
2 Council Regulation (EU) No 1096/2010 of 17 November 2010, OJ L 331, 15.12.2010, p. 162.

first quarter of 2011 following the publication of a call for expressions of interest in the Official Journal of the European Union. The Secretariat is responsible for the day-to-day business of the ESRB. It provides high-quality analytical, statistical, logistical and administrative support to the ESRB. It took over the staff and work undertaken by the ESRB Preparatory Secretariat, which was established in March 2010 (see also Sections 2 and 3 of this chapter).

#### **ACCOUNTABILITY**

Various channels foreseen in Regulation No 1092/2010 ensure the accountability of the ESRB as an independent body.

Each year the ESRB Chair is invited to a hearing in the European Parliament, marking the publication of the ESRB's annual report to the European Parliament and the Council. In the event of widespread financial distress, additional hearings can be held. All these hearings are conducted separately from the monetary dialogue between the European Parliament and the President of the ECB.

The ESRB Chair holds confidential discussions on the ongoing activity of the ESRB at least twice a year (and more often, if needed) with the Chair and Vice-Chairs of the Economic and Monetary Affairs Committee of the European Parliament. An agreement is to be concluded between both entities on the detailed modalities regarding these meetings, with a view to ensuring full confidentiality.

The Chair and Vice-Chairs of the ESRB must explain to the European Parliament, during a public hearing, how they intend to discharge their duties under Regulation No 1092/2010. The Chair participated in a hearing on 7 February 2011.

The ESRB will also report in several forms to the Council on warnings and recommendations and their follow-up.

## 2 ACTIVITIES OF THE ESRB PREPARATORY SECRETARIAT

The ESRB Preparatory Secretariat was set up on 1 March 2010, on the basis of a decision taken by the Executive Board, to prepare for the establishment of the ESRB as foreseen in the broad agreement reached by the ECOFIN Council in December 2009. At the end of 2010 it had 22 permanent staff (of which 11 were seconded from NCBs). Preparatory work was conducted along the lines of a master plan with three main strands of work dealing respectively with procedures, policies and infrastructures.

Working relationships were established with future ESRB members, including more than fifty national supervisory authorities and the three Level 3 Committees, the forerunners of the ESAs. Numerous exchanges took place with the latter at the levels of staff, managers and chairpeople. The Preparatory Secretariat contributed to the setting-up and initial work of two joint High Level Groups established by the ECB and the three Level 3 Committees on the cooperation between the ESAs and the ESRB, dealing respectively with data exchange and a range of tasks relevant to systemic risk.

In terms of procedures, work focused on the preparations for the establishment of the five ESRB institutional components. This included the preparation of drafts for: i) a decision of the General Board of the ESRB establishing the Rules of Procedure of the ESRB, ii) a mandate for the Advisory Scientific Committee and modalities for the selection of its members, and iii) a mandate for the Advisory Technical Committee and modalities for the appointment of its Chair.

The Preparatory Secretariat also launched preliminary work on a strategy to implement the mandate of the ESRB for macro-prudential oversight of the EU financial system. This included the preparation of a consultation paper distributed among ESRB members, with a view to facilitating a common understanding of key concepts relating to the ESRB's policy in the important start-up phase, the organisation – in cooperation with the Directorate General Research – of seminars with high-ranking

academics, as well as the contribution to the ECB's positions on draft EU regulation.

A third stream of work consisted of establishing the infrastructures for the analytical, statistical, logistical and administrative support to the ESRB. For instance, DARWIN (the ECB's document management system) was rolled out to all the ESRB member institutions to allow them to participate in ESRB tasks via secure internet connections for more than 1,000 users. In the same vein, the necessary steps were taken to ensure that the ESRB, as soon as it started to operate, had its own website<sup>3</sup> and that a logo could be approved at the first meeting of the General Board.

<sup>3</sup> <http://www.esrb.europa.eu>

### 3 ANALYTICAL, STATISTICAL, LOGISTICAL AND ADMINISTRATIVE SUPPORT TO THE ESRB

“The ECB shall ensure a Secretariat, and thereby provide analytical, statistical, logistical and administrative support to the ESRB”.<sup>4</sup> This support will, in particular, focus on the regular monitoring, identification and assessment of EU-wide systemic risks, which includes the development and enhancement of analytical tools and methodologies, as well as statistical efforts to fill data gaps identified for the purpose of conducting macro-prudential analysis. Work was carried out in all these domains in 2010 in order to prepare for the establishment of the ESRB.

#### ANALYTICAL SUPPORT

The ECB provides its main analytical contribution to the ESRB in the form of regular monitoring and identification of systemic risks faced by the EU financial system and impact assessments of those risks, should they materialise. In addition, at the request of the ESRB, specific studies on systemic risk and macro-prudential issues may be conducted by the ECB on an ad hoc basis.

This regular contribution is 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 stepped-up 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 shared among ESRB members, as well as feedback and advice provided by its substructures (e.g. the Steering Committee and the Advisory Technical Committee). The main elements of a conceptual framework for macro-prudential oversight and the process that underpins these core activities have been described in issues of the ECB’s Financial Stability Review.<sup>5</sup> Preparatory work has been carried out to establish procedures within the ECB to ensure a smooth production process.

Systemic risk indicators and early warning systems are important analytical tools aiding the risk surveillance work of the ESRB. The systemic risk assessment is supported, in particular, by macro-stress-testing tools and the analysis of propagation channels to assess the potential severity of specific risks. To provide the ESRB with the best possible information, the analysis conducted and the tools employed need to be of the highest quality. As part of the preparatory work in this area, a detailed stocktaking of available analytical tools for macro-prudential analysis was undertaken both at the ECB and at the ESCB level. In addition, procedures were put in place to coordinate the regular review of available tools, with the objective of continuously improving the analytical framework, and to develop new analytical tools and fill identified analytical gaps. The ESCB Macro-prudential Research Network plays a key role in this regard (see Box 10).

The ECB stands ready to provide technical input to the preparation of ESRB recommendations on regulatory matters or legislative initiatives, at the request of the ESRB. This could include the regular monitoring of developments in regulatory or legislative areas of interest for the ESRB. Moreover, the ESRB may request from the ECB on an ad hoc basis the preparation of analyses or studies regarding regulatory or legal issues relevant to its mandate and tasks. Furthermore, the ECB may provide technical advice in relation to requests from EU institutions and national authorities to the ESRB to examine specific issues of relevance.<sup>6</sup>

4 Council Regulation (EU) No 1096/2010 of 17 November 2010 conferring specific tasks upon the European Central Bank concerning the functioning of the European Systemic Risk Board.

5 See, for example, the special features entitled “The concept of systemic risk”, “Towards the European Systemic Risk Board”, “Macro-prudential policy objectives and tools” and “Analytical models and tools for the identification and assessment of systemic risks” in the December 2009 and June 2010 issues of the ECB’s Financial Stability Review.

6 See Article 19(3) of Regulation (EU) No 1092/2010 on European Union macro-prudential oversight of the financial system and establishing a European Systemic Risk Board.

**THE ESCB MACRO-PRUDENTIAL RESEARCH NETWORK**

The new function of macro-prudential oversight assigned to central banks as a consequence of the financial crisis and the establishment of the European Systemic Risk Board have created an urgent need for research in support of this new responsibility. To respond to this need, the General Council of the ECB approved in March 2010 the establishment of the ESCB Macro-prudential Research Network.

The objective of this research network is to conduct research on conceptual frameworks, models and tools supporting macro-prudential oversight in the EU and to share research results. The network has a mandate covering three broad areas of research.

The first area of research is macro-financial models linking financial stability and the performance of the economy. Standard macroeconomic models usually do not capture relevant features of financial instability (such as bank defaults, illiquidity, feedback effects, multivariate extreme events and related non-linearities) and therefore fail to describe such situations, a shortcoming that became evident during the recent financial crisis. Moreover, most available stress-testing models do not benefit from frameworks that capture both sides of the two-way interaction between financial instability and economic performance, an important input for a proper assessment of potential feedback effects in systemic risk. Therefore, the development of models including these features would fill a gap in the research literature. Such models may also provide the basis for developing frameworks to identify and assess macro-prudential regulations and supervisory approaches, to analyse interactions between macro-prudential supervision/regulation and other macroeconomic stabilisation policies and to strengthen stress-testing models.

The second area of research deals with early warning systems and systemic risk indicators. The network will contribute to the development of operational analytical tools that could be directly used by the new macro-prudential bodies (such as the ESRB). Therefore, the work in this area has a short to medium-term horizon. Emphasis will be placed, in particular, on early warning indicators, models and systems taking into account differences in financial structures across countries. The research carried out in this area may also contribute to related initiatives at the global level.

The third area of research focuses on contagion risks. This work seeks a better understanding of cross-border contagion risks in Europe. These risks may have increased significantly over the last decade due to financial integration. Other objectives are to improve understanding of the role of non-bank financial institutions in contagion and spillovers (e.g. related to certain activities of insurance companies or money market funds) and to better capture feedback effects amplifying the transmission of instability. These effects may have been underestimated by existing bank contagion simulation approaches.

The main deliverables of the network are research papers, workshops and conferences (including interactions with researchers outside the ESCB). A first conference related to the activity of the network, which was organised by the ECB, the Centre for Economic Policy Research and the Center for Financial Studies, was hosted by the ECB in September 2010. The network will report its results in 2012.

## STATISTICAL SUPPORT

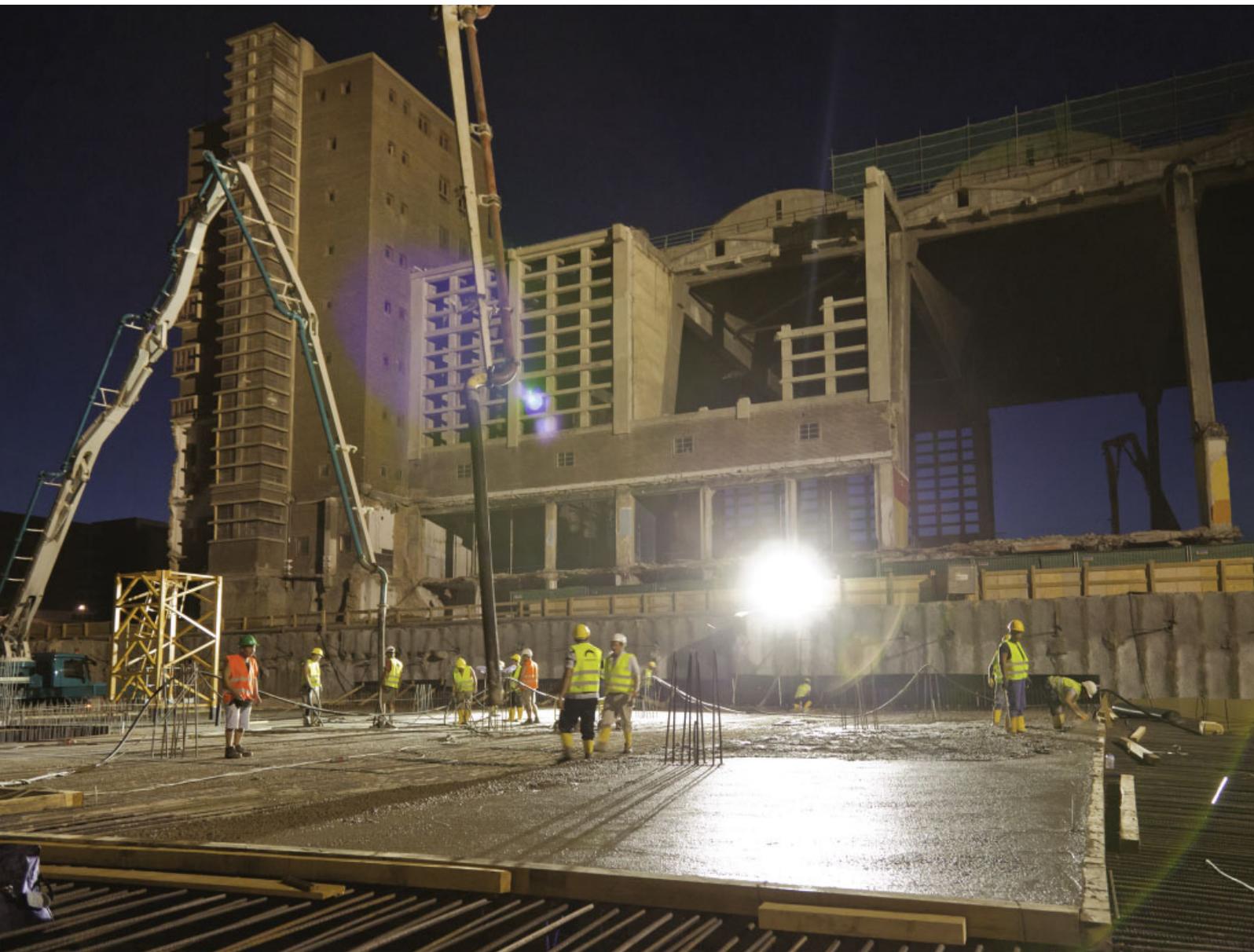
According to Article 2 of Council Regulation (EU) No 1096/2010 conferring specific tasks upon the European Central Bank concerning the functioning of the European Systemic Risk Board, the ECB provides statistical support to the ESRB in accordance with Article 5 of the Statute of the ESCB.<sup>7</sup>

In view of the long lead times required to define, collect, compile and disseminate harmonised statistics of sufficient quality to allow the performance of the tasks assigned to the ESRB, the ECB started preparatory work in 2010. In particular, the ECB carried out a stocktaking exercise comparing data requirements derived from financial stability analysis with data availability in order to identify the data gaps and fill them wherever possible. Moreover, the ESCB developed a procedure for conducting ad hoc surveys in order to allow timely responses to specific data requirements of the ESRB.

This preparatory work had two objectives: first, to allow policy-relevant indicators to be prepared for the ESRB decision-making body and its committees, as from their establishment in early 2011, based on a core set of available statistics; and, second, to work towards the development of a wide range of statistics necessary from a longer-term perspective.

To ensure such statistical support to the ESRB, close collaboration between the ECB and the ESAs is key. This collaboration was already intensive with the three Level 3 Committees, the predecessors of the ESAs. Such close cooperation aims to ensure a smooth and effective two-way information flow between the ESAs and the ESRB, which is also efficient in terms of the reporting burden, data content and IT infrastructure. One of the key factors for success is allowing an exchange of appropriate and reliable information for the performance of the respective tasks in accordance with European legislation and strictly respecting the data protection rules that safeguard confidential information.

<sup>7</sup> Article 5 of the Statute of the ESCB provides the ECB, assisted by the national central banks, with the legal powers to collect statistical information for the performance of the ESCB's tasks.



The foundations for the double office tower were laid during 2010. At the same time the underground staff car park was constructed adjacent to the basement of the double office tower.

## CHAPTER 7

# INTERNATIONAL ISSUES

# I KEY DEVELOPMENTS IN THE INTERNATIONAL MONETARY SYSTEM

## **SURVEILLANCE OF MACROECONOMIC POLICIES IN THE GLOBAL ECONOMY**

Given the high degree of economic and financial integration, developments in the global economic environment are critically important for the conduct of economic policy in the euro area. As a result, the Eurosystem closely monitors and analyses macroeconomic policies and underlying developments in countries outside the euro area. The ECB also plays an important role in the process of international multilateral surveillance of macroeconomic policies, which takes place mainly at the meetings of international organisations such as the BIS – where the President of the ECB is a member of the Board of Directors and chairs several important meetings, and ECB Executive Board members and staff are involved in many working groups. The ECB also participates in the relevant meetings of 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 2010 was characterised by an economic recovery that differed substantially across regions, with emerging Asia and Latin America in the lead. The reduction of external imbalances in surplus and deficit economies observed since the start of the financial crisis and over the course of 2009 slowed down in 2010 and in some cases these imbalances began to grow again, sparking concerns about prospective protectionist tensions. The US current account deficit increased from 2.7% of GDP in 2009 to 3.2% of GDP in 2010, while oil exporters' current account surplus increased from 5.2% of GDP in 2009 to 6.6% of GDP in 2010. China's current account surplus continued to decrease relative to GDP, falling from around 6% in 2009 to about 4.7% in 2010. However, in absolute terms, the 2010 surplus was close to the levels prevailing before the collapse of Lehman Brothers in September 2008. As in recent years, the euro area's current account was close to balance in 2010. Finally, Japan's surplus was equal to 3.1% of GDP in 2010, slightly higher than in 2009, when it was 2.8% of GDP.

The reduction of global imbalances since the start of the financial crisis has largely reflected cyclical and temporary factors linked to the crisis – such as global deleveraging, a fall in private demand, lower oil prices and corrections in financial asset prices – rather than structural factors. In terms of structural factors that would help in substantially reducing global imbalances, deficit countries should reduce fiscal deficits and complete the structural reform agenda. Similarly, surplus economies could also contribute substantially by increasing domestic consumption, by developing more extensive social safety nets, by undertaking financial market reforms and by increasing exchange rate flexibility.

On various occasions in 2010 the Eurosystem stressed the risks and distortions that would ensue if global imbalances were to increase again, and expressed support for a rebalancing of global demand patterns. In particular, the Eurosystem repeatedly called for policies aimed at increasing private and public savings in countries with current account deficits, the implementation of further structural reforms in mature economies with relatively low potential growth, and measures to increase domestic demand in emerging market economies, including improved capital allocation and a better appreciation of risks. In the context of the ongoing reflections on improving the international financial architecture (see the following section), the Eurosystem underlined that such an improvement should not only foster financial market discipline, but also enhance macroeconomic policy discipline. A strengthened multilateral economic surveillance framework should be able to ensure that economic policies, especially in systemically important countries, are stability-oriented and sustainable. Support for a rebalancing of the global economy also came from the G20 framework for strong, sustainable and balanced growth.

Finally, the euro area itself is subject to international policy surveillance exercises. In 2010 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. The IMF's Article IV consultations provided an opportunity for useful discussions between the IMF and the ECB, the President of the Eurogroup and the European Commission. Following these discussions, the IMF produced a report assessing the euro area policies.<sup>1</sup> Similarly, the OECD conducted its regular economic survey of the euro area, with a view to identifying the main economic developments in the area and analysing policy options to address them.<sup>2</sup>

In 2010, for the first time, two euro area countries received assistance from the IMF. Major central banks continued to provide liquidity assistance to central banks of other countries, with liquidity and credit support aimed at avoiding market instability (see Chapter 2).

#### **REFORMS IN THE INTERNATIONAL INSTITUTIONAL SET-UP**

Since the outbreak of the global financial crisis, the set-up and functioning of the international monetary system have been an issue for the international community. The G20 forum of systemically important advanced and emerging economies – where the ECB is part of the EU membership – continued to foster international cooperation, with the aim of strengthening and safeguarding the global economic recovery and promoting stronger, more sustainable and balanced growth. At their fourth summit in Toronto in June 2010, G20 leaders followed up on the commitments made at their previous meeting in Pittsburgh, where they had launched the 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, as well as to address the global imbalances that contributed to the financial crisis. The framework foresees a process of mutual assessment of how national and regional policies and policy frameworks of G20 members fit together and whether they are consistent with the framework's objective. At their Toronto summit, the leaders completed the first stage of this process and agreed on a number of concrete commitments, e.g. by advanced

deficit countries to take actions to boost national savings and by surplus economies to undertake reforms to reduce their reliance on external demand and focus more on domestic sources of growth. Emerging surplus economies committed to undertake reforms to strengthen social safety nets to help reduce precautionary savings and stimulate private spending and to enhance exchange rate flexibility to reflect underlying economic fundamentals. Furthermore, all G20 members pledged to embark on structural reforms to stimulate economic growth. In the area of financial regulation, G20 members identified a number of priority areas for further work (see Chapter 4).

At their fifth summit in Seoul in November 2010, G20 leaders agreed on the Seoul Action Plan with concrete policy commitments to make progress towards meeting the objectives of the framework. Moreover, they endorsed the outcomes of a number of important work streams that had been reached in preparation for this summit, notably a reform of IMF quotas and governance, as well as key building blocks for transforming the financial system by addressing the root causes of the crisis (one of the building blocks is the work of the Basel Committee on Banking Supervision). Furthermore, G20 leaders showed awareness that the G20 also has to address issues concerning the large, non-represented group of developing and low-income countries.

