



# Bank of Finland Annual Report 2010



### Bank of Finland

#### Established 1811

#### Street address

Snellmaninaukio, Helsinki

#### Postal address

PO Box 160, FI-00101 Helsinki Finland

#### Telephone

national 010 8311 international +358 10 8311

#### Fax

+358 9 174 872

#### **SWIFT**

SPFB FI HH

#### E-mail

info@bof.fi firstname.lastname@bof.fi

#### Internet

www.suomenpankki.fi/en

#### Regional offices

#### Vantaa

Turvalaaksontie 1, Vantaa, PO Box 160, FI-00101 Helsinki Telephone +358 10 8311

#### Kuopio

Puutarhakatu 4, PO Box 123, FI-70101 Kuopio, Telephone +358 10 8311

#### Oulu

Kajaaninkatu 8, PO Box 103, FI-90101 Oulu, Telephone +358 10 8311

#### Tampere

Koskikatu 9 C, PO Box 325, FI-33101 Tampere, Telephone +358 10 8311 Drafted in accordance with Section 19 of the Act on the Bank of Finland.

The figures in the Annual Report are based on data available in February-March 2011.

ISSN-L 1239-9345 (print) ISSN 1456-579X (online) Edita Prima Oy Helsinki 2011

### Contents

Bank of Finland	5
Foreword	7
Bank of Finland's strategy	9
Bank of Finland activities 2010	13
Monetary policy and economic policy	13
Bank of Finland – contribution to preparation	
of monetary policy	13
ECB's monetary policy in 2010	13
ECB Governing Council's statements on other	
economic policy issues	21
The Bank of Finland and economic policy in Finland	25
Research	27
Banking operations	32
Implementation of monetary policy in the euro area	
and in Finland	32
Payments	41
Bank of Finland investment activities	43
Investment risks and risk management	48
Total financial risks in banking operations	51
Financial markets and statistics	
Stability and efficiency of the financial system	
Statistics	
Maintenance of currency supply	60
Growth in euro banknotes issued in Finland	
and the euro area	61
Bank of Finland developed its cash depot system	62
Gradual progress in harmonisation of currency supply	
throughout euro area	63
A downturn in counterfeit banknotes in the euro area,	
but more counterfeits found in Finland	63
Other operations	65
International operations	65
Communications	72
Management and organisation	76
Management system	76
Action planning	77
Objectives and results framework	
Risk management within corporate governance	
Personnel	84
Budget and operative costs	87
Environment	90

Financial statements	93
Balance sheet	94
Profit and loss account	
Appendices to the financial statements	97
Accounting conventions	
Notes on the balance sheet	
Notes on the profit and loss account	111
Notes on risk management	
Auditors' report	122
Statement regarding the audit as defined in Article 27 of the statute of the European System of Central Banks and the European Central Bank	123
Appendices	124
Monetary policy measures of the Eurosystem in 2010	124
Key measures affecting the financial markets in 2010	
Main opinions issued by the Bank of Finland 2010	
Bank of Finland publications	
Supplementary tables	
Organisation of the Bank of Finland	

### Bank of Finland

The Bank of Finland is the fourth oldest central bank in the world. It was founded in 1811 and initially mainly functioned as a banknote exchange office, credit institution and as the government's cashier.

These days, the Bank of Finland is Finland's monetary authority and an active member of the European System of Central Banks (ESCB). The Bank's activities are regulated by the Statute of the ESCB and the Act on the Bank of Finland. The objectives of the Bank of Finland's operations are to promote price stability as well as stability and efficiency in payment and financial systems and thereby create the framework for

economic growth and sound employment. As a promoter of financial stability, the Bank of Finland is an influential participant in the public debate on Finnish economic policy.

In addition to monetary policy preparation and monitoring of financial market stability, the core functions of the Bank of Finland include operational central bank tasks in connection with payments, the implementation of monetary policy and the maintenance of currency supply.

The Governor of the Bank of Finland is a member of the Governing Council of the European Central Bank

**Board of the Bank of Finland.**From the left: Pentti Hakkarainen, Deputy Governor, Erkki Liikanen, Governor of the Bank of Finland and Seppo Honkapohja, Member of the Board.



Photo: Pekka Karhunen.

and thereby participates in the decisionmaking process affecting the entire Eurosystem, as an independent and impartial decision-maker. Experts from the Bank of Finland monitor and assess developments in the financial and real economy as the foundation of the Governor's decision-making.

The actual decision-making regarding monetary policy is centralised in the ECB's Governing Council. The various national central banks are individually responsible for the implementation of the monetary policy.

The Bank of Finland took part in the preparatory sessions establishing the European Systemic Risk Board, which was due to commence operations from the beginning of 2011 under the auspices of the ECB. The European Systemic Risk Board has the mandate of analysing and monitoring developments in the financial markets, the situation regarding systemic risk as well as carrying out macroprudential supervision. The European financial supervisory authorities monitor the securities markets and the larger financial corporations.

In 2010, the Board of the Bank of Finland was composed of the Governor Erkki Liikanen, Deputy Governor Pentti Hakkarainen and Members of the Board Sinikka Salo and Seppo Honkapohja. Upon the retirement of Sinikka Salo on 15 October 2010, it was decided to reduce the Board to three members. On 4 June 2010, the Parliamentary Supervisory Council had made the decision that, for the present, a fourth Member of the Board would not be

appointed but rather that there would be a reassignment of the Board's tasks.

The Bank of Finland has operated under the watchful eye of the Finnish Legislative Assembly and later of the Eduskunta – the Finnish Parliament, since 1868. In the reporting year, the activities of the Bank were supervised by the nine members of the Parliamentary Supervisory Board. During the review year, a total of about 441 staff were employed in the 6 departments of the Bank's head office and the 4 regional offices.

The Financial Supervision Authority operates in connection with the Bank of Finland. FIN-FSA is an autonomous authority with an administrative board of its own. The chairman of the board is the Deputy Governor of the Bank of Finland, Pentti Hakkarainen. As at the end of 2010 the FIN-FSA employed a total of 209 staff: The FIN-FSA produces its own annual report on its activities.

### Foreword

Recovery from the most extensive economic crisis since the 1930s remains fragile and uneven. Growth in developed countries appears to be slower than before and unemployment has stayed at significantly high levels in many countries. Emerging economies are recovering from the crisis more rapidly and their growth rate has returned to former levels.

Particularly in developed economies, the public fiscal position has weakened. Above all else, the shrinkage in taxation revenue, on top of built-in stabilisers and expansionary fiscal measures have contributed to a rapid growth in indebtedness. In some countries it has been necessary to support the financial market using considerable public funds.

A lack of confidence in the most highly indebted European countries' ability to service their debts came to a head for the first time in the spring of 2010 and again at the end of the year. In order to halt the sovereign debt crisis, it was necessary to resort to the use of unprecedented pan-European cooperation arrangements. The Eurosystem ensured maintenance of the liquidity of the banking system and took measures to reduce disruptions from the bond markets. It is the task of the Government to formulate a credible programme to consolidate public debt. The responsibility of central banks, on the other hand, is to meet their primary objective of maintaining price stability at the same time as ensuring that monetary policy supports the smooth functioning of the economy.

Despite the sovereign debt crisis, the functioning of the international financial

system improved in 2010. Due partly to public sector support, financial institutions have been able to improve their capital adequacy and liquidity buffers which, before the financial crisis, proved to be too small. Interbank confidence levels have also improved. Euro area households' and corporations' possibilities to raise financing on moderate terms are, according to information received, also improved.

Regardless of the recession that is affecting the country, this has been an efficient year for Finland's financial system. Bearing the depth of the recession in mind, loan losses to banks caused by the recession appear to remain fairly small. The vigour of Finnish financial institutions has the effect of reducing the contagion of economic problems from indebted countries, by Finland's financial system.

The Bank prepared for changes to the markets brought about by the crisis, by revising the risk management and monitoring of the Bank's balance sheet. The Bank of Finland's balance sheet risks have increased as a result of the financial crisis, but the balance sheet risk buffers and equity are sufficient to cover known risks.

During the reporting year, new EU legislation on financial supervision framework was passed. This legislation provided the mandate for the establishment of an EU-wide body, whose task is to supervise the entire financial system's risks. This body, the European Systemic Risk Board, began its work at the beginning of 2011. The European Systemic Risk Board's role is pre-emptive

identification of systemic risk in order that the financial system's vulnerability to crises may be mitigated and its ability to withstand disruption may be improved.

The ECB and national central banks hold key positions on the Board. In addition to the President of the European Central Bank who acts as chairman of the board, the Governors of the EU member states' central banks are voting members of the supervisory board. The financial crisis has underlined how cooperation between central banks, who are the bodies mainly responsible for macroprudential supervision, and financial supervisory authorities who are chiefly responsible for institutional supervision needs to become increasingly seamless. The national supervisory authorities participate as non-voting members in the work of the supervisory board.

During 2010, within the Bank of Finland, there were extensive discussions on what kind of vision we have for the Bank, what our values are and how we describe the purpose of our activities. The discussions have involved people from throughout the entire organisation and a large number of staff members have participated in drawing up the results of these discussions. The results will be honed over 2011 to provide the Bank of Finland's vision up to 2020 as well as finalising the Bank's values and mission statements.

At the beginning of 2010, the Bank adopted two new processes – the stability analysis process and the process for influencing domestic economic policy.

These processes augmented our operative

management system, which also included monetary policy analysis and implementation processes. Process work has enhanced the central bank's diverse expertise across organisational borders.

Many of the Bank's staff members have taken advantage of internal job rotation. Over the course of 2010, three of the Bank's departments got new heads. Our research activities are in the process of being restructured, in line with the recommendations of an international evaluation. The changes pose various challenges, and will bring about many opportunities to develop our practices and learn something new.

In 2011 the Bank of Finland will be celebrating its 200th anniversary as central bank. The Governing Council of the European Central Bank will convene in Helsinki in May. A publication detailing the history of the Bank of Finland will be completed during the year.

Over the course of the celebration year, we will be better acquainting ourselves with the history and traditions of the Bank of Finland, but meanwhile we shall be continuing development of our practices and routines, thereby adding value to the Bank's resources. We shall open the background behind monetary policy and the financial markets to the Finnish public. We shall operate within the Eurosystem bringing our own unique nature to the work.

Em. Linkum

Erkki Liikanen 1 March 2011

## Bank of Finland's strategy

The Bank of Finland promotes price stability and the stability, efficiency and European integration of the financial system. It is responsible for the country's currency supply system and foreign reserve management. The Bank's activities create the prerequisites for economic growth and employment.

#### Strategy work in 2010

In 2010, strategy work and action planning centred on the measures proposed by the scenario working groups and on monitoring their enforcement (Box 1). In the spring, a debate was initiated on the Bank of Finland's

long-term vision, revision of the Bank's values and the Bank's mission statement. The Bank's strategy will be adjusted accordingly in the course of 2011.

The strategy work concentrated on identification of the Bank's key priorities and prioritisation of functions. The strategic priorities included macroprudential issues as well as liquidity management in the euro area banking system in the preparation of monetary policy and conduct of market operations.

The Bank's strategic objective is to increase international cooperation in the field of financial market supervision and to step up cooperation between the

The Governor of the Bank of England, Mervyn King (left) paid a visit to the Bank of Finland in June 2010. Front, Deputy Governor of the Bank of Finland Pentti Hakkarainen, Sinikka Salo, Member of the Board who retired in October and Seppo Honkapohja.



Photo: Peter Mickelsson.

competent authorities in Finland.
Cooperation and division of responsibilities between the Bank and the FIN-FSA in financial stability issues were identified as core elements of the strategy work. In this context, a key role is played by prevention and mitigation of systemic risks and monitoring threats to the stability of the financial system. The Bank of Finland aims to ensure the stability and efficiency of financial markets by providing for timely stability analysis and maintaining appropriate crisis management readiness.

The Bank of Finland contributes to the division of labour between the central banks as both a user and producer of shared services, such as TARGET2, the single payment system, and CashSSP, a currency information system. In the course of 2010, the Board specified the Bank's principles for participating in joint Eurosystem projects. First, the Bank seeks to build expertise and competence by participating in Eurosystem-wide cooperation projects. Second, the Bank expects appropriate adherence to the principle of reciprocity by those national central banks in whose projects it takes part. As a provider of services for a shared project, the Bank

expects to recover part of the development costs.

The Bank of Finland has taken part in payment system development and oversight in cooperation with both national and international authorities. The payment system simulator designed by the Bank of Finland will be introduced as a tool for payment system oversight in the Eurosystem.

The Bank's staff objective for 2013 is 410 employees. This can be achieved through prioritisation and better practices. The Bank's strategic objective is to be one of the most efficient EU central banks. Staff and cost changes are benchmarked annually against developments in other central banks.

#### Box 1.

#### Collective expertise of the organisation harnessed for development of the Bank's strategy

In 2009, the Bank of Finland's Board appointed three working groups to evaluate the consequences of the financial and economic crisis on the Bank's activities. All members of staff were invited to participate in the groups, which allowed the collective experience and expertise of the entire organisation to be accessed. Development of the Bank's functions continued in 2010 in line with the measures proposed by the working groups, which related to the Bank's in-house practices and procedures and the Bank's readiness to respond to changes in the operating environment. In January 2010, the Board appointed a fourth working group to review and streamline the Bank's decision-making process.

In line with the proposals of the working groups, work started on the formulation of the Bank of Finland's Vision for 2020. All staff members from every level of the organisation were invited to contribute to the formulation of the vision, as well as reviewing the values and the mission statement, due to be updated at the same time. This work will be completed in the course of 2011 and result in an appropriate review of the Bank's strategy.

The need for closer interaction between research and policy work became heightened during the crisis. This, together with the recommendations of an external review panel, were taken as the basis for reorganisation of the Bank's research activities. This was done in order to ensure that conducted research be relevant and timely and that the the competence of researchers be utilised in the Bank's policy work.

Risk management methods and reporting practices were improved to monitor the bank's risk position and step up risk management. The assessment of the Bank's balance sheet's total exposure to liquidity risks takes account of both portfolio risks and risks related to monetary policy operations. Strategic risk evaluation will be integrated with the annual action planning process and become a standing issue on the agenda of the Bank's strategy seminars.

The role and tasks of the Bank's in-house communications were more specifically defined. The Banks' expert staff were offered a media training programme to sharpen their external communications skills. A guide to using public web services, such as social media

and blogs, was drawn up for the Bank's employees.

In spring 2010, the entire staff was invited to a round of introductory sessions presenting the Bank's line units and strategic processes.

The statistics unit demonstrated their results at a series of in-house statistics seminars. There were also improvements in the statistics web service. In autumn 2010, an internal job rotation scheme was introduced for members of the statistics unit and core policy departments.

The Bank put in place an environmental programme in 2009 and is currently in the process of selecting an appropriate environmental certificate.

In line with the proposals of the fourth working group set up in January 2010, the Bank's decisionmaking practices were streamlined and the importance of sound practices emphasised. Technical tools for human resource planning were developed in the course of autumn 2010.



Photo: Peter Mickelsson.

### Bank of Finland activities 2010

### Monetary policy and economic policy

# Bank of Finland – contribution to preparation of monetary policy

As a member of the Governing Council of the ECB, the Governor of the Bank of Finland participates in monetary policy decision-making. In addition, experts from the Bank of Finland participate in the preparation of monetary policy decisions and other background work. They contribute to the preparation of Governing Council's meetings in the context of the Eurosystem's Monetary Policy Committee and the Market Operations Committee. The Bank of Finland's influence in the Eurosystem draws on preparation work in a number of the Bank's departments. Monetary policy is prepared particularly in the process for monetary policy analysis and preparation, as well as the process for monetary policy operations and liquidity management. Departments supplying these processes with expert recourses are Monetary Policy and Research, Financial Markets and Statistics as well as Banking Operations. The Bank of Finland acts as an expert on the Finnish economy within the Eurosystem and, conversely, as a euro area expert in Finland.