Following up on the commitment made by G20 leaders at their London summit in April 2009 to increase resources available to international financial institutions, the IMF's Executive Board approved on 12 April 2010 a reform and expansion of the New Arrangements to Borrow (NAB).<sup>3</sup> This reform will make the NAB more

1 *Euro area policies: 2010 Article IV consultation – staff report*, IMF Country Report No 10/221, July 2010.

2 *OECD Economic Surveys: Euro Area 2010*, OECD, December 2010.

3 The NAB are credit arrangements between the IMF and a number of IMF member countries that provide supplementary resources to the IMF, i.e. in addition to the Fund's quota resources, in circumstances in which there is a need for supplemental resources "to forestall or cope with an impairment of the international monetary system".

flexible, broaden the participation from 26 to 39 countries, and increase the overall amount of these credit lines to the Fund from SDR 34 billion to SDR 367.5 billion. In the course of 2009 and 2010, a number of advanced and emerging market economies pledged to enter into bilateral borrowing and note purchase agreements with the Fund amounting to SDR 196 billion. Most bilateral agreements will be gradually incorporated into the new NAB after it comes into effect.

Agreement was also reached to considerably increase the Fund's quota resources. The doubling of quotas, which will be accompanied by a rollback of the NAB, is meant to ensure that the Fund remains a quota-based institution. The quota increase will also help to achieve a further shift in quota shares from advanced countries to dynamic emerging and developing countries, in line with the objective to align quota shares with members' relative weight and role in the global economy. A consensus was also reached on the first elements of a broader governance reform. In that context, the IMF's Articles of Agreement will be amended to provide for an all-elected Executive Board. In addition, European advanced countries committed to give up two seats on the IMF's Executive Board to foster the representation of emerging and developing countries.

As part of the measures to support countries during the financial crisis, the IMF undertook a number of significant changes to its lending toolkit. In this context, programme access and the duration of the Fund's Flexible Credit Line (FCL) – a precautionary lending facility introduced in 2009 for top-performing countries with strong policy track records, which entails only ex ante conditionality – were modified in August 2010.<sup>4</sup> The August 2010 lending reform also saw the creation of a new Precautionary Credit Line (PCL). The PCL is designed for Fund members with sound policies which nonetheless do not meet the FCL's high qualification requirements, thus being available to a wider Fund membership.<sup>5</sup>

As part of the review of its mandate, the IMF deliberated further on modernising surveillance and strengthening its multilateral and financial dimensions. In a pilot project, five economies are to be examined for the external impact of their policies, in "spillover reports". The euro area is one of these five economies (along with China, Japan, the United Kingdom and the United States). Further progress was made in strengthening financial sector surveillance with the decision to make the stability assessments under the Financial Sector Assessment Programs a mandatory part of annual IMF country surveillance reports (Article IV reports) for countries with systemically important financial sectors. 25 such countries have been identified, including nine in the euro area (Belgium, Germany, Ireland, Spain, France, Italy, Luxembourg, the Netherlands and Austria). Also on the financial side, the Early Warning Exercise – an exercise in risk identification, born of the crisis and involving collaboration between the IMF and the Financial Stability Board – has become a regular feature of the spring and annual IMF meetings.

4 As a result of the changes, FCL arrangements can now be approved for either one year, or two years with an interim review of qualification after one year. Previously, arrangements were either for six months, or one year with an interim review after six months. The previously implicit cap on access of 1,000% of a member's IMF quota has been removed, with access decisions to be based on individual country financing needs. The procedures leading up to the approval of the arrangement have also been modified, with earlier IMF Executive Board involvement now envisaged to assess the contemplated level of access and its impact on the IMF's liquidity position. The nine qualification criteria used by both staff and the IMF Executive Board to assess the merits of a country's application for the FCL remain unchanged, but a number of relevant indicators have been added to each category in order to provide further guidelines on compliance.

5 Qualification will be assessed in five broad areas, namely: i) the external position and market access, ii) fiscal policy, iii) monetary policy, iv) financial sector soundness and supervision, and v) data adequacy. While requiring strong performance in most of these areas, the PCL allows access to precautionary resources to members that have moderate vulnerabilities in one or two of these areas. Other features of the PCL include streamlined ex post conditions (which may or may not include performance criteria), with progress in reducing vulnerabilities monitored through semi-annual programme reviews, and frontloaded access with up to 500% of quota made available on approval of the arrangement, and up to a total of 1,000% of quota after 12 months.

The international financial community also continued to promote mechanisms for crisis prevention and orderly crisis resolution. In this context, further progress was made by sovereign debtors and their private creditors and investors in implementing the “Principles for stable capital flows and fair debt restructuring”, which had been endorsed by G20 finance ministers and central bank governors in 2004. The aim of these principles, which are market-based and voluntary, is to provide guidelines regarding information-sharing, dialogue and close cooperation. In an effort to increase further the usefulness of these principles, agreement was reached by the relevant parties in autumn 2010 on the benefits of broadening their applicability beyond emerging market sovereign debtors and their creditors.

## 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. In this respect, the ECB also actively participated alongside the European Commission in the EU's macroeconomic dialogue with key emerging market economies (e.g. Brazil, Egypt, India and Russia) and EU neighbouring countries. In addition, the technical assistance 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.

### POLICY DIALOGUE AND SURVEILLANCE OF MACROECONOMIC POLICIES IN THE GLOBAL ECONOMY

The Eurosystem and the Bank of Russia held their sixth high-level seminar on 3-5 February 2011 in Frankfurt, hosted by the ECB. The purpose of the seminar was to further strengthen the dialogue and enhance relations between the Eurosystem and the Bank of Russia. Seminar 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. Moreover, the President of the ECB participated in the conference marking the 150th anniversary of the Bank of Russia in June 2010.

The sixth high-level Eurosystem seminar with Mediterranean countries' central banks – co-organised by the ECB and the Central Bank of Cyprus – took place on 27 and 28 October 2010 in Pafos. Governors reviewed challenges for monetary policy in Mediterranean countries on the way to economic recovery and discussed the experience of Mediterranean countries under fixed exchange rate regimes, as well as the impact of the global financial turmoil on banking sectors and financial stability.

The Eurosystem held a second high-level seminar with central banks and monetary agencies of the member states of the Gulf Cooperation Council (GCC),<sup>6</sup> which was

co-organised by the ECB and the Banca d'Italia and held on 29 and 30 June 2010 in Rome. The seminar topics were economic and financial developments in the GCC countries and the euro area, lessons from the financial crisis for financial stability and banking supervision, and challenges in monetary and exchange rate policy in the GCC.

The fifth high-level Eurosystem seminar with Latin American central banks took place on 10 December 2010 in Madrid and was co-organised by the ECB and the Banco de España. The seminar participants discussed the following topics: global rebalancing, financial flows and global macro-prudential risks, and global policy cooperation.

The ECB continued to deepen its cooperation with the Chinese authorities. The President of the ECB, the President of the Eurogroup and the Commissioner for Economic and Monetary Affairs (the "euro area troika") met the Chinese authorities for the third time on 5 October 2010 in Brussels. The discussion focused mainly on exchange rate policies and other issues of global importance. The relationship with the People's Bank of China (PBC) was further strengthened. In 2010 the ECB-PBC Working Group discussed a wide range of topics, such as the rebalancing of global growth, asset price bubbles and associated risks, financial sector reform and other international monetary issues. The ECB also established contacts with China's main planning agency, the National Development and Reform Commission, and with the Chinese Academy of Social Sciences, which is one of the most influential think-tanks in the country.

Finally, the fifth high-level seminar of central banks in the East Asia-Pacific region and the euro area, organised by the ECB and the Reserve Bank of Australia, was held in Sydney on 9 and 10 February 2010. The purpose of the seminar was to review economic policies in the aftermath of the financial crisis, including

<sup>6</sup> Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates.

exit strategies, the shape and structure of global growth, the challenges posed by cross-border banking and the prospect of strengthening macro-prudential supervision.

### TECHNICAL ASSISTANCE

With regard to technical assistance, the ECB continued to deepen its relations with the western Balkans and Turkey. On 19 January 2010 the European Commission and the ECB, also on behalf of 14 euro area NCBs,<sup>7</sup> signed an agreement to implement a two-year technical assistance programme for EU candidates and potential candidates. The aim of the programme is to strengthen macro and micro-prudential supervision in the western Balkans and in Turkey. The programme is being implemented by the ECB together with the partner NCBs and in cooperation with international and European institutions such as the Basel Committee on Banking Supervision, the Committee of European Banking Supervisors, the Financial Stability Institute, the International Monetary Fund and the World Bank. During the first phase of the programme, the Eurosystem organised an intensive regional training programme on macro and micro-prudential supervision for some 150 core supervisors from the beneficiary institutions.<sup>8</sup> The programme will also support the implementation of specific national measures, which were defined in agreement with the IMF and the World Bank, partner NCBs and beneficiaries. Furthermore, region-wide technical simulations on home-host cooperation are foreseen.

On 1 April 2010 the ECB and seven euro area NCBs<sup>9</sup> began an 18-month programme of technical assistance with the Central Bank of Bosnia and Herzegovina. The programme, funded by the EU, supports the Central Bank of Bosnia and Herzegovina in implementing EU central banking standards and EU requirements in preparation for the potential accession of Bosnia and Herzegovina to the EU. The areas covered are statistics, economic analysis and research, financial stability, legal requirements arising from the *acquis communautaire*, information technology and coordination of EU integration.

The ECB and 21 NCBs<sup>10</sup> also started supporting the National Bank of Serbia on 1 February 2011 with an EU-funded programme. During its two-year duration, the programme aims at bringing central banking procedures and practices closer to EU standards in the areas of financial sector supervision, legal harmonisation, liberalisation of capital movements, foreign exchange reserve management, monetary and exchange rate operations, consumer protection for financial services, EU accession support, economic analysis and research, statistics, payment systems and financial stability.

The technical cooperation programme with the Bank of Russia, funded by the EU, continued. The ECB, in partnership with eight euro area NCBs<sup>11</sup> and in cooperation with the Financial Supervisory Authority of Finland, provides technical assistance in the areas of banking supervision and internal audit. The aim is to support the gradual implementation of Basel II in Russia and to support the Bank of Russia's internal audit services with training and information on Eurosystem internal audit practices. The programme is running as planned and will end on 31 March 2011.

Cooperation with the Central Bank of Egypt continued throughout 2010 on an EU-funded programme aiming 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 of the ESCB.<sup>12</sup>

7 The NCBs of Belgium, Greece, Spain, France, Italy, Cyprus, Luxembourg, Malta, the Netherlands, Austria, Portugal, Slovenia, Slovakia and Finland.

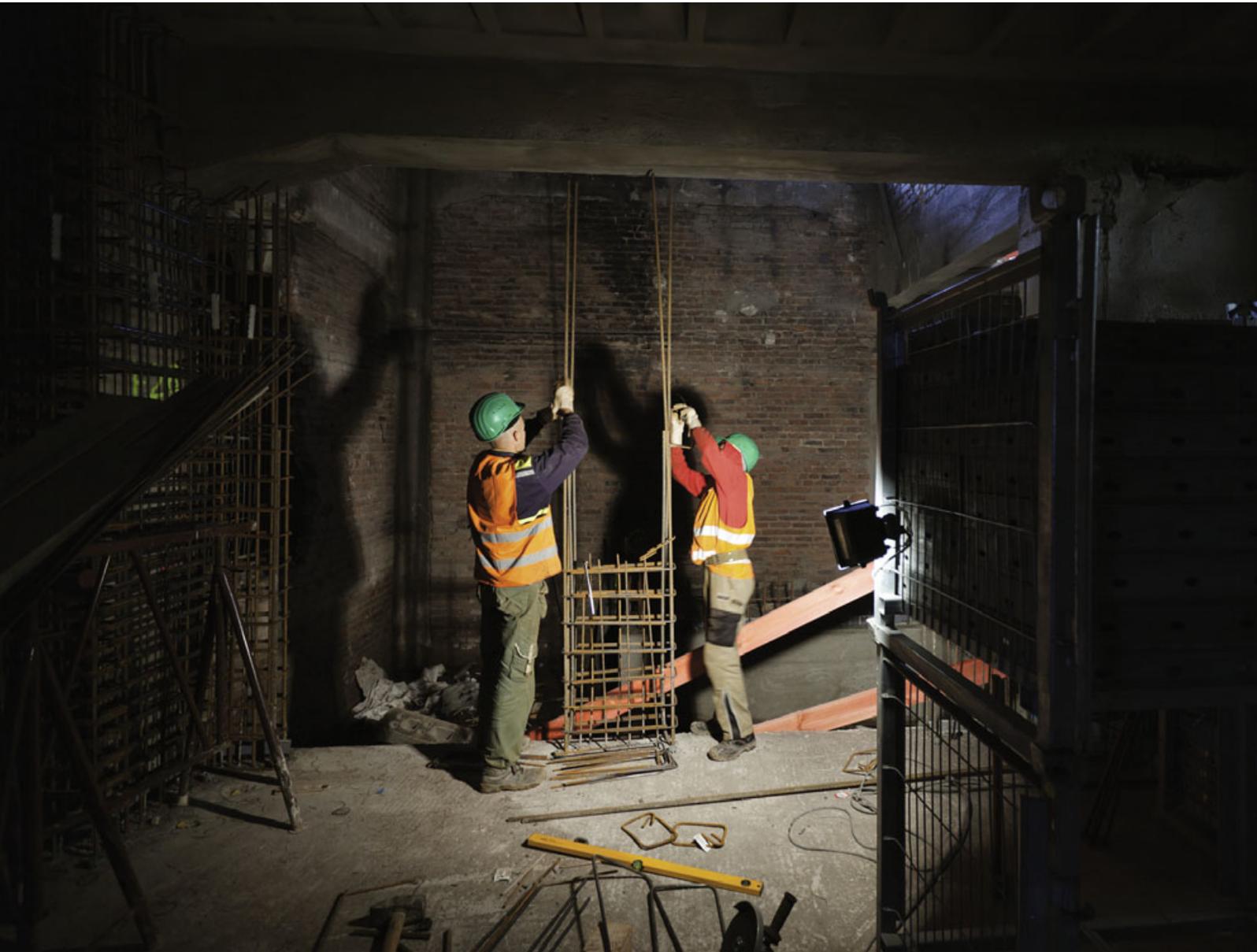
8 The central banks and supervisory authorities of Croatia, the former Yugoslav Republic of Macedonia, Albania, Bosnia and Herzegovina, Montenegro, Turkey, Serbia and Kosovo under UN Security Council resolution 1244.

9 The NCBs of Germany, Greece, Spain, Italy, the Netherlands, Austria and Slovenia.

10 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.

11 The NCBs of Germany, Greece, Spain, France, Italy, the Netherlands, Austria and Finland.

12 The NCBs of Bulgaria, the Czech Republic, Germany, Greece, France, Italy and Romania.



Construction work is ongoing in the eastern wing building of the Grossmarkthalle. The former market hall will form an integral part of the new ECB premises. To this end, construction and restoration works started in spring 2010.

## CHAPTER 8

# ACCOUNTABILITY

## I ACCOUNTABILITY VIS-À-VIS THE GENERAL PUBLIC AND THE EUROPEAN PARLIAMENT

Central bank independence has established itself over the past few decades as an indispensable element of the monetary policy regimes of both mature and emerging economies. The decision to grant central banks independence is firmly grounded in 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 elected representatives. Accountability is therefore an important counterpart of central bank independence.

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 beyond these statutory obligations in its regular reporting. For instance, it publishes a Monthly Bulletin, rather than the required quarterly report, and holds monthly press conferences following the first Governing Council meeting of each month. The latter continue to be a prime opportunity for the ECB to explain in depth its assessment of the economic situation and the rationale behind its interest rate decisions. The ECB's commitment to accountability and transparency is also illustrated by the many publications it released in 2010 and the numerous speeches delivered by the members of the Governing Council, which dealt with a broad variety of topics of relevance to the ECB's tasks, ranging from the extraordinary measures taken by the ECB in May 2010 to the need for fiscal consolidation and for the reform of economic governance.

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 line with the provisions of the Treaty, he also appeared before the plenary session of the Parliament in November 2010 to present the ECB's Annual Report 2009.

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 2009 to ECON before it was presented in the plenary session. Jürgen Stark held an exchange of views with the members of ECON and representatives of national parliaments on the subject of economic recovery and exit strategies. Lorenzo Bini Smaghi participated in a public hearing organised by ECON on economic governance. Gertrude Tumpel-Gugerell also appeared before ECON to inform its members about payment issues. In line with past practice, a delegation from ECON visited the ECB on 13 December 2010, in order to exchange views with the members of the Executive Board. In addition, the ECB hosted a visit by the Special Committee on the Financial, Economic and Social Crisis and by the Committee on Employment and Social Affairs. Members of these two committees thus had the opportunity to discuss with Executive Board members a wide range of issues, such as recent economic and fiscal developments, global imbalances and labour market reforms.

Finally, ECB staff presented the ECB's 2010 Structural Issues Report on energy markets and the euro area macroeconomy to European and national parliamentarians.

## 2 SELECTED TOPICS RAISED AT MEETINGS WITH THE EUROPEAN PARLIAMENT

During the various exchanges of views between the members of the European Parliament and ECB representatives, a wide range of issues were addressed. Beyond macroeconomic developments and the ECB's monetary policy, the main issues discussed concerned EU and euro area economic governance and legislation on financial regulation and supervision.

### REFORM OF EU AND EURO AREA ECONOMIC GOVERNANCE

The reform of the economic governance framework in the EU (see Chapter 5) featured prominently in the discussions between the ECB and the European Parliament. In the own-initiative reports prepared by ECON and the Special Committee on the Financial, Economic and Social Crisis, the European Parliament put forward recommendations for measures and initiatives to be taken to enhance the existing rules and procedures. Among other things, it urged that the provisions of the Stability and Growth Pact be strengthened, and proposed the establishment of an effective incentive and penalty mechanism. The European Parliament debated the package of six legislative proposals put forward by the Commission on 29 September 2010 and, together with the Council, entered into the relevant legislative procedures in order to adopt them.

During his appearances before the European Parliament, the President of the ECB called for a quantum leap forward in the strengthening of the economic governance of the EU, and in particular of the euro area. He expressed his full confidence in the European Parliament's ability and willingness to pursue a resolutely European approach to this matter. In addition, ECB representatives provided expert advice to the European Parliament on specific aspects of the economic governance package.

### EU FINANCIAL SECTOR REFORM

The European Parliament and the ECB continued their intensive dialogue on matters concerning financial supervision and regulation. The European Parliament and the Council formally adopted the four legislative acts

establishing the European Systemic Risk Board and the European Supervisory Authorities (see Chapter 4).<sup>1</sup>

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. He also stressed the importance of maintaining political momentum in order to further implement the financial regulatory agenda.

As regards other financial sector legislation, the European Parliament's activity – and its discussions with ECB representatives – focused on the Alternative Investment Fund Managers Directive and the third revision of the Capital Requirements Directive, as well as on legislation on financial conglomerates, deposit guarantee schemes, credit rating agencies, short selling, and over-the-counter derivatives and market infrastructures. 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 legal advice on EU legislative proposals within its field of competence in the form of ECB opinions (see Section 6.2 of Chapter 2) also served as a source of technical advice to members of the European Parliament.

<sup>1</sup> In addition, the EU Council adopted a Regulation (No 1096/2010) conferring specific tasks upon the European Central Bank concerning the functioning of the European Systemic Risk Board.



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

In preparation for the construction of the entrance building, three segments of the Grossmarkthalle's roof were removed in August 2010, with the agreement of the historic preservation authorities. The three concrete shells that were removed were those that were damaged during the Second World War air raids and subsequently reconstructed in the 1950s.

## CHAPTER 9

# EXTERNAL COMMUNICATION

## I COMMUNICATION POLICY

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, as explained in more detail in Chapter 8.