The process for monetary policy analysis and preparation involves two expert groups. *The monetary policy group* is responsible for drafting recommendations on monetary policy and operational decisions. The group's recommendations are presented to the Governor in connection with the preparations for the ECB's monthly meetings on monetary policy. *The central bank policy group* is responsible for assessing monetary policy in the medium term. The group monitors

changes in the operating environment for monetary policy, keeps abreast of economic research on monetary policy and uses this information to analyse strategic issues of monetary policy. The group reports on its work to the Board of the Bank of Finland.

The key tasks of the monetary policy operations and liquidity management processes are to support banks operating in Finland with their liquidity management, implement ECB monetary policy operations in Finland and to attend to related risk and collateral management and the clearing and settlement function.

One of the key preparation works is the drawing up of the economic forecast for Finland as part of the common euro area forecast. In the early part of 2010, the emphasis of monetary policy preparation was on non-standard monetary policy measures and the phasing-out of these measures, ie exit strategies. Over the year, the general government debt crisis and the related market disruptions and the management of risks in central bank balance sheets gained more emphasis in monetary policy preparation. During the year, many reviews were made of the economic developments as well as of the ECB's monetary policy and its implications.

#### ECB monetary policy in 2010

Through its monetary policy, the ECB aims to keep the inflation rate in the euro area, as measured by the Harmonised Index of Consumer Prices (HICP), below, but close to, 2% over the medium term. The Governing Council of the ECB

#### Box 2.

#### Non-standard monetary policy and central bank balance sheets

Since 2007, financial markets and the whole global economy have experienced a series of economic crises. Like other central banks, the Eurosystem addressed the challenges brought by these crises by substantially changing the implementation of monetary policy. Non-standard monetary policy measures have, in turn, been reflected in a substantial growth of central bank balance sheets.

Prior to the financial crisis, the Governing Council of the ECB decided on a monthly basis on the interest rate that was, taking into account the economic situation, in line with price stability. Market interest rates were steered to this level by adjusting the rate at which the central bank refinanced the commercial banks. The growth in euro banknotes was the main driving force behind the increases in the outstanding central bank credit as well as the balance sheet of the Eurosystem.

Over the course of autumn 2007, the uncertainties originating from the US housing market were increasingly affecting central banks' approaches to steering market interest rates. At that time the Eurosystem responded to the exceptionally high liquidity uncertainty prevailing in the market by increasing the flexibility of the timing of liquidity provision and lengthening the average

maturity of refinancing provided to the banks. These measures did not substantially change the total supply of central bank funding, or the size of the Eurosystem's balance sheet.

A year later, following the collapse of Lehman Brothers in September 2008, the financial market turmoil escalated into a large-scale financial crisis. Interbank money markets became dysfunctional resulting in the Eurosystem stepping away from its quantity oriented liquidity policy. Instead, it adopted the so-called fixed-rate full-allotment approach by committing to accommodate banks' liquidity needs in full at a predetermined interest rate, as long as banks provided adequate collateral. In the prevailing exceptional circumstances, part of financial intermediation shifted from interbank money markets to the central bank balance sheet. The Eurosystem simultaneously supplied refinancing to banks with liquidity deficit and collected deposits from banks with liquidity surplus.

At the end of 2008 and in the first half of 2009 in particular, central banks across the world reduced their key policy rates substantially, once the financial crisis had started to turn into a deep economic recession. As nominal interest rates approached zero, central banks increasingly engaged

in non-standard monetary policy measures. These included extensive securities purchase programmes especially in the United States and the United Kingdom, while, in the euro area, the main measure was to increase the maturity of refinancing provided to the banks at the 1% rate of interest up to 12-months. The special refinancing operations increased the Eurosystem's balance sheet total, since the banks borrowed excessive amounts of liquidity in these operations, and the extra liquidity flowed back to the Eurosystem deposit facility.

The Eurosystem launched its first monetary policy purchase programme in summer 2009. With this Covered Bond Purchase Programme (CBPP), the Eurosystem continued to implement monetary policy through the banking sector. This approach was justified by the central role of the banking sector in financial intermediation in the euro area. Only after the series of crises severely hit the euro area sovereign bond markets in the first half of 2010, the Eurosystem had to give up its approach, ie to operate only through the banking sector. In May 2010, the Eurosystem launched a Securities Markets Programme (SMP), under which it purchases securities in dysfunctional market segments pivotal to the monetary policy

transmission mechanism. The Eurosystem decided to sterilise the liquidity impact of the purchases. This was done by collecting fixedterm deposits from banks. Whereas the sterilisation ensured that the SMP does not loosen money market conditions, the decision to drain the liquidity by fixed-term deposits resulted in the Eurosystem's balance sheet growing in line with the purchases. Without the explicit sterilisation, the liquidity impact stemming from the SMP would have reduced banks' refinancing needs, and hence the gross volume of credit operations.

The public debate on nonstandard monetary policy measures has culminated in the analysis of the size of central bank balance sheets. Even though balance sheets of all major central banks have expanded due to the financial crisis, the developments show considerable differences. The Eurosystem's balance sheet grew in the crisis by almost 50% from the level at the time of the failure of Lehman Brothers. This was relatively moderate compared to the balance sheets of the US Federal Reserve or the Bank of England, which grew by 150-200%. However, prior to the financial crisis, the relation between central bank balance sheet total and the GDP of the respective economy had differed considerably between the currency regions. Therefore, the comparisons should

relative to the size of the economy. For both the Bank of England and the Federal Reserve, balance sheet equalled about 17% of GDP at the end of 2010, signifying growth of about 10 percentage points from September 2008. Whereas the balance sheet growth in the euro area remained at 6 percentage points during the same period, the Eurosystem's balance sheet relative to GDP (22%) is still higher than that of its peers.

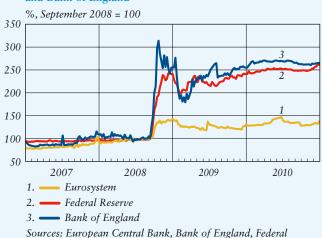
In the early phase of the financial market crisis, the Federal Reserve's balance sheet mainly expanded due to various new liquidity facilities created to support the markets. However, the key factors underlying the faster expansion of the Federal Reserve and Bank of England balance sheets, as compared to the Eurosystem, were the large-scale

Reserve and Reuters.

purchase programmes and the quantitative easing approaches adopted by the former two central banks.

In addition to issues related directly to monetary policy implementation, the Eurosystem's balance sheet has expanded eg due to appreciation of the value of gold holdings and continued strong growth in euro banknotes. Similar factors that may be seen as being autonomous to the monetary policy may continue to increase the Eurosystem's balance sheet also in future, but since the Eurosystem's non-standard monetary policy measures have primarily been conducted as refinancing operations, the Eurosystem's balance sheet will, as far these measures are concerned, normalise endogenously as the functioning of the financial markets normalises.

Chart.
Balance sheet changes for the Eurosystem, Federal Reserve and Bank of England



also consider balance sheet changes

monitors and analyses the economic outlook for the euro area and sets its key interest rates at a level that best supports price stability over the medium term. In 2010 the macroeconomic environment was exceptionally uncertain and uneven due to the global financial crisis. Price pressures in the euro area remained contained, even though inflation increased slightly towards the end of the year.

The ECB Governing Council left the key interest rates unchanged in 2010 but continued conducting non-standard liquidity-providing monetary policy measures, referred to as 'enhanced credit support', supporting the functioning of the banking system and availability of funding. Information available at the beginning of the year confirmed the view that economic growth in the euro area had resumed. In spring, euro area exports picked up in response to the global economic recovery and, in the latter half of the year, private domestic demand also gained strength. Lending and monetary growth in the financial markets began to improve towards the end of the year. Nevertheless, expectations of euro area economic growth remained moderate throughout the year. Inflation accelerated slightly in 2010 in response to the global economic recovery and higher commodity prices. By contrast, domestic cost pressures in the euro area remained contained, and therefore inflationary pressures also remained low.