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.<sup>1</sup> The ECB's Annual Report is also made available in full in all official EU languages.<sup>2</sup> 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.<sup>3</sup> For the purposes of public accountability and transparency, the ECB 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 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 2010 the ECB's communication activities focused, in particular, on explaining the events and consequences of the global financial and economic crisis and the measures taken by the ECB and the Eurosystem. The vast majority of all public speeches delivered by members of the Executive Board were related to this issue. This topic also dominated the questions and requests for information received from the press, the public and visitors to the ECB. The plans for setting up the European Systemic Risk Board and defining its objectives and tasks, including the ECB's specific role in ensuring the performance of the secretariat function for the new body, 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 and thus contributes to the ECB's accountability; 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 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. In 2010 the President of the ECB and other members of the Executive Board appeared before the European Parliament a total of eight times (for more details, see Chapter 8). Over the course of the year Board members delivered around 200 speeches to a variety of audiences and granted 260 interviews to the media. They also had many articles published in journals, magazines and newspapers.

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

In 2010 the ECB organised 15 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 13,000 visitors to its premises in Frankfurt in 2010. Visitors received first-hand information in the form of presentations given by ECB experts and managers.

All documents published by the ECB and other information about its various activities are available on the ECB's website. In 2010 the website received 29 million visits (16% more than in the previous year), 231 million pages were viewed and 68 million documents were downloaded. In December 2010 the ECB launched, in cooperation with the NCBs, two educational tools on central banking and economics: "€CONOMIA – The Monetary Policy

Game” and “Inflation Island”. In “ECONOMIA”, players have to keep inflation under control by steering the key interest rate while taking account of other economic parameters, such as production growth, unemployment and monetary growth. In “Inflation Island”, a fictitious economy, players can compare the benefits of price stability with the harmful impact of deflation, high inflation and hyperinflation. The games are aimed at 18 to 25-year-olds with little or no knowledge of economics and can be downloaded from the ECB’s website and the websites of most of the NCBs in all official EU languages.

In 2010 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.

A number of high-level international conferences were organised in 2010, including “The great financial crisis: lessons for financial stability and monetary policy – a colloquium in honour of Lucas Papademos” and the Sixth ECB Central Banking Conference, which addressed the topic “Approaches to monetary policy revisited – lessons from the crisis”.

To prepare for Estonia joining the euro area on 1 January 2011, a euro information campaign was organised in 2010 by the ECB and Eesti Pank to familiarise the people of Estonia with the visual appearance and security features of the euro banknotes and coins. The communication tools used in the campaign took into account the experience gained from past changeovers and included public opinion surveys, as many as 20 different types of printed publication (1.6 million copies in total) and dedicated internet pages. For the first time since the Euro 2002 Information Campaign, TV advertising was used (four adverts were aired between November 2010 and mid-January 2011). Several press and public relations events were held, including an ECB media seminar in Frankfurt, as well as an exhibition on the euro banknotes and coins and a Euro Conference in Tallinn. To mark the

launch of the euro information campaign in Estonia, on 19 September 2010 a symbolic star containing euro banknotes was handed over by President Trichet to Governor Lipstok in Tallinn. In addition, as part of the communication activities on banknotes, an exhibition featuring a range of interactive elements and games was organised in Berlin, Frankfurt, Luxembourg, Warsaw and Tallinn, in cooperation with the NCBs and other institutions, such as museums.

In 2010 the Cultural Days of the ECB were dedicated to the Netherlands and organised in cooperation with De Nederlandsche Bank. 22 events reflecting the cultural diversity of the Netherlands took place at well-known cultural locations in Frankfurt from 20 October to 15 November. The Cultural Days initiative was launched in 2003 with the aim of raising cultural awareness and giving residents of the Frankfurt area and visitors a flavour of the culture of a different EU Member State each year.





On 19 May 2010 the ECB marked the official start of construction works for its new premises by laying the foundation stone at the site of the former Grossmarkthalle in Frankfurt am Main. Together with Jean-Claude Trichet, President of the ECB, the members of the Executive Board, the Governing Council and the General Council of the ECB, as well as Petra Roth, Lord Mayor of the City of Frankfurt am Main, and Wolf D. Prix of COOP HIMMELB(L)AU, filled the foundation stone with a set of the building plans, newspapers from all 27 EU Member States, sets of euro coins from the then 16 countries of the euro area, a set of euro banknotes and a coin from the City of Frankfurt. The foundation stone was then sealed and moved into the excavation pit where the double office tower is to be built.

## CHAPTER 10

# INSTITUTIONAL FRAMEWORK, ORGANISATION AND ANNUAL ACCOUNTS

# I DECISION-MAKING BODIES AND CORPORATE GOVERNANCE OF THE ECB

## I.1 THE EUROSISTEM 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, had earlier been 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 Executive Board implements monetary policy in accordance with the guidelines and decisions laid down by the Governing Council. It gives the necessary instructions to the NCBs. 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.<sup>1</sup> 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 2010 one meeting was held outside Frankfurt, hosted by the Banco de Portugal in Lisbon. 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

<sup>1</sup> 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, as amended by Decision ECB/2009/5 of 19 March 2009, OJ L 100, 18.4.2009, p. 10; 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.

number of governors in the Governing Council exceeds 18. In March 2009 the Governing Council adopted a legal act which covers all aspects of the implementation of the rotation system.<sup>2</sup> The legal act will enter into force when the rotation system is implemented.

2 Decision ECB/2009/5 of 19 March 2009 amending Decision ECB/2004/2 of 19 February 2004 adopting the Rules of Procedure of the European Central Bank, OJ L 100, 18.4.2009, p. 10. For a detailed description of the implementation modalities of the rotation scheme, such as the order, period and rate of rotation, see the article entitled “Rotation of voting rights in the Governing Council of the ECB”, *Monthly Bulletin*, ECB, July 2009.

## THE GOVERNING COUNCIL



**Front row (from left to right):**  
Erkki Liikanen, Marko Kranjec,  
Athanasios Orphanides,  
Vitor Constâncio, Jean-Claude Trichet,  
Gertrude Tumpel-Gugerell,  
Michael C. Bonello, Ewald Nowotny

**Middle row (from left to right):**  
Nout Wellink, Miguel Fernández  
Ordóñez, Lorenzo Bini Smaghi,  
Yves Mersch

**Back row (from left to right):**  
Christian Noyer, Carlos Costa,  
Guy Quaden, Patrick Honohan,  
Georgios Provopoulos, José Manuel  
González-Páramo, Axel A. Weber,  
Jürgen Stark

Note: Mario Draghi, Andres Lipstok  
and Jozef Makúch were not available at  
the time the photograph was taken.

**Jean-Claude Trichet**

President of the ECB

**Vitor Constâncio**

Vice-President of the ECB

(from 1 June 2010)

Governor of the Banco de Portugal

(until 31 May 2010)

**Lucas D. Papademos**

Vice-President of the ECB

(until 31 May 2010)

**Lorenzo Bini Smaghi**

Member of the Executive Board of the ECB

**Michael C. Bonello**

Governor of the Central Bank of Malta

**Carlos Costa**

Governor of the Banco de Portugal

(from 7 June 2010)

**Mario Draghi**

Governor of the Banca d'Italia

**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

**Marko Kranjec**

Governor of Banka Slovenije

**Erkki Liikanen**

Governor of Suomen Pankki –  
Finlands Bank

**Andres Lipstok**

Governor of Eesti Pank

(from 1 January 2011)

**Jozef Makúch**

Governor of Národná banka Slovenska

(from 12 January 2010)

**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

**Ivan Šramko**

Governor of Národná banka Slovenska

(until 11 January 2010)

**Jürgen Stark**

Member of the Executive Board of the ECB

**Gertrude Tumpel-Gugerell**

Member of the Executive Board of the ECB

**Axel A. Weber**

President of the Deutsche Bundesbank

**Nout Wellink**

President of De Nederlandsche Bank

### 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;

- 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.

**Back row (left to right):**

Lorenzo Bini Smaghi,  
José Manuel González-Páramo,  
Jürgen Stark

**Front row (left to right):**

Gertrude Tumpel-Gugerell,  
Jean-Claude Trichet,  
Vitor Constâncio



**Jean-Claude Trichet**

President of the ECB

**Vitor Constâncio**

Vice-President of the ECB  
(from 1 June 2010)

**Lucas D. Papademos**

Vice-President of the ECB  
(until 31 May 2010)

**Lorenzo Bini Smaghi**

Member of the Executive Board of the ECB

**José Manuel González-Páramo**

Member of the Executive Board of the ECB

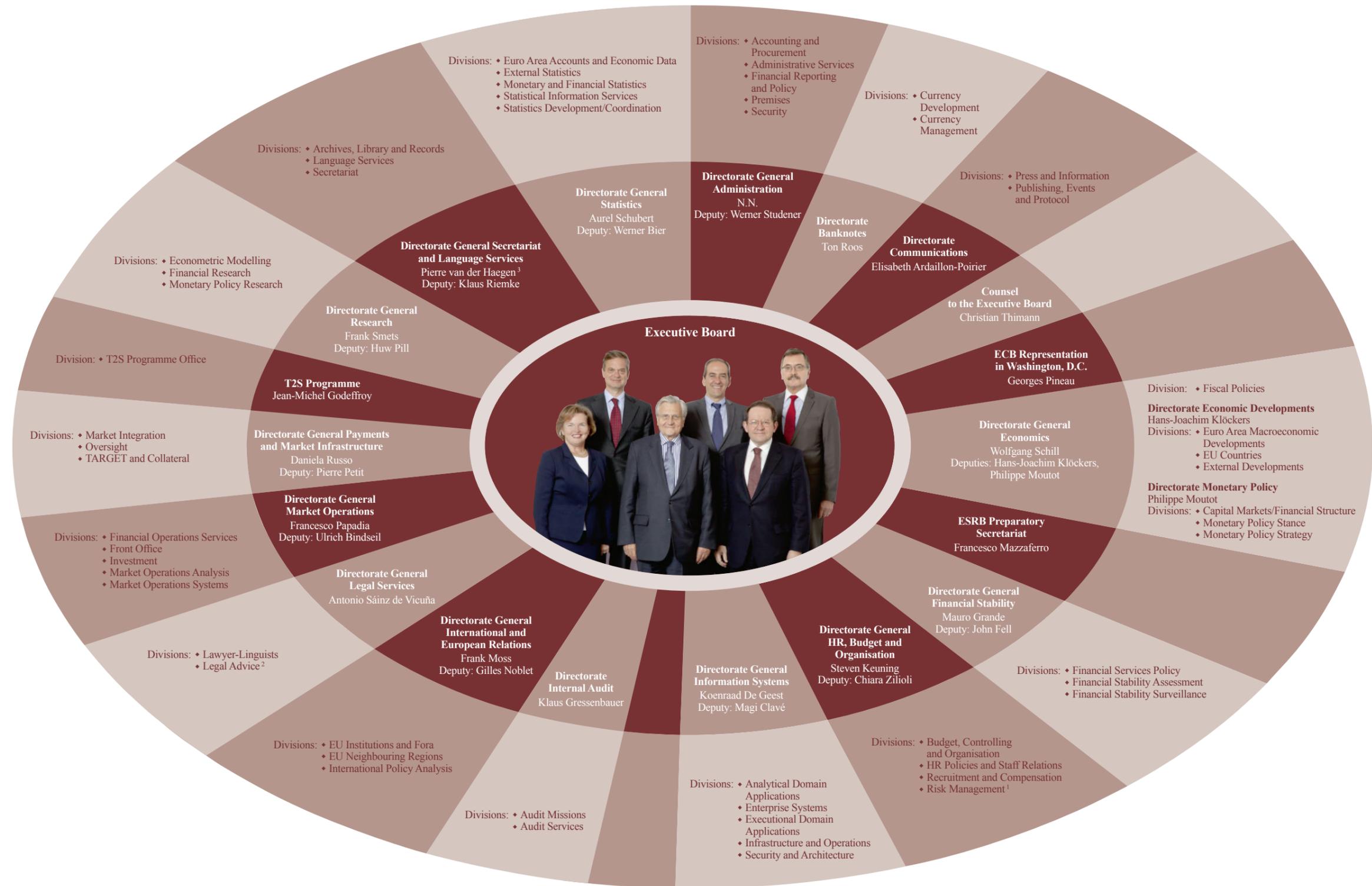
**Jürgen Stark**

Member of the Executive Board of the ECB

**Gertrude Tumpel-Gugerell**

Member of the Executive Board of the ECB

**THE ORGANISATION CHART OF THE ECB**  
(as at 31 December 2010)



<sup>1</sup> Reports directly to the Executive Board.  
<sup>2</sup> Includes the data protection function.  
<sup>3</sup> Secretary to the Executive Board, the Governing Council and the General Council.

**Executive Board**  
Back row (left to right): Lorenzo Bini Smaghi, José Manuel González-Páramo, Jürgen Stark  
Front row (left to right): Gertrude Tumpel-Gugerell, Jean-Claude Trichet (President), Vítor Constâncio (Vice-President)

## 1.4 THE GENERAL COUNCIL

The General Council is composed of the President and the Vice-Presidents 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 EMI which still have to be performed by the ECB on account of the fact that not all the Member States have adopted the euro. In 2010 the General Council had its four quarterly meetings, as well as one meeting for the adoption of the ECB's Convergence Report.

**Front row (left to right):**  
Ewald Nowotny, Erkki Liikanen,  
Marko Kranjec, Patrick Honohan,  
Vitor Constâncio, Jean-Claude Trichet,  
Miguel Fernández Ordóñez,  
Yves Mersch, Stefan Ingves

**Middle row (left to right):**  
Nout Wellink, Ilmārs Rimšēvičs,  
Carlos Costa, Ivan Iskrov,  
Athanasios Orphanides,  
Miroslav Singer, Marek Belka,  
Michael C. Bonello

**Back row (left to right):**  
András Simor, Guy Quaden,  
Axel A. Weber, Christian Noyer,  
Nils Bernstein, Georgios Provopoulos,  
Reinoldijus Šarkinas,  
Andres Lipstok,  
Mugur Constantin Isărescu



Note: Mario Draghi, Mervyn King and Jozef Makúch were not available at the time the photograph was taken.

**Jean-Claude Trichet**  
President of the ECB

**Vitor Constâncio**  
Vice-President of the ECB  
(from 1 June 2010)  
Governor of the Banco de Portugal  
(until 31 May 2010)

**Lucas D. Papademos**  
Vice-President of the ECB  
(until 31 May 2010)

**Marek Belka**  
President of Narodowy Bank Polski  
(from 11 June 2010)

**Nils Bernstein**  
Governor of Danmarks Nationalbank

**Michael C. Bonello**  
Governor of the Central Bank of Malta

**Carlos Costa**  
Governor of the Banco de Portugal  
(from 7 June 2010)

**Mario Draghi**  
Governor of the Banca d'Italia

**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 Națională a României

**Ivan Iskrov**  
Governor of Българска народна банка  
(Bulgarian National Bank)

**Mervyn King**  
Governor of the Bank of England

**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  
(from 12 January 2010)

**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

**Ilmārs Rimševičs**

Governor of Latvijas Banka

**Reinoldijus Šarkinas**

Chairman of the Board of Lietuvos bankas

**András Simor**

Governor of the Magyar Nemzeti Bank

**Miroslav Singer**

Governor of Česká národní banka  
(from 1 July 2010)

**Sławomir Skrzypek †**

President of Narodowy Bank Polski  
(until 10 April 2010)

**Ivan Šramko**

Governor of Národná banka Slovenska  
(until 11 January 2010)

**Zdeněk Tůma**

Governor of Česká národní banka  
(until 30 June 2010)

**Axel A. Weber**

President of the Deutsche Bundesbank

**Nout Wellink**

President of De Nederlandsche Bank

**1.5 EUROSISTEM/ESCB COMMITTEES, THE BUDGET COMMITTEE, THE HUMAN RESOURCES CONFERENCE AND THE EUROSISTEM IT STEERING COMMITTEE**

EUROSISTEM/ESCB COMMITTEES, EUROSISTEM IT STEERING COMMITTEE, BUDGET COMMITTEE, HUMAN RESOURCES CONFERENCE AND THEIR CHAIRPERSONS	
Accounting and Monetary Income Committee (AMICO) Werner Studener	International Relations Committee (IRC) Jean-Pierre Landau
Banking Supervision Committee (BSC) Peter Praet	Legal Committee (LEGCO) Antonio Sáinz de Vicuña
Banknote Committee (BANCO) Ton Roos	Market Operations Committee (MOC) Francesco Papadia
Committee on Cost Methodology (COMCO) Wolfgang Duchatzek	Monetary Policy Committee (MPC) Wolfgang Schill
Eurosistem/ESCB Communications Committee (ECCO) Elisabeth Ardaillon-Poirier	Payment and Settlement Systems Committee (PSSC) Daniela Russo
Financial Stability Committee (FSC) Mauro Grande	Risk Management Committee (RMC) Carlos Bernadell
Information Technology Committee (ITC) Koenraad de Geest	Statistics Committee (STC) Aurel Schubert
Internal Auditors Committee (IAC) Klaus Gressenbauer	
Budget Committee (BUCOM) José de Matos	Human Resources Conference (HRC) Steven Keuning
Eurosistem IT Steering Committee (EISC) Jürgen Stark	

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 Banking Supervision Committee, may also be invited. On 16 September 2010 the Risk Management Committee was established to assist the Governing Council in ensuring an appropriate level of protection for the Eurosystem by managing and controlling the risks originating from its market operations. On 16 December 2010 the Banking Supervision Committee was dissolved following the establishment of the European Systemic Risk Board (see Chapter 6). As at 31 December 2010, 13 Eurosystem/ESCB committees had been established under Article 9.1 of the Rules of Procedure of the ECB. On 13 January 2011 the Financial Stability Committee was established, under the same article, to assist the Governing Council in the fulfilment of the ECB's tasks relating to financial stability.

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.<sup>3</sup> 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 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) is responsible for managing its own risks and controls, as well as the effectiveness and

<sup>3</sup> 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.

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. For example, a set of rules and procedures – known as a “Chinese wall” – is in place to prevent inside information originating in the areas responsible for monetary policy from reaching the areas responsible for the management of the ECB’s foreign reserves and own funds portfolio.

In 2010 the ECB further refined its approach to operational risk management and 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 regularly tests and reviews the business continuity arrangements for its critical operations. Furthermore, in 2010 the ECB reviewed its crisis management framework and conducted a training programme for the crisis management team. Following the Governing Council’s approval of the roll-out of the Eurosystem business continuity framework in 2009, the procedures for a business impact analysis at the Eurosystem level were developed.

Moreover, in December 2010 the newly established Risk Management Committee (RMC) met for the first time. One of its main tasks is to provide for an integrated assessment of all financial risks that the Eurosystem faces in its market operations, which include the Eurosystem’s monetary policy and intraday credit operations, foreign exchange operations, as well as operations related to the management of the ECB’s foreign reserves.

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,<sup>4</sup> 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 – Finland’s 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. It reflects their responsibility to safeguard the integrity and reputation of the Eurosystem and to maintain the effectiveness of its operations.<sup>5</sup> 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.<sup>6</sup> It complements the other code of conduct by further detailing the ethical regime applicable to members of the Executive Board.

4 This charter is published on the ECB’s website to foster the transparency of audit arrangements in place at the ECB.

5 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.

6 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.

On 1 April 2010 a comprehensive Ethics Framework for members of staff of the ECB entered into force.<sup>7</sup> It consolidated and enhanced the ethical rules applying to staff of the ECB as laid down in the Conditions of Employment, the Staff Rules and the former Code of Conduct of the ECB.<sup>8</sup> The Framework 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.

#### **ANTI-FRAUD MEASURES**

In 1999 the European Parliament and the Council adopted a Regulation<sup>9</sup> 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 June 2004 the Governing Council adopted a Decision<sup>10</sup> concerning the terms and conditions for investigations by OLAF of the ECB, which entered into force on 1 July 2004.

#### **INTERNAL ECB 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. 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,<sup>11</sup> adopted in March 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.<sup>12</sup>

In 2010 the number of public access requests remained limited.

7 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.

8 See the former Code of Conduct of the European Central Bank in accordance with Article 11.3 of the Rules of Procedure of the European Central Bank, OJ C 76, 8.3.2001, p. 12.

9 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.

10 Decision ECB/2004/11 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. This Decision was adopted in response to the judgement of the European Court of Justice on 10 July 2003 in Case C-11/00 *Commission v European Central Bank*, ECR I-7147.

11 Decision ECB/2004/3 on public access to European Central Bank documents, OJ L 80, 18.3.2004, p. 42.

12 In line with the ECB's commitment to openness and transparency, the "Archives" section of the ECB's website provides access to historical documentation.

## 2 ORGANISATIONAL DEVELOPMENTS

### 2.1 HUMAN RESOURCES MANAGEMENT

In 2010 the ECB continued to develop and implement human resources management policies in four areas: corporate culture, recruitment, professional development and employment conditions.

#### CORPORATE CULTURE

In 2010 developments related to the corporate culture of the ECB focused on diversity and professional ethics. A number of activities were initiated in order to raise awareness of the ECB's gender diversity objectives and embed them more deeply in the regular human resources operations. To mark the ECB's commitment in this respect, a public statement on diversity was published on the ECB's website. With regard to professional ethics, an Ethics Framework for the members of staff of the ECB entered into force in 2010, as discussed in greater detail in the previous section.

#### RECRUITMENT

On 31 December 2010 the actual full-time equivalent number of staff holding employment contracts with the ECB was 1,607 (1,563 on 31 December 2009).<sup>13</sup> A total of 53 new fixed-term contracts (limited in nature or convertible to permanent contracts) were offered in 2010. By contrast, 28 members of staff employed on a fixed-term or permanent basis left the ECB in 2010 (27 in 2009), following resignation or retirement. Furthermore, to cover for absences of less than one year, 128 short-term contracts were issued during 2010 (in addition to some contract extensions), while 140 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 2010, 158 employees from NCBs and international organisations were working at the ECB on various assignments, 12% more than in 2009.

In September 2010 the ECB welcomed the fifth 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 and translation. The ECB published the rules governing its traineeship programme on its website in April 2010 in order to provide more clarity on the eligibility criteria, assignment duration, leave and medical coverage. On 31 December 2010, 92 trainees were being hosted by the ECB (12.8% more than in 2009). The ECB also offered four fellowships as part of the Wim Duisenberg Research Fellowship Programme, which is open to leading economists, and five 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 2010, 204 staff members, including 37 managers and advisers, moved internally to other positions, on either a temporary or a long-term basis.

<sup>13</sup> In addition to contracts based on full-time equivalent positions, this figure includes, inter alia, short-term contracts awarded to staff seconded from NCBs and international organisations and contracts awarded to Graduate Programme participants.

The ECB, like all ESCB central banks, actively participates in the external work experience scheme 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 eight members of staff were seconded under this scheme in 2010 (new cases). In addition, the ECB granted unpaid leave, for up to three years, to 36 members of staff (new cases). The total number of staff members on unpaid leave at the end of December 2010 was 45 (compared with 55 in 2009).

The ECB continued to promote the acquisition and development of skills and the enhancement of the competencies of management and staff. In addition to numerous in-house training opportunities, staff and management 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.

#### **EMPLOYMENT CONDITIONS**

The ECB’s employment conditions are designed to be attractive and to balance the needs of staff with those of the organisation. The ECB is reviewing some of its working time and leave provisions, with the aim of further facilitating the processing of part-time requests. At the end of 2010, 158 staff members were working part-time, 10% less than in 2009. The number of staff on unpaid parental leave as at 31 December 2010 was 24 (compared with 28 in 2009). The teleworking pilot project launched in 2008 continued during 2010. On average, around 235 staff members teleworked each month. In 2010 as a whole, 662 staff teleworked at least once.

The ECB continued to support staff in the areas of childcare and the reconciliation of work and family commitments. Policies for parents with children affected by serious illness or imperative

educational needs were enhanced to include extended support for the parents of children with learning disabilities or neuro-behavioural development disorders.

#### **2.2 STAFF RELATIONS AND SOCIAL DIALOGUE**

The ECB fully recognises the importance of a constructive dialogue with its staff. In 2010 the ECB consulted the staff representatives on remuneration, employment, working conditions, health and safety conditions, and pensions. It continued to have a regular dialogue with staff representatives on employment and social matters.

A discussion with the recognised trade union on the memorandum of understanding between the ECB and the trade union is ongoing, with a view to further enhancing the social dialogue at the ECB.

#### **2.3 NEW ECB PREMISES**

The official start of the main construction works for the ECB’s new headquarters in Frankfurt’s Ostend was marked by a ceremony on 19 May 2010 in which the foundation stone was laid. In June the steel work for the foundations for the double office tower and the underground staff car park began, followed by the concreting works in July. By the beginning of 2011 the two storeys of the underground staff car park and the basement of the double office tower had been finalised, and the structural works on the ground floor had started.

In parallel, the construction works began on the former Grossmarkthalle building. In preparation for the construction of the entrance building, the facade and the three roof segments in the western part of the former wholesale market hall were removed. The basement of the market hall was also removed, to be replaced by a waterproof basement which will be able to carry the weight of the new structural elements

housing the ECB's more public functions, i.e. a visitors' centre, conference area, cafeteria and staff restaurant.

In close coordination with the historic preservation authorities, the restoration works for the former Grossmarkthalle also began in spring 2010 with the careful restoration of the brick facade and the ribbed concrete floor of the eastern wing building. Thorough restoration works on the substance of the building are ongoing in order to preserve the structure of the Grossmarkthalle.

In February 2011 the ECB awarded the contract for the structural works for the double office tower to a new construction company. The initial company Baresel GmbH completed the structural works up to the ground floor, with Ed. Züblin AG being engaged to carry out the remainder. All construction works are proceeding as planned. 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.

#### **2.4 THE EUROSISTEM PROCUREMENT COORDINATION OFFICE**

In 2010 the Eurosystem Procurement Coordination Office (EPCO) finalised two joint procedures initiated in 2009: air transport for ESCB meetings and global hotel agreements. In addition, EPCO coordinated a number of analyses initiated in 2009 which should either be finalised or lead to joint procurements in the coming months. The areas covered by such analyses included market data providers and rating agencies, office supplies and standard IT software tools. EPCO also continued to promote the exchange of best practices in the field of procurement among central banks.

At its meeting on 15 December 2010 the Governing Council took note of the document "EPCO – Review of experience at the half-way stage of the mandate (2008-2012)",

which provided an opportunity to analyse the experience gained in the first half of EPCO's five-year mandate and to reorient its activities for the remainder of the mandate.

#### **2.5 ENVIRONMENTAL ISSUES**

The ECB is an environmentally aware institution. It makes prudent use of natural resources in order to preserve the quality of the environment and to protect human health.

In 2010 the Environmental Management System of the ECB was successfully certified. It complies with the international standard EN ISO 14001 and the EU's Eco-Management and Audit Scheme. The ECB aims to continuously improve the system and the ECB's environmental performance. A comparison of the data for 2008 and 2009 revealed a 22% reduction in carbon emissions over this period. With the objective of further reducing the ECB's ecological footprint, a new environmental programme has been launched for 2010-11.

The ECB has published an environmental statement on its website providing detailed information on the environmental performance of the ECB.

Furthermore, the voluntary objectives of the European Commission's GreenBuilding Programme are being applied in the construction of the ECB's new premises. This programme, which was launched in 2004, aims to improve energy efficiency and extend the use of renewable energies in non-residential buildings in Europe.

#### **2.6 INFORMATION TECHNOLOGY SERVICE MANAGEMENT**

The Directorate General Information Systems completed the implementation of its new organisational structure in 2010. Particular attention was paid to strategy implementation,

the work programme for 2010 and the continuous improvement of processes following the ISO certifications obtained in 2009.

Throughout the year, work focused on the preparation of the IT services needed to support the establishment of the European Systemic Risk Board and the smooth entry of Estonia into the euro area. As a consequence of the financial crisis, several applications underwent urgent changes and had to be operated over extended working hours and weekends.

Various projects were initiated to strengthen the compliance of IT applications with ESCB security policies. Steps were also taken to modernise systems supporting the implementation of monetary policy decisions and to complete projects supporting administrative processes.

### 3 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 2010, including ESCB mobility.

The provision of ESCB training was further extended by the roll-out of: i) the ESCB Project Management Training Programme, which consists of several modules on project management methodology and soft skills needed in a project environment, and ii) a training course on audit report writing and communication. For 2011 the training calendar foresees a total of 57 sessions of ESCB training activities, hosted by 22 central banks.

## 4 ESCB SOCIAL DIALOGUE

The ESCB Social Dialogue is a consultative forum involving the ECB and employee representatives from the central banks of the ESCB and from European trade union federations.<sup>14</sup> 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 twice a year.

In 2010 the ESCB Social Dialogue meetings focused on financial supervision, the establishment of the European Systemic Risk Board and the actions taken by the ECB in times of crisis. 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 reconvened in May and September and, among other things, identified possible items to be included in the agenda of the ESCB Social Dialogue meetings.

<sup>14</sup> 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).



## 5 ANNUAL ACCOUNTS OF THE ECB

# MANAGEMENT REPORT FOR THE YEAR ENDING 31 DECEMBER 2010

## 1 NATURE OF THE BUSINESS

The ECB's activities in 2010 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 controls and audit measures. For example, 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 order to further strengthen the ECB's corporate governance, the Governing Council established the ECB Audit Committee in 2007.

The ECB has, over time, established a set of internal rules regarding the business practices and standards of professional conduct to be followed by all ECB staff. For example, the Business Practice Handbook, which entered into force in 2007 and is regularly updated, provides information on business objectives and practices in an accessible and user-friendly manner, helping employees to meet their professional obligations.

Within 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.

Further information relating to the governance of the ECB is provided in Chapter 10 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 32, "Staff costs", of the Annual Accounts.

### EMPLOYEES

The ECB is fully cognisant of the importance of developing sound human resources management policies and of having a constructive dialogue with its staff. In 2010 developments related to the corporate culture of the ECB focused on diversity and professional ethics. A new comprehensive ethics framework for the staff of the ECB entered into force on 1 April 2010. The framework 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.

Mobility and staff development measures continued to be the main tools for professional development in 2010. 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<sup>1</sup> rose from 1,530 in 2009 to 1,565 in 2010. At the end of 2010 1,607 staff were employed. For further information, see note 32, “Staff costs”, of the Annual Accounts and Section 2 of Chapter 10 of the Annual Report which also describes developments in the area of human resources management in more detail.

#### **INVESTMENT ACTIVITIES AND RISK MANAGEMENT**

The ECB’s foreign reserves portfolio consists of foreign reserve assets transferred to it by the euro area NCBs in accordance with the provisions of Article 30 of the Statute of the ESCB. 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.

The ECB’s own funds portfolio reflects the investment of (a) its paid-up capital; (b) the counterpart of the provision for foreign exchange rate, interest rate, credit and gold price risks; (c) the general reserve fund; and (d) income accumulated on the portfolio in previous years. Its purpose is primarily to provide the ECB with income to contribute to covering its operating expenses.

The ECB is exposed to financial risks arising in respect of both of the above-mentioned portfolios. They include credit, market and liquidity risks. The ECB closely monitors and measures such risks and, where appropriate,

mitigates them through the implementation of a risk management framework that includes, in particular, a system of exposure limits.

The ECB’s investment activities and its management of the associated risks are described in greater detail in Chapter 2 of the Annual Report.

#### **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, 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**

Pursuant to the Statute of the ESCB, as well as Council Regulation (EC) No 1009/2000 of 8 May 2000, the ECB decided in December 2010 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.

<sup>1</sup> 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.

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 of €3,489,575,000 in three equal annual instalments. On 29 December 2010 the NCBs of the euro area (in its composition as at that date) paid €1,163,191,667 as their first instalment. The remaining two instalments will be paid at the end of 2011 and 2012. Moreover, the minimal percentage of the subscribed capital, which the non-euro area NCBs are required to pay as a contribution to the operational costs of the ECB was reduced from 7.00% to 3.75%. Consequently, the capital paid up by the non-euro area NCBs was slightly adjusted and payments totalling €84,220 were made on 29 December 2010.

As a result of these payments, the ECB's paid-up capital amounted to €5,306 million on 31 December 2010, compared with €4,142 million on 31 December 2009. 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.

As at 31 December 2009 this provision amounted to €4,020,445,722. In line with the Statute of the ESCB, 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. After taking the results of its risk assessment into account, the Governing Council decided to increase the size of the risk provision to €5,183,637,388, which, following the capital increase, represents the current maximum allowed ceiling.

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.

## **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 2010**

In 2010 the net income of the ECB prior to the transfer to the risk provision was €1,334 million, compared with €2,218 million in 2009. The net profit, amounting to €171 million after this transfer, was distributed to the euro area NCBs in March 2011.

In 2010 net interest income amounted to €1,422 million, compared with €1,547 million in 2009. The decrease in net interest income was mainly due to (a) the realisation of a net interest expense from TARGET2 balances in 2010; (b) lower net interest income on foreign reserve assets that was due mainly to lower average interest rates on US dollar-denominated assets in 2010; and (c) a decrease in interest income on the ECB's share of euro banknotes in circulation, which reflected the fact that the average rate for the Eurosystem's main refinancing operations declined. These factors were partially offset by the following: (a) additional income generated on the securities purchased under the Securities Markets Programme and the covered bond purchase programme; (b) lower interest expenses as a result of decreased balances with the Swiss National Bank; and (c) a decrease in the interest expense arising from the euro area NCBs' claims in respect of the foreign reserve assets transferred by them to the ECB.

Total administrative expenses of the ECB, including depreciation, amounted to €415 million in 2010, compared with €401 million in 2009.

Net realised gains arising from financial operations decreased from €1,103 million in 2009 to €474 million in 2010, owing mainly to (a) the fact that no gold sales were conducted by the ECB in 2010, and (b) lower net realised gains from security sales in 2010.

Write-downs amounted to €195 million in 2010, compared with €38 million in 2009, mainly owing to unrealised price losses on security holdings which are shown on the Balance Sheet at their market value as at end-2010.

As at end-2009 unrealised foreign exchange gains, mainly arising on the US dollar portfolio and the Japanese yen portfolio, amounted to €2,070 million, and unrealised gold price gains amounted to €8,418 million. In 2010 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 €6,271 million, while the rise in the price of gold during 2010 led to unrealised gold price gains amounting to €13,079 million. In line with the Eurosystem's accounting policies, these gains were recorded in revaluation accounts.



## BALANCE SHEET AS AT 31 DECEMBER 2010

ASSETS	NOTE NUMBER	2010 €	2009 €
<b>Gold and gold receivables</b>	1	<b>17,015,600,109</b>	<b>12,355,158,122</b>
<b>Claims on non-euro area residents denominated in foreign currency</b>	2		
Receivables from the IMF	2.1	414,722,811	346,455,675
Balances with banks and security investments, external loans and other external assets	2.2	39,298,995,950	35,109,527,121
		<b>39,713,718,761</b>	<b>35,455,982,796</b>
<b>Claims on euro area residents denominated in foreign currency</b>	2.2	<b>4,326,557,549</b>	<b>3,293,593,476</b>
<b>Claims on non-euro area residents denominated in euro</b>	3		
Balances with banks, security investments and loans	3.1	<b>1,800,000,000</b>	<b>0</b>
<b>Other claims on euro area credit institutions denominated in euro</b>	4	<b>33,368,000</b>	<b>5,000</b>
<b>Securities of euro area residents denominated in euro</b>	5		
Securities held for monetary policy purposes	5.1	<b>17,925,976,508</b>	<b>2,181,842,083</b>
<b>Intra-Eurosystem claims</b>	6		
Claims related to the allocation of euro banknotes within the Eurosystem	6.1	67,176,191,390	64,513,307,300
Other claims within the Eurosystem (net)	13.2	0	6,359,967,425
		<b>67,176,191,390</b>	<b>70,873,274,725</b>
<b>Other assets</b>	7		
Tangible and intangible fixed assets	7.1	281,925,625	221,886,920
Other financial assets	7.2	13,249,960,731	11,816,451,684
Off-balance-sheet instruments revaluation differences	7.3	147,260,366	20,951,426
Accruals and prepaid expenses	7.4	1,319,491,653	775,782,372
Sundry	7.5	532,963,278	1,003,035,232
		<b>15,531,601,653</b>	<b>13,838,107,634</b>
<b>Total assets</b>		<b>163,523,013,970</b>	<b>137,997,963,836</b>

LIABILITIES	NOTE NUMBER	2010 €	2009 €
<b>Banknotes in circulation</b>	8	<b>67,176,191,390</b>	<b>64,513,307,300</b>
<b>Other liabilities to euro area credit institutions denominated in euro</b>	9	<b>33,363,000</b>	<b>0</b>
<b>Liabilities to other euro area residents denominated in euro</b>	10		
Other liabilities	10.1	<b>1,072,000,000</b>	<b>1,056,000,000</b>
<b>Liabilities to non-euro area residents denominated in euro</b>	11	<b>1,201,602,021</b>	<b>9,515,160,271</b>
<b>Liabilities to non-euro area residents denominated in foreign currency</b>	12		
Deposits, balances and other liabilities	12.1	<b>478,028,926</b>	<b>18,752,058</b>
<b>Intra-Eurosystem liabilities</b>	13		
Liabilities equivalent to the transfer of foreign reserves	13.1	40,204,457,215	40,204,457,215
Other liabilities within the Eurosystem (net)	13.2	21,225,255,926	0
		<b>61,429,713,141</b>	<b>40,204,457,215</b>
<b>Other liabilities</b>	14		
Off-balance-sheet instruments revaluation differences	14.1	568,235,002	196,041,410
Accruals and income collected in advance	14.2	749,630,881	731,468,960
Sundry	14.3	494,466,366	409,204,389
		<b>1,812,332,249</b>	<b>1,336,714,759</b>
<b>Provisions</b>	15	<b>5,216,716,613</b>	<b>4,042,873,982</b>
<b>Revaluation accounts</b>	16	<b>19,626,699,159</b>	<b>10,915,251,958</b>
<b>Capital and reserves</b>	17		
Capital	17.1	<b>5,305,536,076</b>	<b>4,142,260,189</b>
<b>Profit for the year</b>		<b>170,831,395</b>	<b>2,253,186,104</b>
<b>Total liabilities</b>		<b>163,523,013,970</b>	<b>137,997,963,836</b>

## PROFIT AND LOSS ACCOUNT FOR THE YEAR ENDING 31 DECEMBER 2010

	NOTE NUMBER	2010 €	2009 €
Interest income on foreign reserve assets	26.1	366,179,478	700,216,277
Interest income arising from the allocation of euro banknotes within the Eurosystem	26.2	653,509,659	787,157,441
Other interest income	26.4	4,796,498,245	5,608,442,130
<i>Interest income</i>		<i>5,816,187,382</i>	<i>7,095,815,848</i>
Remuneration of NCBs' claims in respect of foreign reserves transferred	26.3	(346,484,251)	(443,045,045)
Other interest expense	26.4	(4,047,227,079)	(5,105,724,953)
<i>Interest expense</i>		<i>(4,393,711,330)</i>	<i>(5,548,769,998)</i>
<b>Net interest income</b>	<b>26</b>	<b>1,422,476,052</b>	<b>1,547,045,850</b>
Realised gains/losses arising from financial operations	27	474,313,327	1,102,597,118
Write-downs on financial assets and positions	28	(195,213,437)	(37,939,649)
Transfer to/from provisions for foreign exchange rate, interest rate, credit and gold price risks		(1,163,191,667)	34,806,031
<b>Net result of financial operations, write-downs and risk provisions</b>		<b>(884,091,777)</b>	<b>1,099,463,500</b>
<b>Net expense from fees and commissions</b>	<b>29</b>	<b>(1,409,017)</b>	<b>(16,010)</b>
<b>Income from equity shares and participating interests</b>	<b>30</b>	<b>2,612,858</b>	<b>934,492</b>
<b>Other income</b>	<b>31</b>	<b>46,537,026</b>	<b>6,783,936</b>
<b>Total net income</b>		<b>586,125,142</b>	<b>2,654,211,768</b>
Staff costs	32	(196,470,934)	(187,314,707)
Administrative expenses	33	(196,636,534)	(186,447,503)
Depreciation of tangible and intangible fixed assets		(13,601,111)	(21,042,602)
Banknote production services	34	(8,585,168)	(6,220,852)
<b>Profit for the year</b>		<b>170,831,395</b>	<b>2,253,186,104</b>

Frankfurt am Main, 22 February 2011

EUROPEAN CENTRAL BANK

Jean-Claude Trichet  
President

# ACCOUNTING POLICIES<sup>1</sup>

## 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,<sup>2</sup> 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 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 2010, was derived from the exchange rate of the euro against the US dollar on 31 December 2010.