In 2010, the ECB Governing Council kept the key interest rate at 1%. The Governing Council changed the tender procedures for liquidity-providing

operations. It also made changes in the collateral framework and initiated a Securities Markets Programme (SMP). Throughout the year the Governing Council emphasised at its meetings that the non-standard liquidity measures would be phased out when necessary, should the measured not be needed to the same extent as in the past, or should there be any significant threat to price stability over the medium to longer term.

At the beginning of 2010 the Governing Council decided to continue the enhanced credit support to the banking system, while taking into account the ongoing improvement in financial market conditions and avoiding market distortions associated with maintaining non-standard measures for too long. In March the Governing Council decided to continue conducting main refinancing operations (MROs) as fixed rate tender procedures with full allotment at least until the end of October 2010. It also decided to return to variable rate tender procedures in the three-month longer-term refinancing operations (LTROs) and to fix the rate in the six-month LTRO to be allotted in March 2010 at the average minimum bid rate of the MROs over the life of this operation. The Governing Council stated that it continued to provide liquidity support to the euro area banking system at very favourable conditions, thereby facilitating the provision of credit.

In spring 2010 the intensification of the euro area sovereign bond crisis weakened European banks' ability to obtain market-based funding. In April the ECB Governing Council announced that its previous temporary decision on the lowering of the minimum credit threshold for collateral – except in the case of asset-backed securities (ABSs) – would be valid for the time being. In May the Governing Council supported the functioning of financial markets by initiating a Securities Markets

Programme (see Box 3) and continued alleviating bank liquidity uncertainty by returning to full allotment in the three-month LTROs until the end of September 2010. At the same time, the Governing Council decided, in coordination with other central banks, to reactivate the temporary liquidity swap lines with the Federal Reserve and

#### Box 3.

#### Securities Markets Programme

In May 2010 the Governing Council of the ECB initiated a 'Securities Markets Programme' (SMP), under which the Eurosystem may purchase public and private debt securities in secondary markets. The objective of the programme is to ensure the functioning of the monetary policy transmission mechanism in market segments which the financial crisis has rendered dysfunctional. The liquidity-increasing effect of the interventions in the debt securities markets is neutralised by means of one-week liquidity-absorbing operations so that the monetary policy stance is not affected. At the end of 2010, total holdings in the SMP were approximately EUR 73.5 billion (Chart).

In 2010 the SMP was used to stabilise government bond markets in particular. These markets were affected by disruptions that became more severe over the year, resulting in pricing following general nervousness instead of fundamental factors. Effective government bond markets are essential for the functioning of financial markets. Tensions in government bond markets may also have an adverse impact on other financial market segments pivotal to financial intermediation. Government bonds form the basis for pricing other financial market instruments.

The SMP has not been restricted in terms of its size, duration or instruments included

in the programme. No explicit decisions have been made on the phasing-out of the programme. The development of the SMP will fundamentally depend on the situation in the financial markets. The SMP, as with all other non-standard monetary policy measures, will be continued as long as necessary to ensure efficient functioning of the monetary policy transmission mechanism.

Chart.
Changes in Securities Markets Programme, 2010



Source: European Central Bank.

resume US dollar liquidity-providing operations.

In early September the ECB Governing Council changed the tender procedures once again. It decided to continue full allotment in MROs for as long as necessary and at least until the end of January 2011. In three-month LTROs, full allotment would continue until the end of 2010, and the rates in these operations were decided to be fixed at the average rate of the MROs over the life of the respective LTRO. Furthermore, the Governing Council announced that three additional fine-tuning operations would be carried out at the end of the year when six-month and twelve-month refinancing operations mature. In December the Governing Council decided to continue full allotment in MROs at least until the end of April 2011. The three-month LTROs conducted in January-March 2011 would be allotted in full and so that the

Chart 1.

Monetary policy transmission mechanism

%

6

5

4

2

10

2006

2007

2008

2009

2010

1. — 12-month Euribor rate

2. — 3-month Euribor rate

3. — Eurosystem policy rate

Source: European Central Bank.

rates in these operations would be fixed at the average rate of the MROs over the life of the respective LTRO.

In summer 2010, the Governing Council emphasised on several occasions that monetary policy would do all that was needed to maintain price stability in the euro area over the medium term. It stressed that this was a necessary and central contribution that monetary policy makes to fostering sustainable economic growth, job creation and financial stability. The Governing Council stated on various occasions after spring that all the enhanced credit support measures were fully consistent with the ECB's mandate and, by construction, temporary in nature. The Governing Council underlined that it remained firmly committed to price stability over the medium to longer term and stressed that the monetary policy stance and the overall provision of liquidity would be adjusted as appropriate. In the early part of the year short-term Euribor rates were clearly below interest rates on MROs, ie under 1%, but rose close to 1% in spring in response to the normalisation of money markets (Chart 1). The interbank offered rate, EONIA, remained below the 1-month Euribor virtually throughout the year, but was still higher than the ECB's overnight deposit rate.

# ECB Governing Council's assessments on economic developments in the euro area

The driving force behind the enhanced credit support measures was the spreading of financial market disruptions to the real economy. Following the sharp decline,

euro area economic growth had gained some momentum in the latter half of 2009, benefiting from a turn in the inventory cycle and a recovery in exports. At the same time, the significant macroeconomic stimulus and other measures adopted to restore the functioning of the financial system had supported growth in demand. In early 2010 the ECB Governing Council assessed that, even though a number of the factors supporting growth were of a temporary nature, the economy continued to grow at a moderate pace. However, this growth was regarded as being uneven and subject to elevated uncertainty. The Governing Council assessed that the ongoing process of balance sheet adjustment in the financial and non-financial sectors was hampering the economic recovery. In addition, the Governing Council expected low capacity utilisation rates to dampen investment, and an increase in unemployment was expected to lower consumption growth in 2010.

In the first quarter of 2010, euro area GDP grew by almost ½% quarter-on-quarter. In the second quarter, GDP was 1% higher than in the previous quarter, mainly owing to stronger domestic demand. In the third quarter, the quarter-on-quarter GDP growth levelled off expectedly to 0.3%. The quarter-on-quarter growth was 0.3% also in the last quarter of the year, as indicated in the Eurostat's first estimate. In the latter part of 2010 the Governing Council revised its previous assessment of euro area economic growth for 2010 upwards, mainly as a response to strengthened

domestic demand. Overall, expectations of euro area economic growth remained moderate throughout the year. In December the Governing Council's expectations of economic growth for 2011 also remained moderate. The economy was expected to continue expanding unevenly, with uncertainty remaining elevated.

Throughout the year, the ECB

Governing Council held the view that the economic outlook was subject to elevated uncertainty. The broad macroeconomic stimulus and other economic policy measures supported the possibility of a stronger than expected economic recovery. It was also possible that confidence would improve and external trade would grow more than expected. On the other hand, there was the potential for the weak real economy and financial market disruptions having a stronger and more protracted than expected adverse impact on economic growth. At the same time, concerns remained relating to the protectionist pressures, fluctuations in oil and other commodity prices, and the possibility of a disorderly correction of global imbalances. In the first half of 2010 the ECB Governing Council assessed that the risks to economic growth were broadly balanced. In autumn, however, the Governing Council expected the risks to economic growth to be tilted to the downside. These downside risks were mainly related to the weakening of global growth prospects.

The US dollar appreciated against the euro from January to June in

response to the financial crisis (Chart 2). Towards the end of the year the euro mainly appreciated against the US dollar, except for the clear dips observed in August and November.