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 a weighted sum of the exchange rates of four major currencies (the US dollar, euro, Japanese yen and pound sterling) against the euro as at 31 December 2010.

## 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 2010, mid-market prices on 30 December 2010 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 inward 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 2010 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 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 transactions are cross-border transactions that occur between two EU central banks. Intra-ESCB transactions in euro are primarily processed via 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 accounts held between those EU central banks connected to TARGET2. These bilateral balances are 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,<sup>3</sup> 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
Equipment, furniture and plant in building	10 years
Fixed assets costing less than €10,000	Written off in the year of acquisition

<sup>3</sup> As at 31 December 2010 the non-euro area NCBs participating in TARGET2 were Българска народна банка (Bulgarian National Bank), Danmarks Nationalbank, Eesti Pank, Latvijas Banka, Lietuvos bankas and Narodowy Bank Polski.

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 RETIREMENT PLAN AND OTHER POST-EMPLOYMENT BENEFITS**

The ECB operates a defined benefit plan for its staff. This is funded by assets held in a long-term employee benefit fund.

On 1 June 2009 a new Pension Scheme for both existing staff and new entrants was introduced with a view to ensuring the plan's long-term financial sustainability. Under this new scheme, the compulsory contributions of the ECB and the staff were increased from 16.5% to 18% and from 4.5% to 6% of basic salary respectively. As was the case in the past, staff can continue to make additional contributions under the new scheme on a voluntary basis in a defined contribution pillar that can be used to provide additional benefits.<sup>4</sup>The previous Retirement Plan was frozen on 31 May 2009, and the related rights acquired by existing staff were preserved.

#### **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

<sup>4</sup> 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.

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.

#### **PENSIONS OF EXECUTIVE BOARD MEMBERS AND OTHER POST-EMPLOYMENT OBLIGATIONS**

Unfunded arrangements are in place for the post-employment and other long-term benefits of members of the Executive Board of the ECB and for the disability benefit provisions for staff. 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 "Profit and Loss Account" above.

These obligations 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.<sup>5</sup> 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.<sup>6</sup>

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,<sup>7</sup> 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.<sup>8</sup> 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.

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

### I GOLD AND GOLD RECEIVABLES

As at 31 December 2010 the ECB held 16,122,143 ounces<sup>9</sup> of fine gold (2009: 16,122,146 ounces). This slight reduction was due to weight differences arising under a substitution programme that the ECB initiated in 2010. The euro equivalent value of this holding increased due to a significant rise in the price of gold during 2010 (see “Gold and foreign currency assets and liabilities” in the notes on accounting policies).

### 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 special drawing rights (SDRs) as at 31 December 2010. 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.

<i>Claims on non-euro area residents</i>	2010 €	2009 €	Change €
Current accounts	1,415,134,235	845,908,975	569,225,260
Money market deposits	881,467,443	636,977,905	244,489,538

<i>Claims on non-euro area residents</i>	2010 €	2009 €	Change €
Reverse repurchase agreements	54,632,540	0	54,632,540
Security investments	36,947,761,732	33,626,640,241	3,321,121,491
Total	39,298,995,950	35,109,527,121	4,189,468,829

<i>Claims on euro area residents</i>	2010 €	2009 €	Change €
Current accounts	3,522,840	677,846	2,844,994
Money market deposits	4,254,182,741	3,292,915,630	961,267,111
Reverse repurchase agreements	68,851,968	0	68,851,968
Total	4,326,557,549	3,293,593,476	1,032,964,073

The increase in the euro value of these positions in 2010 was mainly due to the appreciation of the US dollar and the Japanese yen against the euro. Income received in 2010, primarily on the US dollar portfolio, also contributed to the increase in the total value of these items.

The ECB’s net foreign currency holdings of US dollars and Japanese yen,<sup>10</sup> as at 31 December 2010, were as follows:

	Currency in millions
US dollars	43,952
Japanese yen	1,101,816

<sup>9</sup> This corresponds to 501.5 tonnes.

<sup>10</sup> 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.

### 3 CLAIMS ON NON-EURO AREA RESIDENTS DENOMINATED IN EURO

#### 3.1 BALANCES WITH BANKS, SECURITY INVESTMENTS AND LOANS

As at 31 December 2010 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

As at 31 December 2010 this item consisted mainly of an outstanding reverse repurchase transaction, 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 2009 this item consisted of securities acquired by the ECB within the scope of the covered bond purchase programme. Under this programme, the ECB and the NCBs purchased euro-denominated covered bonds issued in the euro area. The purchases under this programme were fully implemented by the end of June 2010.

In May 2010 the Governing Council established the Securities Markets Programme. Under this programme, 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 to restore the proper functioning of the monetary policy transmission mechanism.

The ECB’s holdings of securities purchased under both programmes at the end of 2010 were as follows:

	2010 €	2009 €	Change €
Covered bond purchase programme	4,823,413,246	2,181,842,083	2,641,571,163
Securities Markets Programme	13,102,563,262	0	13,102,563,262
Total	17,925,976,508	2,181,842,083	15,744,134,425

The Governing Council decided to classify the securities purchased under both programmes as held-to-maturity securities (see “Securities” in the notes on accounting policies). As a result of the impairment tests conducted as at 31 December 2010, no impairments were recorded for these securities.

### 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).

## 7 OTHER ASSETS

### 7.1 TANGIBLE AND INTANGIBLE FIXED ASSETS

These assets comprised the following items on 31 December 2010:

	2010 €	2009 €	Change €
<b>Cost</b>			
Land and buildings	168,714,234	168,811,800	(97,566)
Computer hardware and software	188,781,597	182,723,860	6,057,737
Equipment, furniture, plant in building and motor vehicles	30,325,142	29,786,515	538,627
Assets under construction	174,386,237	107,411,277	66,974,960
Other fixed assets	1,525,084	1,415,991	109,093
<b>Total cost</b>	<b>563,732,294</b>	<b>490,149,443</b>	<b>73,582,851</b>
<b>Accumulated depreciation</b>			
Land and buildings	(74,965,599)	(70,731,976)	(4,233,623)
Computer hardware and software	(177,760,956)	(169,735,407)	(8,025,549)
Equipment, furniture, plant in building and motor vehicles	(28,878,352)	(27,593,378)	(1,284,974)
Other fixed assets	(201,762)	(201,762)	0
<b>Total accumulated depreciation</b>	<b>(281,806,669)</b>	<b>(268,262,523)</b>	<b>(13,544,146)</b>
<b>Net book value</b>	<b>281,925,625</b>	<b>221,886,920</b>	<b>60,038,705</b>

The increase in the category “Assets under construction” is due mainly to activities related to the ECB’s new premises.

In 2009 assets with a cost of €2.3 million were included in the category “Other fixed assets”. In 2010 they were reclassified under the heading “Assets under construction” to reflect their current status. The comparative balance for 2009 has been adjusted accordingly.

### 7.2 OTHER FINANCIAL ASSETS

This item consists of the investment of the ECB’s own funds<sup>11</sup> held as a direct counterpart to the capital and reserves of the ECB, as well as 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:

	2010 €	2009 €	Change €
Current accounts in euro	4,377,086	8,748,115	(4,371,029)
Securities denominated in euro	11,534,194,166	11,295,095,956	239,098,210
Reverse repurchase agreements in euro	1,669,436,200	470,622,051	1,198,814,149
Other financial assets	41,953,279	41,985,562	(32,283)
<b>Total</b>	<b>13,249,960,731</b>	<b>11,816,451,684</b>	<b>1,433,509,047</b>

The net increase in this item was due mainly to the investment in the own funds portfolio of amounts received from the NCBs as a result of the increase in the ECB’s capital (see note 17, “Capital and reserves”) and income received in 2010.

### 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 2010 (see note 23, “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 21, “Interest rate swaps”).

<sup>11</sup> 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”).

## 7.4 ACCRUALS AND PREPAID EXPENSES

In 2010 this position included accrued interest receivable on the TARGET2 balances due from euro area NCBs for the final month of 2010, amounting to €364.7 million (2009: €261.6 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 €166.7 million (2009: €157.8 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 is composed mainly of positive balances related to swap and forward transactions in foreign currency that were outstanding on 31 December 2010 (see note 23, "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).

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 euro area central banks would make available for lending bonds bought under the 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"). As at 31 December 2010 a repurchase agreement conducted in the context of the covered bond lending operations with a value of €33.4 million remained outstanding.

## 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 2010 these liabilities consisted mainly of balances held with the ECB 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).

As at 31 December 2009 this item was composed mainly of a liability amounting to €4.5 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 and swap transactions. The back-to-back swap transactions resulted in intra-Eurosystem balances between the ECB and the NCBs. Given the improvements seen in the functioning of financial markets, the ECB confirmed in early 2010 the expiration of its temporary liquidity swap lines with the Federal Reserve on 1 February 2010. However, in response to the re-emergence of strains in US dollar short-term funding markets in Europe, the ECB and other central banks decided to re-establish the temporary US dollar liquidity swap facilities with the Federal Reserve on 10 May 2010. As a result of the reactivation of the US dollar liquidity-providing operations, a liability to the Federal Reserve, amounting to €57 million, was outstanding as at 31 December 2010.

As at 31 December 2009 this item also included a liability to the Swiss National Bank amounting to €1.8 billion. Swiss francs were provided by the Swiss National Bank by means of a swap arrangement with the aim of offering short-term Swiss franc funding to Eurosystem counterparties. The ECB simultaneously entered into swap transactions with euro area NCBs, which used the resulting funds to conduct Swiss franc liquidity-providing operations with Eurosystem counterparties against euro cash in the form of swap transactions. The swap transactions between the ECB and the NCBs resulted in intra-Eurosystem balances. Against the background of declining demand

and improved conditions in the funding markets, the ECB decided, in agreement with the Swiss National Bank, to stop conducting Swiss franc liquidity-providing operations after 31 January 2010. Consequently, no related liability remained outstanding as at 31 December 2010.

## 12 LIABILITIES TO NON-EURO AREA RESIDENTS DENOMINATED IN FOREIGN CURRENCY

### 12.1 DEPOSITS, BALANCES AND OTHER LIABILITIES

This item consists of 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. No changes occurred in 2010.

These balances are remunerated at the latest available marginal rate for the Eurosystem’s main refinancing operations, adjusted to reflect a zero return on the gold component (see note 26.3, “Remuneration of NCBs’ claims in respect of foreign reserves transferred”).

	Since 1 January 2009 €
Nationale Bank van België/Banque Nationale de Belgique	1,397,303,847
Deutsche Bundesbank	10,909,120,274
Central Bank of Ireland	639,835,662
Bank of Greece	1,131,910,591
Banco de España	4,783,645,755
Banque de France	8,192,338,995
Banca d’Italia	7,198,856,881
Central Bank of Cyprus	78,863,331
Banque centrale du Luxembourg	100,638,597
Central Bank of Malta	36,407,323
De Nederlandsche Bank	2,297,463,391

	Since 1 January 2009 €
Oesterreichische Nationalbank	1,118,545,877
Banco de Portugal	1,008,344,597
Banka Slovenije	189,410,251
Národná banka Slovenska	399,443,638
Suomen Pankki - Finlands Bank	722,328,205
<b>Total</b>	<b>40,204,457,215</b>

### 13.2 OTHER CLAIMS/LIABILITIES WITHIN THE EUROSYSTEM (NET)

In 2010 this item consisted mainly of the TARGET2 balances of the euro area NCBs vis-à-vis the ECB (see “Intra-ESCB balances/intra-Eurosysteem balances” in the notes on accounting policies). The ECB had a net claim vis-à-vis the euro area NCBs at the end of 2009 but a net liability at the end of 2010. This liability was due mainly to purchases of securities under the covered bond purchase programme and the Securities Markets Programme in 2010 (see note 5, “Securities of euro area residents denominated in euro”), which were settled via TARGET2 accounts.

The reduction in the outstanding amount related to the back-to-back swap transactions conducted with NCBs in connection with US dollar liquidity-providing operations, as well as the discontinuation of Swiss franc liquidity-providing operations (see note 11, “Liabilities to non-euro area residents denominated in euro”), also contributed to the decrease in the net claim and the creation of the net liability in 2010.

In 2009 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. 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 (see “Interim profit distribution” in the notes on accounting policies).

	2010 €	2009 €
Due from euro area NCBs in respect of TARGET2	(435,850,611,581)	(317,085,135,903)
Due to euro area NCBs in respect of TARGET2	457,075,867,507	309,938,011,037
Due to euro area NCBs in respect of the interim distribution of the ECB’s income derived from banknotes in circulation	0	787,157,441
Other (claims)/liabilities within the Eurosystem (net)	21,225,255,926	(6,359,967,425)

## 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 2010 (see note 23, “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 21, “Interest rate swaps”).

### 14.2 ACCRUALS AND INCOME COLLECTED IN ADVANCE

As at 31 December 2010 the two main items under this heading were accruals on balances due to NCBs in respect of TARGET2, amounting to €381.8 million (2009: €259.7 million), and interest payable to the NCBs in respect of

their claims relating to foreign reserves transferred to the ECB (see note 13, “Intra-Eurosystem liabilities”), amounting to €346.5 million (2009: €443.0 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 negative balances related to swap and forward transactions in foreign currency that were outstanding on 31 December 2010 (see note 23, “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 outstanding repurchase transactions of €235.4 million (2009: €146.6 million) conducted in connection with the management of the ECB’s own funds (see note 7.2, “Other financial assets”) and the net liability in respect of the ECB’s pension obligations as described below.

#### THE ECB’S RETIREMENT PLAN AND OTHER POST-EMPLOYMENT BENEFITS

The amounts recognised in the Balance Sheet in respect of the ECB’s pension obligations (see “The ECB’s retirement plan and other

post-employment benefits” in the notes on accounting policies) are as follows:

	2010 € millions	2009 € millions
Present value of obligations	555.5	443.9
Fair value of plan assets	(391.6)	(333.2)
Unrecognised actuarial gains/(losses)	(71.1)	(24.0)
Liability recognised in the Balance Sheet	92.8	86.7

The present value of the obligations includes unfunded obligations of €52.2 million (2009: €44.9 million) relating to the post-employment and other long-term benefits of Executive Board members and to the disability benefit provisions for staff.

The amounts recognised in the Profit and Loss Account in 2010 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:

	2010 € millions	2009 € millions
Current service cost	26.6	24.7
Interest on obligation	21.9	14.2
Expected return on plan assets	(18.4)	(9.9)
Net actuarial (gains)/losses recognised in the year	(1.3)	(0.3)
Total included in “Staff costs”	28.8	28.7

Under the “10% corridor” approach (see “The ECB’s retirement plan and other post-employment 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.

Up to 2009 actuarial gains and losses on other long-term benefits (i.e. disability and death benefits) were recorded in the Profit and Loss Account in line with the “10% corridor” approach. In 2010, owing to a change in methodology, these amounts were recognised in the Profit and Loss Account in their entirety. Outstanding amounts in 2009 were not material and no restatement was considered necessary.

Changes in the present value of the obligation are as follows:

	2010 € millions	2009 € millions
Opening obligation	443.9	317.0
Service cost	26.6	24.7
Interest cost	21.9	14.2
Contributions paid by plan participants <sup>1)</sup>	17.5	22.1
Other net changes in liabilities representing plan participants' contributions	4.5	(26.9)
Benefits paid	(5.2)	(4.2)
Actuarial (gains)/losses	46.3	97.0
Closing obligation	555.5	443.9

1) This includes transfers to and from other pension schemes.

Changes in the fair value of plan assets, including those arising from voluntary contributions paid by plan participants, are as follows:

	2010 € millions	2009 € millions
Opening fair value of plan assets	333.2	226.7
Expected return	18.4	9.9
Actuarial gains/(losses)	0.6	65.7
Contributions paid by employer	22.4	39.7
Contributions paid by plan participants	17.3	21.9
Benefits paid	(4.8)	(3.8)
Other net changes in assets representing plan participants' contributions	4.5	(26.9)
Closing fair value of plan assets	391.6	333.2

The actuarial losses for 2009 on the defined benefit obligation amounted to €97.0 million. This amount includes the effects of (a) the decrease in the discount rate from 5.75% to

5.50% that resulted in an increase in the liability value; (b) greater than expected growth in the value of the guaranteed benefits; and (c) the explicit inclusion of the obligation arising in connection with dependents' benefits. Prior to 2009 the (net) liability for dependents' benefits was assumed to be immaterial and was thus not explicitly included. However, as this liability has grown, it was decided to formally include it in the calculation of the defined benefit obligation. Similarly, the explicit inclusion of the corresponding assets in the actuarial valuation resulted in actuarial gains on plan assets amounting to €42.1 million, out of the total actuarial gains of €65.7 million for 2009.

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 of the assumed future increase in pensions from 2.00% to 1.65%.

As a result of the application of the annual Capital Guarantee on 31 December 2008, and given the loss of capital in the plan participants' Core Benefit Accounts, the Governing Council, acting on actuarial advice and in line with the rules of the ECB's Retirement Plan, decided in 2009 to make a supplementary contribution of approximately €19.9 million out of the general assets of the ECB. This contribution resulted in an increase in the contributions paid by the ECB in 2009, compared with the respective figure for 2010.

In 2009 amounts paid out of, as well as transfers into and out of, funds arising from the voluntary contributions of plan participants were included under “Other net changes in assets representing plan participants' contributions”. In 2010 these items were included for presentational reasons under “Benefits paid” and “Contributions paid by plan participants” respectively and the comparative figures for 2009 were adjusted accordingly.

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 staff benefits scheme liability are as follows:

	2010 %	2009 %
Discount rate	5.00	5.50
Expected return on plan assets	6.00	6.50
General future salary increases <sup>1)</sup>	2.00	2.00
Future pension increases	1.65	2.00

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 latter include an appropriate provision for the contractual obligation of the ECB to restore its current premises to their original condition when they are vacated and the ECB moves to its new site.

The Governing Council, taking into account the ECB's large exposure to foreign exchange rate, interest rate and gold price risks, and the size of its revaluation accounts, deemed it appropriate to establish a provision as at 31 December 2005 for these risks. In 2009, following the establishment of the covered bond purchase programme (see note 5, "Securities of euro area residents denominated in euro"), the Governing Council decided to extend the scope of the risk provision to also cover credit risk. This provision 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.<sup>12</sup> 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 2009 the provision for the above risks amounted to €4,020,445,722. Taking the results of its assessment into account, the Governing Council decided to transfer, as at 31 December 2010, an amount of €1,163,191,667 to the provision out of income arising from securities purchased under the Securities Markets Programme (see note 26.4, "Other interest income; and Other interest expense"), income on euro banknotes in circulation (see note 26.2, "Interest income arising from the allocation of euro banknotes within the Eurosystem") and other net income earned in 2010. This transfer reduced the ECB's net profit for 2010 to €170,831,395 and increased the size of the provision to €5,183,637,388, which, following the increase in the ECB's capital (see note 17, "Capital and reserves"), equates to the value of the ECB's capital paid up by the euro area NCBs as at 31 December 2010.<sup>13</sup>

## 16 REVALUATION ACCOUNTS

These accounts represent revaluation balances arising from unrealised gains on assets and liabilities.

	2010 €	2009 €	Change €
Gold	13,078,746,071	8,418,303,639	4,660,442,432
Foreign currency	6,271,078,092	2,070,299,334	4,200,778,758
Securities and other instruments	276,874,996	426,648,985	(149,773,989)
Total	19,626,699,159	10,915,251,958	8,711,447,201

<sup>12</sup> See also Chapter 2 of the Annual Report.

<sup>13</sup> The size of the risk provision as at 31 December 2009 and 31 December 2010, as well as the transfer to the risk provision in 2010, are presented rounded to the nearest euro.

The foreign exchange rates used for the year-end revaluation were as follows:

Exchange rates	2010	2009
US dollars per euro	1.3362	1.4406
Japanese yen per euro	108.65	133.16
Euro per SDR	1.1572	1.0886
Swiss francs per euro	Not used	1.4836
Euro per fine ounce of gold	1,055.418	766.347

## 17 CAPITAL AND RESERVES

### 17.1 CAPITAL

Pursuant to Article 28.1 of the Statute of the ESCB, as well as Council Regulation (EC) No 1009/2000 of 8 May 2000, the Governing Council decided to increase the subscribed capital of the ECB by €5 billion, from €5,760,652,403 to €10,760,652,403, with effect from 29 December 2010.<sup>14</sup>

Pursuant to Article 28.3 of the Statute of the ESCB, the Governing Council decided that the euro area NCBs would pay their additional capital contributions of €3,489,575,000 in three equal annual instalments.<sup>15</sup> 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. The remaining two instalments

shall be paid at the end of 2011 and 2012 respectively.