The stock of loans granted by monetary financial institutions to the non-financial private sector remained virtually unchanged in 2010. The annual change in the stock of loans to non-financial corporations was clearly negative until spring, but levelled off to

Chart 2. Euro exchange rate against US dollar and exchange rate index USD/EUR Index, January-March 1999 = 100 1.7 130 1.6 125 120 1.5 1.4 115 1.3 110 105 1.2 100 1.1 2008 2009 2010 USD value of euro central rate (left-hand scale) Narrow nominal effective exchange rate index of euro (right-hand scale) Sources: Reuters and European Central Bank. Chart 3. Harmonised Index of Consumer Prices for the euro area Change from year earlier, % 5 4 3 2 1 0 2005 2007 2008 2009 2010 2006 Source: Eurostat.

around zero at the end of the year. By contrast, compared to the previous year the stock of loans to households grew at an even pace throughout the year.

## ECB Governing Council's assessments on price developments

Throughout the year, based on its economic and monetary analyses, the ECB Governing Council considered that the euro area inflation remains moderate and that inflation expectations remain firmly anchored over the policy-relevant horizon. At the beginning of 2010 euro area annual HICP inflation was 1.0% but, owing to higher energy and food prices, it accelerated to 1.5% in March. Oil and other commodity prices increased further towards the end of the year, and inflation accelerated gradually. In December HICP inflation was 2.2% (Chart 3). Starting from May the Governing Council stressed that, even though unexpected commodity price increases and acceleration of economic growth in certain economic regions have increased global inflationary pressures, domestic price pressured have remained moderate in the euro area. After summer the Governing Council expected inflation rates to display increased volatility owing to base effects in the energy component.

Until April the ECB Governing Council took the view that risks to price developments were broadly balanced. At the beginning of the year risks to price stability related, in particular, to economic recovery and the evolution of commodity prices. On the other hand, the Governing Council considered that fiscal consolidation could lead to greater increases in indirect taxation and administered prices than currently expected. In May the Governing Council stressed that short-term inflation risks were tilted towards the upside, due to increased commodity prices, but assessed these risks as still balanced over the medium term. In September the Governing Council's assessment had changed so that the risks to the outlook for price developments were tilted to the upside and related to the evolution of oil and other commodity prices. However, in December these risks were again seen as broadly balanced.

Currencies belonging to the exchange rate mechanism ERM II in 2010 were those of Denmark, Estonia, Latvia and Lithuania. Throughout the year, the Danish krone, Estonian kroon and Lithuanian litas oscillated close to the central parity against the euro, whereas the Latvian lats only remained on the weaker side of its fluctuation band (±1%).

# ECB Governing Council's statements on other economic policy issues

In 2010 the ECB Governing Council emphasised on several occasions that high and sharply rising fiscal imbalances in many euro area countries and very large government borrowing could increase medium- and long-term market interest rates, which in turn would weaken the foundations for sustained growth. High levels of public deficit and debt would place a burden on monetary policy and undermine the credibility of the Stability and Growth Pact. As a response, the Governing Council urged governments to

decide and implement in a timely fashion ambitious fiscal consolidation measures. Structural reforms should be based on realistic growth assumptions, focusing on the expenditure side, and the expected rising budgetary costs associated with ageing population should also be taken into account. The Governing Council underlined that fiscal consolidation would need to be commenced by 2011 at the latest and consolidation measures need to exceed substantially the annual structural adjustment of ½% of GDP set by the Stability and Growth Pact.

The Governing Council considered that the promotion of sustainable growth and job creation requires, in particular, moderate wage-setting, effective incentives to work and sufficient labour market flexibility. At the same time, policies are needed which enhance competition, productivity and innovation. The Governing Council also stressed the importance of the appropriate restructuring of the banking sector. Sound balance sheets, effective risk management and transparent and robust business models are key to strengthening banks' capital adequacy and resilience to shocks, thereby laying the foundations for sustainable economic growth and financial stability.

At the beginning of 2010 the ECB Governing Council underlined that the EU 2020 strategy should focus on raising potential growth and creating high levels of employment through well-functioning labour and product markets, sound financial systems and sustainable fiscal policies.

The Greek fiscal crisis intensified at the beginning of the year. In February the Greek government announced additional fiscal consolidation measures. In March the Governing Council issued a statement on Greece's additional measures, in which it emphasised that cutting public expenditure and adjusting public sector wages was a key signal both for the long-term fiscal sustainability and for substantially enhancing the price and cost competitiveness of the Greek economy. In April the Governing Council welcomed the statement on Greece made by the Heads of State and Government of the euro area in March. It fully supported the intention to strengthen surveillance of economic and budgetary risks and the instruments for their prevention as well as the excessive deficit procedure. It also welcomed the decision to work on a robust crisis resolution framework. In May the Governing Council welcomed the economic and financial adjustment programme approved by the Greek government following the successful conclusion of the negotiations with the European Commission, in liaison with the ECB, and the International Monetary Fund (see Box 4).

In June the Governing Council gave its support to the decision by euro area countries to formally establish a European Financial Stability Facility. It stressed that all countries had to stick to their commitments to correct high budget deficits and government debt and reduce fiscal vulnerability. At the same time, the Governing Council gave its support to the orientations for fiscal

policies agreed by the euro area finance ministers in spring.

In July the ECB Governing Council delivered the Task Force on Economic Governance, established by the European Council, its proposals for reinforcing surveillance of national budgetary policies and ensuring rigorous compliance with fiscal rules. The Governing Council stressed the importance of the implementation of close oversight of relative competitiveness developments. It also considered important that a surveillance mechanism be established to address imbalances in the euro area countries, and an appropriate euro area crisis management framework that minimises moral hazard.

In summer the Governing Council also welcomed the EU-wide stress-testing exercise prepared and conducted by the Committee of European Banking Supervisors (CEBS) and national supervisory authorities, in close cooperation with the ECB. The Governing Council stated that the exercise presents an important step forward in restoring market confidence.

In November the Governing Council stated that the proposals agreed by the EU Heads of State and Government on the reform of the European Union's economic governance represent a strengthening of the existing framework for fiscal and macroeconomic surveillance in the European Union. However, the Governing Council considers that they do not go as far as the quantum leap in the economic governance of Monetary Union that it has been calling for.

#### Box 4.

#### Sovereign debt crisis in a number of euro area countries

Owing to the international financial crisis and the resulting real economy recession, euro area general government finances were faced with heightened challenges. The substantial stimulus measures and waning of revenues led to a marked deterioration of euro area fiscal balances and rapid debt accumulation. Furthermore, support measures undertaken in the financial markets eroded public finances in a number of countries. However, developments have varied considerably across euro area countries, and the most indebted member states are clearly in a worse position than countries with lower debt levels. The sovereign debt crisis was also fuelled by the fact that, in many countries, growth in general government revenues was not used in the boom prior to the financial crisis to adequately reduce government debt. The financial crisis has had serious repercussions on the sustainability of public finances and has markedly deteriorated favourable financing conditions in a number of countries.

Increasing indebtedness strained the availability of funding and increased funding prices over the course of 2010, particularly in Greece and Ireland. The cost of financing government debt also

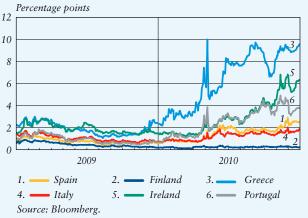
increased in Portugal and Spain, and to some extent in Italy, which raised general government funding costs in these countries. By contrast, yields on sovereign bonds did not increase in countries with lower debt levels, such as Finland and Germany.

The rapid public debt accumulation in Greece and Ireland escalated into a crisis in 2010. In Greece, problems are rooted in the economic structures and fiscal stance which has been loose already over a longer period prior to the recession. In Ireland, however, fiscal problems are largely based on overheated real estate markets. Growing bank support measures have rapidly deteriorated Ireland's public

finances, but other public expenditure items have also increased markedly over the past years. Even though the factors underlying the Greek and Irish debt crises differ considerably, there are also some similarities: in both countries financing of government debt depends largely on foreign investment.

Greece's fiscal problems began to be aggravated already in spring 2010, when market-based lending practically dried up for Greece and it became difficult for the country to refinance its debt. Financial market confidence in Greece's ability to manage its funding problems deteriorated rapidly, and Greece's funding costs rose to unsustainable levels. The

Chart.
Interest rate spread relative to German bonds



loss of market confidence was also fuelled by the problems relating to Greece's statistical reporting of government finances. The yield on Greek 10-year sovereign bonds increased to over 10%, and the country had to resort to the international community to ensure funding.

The International Monetary Fund (IMF) and euro area countries made the disbursement of funds conditional on the Greek authorities implementing a three-year economic and financial adjustment programme, which aims to reduce the government deficit to below 3% by 2014. The financial support agreed on between Greece, the IMF and euro area countries totals EUR 110 billion. Greece's progress with the adjustment programme is being monitored closely, and the loan is provided under the conditionality of Greece keeping within the

targets set. However, Greece's commitment to the adjustment programme's targets did not have a notable impact on reduced market confidence in Greek sovereign bonds. At the end of the year, the spread between the Greek sovereign bonds relative to German bonds was almost 10 percentage points.

Ireland's fiscal deficit grew substantially in 2010 on account of the various bank rescue packages. Problems in the Irish banking sector and rapid indebtedness escalated into a crisis at the end of 2010 and, as with Greece, Ireland had to resort to the international community for assistance. Ireland is committed to a four-year consolidation plan which aims to reduce the government deficit to levels concordant with European fiscal policy rules, ie below 3%, by 2014. The financial assistance to Ireland covers all the institutions

involved in financial stability arrangements; the European Financial Stabilisation Mechanism (EFSM) and the European Financial Stability Facility (EFSF), as well as the IMF. The Eurosystem has also been actively involved in the preparation of the financial packages to Ireland and Greece, together with the European Commission and the IMF.

The ECB Governing Council has emphasised that strengthening financial market confidence and reducing sovereign risk premia require immediate and credible multi-year fiscal consolidation. Commitment to substantial and long-term structural reforms is also necessary to underpin economic growth and euro area activity. Well-functioning financial markets support banks' access to finance and the transmission of monetary policy.

Over the course of autumn 2010 the situation in the Irish sovereign bond markets weakened rapidly. In November the situation was aggravated, creating restlessness in the overall euro area financial market. As a result, the European Financial Stabilisation Mechanism was activated, and euro area

countries granted Ireland a loan so as to stabilise the situation. In December the Governing Council welcomed the economic and financial adjustment programme agreed by the Irish government, which contains the necessary elements to bring about a sustainable stabilisation of the Irish economy.

# The Bank of Finland and economic policy in Finland

Finland's total output increased moderately in 2010 following the exceptionally sharp decline of the previous year. Output growth improved considerably in spring but receded towards the end of the year. The recovery was driven by forest and chemical industries and metal processing. A substantial proportion of capital goods in Finnish industrial output and exports delayed the economic recovery, since large amounts of spare capacity hampered the rebound in investment activity around the world. Also in Finland, investment in machinery and equipment continued to decrease further in 2010 as companies had substantial amounts of free production capacity.

The Bank of Finland published two macroeconomic forecasts in 2010. In the September forecast the Bank assessed that the recovery of the Finnish economy will not be particularly strong. The recession had speeded up the structural realignment in the economy, and many key export sectors were in process of adjusting to changing global demand and production structures. The Bank of Finland stressed that there can be no return to the pre-recession growth trajectory without structural measures to boost labour supply and improve productivity.

Prior to the recession, labour costs increased in Finland more than in the euro area on average over a number of years. As pointed out in the Bank of



Photo: Peter Mickelsson.

Finland forecast, weakened productivity resulting from the recession hampered Finnish companies' price competitiveness and made it harder for them to win new orders in the tight competitive situation.

In 2010, construction was boosted by government support measures and demand that was backed by low interest rates. The resilience of housing loan demand has resulted in a continued increase in Finnish household indebtedness. Over the year, the Bank of Finland emphasised several times that households need to be able to service their debts also in an environment of considerably higher interest rates. A large debt burden weakens the ability of households - and, indeed, the economy as a whole - to adjust to various economic disturbances. The Bank reminded that household indebtedness should be monitored closely.

Finnish households' confidence in the economic situation improved rapidly in 2009, with further improvement in 2010. The recovery in confidence was supported by a better-than-expected employment situation, which in turn was affected by factors such as the layoff system applied in Finland, decreasing enterprises' need to fire personnel during the recession. The increase in unemployment was also partly restrained by movements of some people outside the labour force, for example because of studies or retirement. The unemployment rate declined from 9% to below 8% in 2010. Supported by a high degree of confidence, private consumption improved during the year and retail sales

grew to levels recorded prior to the recession. Towards the end of the year, consumer confidence was undermined by renewed concerns relating to euro area public finances.

The rate of increase in consumer prices accelerated towards the end of 2010. Energy prices rose over the year, and food prices also increased in the latter half of 2010. The 12-month rate of change in consumer prices also picked up, as the cut in VAT on food in October 2009 no longer had an impact on the rate of change in the last months of the year. By contrast, services prices rose more moderately than a year earlier.

Finland's general government deficit remained large in 2010, despite the economic expansion. The central government deficit in particular was sizeable, with government borrowing increasing rapidly. The recession has, within a short time, eroded the buffers reserved against the expenditure burden associated with population ageing. Long-term fiscal imbalances cannot be corrected by economic recovery alone. The Bank of Finland stressed that, in addition to structural reforms, consolidation of the central government and entire public sector finances require a reassessment of income and expenditure.

During the year, the Bank of Finland participated in a variety of ways in analysis and economic policy discussion relating to global and domestic economic development. On several occasions the Governor and experts of the Bank of Finland were consulted by the Parliament and other domestic institutions.

#### Research

Research activities at the Bank of Finland serve to enhance the Bank's policy preparation, develop its own activities and improve its external influence. The aim is to meet top international standards in areas of research of key importance to the Bank. This ensures that the Bank of Finland makes a strong contribution to the debate on economic policy and financial market development both domestically and internationally.

The reform of the Bank of Finland's research function was initiated in early 2010, as the Board set up a task force to prepare a proposal for the reorganisation of the Bank's research resources and a review of the priority placed on different research areas. The key objective of the reform was to ensure high academic quality of research, improve the interaction between research and policy work and guarantee the relevance of research priorities. The financial crisis and global economic recession emphasised the close relationship between financial factors and macroeconomic stability, which should be reflected in the Bank's new research priorities.

#### Reform of the research function

In December 2009, an evaluation report was published on the Bank of Finland's research function. Based on the findings, the Bank of Finland Board set up a task force at the beginning of 2010 to prepare a proposal for concrete measures to reform the Bank's research function. The task force submitted its report in May 2010, and the key contents of the report

were deliberated in the Bank of Finland's strategy days at the turn of May-June. In summer 2010 the Board was presented with a proposal for the organisation of the Bank's research function in line with the so called broad research unit model.

According to the proposed model, the internal visitors' programme or rotation system into the Research unit will be terminated and replaced by longer-term positions for research economists in the Monetary Policy and Research department's Research unit. The Research unit will recruit PhD economists to work as research economists under fixed-term assignments. The four- to five-year assignments can be renewed. The time of a research economist is allocated to actual research work and policy responsibilities, and performance is reviewed from both perspectives. In addition, the previous two research programmes, modelling of monetary policy and future of the financial services sector, will be merged so that the new research focus is on the interaction and stability of financial markets and macroeconomy. The revision of research focus is partly influenced by the financial crisis and the following global economic recession, which have strongly emphasised the importance of financial factors for macroeconomic stability.

The new organisation came into force at the beginning of 2011. At the end of 2010, four PhD-level economists were recruited from within the Bank as research economists. In addition, the Board decided that the bank participates

in the recruitment event held for PhD graduates in connection with the annual meeting of the American Economic Association in Denver in January 2011, with the aim of recruiting additional PhD economists.

#### Monetary research

Although the Research unit was largely oriented towards the revision of the Bank's research function in 2010, actual research conducted at the unit was still guided by the previous research priorities. The established priorities were monetary policy modelling, future of the financial services sector and the monitoring and research on economies in transition, with an emphasis on Russia and China. Research at the Bank of Finland is conducted in a centralised manner in the Research unit and the Bank of Finland Institute for Economies in Transition (BOFIT).