In addition, the Governing Council decided to reduce the percentage of the subscribed capital, which the non-euro area NCBs are required to pay as a contribution to the operational costs of the ECB, from 7.00% to 3.75%.<sup>16</sup> Consequently, on 29 December 2010 the non-euro area NCBs paid up an amount of €84,220, which represents the difference between their contribution of 3.75% on the increased capital and the amount paid up before the capital increase.

There was no change in the ECB's capital key as a result of the capital increase.

The combined effect of the above decisions was an increase in the paid-up capital of the ECB amounting to €1,163,275,887, as shown in the table below:<sup>17</sup>

- 14 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.
- 15 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.
- 16 Decision ECB/2010/28 of 13 December 2010 on the paying-up of the European Central Bank's capital by the non-euro area national central banks, OJ L 11, 15.1.2011, p. 56.
- 17 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 2009 %	Subscribed capital since 29 December 2010 €	Paid-up capital since 29 December 2010 €	Subscribed capital on 31 December 2009 €	Paid-up capital on 31 December 2009 €
Nationale Bank van België/ Banque Nationale de Belgique	2.4256	261,010,385	180,157,051	139,730,385	139,730,385
Deutsche Bundesbank	18.9373	2,037,777,027	1,406,533,694	1,090,912,027	1,090,912,027
Central Bank of Ireland	1.1107	119,518,566	82,495,233	63,983,566	63,983,566
Bank of Greece	1.9649	211,436,059	145,939,392	113,191,059	113,191,059
Banco de España	8.3040	893,564,576	616,764,576	478,364,576	478,364,576
Banque de France	14.2212	1,530,293,899	1,056,253,899	819,233,899	819,233,899
Banca d'Italia	12.4966	1,344,715,688	928,162,355	719,885,688	719,885,688
Central Bank of Cyprus	0.1369	14,731,333	10,168,000	7,886,333	7,886,333
Banque centrale du Luxembourg	0.1747	18,798,860	12,975,526	10,063,860	10,063,860
Central Bank of Malta	0.0632	6,800,732	4,694,066	3,640,732	3,640,732
De Nederlandsche Bank	3.9882	429,156,339	296,216,339	229,746,339	229,746,339
Oesterreichische Nationalbank	1.9417	208,939,588	144,216,254	111,854,588	111,854,588
Banco de Portugal	1.7504	188,354,460	130,007,793	100,834,460	100,834,460

	Capital key since 1 January 2009 %	Subscribed capital since 29 December 2010 €	Paid-up capital since 29 December 2010 €	Subscribed capital on 31 December 2009 €	Paid-up capital on 31 December 2009 €
Banka Slovenije	0.3288	35,381,025	24,421,025	18,941,025	18,941,025
Národná banka Slovenska	0.6934	74,614,364	51,501,030	39,944,364	39,944,364
Suomen Pankki - Finlands Bank	1.2539	134,927,820	93,131,154	72,232,820	72,232,820
<b>Subtotal for euro area NCBs</b>	<b>69.7915</b>	<b>7,510,020,722</b>	<b>5,183,637,388</b>	<b>4,020,445,722</b>	<b>4,020,445,722</b>
Българска народна банка (Bulgarian National Bank)	0.8686	93,467,027	3,505,014	50,037,027	3,502,592
Česká národní banka	1.4472	155,728,162	5,839,806	83,368,162	5,835,771
Danmarks Nationalbank	1.4835	159,634,278	5,986,285	85,459,278	5,982,149
Eesti Pank	0.1790	19,261,568	722,309	10,311,568	721,810
Latvijas Banka	0.2837	30,527,971	1,144,799	16,342,971	1,144,008
Lietuvos bankas	0.4256	45,797,337	1,717,400	24,517,337	1,716,214
Magyar Nemzeti Bank	1.3856	149,099,600	5,591,235	79,819,600	5,587,372
Narodowy Bank Polski	4.8954	526,776,978	19,754,137	282,006,978	19,740,488
Banca Națională a României	2.4645	265,196,278	9,944,860	141,971,278	9,937,989
Sveriges Riksbank	2.2582	242,997,053	9,112,389	130,087,053	9,106,094
Bank of England	14.5172	1,562,145,431	58,580,454	836,285,431	58,539,980
<b>Subtotal for non-euro area NCBs</b>	<b>30.2085</b>	<b>3,250,631,681</b>	<b>121,898,688</b>	<b>1,740,206,681</b>	<b>121,814,468</b>
<b>Total</b>	<b>100.0000</b>	<b>10,760,652,403</b>	<b>5,305,536,076</b>	<b>5,760,652,403</b>	<b>4,142,260,189</b>

The non-euro area NCBs are not entitled to receive any share of the distributable profits of the ECB, including income arising from the allocation of euro banknotes within the Eurosystem, nor are they liable to fund any loss of the ECB.

## 18 POST-BALANCE-SHEET EVENTS

### 18.1 ENTRY OF ESTONIA INTO THE EURO AREA

Pursuant to Council Decision 2010/416/EU of 13 July 2010, taken in accordance with Article 140(2) of the Treaty on the Functioning of the European Union, Estonia adopted the single currency on 1 January 2011. In accordance with Article 48.1 of the Statute of the ESCB and the legal acts adopted by the Governing Council on 13 and 31 December 2010,<sup>18</sup> Eesti Pank paid up an amount of €12,572,592 as at 1 January 2011 in respect of its capital subscription to the ECB. This amount takes account of the increase in the ECB's capital with effect from 29 December 2010, with due consideration of the extent to which the additional capital is paid-up (see note 17, "Capital and reserves").

In accordance with Article 48.1, in conjunction with Article 30.1, of the Statute of the ESCB, Eesti Pank transferred foreign reserve assets with a total value equivalent to €145,853,597 to the ECB with effect from 1 January 2011. These foreign reserve assets comprised amounts of Japanese yen in the form of cash, and gold, in proportions of 85 to 15 respectively.

Eesti Pank was credited with claims in respect of the paid-up capital and foreign reserve assets equivalent to the amounts transferred. The latter is to be treated in an identical manner to the existing claims of the other euro area NCBs (see note 13.1, "Liabilities equivalent to the transfer of foreign reserves").

<sup>18</sup> 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; 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; Agreement of 31 December 2010 between Eesti Pank and the European Central Bank regarding the claim credited to Eesti Pank by the European Central Bank under Article 30.3 of the Statute of the European System of Central Banks and of the European Central Bank, OJ C 12, 15.1.2011, p. 6.

## 18.2 ADMINISTRATION OF THE EUROPEAN FINANCIAL STABILISATION MECHANISM AND THE EUROPEAN FINANCIAL STABILITY FACILITY

The ECB has an operational role in the administration of two European financial stability-related funding schemes established in 2010 by the EU Council and the EU Member States.

In accordance with Articles 122(2) and 132(1) of the Treaty on the Functioning of the European Union and Articles 17 and 21 of the Statute of the ESCB, as well as Article 8 of Council Regulation (EU) No 407/2010, the ECB is responsible for the administration of the borrowing and lending operations of the EU under the European Financial Stabilisation Mechanism. Under this scheme, loans to Ireland for a total amount of €5 billion were outstanding as at 22 February 2011.

In accordance with Articles 17 and 21 of the Statute of the ESCB (in conjunction with Article 3(5) of the Framework Agreement between the European Financial Stability Facility (EFSF) and the Member States whose currency is the euro), the ECB is responsible for the administration of EFSF loans to Member States whose currency is the euro. Under this scheme, loans to Ireland for a total amount of €4.2 billion were outstanding as at 22 February 2011.

### OFF-BALANCE-SHEET INSTRUMENTS

#### 19 AUTOMATED SECURITY LENDING PROGRAMMES

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 €1.5 billion

(2009: €2.1 billion) were outstanding as at 31 December 2010.

In 2010, as part of the management of the ECB's foreign reserves, an appointed agent entered into US dollar-denominated security lending transactions with eligible counterparties on behalf of the ECB. No transactions remained outstanding as at 31 December 2010.

#### 20 INTEREST RATE FUTURES

Interest rate futures are used as part of the management of the ECB's foreign reserves and own funds. As at 31 December 2010 the following transactions were outstanding:

Foreign currency interest rate futures	2010 Contract value €	2009 Contract value €	Change €
Purchases	458,539,141	541,523,368	(82,984,227)
Sales	1,251,682,536	2,706,847,703	(1,455,165,167)

Euro interest rate futures	2010 Contract value €	2009 Contract value €	Change €
Purchases	0	25,000,000	(25,000,000)
Sales	0	379,000,000	(379,000,000)

#### 21 INTEREST RATE SWAPS

Interest rate swap transactions with a contract value of €742.4 million (2009: €724.4 million) were outstanding as at 31 December 2010. These transactions were conducted in the context of the management of the ECB's foreign reserves.

#### 22 FORWARD TRANSACTIONS IN SECURITIES

A forward purchase of a security in the amount of €92 million remained outstanding as at 31 December 2010. This transaction was conducted in the context of the management of the ECB's foreign reserves.

## 23 FOREIGN EXCHANGE SWAP AND FORWARD TRANSACTIONS

### MANAGEMENT OF THE FOREIGN RESERVES

The following foreign exchange swap and forward transactions remained outstanding, in the context of the management of the ECB's foreign reserves, as at 31 December 2010:

Foreign exchange swap and forward transactions	2010 €	2009 €	Change €
Claims	1,697,483,530	1,017,926,290	679,557,240
Liabilities	1,740,464,038	1,008,562,032	731,902,006

### 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 2010.

## 24 ADMINISTRATION OF BORROWING AND LENDING OPERATIONS

In accordance with Article 141(2) of the Treaty on the Functioning of the European Union and Articles 17, 21.2, 43.1 and 46.1 of the Statute of the ESCB, together with Article 9 of Council Regulation (EC) No 332/2002 of 18 February 2002, as last amended by Council Regulation (EC) No 431/2009 of 18 May 2009, 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 €12.1 billion were outstanding as at 31 December 2010.

In the context of the loan facility agreement between the Member States whose currency is

the euro<sup>19</sup> and Kreditanstalt für Wiederaufbau,<sup>20</sup> as lenders, the Hellenic Republic, as the borrower, and the Bank of Greece, as the agent of the borrower, and pursuant to Articles 17 and 21.2 of the Statute of the ESCB, as well as Article 2 of Decision ECB/2010/4,<sup>21</sup> 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 €21 billion were outstanding as at 31 December 2010.

## 25 PENDING LAWSUITS

An action for damages was brought against the ECB before the Court of First Instance of the European Communities (CFI)<sup>22</sup> by Document Security Systems Inc. (DSSI), alleging that the ECB had infringed a DSSI patent<sup>23</sup> in the production of euro banknotes. The CFI dismissed DSSI's action for damages against the ECB.<sup>24</sup> 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.

19 Other than the Hellenic Republic and the Federal Republic of Germany.

20 Acting in the public interest, subject to the instructions of and with the benefit of the guarantee of the Federal Republic of Germany.

21 Decision ECB/2010/4 of 10 May 2010 concerning the management of pooled bilateral loans for the benefit of the Hellenic Republic and amending Decision ECB/2007/7, OJ L 119, 13.5.2010, p. 24.

22 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.

23 DSSI's European Patent No 0455 750 B1.

24 Order of the Court of First Instance of 5 September 2007, Case T-295/05. Available at [www.curia.europa.eu](http://www.curia.europa.eu).

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.

## NOTES ON THE PROFIT AND LOSS ACCOUNT

### 26 NET INTEREST INCOME

#### 26.1 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:

	2010 €	2009 €	Change €
Interest income on current accounts	1,328,753	1,333,874	(5,121)
Interest income on money market deposits	15,865,666	17,682,787	(1,817,121)
Interest income on reverse repurchase agreements	2,712,798	1,524,055	1,188,743
Interest income on securities	335,790,909	663,881,906	(328,090,997)
Net interest income on interest rate swaps	4,611,662	7,374,057	(2,762,395)
Net interest income on swap and forward transactions in foreign currency	6,523,343	9,519,685	(2,996,342)
<b>Total interest income on foreign reserve assets</b>	<b>366,833,131</b>	<b>701,316,364</b>	<b>(334,483,233)</b>
Interest expense on current accounts	(8,795)	(219,800)	211,005
Net interest expense on repurchase agreements	(644,858)	(880,287)	235,429
<b>Interest income on foreign reserve assets (net)</b>	<b>366,179,478</b>	<b>700,216,277</b>	<b>(334,036,799)</b>

The overall decrease in net interest income in 2010 was due mainly to lower net interest income generated on the US dollar portfolio.

#### 26.2 INTEREST INCOME ARISING FROM THE ALLOCATION OF EURO BANKNOTES WITHIN THE EUROSISTEM

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). Interest on the claims of the ECB in respect of its share of banknotes is earned at the latest available marginal rate for the Eurosystem's main refinancing operations. The decrease in income in 2010 mainly reflected the fact that the average main refinancing rate was lower than in 2009.

#### 26.3 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 is disclosed under this heading.

#### 26.4 OTHER INTEREST INCOME; AND OTHER INTEREST EXPENSE

These items include interest income of €3.8 billion (2009: €4.0 billion) and expenses of €3.9 billion (2009: €3.7 billion) on balances arising from TARGET2 (see note 13.2 "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 €140.4 million and €438.0 million on the securities purchased by the ECB under the covered bond purchase programme and the Securities Markets Programme respectively. Interest income and expenses in respect of other assets and liabilities denominated in euro, as well as interest income and interest expense arising from the US dollar and Swiss franc liquidity-providing operations, are also shown under these headings.

### 27 REALISED GAINS/LOSSES ARISING FROM FINANCIAL OPERATIONS

Net realised gains arising from financial operations in 2010 were as follows:

	2010 €	2009 €	Change €
Net realised price gains on securities, interest rate futures and interest rate swaps	460,588,711	563,594,643	(103,005,932)
Net realised exchange rate and gold price gains	13,724,616	539,002,475	(525,277,859)
Net realised gains arising from financial operations	474,313,327	1,102,597,118	(628,283,791)

In 2010 this item included net realised price gains on sales of securities and net exchange rate gains on foreign currency outflows.

In 2009 net realised exchange rate and gold price gains arose, mainly owing to the sale of 1,141,248 ounces of fine gold in accordance with the Central Bank Gold Agreement. In 2010 no such sales took place.

## 28 WRITE-DOWNS ON FINANCIAL ASSETS AND POSITIONS

	2010 €	2009 €	Change €
Unrealised price losses on securities	(184,247,603)	(34,163,743)	(150,083,860)
Unrealised price losses on interest rate swaps	(10,963,861)	(3,774,314)	(7,189,547)
Unrealised exchange rate losses	(1,973)	(1,592)	(381)
Total write-downs	(195,213,437)	(37,939,649)	(157,273,788)

In 2010 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 2010.

## 29 NET EXPENSE FROM FEES AND COMMISSIONS

	2010 €	2009 €	Change €
Income from fees and commissions	110,661	679,416	(568,755)
Expenses relating to fees and commissions	(1,519,678)	(695,426)	(824,252)
Net expense from fees and commissions	(1,409,017)	(16,010)	(1,393,007)

In 2010 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 20, "Interest rate futures").

## 30 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.

## 31 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.

## 32 STAFF COSTS

Salaries, allowances, staff insurance and other miscellaneous costs of €167.7 million (2009: €158.6 million) are included under this heading. Also included in this item is an amount of €28.8 million (2009: €28.7 million) recognised in connection with the ECB's retirement plan and other post-employment benefits (see note 14.3, "Sundry"). Staff costs of €1.3 million (2009: €1.2 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 2010 were as follows:

	2010 €	2009 €
Jean-Claude Trichet (President)	367,863	360,612
Lucas D. Papademos (Vice-President until May 2010)	131,370	309,096
Vitor Constâncio (Vice-President since June 2010)	183,918	-
Gertrude Tumpel-Gugerell (Board Member)	262,728	257,568
José Manuel González-Páramo (Board Member)	262,728	257,568
Lorenzo Bini Smaghi (Board Member)	262,728	257,568
Jürgen Stark (Board Member)	262,728	257,568
Total	1,734,063	1,699,980

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 €660,731 (2009: €614,879), resulting in total emoluments of €2,394,794 (2009: €2,314,859).

Transitional payments are made to former members of the Executive Board for a limited period after the end of their terms of office. In 2010 these payments and the ECB's contributions to the medical and accident insurance schemes of former members amounted to €34,868, while no such payments or contributions were made in 2009. 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 €354,349 (2009: €348,410).

At the end of 2010 the actual full-time equivalent number of staff holding contracts with the ECB was 1,607,<sup>25</sup> including 156 with managerial positions. The change in the number of staff during 2010 was as follows:

	2010	2009
Total staff as at 1 January	1,563	1,536
Newcomers/change of contractual status	328	320
Resignations/end of contract	(302)	(283)
Net increase/(decrease) due to changes in part-time working patterns	18	(10)
Total staff as at 31 December	1,607	1,563
Average number of staff employed	1,565	1,530

### 33 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.

### 34 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.

<sup>25</sup> 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.



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23 February 2011

## 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 2010, 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 2010, 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, 23 February 2011

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## NOTE ON PROFIT DISTRIBUTION/ ALLOCATION OF LOSSES

*This note is not part of the financial statements of the ECB for the year 2010.*

### INCOME RELATED TO THE ECB'S SHARE OF TOTAL BANKNOTES IN CIRCULATION AND ITS HOLDINGS OF SECURITIES PURCHASED UNDER THE EUROSISTEM'S SECURITIES MARKETS PROGRAMME

In respect of 2009 the full income earned on the ECB's share of total euro banknotes in circulation, amounting to €787 million, was distributed to the euro area NCBs on 5 January 2010, in proportion to their paid-up shares in the subscribed capital of the ECB. In respect of 2010, following a decision by the Governing Council, the full income earned on the ECB's share of 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.

### 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.<sup>1</sup>

The Governing Council decided on 3 March 2011 to make no transfer to the general reserve fund and to distribute the profit for 2010, amounting to €171 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.

	2010 €	2009 €
Profit for the year	170,831,395	2,253,186,104
Interim distribution of income on the ECB's share of the euro banknotes in circulation and on securities purchased under the Securities Markets Programme <sup>1)</sup>	(0)	(787,157,441)
Profit for the year after distribution of income on the ECB's share of the euro banknotes in circulation and on securities purchased under the Securities Markets Programme	170,831,395	1,466,028,663
Distribution of profit to NCBs	(170,831,395)	(1,466,028,663)
Total	0	0

1) The Securities Markets Programme was established in May 2010.

<sup>1</sup> 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.

## 6 CONSOLIDATED BALANCE SHEET OF THE EUROSYSTEM AS AT 31 DECEMBER 2010

(EUR MILLIONS)

ASSETS	31 DECEMBER 2010	31 DECEMBER 2009
<b>1 Gold and gold receivables</b>	<b>367,402</b>	<b>266,919</b>
<b>2 Claims on non-euro area residents denominated in foreign currency</b>	<b>224,001</b>	<b>195,479</b>
2.1 Receivables from the IMF	71,319	62,799
2.2 Balances with banks and security investments, external loans and other external assets	152,681	132,680
<b>3 Claims on euro area residents denominated in foreign currency</b>	<b>26,940</b>	<b>32,151</b>
<b>4 Claims on non-euro area residents denominated in euro</b>	<b>22,603</b>	<b>15,193</b>
4.1 Balances with banks, security investments and loans	22,603	15,193
4.2 Claims arising from the credit facility under ERM II	0	0
<b>5 Lending to euro area credit institutions related to monetary policy operations denominated in euro</b>	<b>546,747</b>	<b>749,890</b>
5.1 Main refinancing operations	227,865	79,277
5.2 Longer-term refinancing operations	298,217	669,297
5.3 Fine-tuning reverse operations	20,623	0
5.4 Structural reverse operations	0	0
5.5 Marginal lending facility	25	1,289
5.6 Credits related to margin calls	17	27
<b>6 Other claims on euro area credit institutions denominated in euro</b>	<b>45,655</b>	<b>26,282</b>
<b>7 Securities of euro area residents denominated in euro</b>	<b>457,415</b>	<b>328,652</b>
7.1 Securities held for monetary policy purposes	134,829	28,782
7.2 Other securities	322,586	299,870
<b>8 General government debt denominated in euro</b>	<b>34,954</b>	<b>36,171</b>
<b>9 Other assets</b>	<b>276,493</b>	<b>252,288</b>
<b>Total assets</b>	<b>2,002,210</b>	<b>1,903,024</b>

Totals/subtotals may not add up due to rounding.