The global financial crisis and the resulting international economic recession have imposed new challenges on economic research. Mainstream macroeconomic research had drawn strong criticism. On the one hand, criticism has been centred on research not being able to foresee the onset of the financial crisis and its implications, and on the other hand on research not being able to provide means to manage and exit the crisis. A number of critics have stated that one lesson to be drawn from the crisis is that research on financial market behaviour and functional failures should be more distinctively integrated into macroeconomic analysis, and that

the foundations of macroeconomic analysis are also in need of more profound revision. The Research unit contributed to the debate on challenges to economic research in the aftermath of the crisis and addressed primarily the potential implications of the financial crisis for the position and prospects of macroeconomics.

In 2010 research projects at the Bank of Finland Research unit continued to focus on monetary policy modelling and analysis of the future of the financial services sector. These research programmes generated 22 discussion papers in 2010. The financial and stability policy debate in 2010 was still fundamentally suffused by the international economic recession following the global financial crisis. The debate was also reflected in the Bank's research priorities. The macroeconomic importance of financial factors maintained its leading role among research topics. In the financial markets research programme, main areas of interest were capital adequacy provisions, banks' housing loan margins and the macroeconomic implications of banks' excessive risk-taking and capital adequacy regulations.

Consistent with research priorities, projects within the monetary policy modelling programme focused on topics such as 1) financial market disturbances as sources of business cycle fluctuations in Finland, 2) the relationship between financial wealth and monetary policy in the United States in particular, 3) the effect of financial development on

economic growth, 4) central bank liquidity operations during the financial market and economic crisis, and 5) macroeconomic implications of government deficit finance when agents' expectations are formed using adaptive learning rules. Research findings indicate that financial factors have played a significant role in investment and business cycle dynamics in Finland over the time period of 1995–2008. Estimates also suggest that stock price movements have a strong impact on US business cycle fluctuations, and the Federal Reserve uses its key policy rate to reduce fluctuations in stock markets. Furthermore, research findings also show that financial development has a positive effect on economic growth through more efficient utilisation of innovations in the economy. Finally, research evidence shows that, under assumption of expectations formed using adaptive learning rules, government spending under deficit finance does not stimulate aggregate demand if agents' expectations do not depend on variables associated with deficit financing.

Consistent with research priorities, projects within the programme of the future of the financial services sector focused on the possibility to alleviate the proposed procyclicality of Basel II regulations by using through-the-cycle ratings in banks' IRBA models. Such ratings would be based on the structural component of the debtor's credit risk, ignoring cyclical fluctuations. Empirical evidence shows that such a structural component does not seem to exist at corporate level. Research evidence also

shows that short-term movements in housing loan rates in Finland are largely explained by changes in money market rates, whereas long-term developments have also been affected by cost and credit risk factors. Finally, research evidence suggests that banks' excessive risk-taking stemming from informational asymmetries in loan markets can contribute to the allocation of credit to high-risk investment projects. This can materialise as an excessive loss of output when a recession starts. Output loss could be effectively alleviated by modifying Basel II regulations to reduce excessively risky investments.

#### Research on economies in transition

The research efforts of the Bank of Finland Institute for Economies in Transition (BOFIT) mainly consist of applied macroeconomics with a focus on monetary and exchange rate policy issues. The primary countries of interest are Russia and China, although many research settings require the use of more extensive comparative data.

Research also forms the basis for the unit's monitoring and expert activities, and these, in turn, support the research itself. Initially, the studies are published as BOFIT's own discussion papers. In 2010, a total of 20 discussion papers were published. In addition to the effort of the unit's own researchers, the series includes articles by visiting scholars and studies presented in the unit's seminars and workshops.

As in previous years, the bulk of research conducted at BOFIT focused on

specific broader topics. A lot of attention has been paid to monetary and exchange rate policies in emerging economies. Research findings suggest that exchange rates still play an important role in monetary policy decision-making in many emerging countries. This is partly attributable to the fact that, in many countries, foreign currency is used as an exchange medium and a savings instrument, and therefore exchange rate changes are passed on quickly, for instance to consumer prices. The reason for this is that a number of products are priced in a foreign currency. Many of the emerging economies are also relatively dependent on foreign trade, which

emphasises the importance of exchange rates.

Active research on the banking sectors of Russia and other emerging economies continued over the year. Results indicate for instance that the structure and operations in the Russian banking sector have changed surprisingly little over the past decade, even though Russia introduced a deposit guarantee system in 2004. It may be that the dominance of large and primarily publicowned banks prevents major changes in the Russian banking sector. On the other hand, this may have promoted the stability of the banking sector during the financial crisis.

Dr. Alberto Giovannini (left), Professor Francesco Giavazzi and Governors Mario Draghi and Erkki Liikanen were amongst the attendees at a conference arranged by the Bank in June.



Photo: Lauri Olander.

#### Scientific meetings

As in previous years, the Bank of Finland organised a number of international scientific meetings relevant to the Bank's fields of research. In June 2010, the Bank of Finland and Banca d'Italia jointly organised a conference in Helsinki to commemorate Pentti Kouri's academic career. The conference addressed challenges of the global crisis to macroeconomic theory and international finance. The conference brought together top-level academicians and central bank governors, including the Nobel Laureate, Prof. Edmund S. Phelps (Columbia University), Chief Economist of the IMF, Prof. Olivier Blanchard (MIT) and central bank Governors Mario Draghi (Italy), José De Gregorio (Chile) and Patrick Honohan (Ireland). The participants had in common that they both had all konwn Pentti Kouri and that they all used the opportunity to comment and discuss economic topics where Kouri made key contributions during his academic career. These topics are still highly relevant and included macroeconomics and the great recession, exchange rates and global adjustment, and financial stability and economic growth. The conference was successful and gained a lot of media coverage.

In October 2010, the Research unit and BOFIT organised the 11th annual conference in cooperation with the Centre for European Policy Research (CEPR). This time the topic was research on banking in emerging economies. The conference was co-organised with the Rensselaer Polytechnic Institute (United

States). The conference attracted more than 70 papers from international researchers in the field, among which the scientific committee selected 12 to be presented and commented in the conference. Part of research papers presented in the conference will be published later in the BOFIT Discussion Paper series.

In addition to scientific meetings, in 2010 BOFIT organised public seminars on Russian and Chinese economy. These popular seminars dealt for instance with topical economic policy issues and long-term growth potential in both of the economies.

### **Banking Operations**

#### Implementation of monetary policy in the euro area and in Finland

#### Full allotment policy continued in refinancing operations

The implementation of monetary policy ensures that the policy-rate decisions of the Governing Council of the ECB are passed through to market interest rates and further to the activities of economic agents and price developments. In the first phase of the transmission mechanism of monetary policy, the Eurosystem regulates the terms and conditions for the volume, price, maturity and timing of central bank refinancing provided to credit institutions that act as monetary policy counterparties, and these terms and conditions have a key impact on the formation of interbank money market interest rates. In the course of 2010, the price, ie the interest rate, for central bank refinancing was kept unchanged at 1%, and changes were made in particular to the maturity of credits extended.

Banks need central bank funds, ie liquidity, in order to meet, for example, the demand for banknotes and to fulfil the minimum reserve requirements imposed on them. In addition to these normal requirements, there was an increase in the demand for central bank refinancing during the financial crisis, as financial intermediation partly shifted

bank's balance sheet. In an environment of distrust between banks and uncertainty over liquidity, some banks with liquidity deficits wanted to ensure their access to finance direct from the central bank, while many banks with liquidity surpluses deposited their funds with the central bank instead of the markets.