LIABILITIES	31 DECEMBER 2010	31 DECEMBER 2009
<b>1 Banknotes in circulation</b>	<b>839,702</b>	<b>806,522</b>
<b>2 Liabilities to euro area credit institutions related to monetary policy operations denominated in euro</b>	<b>378,008</b>	<b>395,614</b>
2.1 Current accounts (covering the minimum reserve system)	212,739	233,490
2.2 Deposit facility	104,458	162,117
2.3 Fixed-term deposits	60,784	0
2.4 Fine-tuning reverse operations	0	0
2.5 Deposits related to margin calls	27	6
<b>3 Other liabilities to euro area credit institutions denominated in euro</b>	<b>2,808</b>	<b>340</b>
<b>4 Debt certificates issued</b>	<b>0</b>	<b>0</b>
<b>5 Liabilities to other euro area residents denominated in euro</b>	<b>79,792</b>	<b>129,730</b>
5.1 General government	71,685	120,495
5.2 Other liabilities	8,107	9,235
<b>6 Liabilities to non-euro area residents denominated in euro</b>	<b>47,703</b>	<b>46,769</b>
<b>7 Liabilities to euro area residents denominated in foreign currency</b>	<b>1,995</b>	<b>4,032</b>
<b>8 Liabilities to non-euro area residents denominated in foreign currency</b>	<b>14,346</b>	<b>9,616</b>
8.1 Deposits, balances and other liabilities	14,346	9,616
8.2 Liabilities arising from the credit facility under ERM II	0	0
<b>9 Counterpart of special drawing rights allocated by the IMF</b>	<b>54,480</b>	<b>51,249</b>
<b>10 Other liabilities</b>	<b>172,388</b>	<b>164,082</b>
<b>11 Revaluation accounts</b>	<b>331,510</b>	<b>220,101</b>
<b>12 Capital and reserves</b>	<b>79,479</b>	<b>74,969</b>
<b>Total liabilities</b>	<b>2,002,210</b>	<b>1,903,024</b>



# ANNEXES

## LEGAL INSTRUMENTS ADOPTED BY THE ECB

The following table lists the legal instruments that were adopted by the ECB in 2010 and published in the Official Journal of the European Union. Copies of the Official Journal can be obtained from the Publications Office of the European Union. 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/2010/1	Guideline of the European Central Bank of 4 March 2010 amending Guideline ECB/2000/7 on monetary policy instruments and procedures of the Eurosystem	OJ L 63, 12.3.2010, p. 22
ECB/2010/2	Guideline of the European Central Bank of 21 April 2010 on TARGET2-Securities	OJ L 118, 12.5.2010, p. 65
ECB/2010/3	Decision of the European Central Bank of 6 May 2010 on temporary measures relating to the eligibility of marketable debt instruments issued or guaranteed by the Greek Government	OJ L 117, 11.5.2010, p. 102
ECB/2010/4	Decision of the European Central Bank of 10 May 2010 concerning the management of pooled bilateral loans for the benefit of the Hellenic Republic and amending Decision ECB/2007/7	OJ L 119, 13.5.2010, p. 24
ECB/2010/5	Decision of the European Central Bank of 14 May 2010 establishing a securities markets programme	OJ L 124, 20.5.2010, p. 8
ECB/2010/6	Recommendation of the European Central Bank of 1 July 2010 to the Council of the European Union on the external auditors of Národná banka Slovenska	OJ C 184, 8.7.2010, p. 1
ECB/2010/7	Regulation of the European Central Bank of 23 July 2010 amending Regulation ECB/2001/18 concerning statistics on interest rates applied by monetary financial institutions to deposits and loans vis-à-vis households and non-financial corporations	OJ L 196, 28.7.2010, p. 23
ECB/2010/8	Decision of the European Central Bank of 27 July 2010 amending Decision ECB/2007/5 laying down the Rules on Procurement	OJ L 238, 9.9.2010, p. 14
ECB/2010/9	Decision of the European Central Bank of 29 July 2010 on access to and use of certain TARGET2 data	OJ L 211, 12.8.2010, p. 45
ECB/2010/10	Decision of the European Central Bank of 19 August 2010 on non-compliance with statistical reporting requirements	OJ L 226, 28.8.2010, p. 48
ECB/2010/11	Recommendation of the European Central Bank of 23 August 2010 to the Council of the European Union on the external auditors of the Banca d’Italia	OJ C 233, 28.8.2010, p. 1

Number	Title	OJ reference
ECB/2010/12	Guideline of the European Central Bank of 15 September 2010 amending Guideline ECB/2007/2 on a Trans-European Automated Real-time Gross settlement Express Transfer system (TARGET2)	OJ L 261, 5.10.2010, p. 6
ECB/2010/13	Guideline of the European Central Bank of 16 September 2010 amending Guideline ECB/2000/7 on Monetary Policy Instruments and Procedures of the Eurosystem	OJ L 267, 9.10.2010, p. 21
ECB/2010/14	Decision 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
ECB/2010/15	Decision of the European Central Bank of 21 September 2010 concerning the administration of EFSF loans to Member States whose currency is the euro	OJ L 253, 28.9.2010, p. 58
ECB/2010/16	Recommendation of the European Central Bank of 8 October 2010 to the Council of the European Union on the external auditors of Eesti Pank	OJ C 282, 19.10.2010, p. 1
ECB/2010/17	Decision of the European Central Bank of 14 October 2010 concerning the administration of the borrowing and lending operations concluded by the Union under the European financial stabilisation mechanism	OJ L 275, 20.10.2010, p. 10
ECB/2010/18	Decision of the European Central Bank of 26 October 2010 on transitional provisions for the application of minimum reserves by the European Central Bank following the introduction of the euro in Estonia	OJ L 285, 30.10.2010, p. 37
ECB/2010/19	Decision of the European Central Bank of 2 November 2010 amending Decision ECB/2007/7 concerning the terms and conditions of TARGET2-ECB	OJ L 290, 6.11.2010, p. 53
ECB/2010/20	Guideline of the European Central Bank of 11 November 2010 on the legal framework for accounting and financial reporting in the European System of Central Banks (recast)	OJ L 35, 9.2.2011, p. 31
ECB/2010/21	Decision of the European Central Bank of 11 November 2010 on the annual accounts of the European Central Bank (recast)	OJ L 35, 9.2.2011, p. 1
ECB/2010/22	Decision of the European Central Bank of 25 November 2010 on the quality accreditation procedure for manufacturers of euro banknotes	OJ L 330, 15.12.2010, p. 14
ECB/2010/23	Decision of the European Central Bank 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

Number	Title	OJ reference
ECB/2010/24	Decision of the European Central Bank 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
ECB/2010/25	Decision of the European Central Bank of 29 November 2010 on the approval of the volume of coin issuance in 2011	OJ L 318, 4.12.2010, p. 52
ECB/2010/26	Decision of the European Central Bank of 13 December 2010 on the increase of the European Central Bank's capital	OJ L 11, 15.1.2011, p. 53
ECB/2010/27	Decision of the European Central Bank 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
ECB/2010/28	Decision of the European Central Bank of 13 December 2010 on the paying-up of the European Central Bank's capital by the non-euro area national central banks	OJ L 11, 15.1.2011, p. 56
ECB/2010/29	Decision of the European Central Bank of 13 December 2010 on the issue of euro banknotes (recast)	OJ L 35, 9.2.2011, p. 26
ECB/2010/30	Guideline of the European Central Bank of 13 December 2010 amending Guideline ECB/2000/7 on monetary policy instruments and procedures of the Eurosystem	OJ L 336, 21.12.2010, p. 63
ECB/2010/31	Decision of the European Central Bank of 20 December 2010 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 10, 14.1.2011, p. 7
ECB/2010/32	Decision of the European Central Bank of 22 December 2010 amending Decision ECB/2009/25 on the approval of the volume of coin issuance in 2010	OJ L 343, 29.12.2010, p. 78
ECB/2010/33	Decision of the European Central Bank of 27 December 2010 on the transmission of confidential data under the common framework for business registers for statistical purposes	OJ L 6, 11.1.2011, p. 37
ECB/2010/34	Decision of the European Central Bank 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

## OPINIONS ADOPTED BY THE ECB

The following table lists the opinions adopted by the ECB in 2010 and early 2011 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.

<b>(a) ECB opinions following a consultation by a European institution</b>			
<b>Number<sup>1</sup></b>	<b>Originator</b>	<b>Subject</b>	<b>OJ reference</b>
CON/2010/5	Council	Three proposals for regulations of the European Parliament and of the Council establishing a European Banking Authority, a European Insurance and Occupational Pensions Authority and a European Securities and Markets Authority	OJ C 13, 20.1.2010, p. 1
CON/2010/6	Council	A proposal for a directive of the European Parliament and of the Council amending Directives 2003/71/EC and 2004/109/EC	OJ C 19, 26.1.2010, p. 1
CON/2010/19	European Council	A Council recommendation on the appointment of the Vice-President of the European Central Bank	OJ C 58, 10.3.2010, p. 3
CON/2010/23	Council	A proposal for a directive of the European Parliament and of the Council amending Directives 1998/26/EC, 2002/87/EC, 2003/6/EC, 2003/41/EC, 2003/71/EC, 2004/39/EC, 2004/109/EC, 2005/60/EC, 2006/48/EC, 2006/49/EC, and 2009/65/EC in respect of the powers of the European Banking Authority, the European Insurance and Occupational Pensions Authority and the European Securities and Markets Authority	OJ C 87, 1.4.2010, p. 1
CON/2010/28	Council	A proposal for a Council regulation amending Regulation (EC) No 479/2009 as regards the quality of statistical data in the context of the excessive deficit procedure	OJ C 103, 22.4.2010, p. 1
CON/2010/52	Council	A proposal for a Council regulation amending Regulation (EC) No 974/98 as regards the introduction of the euro in Estonia and a proposal for a Council regulation amending Regulation (EC) No 2866/98 as regards the conversion rate to the euro for Estonia	OJ C 190, 14.7.2010, p. 1

<sup>1</sup> Consultations are numbered in the order in which the Governing Council adopted them.

Number <sup>1</sup>	Originator	Subject	OJ reference
CON/2010/65	Own-initiative	A proposal for a directive of the European Parliament and of the Council amending Directives 2006/48/EC and 2006/49/EC as regards capital requirements for the trading book and for re-securitisations, and the supervisory review of remuneration policies	OJ C 223, 18.8.2010, p. 1
CON/2010/67	European Commission	A proposal for a Commission regulation laying down detailed rules for the implementation of Council Regulation (EC) No 2494/95 as regards minimum standards for the quality of HICP weightings and repealing Commission Regulation (EC) No 2454/97	OJ C 252, 18.9.2010, p. 1
CON/2010/72	European Parliament and the Council	Two proposals for regulations on the professional cross-border transportation of euro cash by road between euro-area Member States	OJ C 278, 15.10.2010, p. 1
CON/2010/82	Council	A proposal for a regulation of the European Parliament and of the Council amending Regulation (EC) No 1060/2009 on credit rating agencies	OJ C 337, 14.12.2010, p. 1
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	Not yet published in the <i>Official Journal of the European Union</i>
CON/2011/13	Council	Economic governance reform in the European Union	Not yet published in the <i>Official Journal of the European Union</i>

**(b) ECB opinions following a consultation by a Member State<sup>2</sup>**

<b>Number<sup>3</sup></b>	<b>Originator</b>	<b>Subject</b>
CON/2010/1	Hungary	The reproduction of forint and euro banknotes and of forint and euro coins in Hungary
CON/2010/2	Estonia	A new legal framework for the production of national statistics
CON/2010/3	France	Certain measures concerning banking and financial regulation
CON/2010/4	France	The merger of the banking and insurance licensing and supervisory authorities
CON/2010/7	Belgium	Recovery measures that apply to undertakings in the banking and financial sector; the supervision of the financial sector and financial services; and the statutes of the Nationale Bank van België/Banque Nationale de Belgique
CON/2010/8	Greece	Restructuring of business and professional debts owed to credit institutions, and credit bureau data processing
CON/2010/9	Finland	The consolidation of deposit banks
CON/2010/10	Hungary	The Magyar Nemzeti Bank's tasks, the structure and legal status of the Hungarian Financial Supervisory Authority and the establishment of the Financial Stability Council
CON/2010/11	Sweden	The second prolongation of the State recapitalisation scheme
CON/2010/12	Romania	The special administration procedure initiated by Banca Națională a României for credit institutions in distress
CON/2010/13	Hungary	The tasks of the Magyar Nemzeti Bank relating to Hungary's membership of the International Monetary Fund
CON/2010/14	Poland	Measures to support bank lending to businesses
CON/2010/15	Ireland	Ireland's bilateral borrowing agreement with the International Monetary Fund

<sup>2</sup> 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.

<sup>3</sup> Consultations are numbered in the order in which the Governing Council adopted them.

Number <sup>3</sup>	Originator	Subject
CON/2010/16	Estonia	Preparations for the introduction of the euro
CON/2010/17	Greece	The establishment of the Hellenic Statistical System and an independent statistical authority
CON/2010/18	Latvia	The introduction of a seven-day deposit facility
CON/2010/20	Estonia	Amendments to the Law on and Statute of Eesti Pank
CON/2010/21	Greece	Amendments to the legal framework on the enhancement of liquidity of the economy in response to the impact of the international financial crisis
CON/2010/22	Austria	Austria's contribution to the Poverty Reduction and Growth Trust of the IMF
CON/2010/24	Denmark	An amendment to the Law on Danmarks Nationalbank regarding authority to collect information for the compilation of statistics
CON/2010/25	Bulgaria	Independence, confidentiality and the prohibition of monetary financing
CON/2010/26	Finland	State capital investment in deposit banks
CON/2010/27	Slovenia	A new legal framework concerning integrity and prevention of corruption as regards its application to Banka Slovenije and its decision-making bodies
CON/2010/29	Sweden	Extending government guarantees to banks and other institutions
CON/2010/30	Ireland	The restructuring of the Central Bank and Financial Services Authority of Ireland
CON/2010/31	Hungary	The amendment to the Law on credit institutions and financial undertakings introducing further financial market stabilisation measures
CON/2010/32	Poland	An amendment to the rules governing Narodowy Bank Polski's provision against foreign exchange rate risk
CON/2010/33	Greece	Private insurance supervision, the establishment of a private life insurance guarantee fund and other provisions
CON/2010/34	Greece	Debt arrangements for over-indebted individuals
CON/2010/35	Estonia	Additional financial stability measures in Estonia
CON/2010/36	Greece	Restoring fairness in taxation and addressing tax evasion

Number <sup>3</sup>	Originator	Subject
CON/2010/37	Poland	An amendment to the rules securing the continuation of office of the President of Narodowy Bank Polski
CON/2010/38	Sweden	New coin and banknote denominations
CON/2010/39	Cyprus	The transfer of rights and obligations in relation to the issuance, distribution and redemption of public debt
CON/2010/40	Austria	A bilateral loan between the International Monetary Fund and the Oesterreichische Nationalbank
CON/2010/41	Germany	Compensation systems at institutions and insurance companies
CON/2010/42	Lithuania	The legal status of Lietuvos bankas's assets, terms of office and remuneration of Board members, immunity of foreign reserves of foreign central banks and annual financial statements of Lietuvos bankas
CON/2010/43	Bulgaria	Statistics, cross-border cash movements and Българска народна банка (Bulgarian National Bank) competences
CON/2010/44	France	Certain provisions relating to the Banque de France
CON/2010/45	Denmark	Amendments to the financial stability regime
CON/2010/46	Slovenia	Amendments to several provisions of the Law on banking
CON/2010/47	Germany	Amendments to the Law on covered bonds ( <i>Pfandbriefe</i> )
CON/2010/48	Ireland	The restructuring of the Central Bank and Financial Services Authority of Ireland
CON/2010/49	Sweden	Sveriges Riksbank's right to collect information from Swedish issuers of securities
CON/2010/50	Sweden	Extending government guarantees to banks and other institutions and the prolongation of the State recapitalisation scheme
CON/2010/51	Romania	The remuneration of the staff of Banca Națională a României
CON/2010/53	Germany	Restrictions on short selling
CON/2010/54	Greece	The establishment of the Financial Stability Fund
CON/2010/55	Slovenia	The provision of information and other obligations of Banka Slovenije as payment service provider for budget users

Number <sup>3</sup>	Originator	Subject
CON/2010/56	Hungary	Amendments to the Law on the Magyar Nemzeti Bank introducing salary reductions
CON/2010/57	Austria	The transfer of prudential supervision tasks to the Austrian Financial Market Authority
CON/2010/58	Italy	The containment of public expenditure, as regards the Banca d'Italia
CON/2010/59	Germany	The careers of Deutsche Bundesbank civil servants
CON/2010/60	Estonia	The minimum reserves framework
CON/2010/61	Bulgaria	Certain competences of the Governing Council of Българска народна банка (Bulgarian National Bank)
CON/2010/62	Hungary	Opinion on amendments to various laws regarding the reduction of financial imbalances
CON/2010/63	Germany	Implementing rules regarding compensation systems at institutions and insurance companies
CON/2010/64	Poland	Amendments to the legal framework for the deposit-guarantee scheme
CON/2010/66	Romania	Amendments to the legislation on official statistics
CON/2010/68	Hungary	Reserve requirements for credit institutions
CON/2010/69	Romania	Further measures for the restoration of budgetary balance
CON/2010/70	Poland	Amendments to the legal framework for the operation of Bank Gospodarstwa Krajowego
CON/2010/71	Ireland	The extension of the Irish State guarantee of certain liabilities of credit institutions
CON/2010/73	Cyprus	A legislative framework enabling credit institutions to issue covered bonds
CON/2010/74	Austria	An increase of the New Arrangements to Borrow with the International Monetary Fund
CON/2010/75	Ireland	The extension of the Irish State guarantee of certain liabilities of credit institutions
CON/2010/76	Hungary	Amendments to the Constitution, and the Law on legislation, regarding the legislative powers of the Magyar Nemzeti Bank

<b>Number<sup>3</sup></b>	<b>Originator</b>	<b>Subject</b>
CON/2010/77	Latvia	Amendments to the monetary policy operations framework with a view to further harmonising it with the Eurosystem
CON/2010/78	Luxembourg	Amendments to the legislation on financial collateral arrangements as regards credit claims
CON/2010/79	Bulgaria	Restrictions on cash payments
CON/2010/80	Portugal	The Banco de Portugal's staff remuneration and the budget
CON/2010/81	Poland	Building societies
CON/2010/83	Germany	The restructuring of banks
CON/2010/84	Estonia	The minimum reserves framework
CON/2010/85	Own-initiative	The ratification or implementation of a Postal Payment Services Agreement
CON/2010/86	Romania	The temporary holding of shares by credit institutions in the course of financial reconstructions or rescue operations of undertakings
CON/2010/87	Greece	Authenticity, fitness checking and recirculation of euro banknotes, and sanctions for the failure to protect euro banknotes and coins against counterfeiting
CON/2010/88	France	The increase of Banque de France's capital and statutory reserve
CON/2010/89	Slovakia	Certain new provisions on cash currency circulation
CON/2010/90	Malta	Authenticity, fitness checking and recirculation of euro banknotes
CON/2010/91	Hungary	The appointment and dismissal of Monetary Council members and the remuneration of the members of the Magyar Nemzeti Bank's Supervisory Board
CON/2010/92	Ireland	Emergency stabilisation of credit institutions
CON/2010/93	Sweden	Extending government guarantees to banks and other institutions and the prolongation of the State recapitalisation scheme
CON/2010/94	Hungary	The Hungarian Financial Supervisory Authority and its President's legislative powers
CON/2010/95	Poland	The extension of State Treasury support and recapitalisation measures to financial institutions subject to a European Commission decision

<b>Number<sup>3</sup></b>	<b>Originator</b>	<b>Subject</b>
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

# CHRONOLOGY OF MONETARY POLICY MEASURES OF THE EUROSYSTEM<sup>1</sup>

## 15 JANUARY 2009

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

## 5 FEBRUARY 2009

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 2.00%, 3.00% and 1.00% respectively.

## 5 MARCH 2009

The Governing Council of the ECB decides to decrease the interest rate on the main refinancing operations by 50 basis points to 1.50%, starting from the operations to be settled on 11 March 2009. In addition, it decides that the interest rates on the marginal lending and the deposit facility will be 2.50% and 0.50% respectively, with effect from 11 March 2009.

Moreover, the Governing Council decides to continue the fixed rate tender procedure with full allotment for all main refinancing operations, special-term refinancing operations and supplementary and regular longer-term refinancing operations for as long as needed, and in any case beyond the end of 2009. In addition, the Governing Council decides to continue with the current frequency and maturity profile of supplementary longer-term refinancing operations and special-term refinancing operations for as long as needed, and in any case beyond the end of 2009.

## 2 APRIL 2009

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 operations to be settled on 8 April 2009. In addition, it decides that the interest rates on the marginal lending and the deposit facility will be 2.25% and 0.25% respectively, with effect from 8 April 2009.

## 7 MAY 2009

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 13 May 2009. In addition, it decides to decrease the interest rate on the marginal lending facility by 50 basis points to 1.75% with effect from 13 May 2009, and to leave the interest rate on the deposit facility unchanged at 0.25%. In addition, the Governing Council of the ECB decides to proceed with its enhanced credit support approach. In particular, it decides that the Eurosystem will conduct liquidity-providing longer-term refinancing operations with a maturity of one year as fixed rate tender procedures with full allotment. In addition, it decides in principle that the Eurosystem will purchase euro-denominated covered bonds issued in the euro area.

## 4 JUNE 2009

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. In addition, the Governing Council of the ECB decides upon the technical modalities related to the purchase of euro-denominated covered bonds issued in the euro area decided on 7 May 2009.

<sup>1</sup> The chronology of monetary policy measures taken by the Eurosystem between 1999 and 2008 can be found in the ECB's Annual Report for the respective years.

**2 JULY, 6 AUGUST, 3 SEPTEMBER, 8 OCTOBER  
AND 5 NOVEMBER 2009**

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 DECEMBER 2009**

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 13 April 2010.

**14 JANUARY AND 4 FEBRUARY 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.

**4 MARCH 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 October 2010, including a return to variable rate tender procedures in the regular three-month longer-term refinancing operations, starting with the operation to be allotted on 28 April 2010.

**8 APRIL AND 6 MAY 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.

**10 MAY 2010**

The Governing Council of the ECB decides on several measures to address severe tensions in financial markets. In particular, it decides to conduct interventions in the euro area public and private debt securities markets (Securities Markets Programme) and to adopt a fixed rate tender procedure with full allotment in the regular three-month longer-term refinancing operations in May and June 2010.

**10 JUNE 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. In addition, it decides to adopt a fixed rate tender procedure with full allotment in the regular three-month longer-term refinancing operations to be allotted during the third quarter of 2010.

**8 JULY AND 5 AUGUST 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 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 11 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.

# OVERVIEW OF THE ECB'S COMMUNICATION RELATED TO THE PROVISION OF LIQUIDITY<sup>1</sup>

## PROVISION OF LIQUIDITY IN EURO

4 MARCH 2010

### ECB ANNOUNCES DETAILS OF REFINANCING OPERATIONS WITH SETTLEMENT UP TO 12 OCTOBER 2010

In view of economic and financial market developments, the Governing Council of the ECB decided to continue the gradual phasing-out of its non-standard operational measures.

Specifically, the Governing Council decided to continue conducting its main refinancing operations (MROs) as fixed rate tender procedures with full allotment for as long as necessary, and at least until the end of this year's ninth maintenance period on 12 October 2010. This tender procedure will also remain in use for the Eurosystem's special-term refinancing operations with a maturity of one maintenance period, which will continue to be conducted for as long as needed and at least until the ninth maintenance period of 2010. The fixed rate in these special-term refinancing operations will be the same as the rate used in the respective MRO.

The Governing Council also decided to return to variable rate tender procedures in the regular three-month longer-term refinancing operations (LTROs), starting with the operation to be allotted on 28 April 2010. Allotment amounts in these operations will be set with the aim of ensuring smooth conditions in money markets and avoiding any significant spreads between bid rates and the prevailing MRO rate. An indicative allotment amount will be pre-announced for each of the three-month LTROs at the start of the maintenance period in which the operation is to be conducted. The MRO rate will be used as the minimum bid rate in the three-month LTROs. This is a technical and transitional measure to avoid allotment rates below the prevailing MRO rate in the presence of ample liquidity.

In order to smooth out the liquidity effect of the 12-month LTRO maturing on 1 July 2010, the Governing Council decided to carry out an additional six-day fine-tuning operation with announcement, allotment and settlement on

1 July and maturity on 7 July, the latter date coinciding with the settlement day of the next MRO. The fixed rate tender procedure with full allotment will be used also in this operation, the fixed rate being the same as the prevailing MRO rate.

Furthermore, the Governing Council also decided, in line with its decision on the 12-month LTRO of 16 December 2009, to fix the rate in the six-month LTRO to be allotted on 31 March 2010 at the average minimum bid rate of the MROs over the life of this operation.

10 MAY 2010

### ECB ANNOUNCES MEASURES TO ADDRESS SEVERE TENSIONS IN FINANCIAL MARKETS

The Governing Council decided on several measures to address the severe tensions in certain market segments which are hampering the monetary policy transmission mechanism and thereby the effective conduct of monetary policy oriented towards price stability in the medium term. The measures will not affect the stance of monetary policy.

In view of the current exceptional circumstances prevailing in the market, the Governing Council decided:

1. To conduct interventions in the euro area public and private debt securities markets (Securities Markets Programme) to ensure depth and liquidity in those market segments which are dysfunctional. The objective of this programme is to address the malfunctioning of securities markets and restore an appropriate monetary policy transmission mechanism. The scope of the interventions will be determined by the Governing Council. In making this decision, note was taken of the statement

<sup>1</sup> Dates refer to the date of publication of the announcement. For more details on the liquidity-providing operations conducted by the Eurosystem in 2010, see the "Open market operations" section of the ECB's website.

of the euro area governments that they “will take all measures needed to meet fiscal targets this year and the years ahead in line with excessive deficit procedures” and of the precise additional commitments taken by some euro area governments to accelerate fiscal consolidation and ensure the sustainability of their public finances. In order to sterilise the impact of the above interventions, specific operations will be conducted to reabsorb the liquidity injected through the Securities Markets Programme. This will ensure that the monetary policy stance will not be affected.

2. To adopt a fixed rate tender procedure with full allotment in the regular three-month LTROs to be allotted on 26 May and 30 June 2010.
3. To conduct a six-month LTRO with full allotment on 12 May 2010, at a rate which will be fixed at the average minimum bid rate of the MROs over the life of this operation.
4. To reactivate, in coordination with other central banks, the temporary liquidity swap lines with the Federal Reserve, and resume US dollar liquidity-providing operations at terms of seven and 84 days. These operations will take the form of repurchase operations against ECB-eligible collateral and will be carried out as fixed rate tenders with full allotment. The first operation will be carried out on 11 May 2010.

## **10 JUNE 2010**

### **ECB ANNOUNCES DETAILS OF LONGER-TERM REFINANCING OPERATIONS IN THE THIRD QUARTER OF 2010**

The Governing Council decided to adopt a fixed rate tender procedure with full allotment in the

regular three-month LTROs to be allotted on 28 July, 25 August and 29 September 2010.

## **2 SEPTEMBER 2010**

### **ECB ANNOUNCES DETAILS OF REFINANCING OPERATIONS WITH SETTLEMENT FROM 17 OCTOBER 2010 TO 18 JANUARY 2011**

The Governing Council decided to continue to conduct its MROs as fixed rate tender procedures with full allotment for as long as necessary, and at least until the end of this year’s twelfth maintenance period on 18 January 2011. The fixed rate tender procedure with full allotment will also remain in use for the special-term refinancing operations with a maturity of one maintenance period, which will continue to be conducted for as long as needed and at least until the end of 2010. The fixed rate in these operations will be the same as the MRO rate prevailing at the time.

Furthermore, the Governing Council decided to conduct the three-month LTROs to be settled on 28 October, 25 November and 23 December 2010 as fixed rate tender procedures with full allotment. The rates in these three-month operations will be fixed at the average rate of the MROs over the life of the respective LTRO.

The Governing Council also decided to carry out three additional fine-tuning operations when the remaining six-month and 12-month refinancing operations mature: one six-day operation with announcement, allotment and settlement on 30 September 2010; one six-day operation with announcement, allotment and settlement on 11 November 2010; and one 13-day operation with announcement, allotment and settlement on 23 December 2010. The fixed rate tender procedure with full allotment will also be used in these three operations, the rate being the same as the MRO rate prevailing at that time.

**2 DECEMBER 2010**

**ECB ANNOUNCES DETAILS OF REFINANCING  
OPERATIONS WITH SETTLEMENT FROM  
19 JANUARY TO 12 APRIL 2011**

The Governing Council decided to continue to conduct its MROs as fixed rate tender procedures with full allotment for as long as necessary, and at least until the end of the third maintenance period of 2011 on 12 April 2011. This tender procedure will also remain in use for the Eurosystem's special-term refinancing operations with a maturity of one maintenance period, which will continue to be conducted for as long as needed, and at least until the end of the first quarter of 2011. The fixed rate in these special-term refinancing operations will be the same as the MRO rate prevailing at the time.

Furthermore, the Governing Council decided to conduct the three-month LTROs to be allotted on 26 January, 23 February and 30 March 2011 as fixed rate tender procedures with full allotment. The rates in these three-month operations will be fixed at the average rate of the MROs over the life of the respective LTRO.

# PROVISION OF LIQUIDITY IN OTHER CURRENCIES AND AGREEMENTS WITH OTHER CENTRAL BANKS

**18 JANUARY 2010**

## **ECB DISCONTINUES THE SWISS FRANC LIQUIDITY-PROVIDING OPERATIONS**

The Governing Council decided, in agreement with the Swiss National Bank, to stop conducting one-week Swiss franc liquidity-providing swap operations after 31 January 2010. This decision was made against the background of declining demand and improved conditions in the funding markets.

**27 JANUARY 2010**

## **ECB AND OTHER CENTRAL BANKS DECIDE TO DISCONTINUE THE TEMPORARY SWAP LINES WITH THE FEDERAL RESERVE**

In coordination with other central banks, the ECB confirmed the expiration of its temporary liquidity swap lines with the Federal Reserve on 1 February 2010. These lines, which were established to counter pressures in global funding markets, are no longer needed given the improvements seen in the functioning of financial markets over the past year. Central banks will continue to cooperate as needed.

In this context, the Governing Council decided, in agreement with the Federal Reserve, the Bank of England, the Bank of Japan and the Swiss National Bank, to stop conducting US dollar liquidity-providing operations after 31 January 2010.

**10 MAY 2010**

## **REACTIVATION OF US DOLLAR LIQUIDITY-PROVIDING OPERATIONS**

In response to the re-emergence of strains in US dollar short-term funding markets in Europe, the Bank of Canada, the Bank of England, the European Central Bank, the Federal Reserve and the Swiss National Bank announced the re-establishment of temporary US dollar

liquidity swap facilities. These facilities are designed to help improve liquidity conditions in US dollar funding markets and to prevent the spread of strains to other markets and other financial centres. The Bank of Japan will be considering similar measures soon. Central banks will continue to work together closely as needed to address pressures in funding markets.

The Governing Council decided to reactivate, in coordination with other central banks, the temporary liquidity swap lines with the Federal Reserve, and resume US dollar liquidity-providing operations at terms of seven and 84 days. These operations will take the form of repurchase operations against ECB-eligible collateral and will be carried out as fixed rate tenders with full allotment. The first operation will be carried out on 11 May 2010.

## **ECB ANNOUNCES DETAILS REGARDING THE REACTIVATION OF THE US DOLLAR LIQUIDITY-PROVIDING OPERATIONS**

Following the decision of the Governing Council to reactivate the temporary swap line with the Federal Reserve, the ECB announced the operational details for its US dollar liquidity-providing operations.

The operations will be carried out as fixed rate tenders with full allotment and will take the form of repurchase operations against ECB-eligible collateral.

The ECB decided to conduct:

- Seven-day operations on a weekly basis. The first operation will be held on 11 May 2010, with settlement on 12 May 2010 and maturity on 20 May 2010. Subsequent operations will as a rule be conducted and allotted on Wednesdays, for settlement on the following business day.
- An 84-day operation to be held on 18 May 2010, with settlement on 20 May 2010 and maturity on 12 August 2010.

## **17 DECEMBER 2010**

### **ECB SIGNS SWAP FACILITY AGREEMENT WITH THE BANK OF ENGLAND**

Within the framework of central bank cooperation, the ECB and the Bank of England announced a temporary liquidity swap facility, under which the Bank of England could provide, if necessary, up to GBP 10 billion to the ECB in exchange for euro. The agreement expires at the end of September 2011.

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.

## **21 DECEMBER 2010**

### **PROLONGATION OF US DOLLAR LIQUIDITY-PROVIDING OPERATIONS**

The Governing Council decided, in coordination with the Bank of Canada, the Bank of England, the Bank of Japan and the Swiss National Bank, to extend the liquidity swap arrangements with the Federal Reserve up to 1 August 2011, and to continue to conduct US dollar liquidity-providing operations with a maturity of seven days. These Eurosystem operations will continue to take the form of repurchase operations against eligible collateral and will be carried out as fixed rate tenders with full allotment. The next US dollar liquidity-providing operation will be carried out on 22 December 2010, with settlement on 23 December; by way of exception, however, it will be conducted as a 14-day operation to cover the year-end.

# PUBLICATIONS PRODUCED BY THE EUROPEAN CENTRAL BANK

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](mailto: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.

**Bond market:** the market in which longer-term **debt securities** are issued and traded.

**Candidate countries:** countries for which the EU has accepted an application for EU membership. Currently, these are Croatia, Iceland, the former Yugoslav Republic of Macedonia, Montenegro and Turkey.

**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**.

**Corporate governance:** rules, procedures and processes according to which an organisation is directed and controlled. The corporate governance structure specifies the distribution of rights and responsibilities among the different participants in the organisation – such as the board, managers, shareholders and other stakeholders – and lays down the rules and procedures for decision-making.

**Corporate profitability:** a measure of the earnings performance of corporations, mainly in relation to their sales, assets or equity. There are a number of different corporate profitability ratios based on company financial statements, such as the ratio of operating income (sales minus operating expenses) to sales, the ratio of net income (operating and non-operating income, after tax, depreciation and extraordinary items) to sales, the return on assets (relating net income to total assets) and the return on equity (relating net income to shareholders' funds). At the macroeconomic level, the **gross operating surplus**, based on the national accounts, for instance in relation to **gross domestic product** or value added, is often used as a measure of profitability.

**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 **European Central Bank**.

**Cost of the external financing of non-financial corporations (real):** the cost incurred by non-financial corporations when taking up new external funds. For **euro area** non-financial corporations, it is calculated as a weighted average of the cost of bank lending, the cost of **debt securities** and the cost of equity, based on the amounts outstanding (corrected for valuation effects) and deflated by inflation expectations.

**Council of the European Union (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 the **European Central Bank** 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.

**Credit institution:** i) an undertaking whose business is to receive deposits or other repayable funds from the public and to grant credit for its own account, or ii) an undertaking or any other legal person, other than those under i), which issues means of payment in the form of electronic money.

**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 securities issued with an original maturity of more than one year are classified as long-term.

**Debt-to-GDP ratio (general government):** the ratio of **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 **European Central Bank'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 **European Central Bank** 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 **European Central Bank** publishes nominal EER indices for the euro against two groups of trading partners: the EER-20 (comprising the 10 non-euro area EU Member States and 10 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.

**Equity market:** the market in which **equities** are issued and traded.

**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  $\pm 15\%$ . 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 **European Central Bank** (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 **European Central Bank**. 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 **European Central Bank** 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 **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 Central Bank (ECB):** the ECB lies at the centre of the **Eurosystem** and the **European System of Central Banks** (ESCB) and has its own legal personality in accordance with the **Treaty** (Article 282(3)). It ensures that the tasks conferred upon the Eurosystem and the ESCB are implemented either through its own activities or through those of the NCBs, pursuant to the Statute of the ESCB. The ECB is governed by the **Governing Council** and the **Executive Board**, and, as a third decision-making body, by the **General Council**.

**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 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** Member States, 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. EFSF loans are financed through the issuance of **debt securities**, guaranteed up to a total of €440 billion 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 **European Central Bank** on 1 June 1998.

**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 **European Central Bank** (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 **European Central Bank** 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 (as amended by Council Regulation (EC) No 1056/2005 of 27 June 2005), which is one element of the **Stability and Growth Pact**.

**Executive Board:** one of the decision-making bodies of the **European Central Bank** (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.

**Foreign exchange swap:** simultaneous spot and forward transactions exchanging one currency against another.

**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 **European Central Bank** (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 **European Central Bank** (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).

**Gross operating surplus:** the surplus (or deficit) on the value of output of production activities after the costs of intermediate consumption, compensation of employees and taxes less subsidies on production have been deducted, but before payments and receipts of income related to the borrowing/renting or owning of financial and non-produced assets have been taken into account.

**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.

**International investment position (i.i.p.):** the value and composition of an economy's outstanding net financial claims on (or financial liabilities to) the rest of the world.

**Key ECB interest rates:** the interest rates, set by the **Governing Council**, which reflect the monetary policy stance of the **European Central Bank**. They are the rates on the **main refinancing operations**, the **marginal lending facility** and the **deposit facility**.

**Lisbon strategy:** a comprehensive agenda of structural reforms aimed at transforming the EU into "the most dynamic and competitive knowledge-based economy in the world", launched in 2000 by the Lisbon **European Council**. It has been replaced by the **Europe 2020 strategy**.

**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 crisis, supplementary operations with maturities ranging from one **maintenance period** to one year 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 **European Central Bank** 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.

**MFI credit to euro area residents:** MFI loans granted to non-MFI **euro area** residents (including **general government** and the private sector) and MFI holdings of securities (shares, other **equity** and **debt securities**) issued by non-MFI euro area residents.

**MFI interest rates:** the interest rates that are applied by resident **credit institutions** and other **MFIs**, excluding central banks and **money market** funds, to euro-denominated deposits and loans vis-à-vis households and non-financial corporations resident in the **euro area**.

**MFI longer-term financial liabilities:** deposits with an agreed maturity of over two years, deposits redeemable at a period of notice of over three months, **debt securities** issued by **euro area MFIs** with an original maturity of more than two years, and the capital and reserves of the euro area MFI sector.

**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 **European Central Bank'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:** measures taken by the ECB to support the effectiveness and transmission of interest rate decisions to the wider **euro area** economy in the context of a dysfunctional situation in some financial market segments and the financial system more broadly.

**OFIGs (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 **MFIGs**. OFIGs 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.

**Options:** financial instruments that give the owner the right, but not the obligation, to buy or sell specific assets (e.g. a bond or a stock) at a predetermined price (the strike or exercise price) on or up to a certain future date (the exercise or maturity date).

**Portfolio investment:** **euro area** residents' net transactions and/or positions in securities issued by non-residents of the euro area ("assets") and non-residents' net transactions and/or positions in securities issued by euro area residents ("liabilities"). Included are **equities** and **debt securities** (bonds and notes, and **money market** instruments), excluding amounts recorded in **direct investment** or reserve assets.

**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 **European Central Bank** (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.

**Retained securitisation:** a situation in which securities issued in the context of a securitisation transaction are bought back by the institution that originated the transaction (see also **securitisation**).

**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):** an ECB 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 two 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 as amended by Regulation (EC) No 1055/2005 of 27 June 2005, and ii) Regulation (EC) No 1467/97 of 7 July 1997 on speeding up and clarifying the implementation of the excessive deficit procedure as amended by

Regulation (EC) No 1056/2005 of 27 June 2005. 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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