Banks' liquidity needs were met via market operations, which national central banks carry out in a decentralised fashion as tender procedures in accordance with the instructions of the ECB.<sup>2</sup> As a rule, the most important instrument for signalling the stance of monetary policy is the main refinancing operations (MROs) conducted weekly with a maturity of one week. The three-month longer-term refinancing operations (LTROs) are usually carried out on a monthly frequency. During the financial crisis, the average maturity of central bank refinancing was extended considerably. Consequently, in 2010, the bulk of banks' central bank refinancing stemmed from three one-year LTROs conducted in the previous year. Moreover, 2010 saw the conduct of two LTROs with a longer maturity than normal, ie with a maturity of six months (Chart 4).

Since autumn 2008, Eurosystem refinancing operations have provided banks with desired amounts of credit. against eligible collateral, at the policy

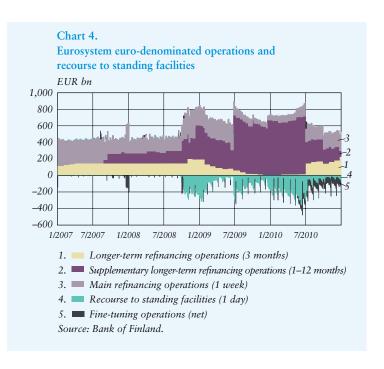
from interbank money markets to central

Credit institutions meet their reserve requirements, determined on the basis of their outstanding deposits, by holding deposits, which on average correspond to their reserve requirements, with the central bank during a one-month maintenance period.

<sup>&</sup>lt;sup>2</sup> The Bank of Finland's Market Operations division is responsible for money market tenders, whereas purchase programmes related to monetary policy are the responsibility of the Investments division.

rate.<sup>3,4</sup> This fixed-rate full allotment policy has had a key role to play throughout the crisis in reducing the negative implications of the money market distress and in restoring confidence in the markets. Removal of the uncertainty over liquidity, underlying the money market distress, effectively lowered risk premia, which, however, continued to be clearly higher in 2010 than before the crisis.

Eurosystem counterparty banks have the daily possibility of placing overnight deposits or obtaining overnight credit against provision of eligible collateral (standing facilities). Owing to the full allotment policy, use of the marginal lending facility was slight throughout 2010. By contrast, the banking system's exceptionally strong demand for liquidity, together with the ECB's full allotment policy, had a direct impact on the growth of overnight deposits, as banks deposited their larger than normal holdings of central bank funds with Eurosystem national central banks. Recourse to the deposit facility is financially sensible, as the Eurosystem only remunerates deposits held to meet minimum reserve requirements at the same interest rate as counterparties must pay for liquidity allotted in the main refinancing operations (MROs). No interest is paid on amounts exceeding reserve requirements, unless banks separately place them as overnight



deposits. Overnight deposits reflecting excess liquidity were at historically high levels (EUR 384 billion) in June, although they fluctuated considerably over the year, which points to the gravity of the financial market tensions. The Governing Council of the ECB also kept the interest rates on the deposit facility and the marginal lending facility at 0.25% and 1.75%, respectively, throughout the year.

During the financial crisis, nonstandard monetary policy measures supported recovery from exceptionally severe market disruptions and promoted the pass-through of policy rates to the real economy. In Europe, banks play a key role in financial intermediation. Therefore, the ECB has undertaken its non-standard policy measures, aimed at safeguarding financial intermediation,

<sup>&</sup>lt;sup>3</sup> On 28 April 2010, a three-month LTRO was conducted as a variable rate tender procedure.

<sup>&</sup>lt;sup>4</sup> At the fixed MRO rate or a rate fixed at the average minimum bid rate of the MROs over the life of the operation.

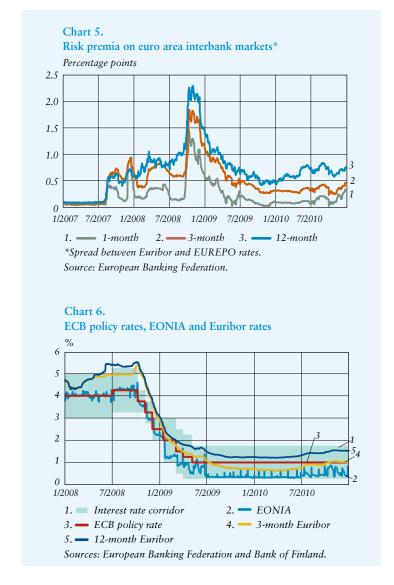
mainly via the banking sector. In order to ensure banks' access to finance, in addition to refinancing operations, a purchase programme for covered bonds had been launched in July 2009. With the programme reaching its targeted volume of EUR 60 billion, it was discontinued in summer 2010, as envisaged. Foreign currency operations launched to ensure

banks' dollar financing were also continued in 2010, but participation in these operations was very limited in the euro area as a whole.

# Gradual exit from non-standard measures commenced in spring without problems

2010 began peacefully in the money markets. Despite incipient signs of sovereign debt problems, banks' demand for excess liquidity increased slowly, as liquidity had already been obtained abundantly in the three 12-month operations of 2009. In interbank markets, the spreads - ie risk premia - between secured and unsecured interest rates remained in early spring as narrow as at the end of the previous year (Chart 5). Money market interest rates declined moderately lower still, along with persistent liquidity surplus (Chart 6), because excess liquidity is channelled back to central banks in the form of overnight deposits. For this reason, banks raising short-term credit in interbank markets are not willing to remunerate short-term deposits at significantly higher rates than the rate on overnight deposits with the central bank.

Non-standard measures were phased out in accordance with the decisions taken by the Governing Council in December 2009. It was announced that only one supplementary operation with an extended maturity, ie a six-month operation, would be carried out in March. The gradual exit ensured as timely responses as possible to changes in the operating environment and facilitated the



suspension of measures or even a change in direction if necessary.

In March, the Governing Council of the ECB decided that, on 28 April, the Eurosystem would carry out a longer-term refinancing operation (LTRO) as a variable rate tender procedure for the first time since the beginning of October 2008. The marginal rate in this regular three-month LTRO was at the level of the policy rate, as the pre-announced indicative allotment of EUR 15 billion clearly exceeded the bids submitted (EUR 4.8 billion).

Demand in other operations with longer maturities conducted in early spring was also lacklustre, reflecting the slow maturing of these operations. Funds from maturing operations, which were only few, were mainly replaced by the take-up of funds from main refinancing operations (MROs) and occasionally special-term refinancing operations with a maturity of one maintenance period. The large amount of liquidity allotted in the 12-month operations<sup>5</sup> and the Governing Council's decision in March to conduct the MROs and the specialterm refinancing operations with a maturity of one maintenance period as tender procedures with full allotment at the policy rate for as long as necessary, or at least until the end of the September maintenance period, ensured that operations matured smoothly without unnecessary tightening of liquidity and a rise in interest rates.

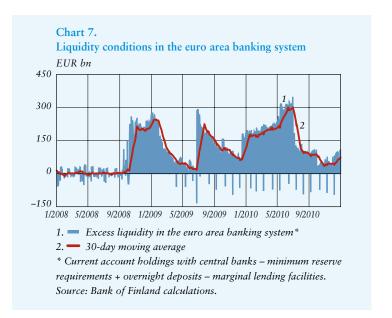
January witnessed the conduct of the then last operations providing

liquidity in Swiss francs and US dollars. Participation in both tenders had already fallen to considerably low levels because of relatively expensive pricing, which encouraged counterparties to return to market-based funding. The ECB's swap lines with the Swiss National Bank and the US Federal Reserve matured at the end of January.

#### ECB responded to the acute sovereign debt crisis promptly and with new operations

With the approach of May, the volume of excess liquidity had grown to more than EUR 200 billion, reaching its peak since summer 2009. Liquidity allotted in market operations did not grow in any important measure, but liquidity increased steadily via the purchase programme for covered bonds (Chart 7).

During the first week of May, the situation in euro area financial markets



<sup>&</sup>lt;sup>5</sup> In 2009, a total of EUR 614 billion was allotted in the three 12-month operations.

deteriorated rapidly. As markets challenged the repayment capacity of certain euro area countries, the functioning of the debt securities markets suffered a serious setback. The problems were not only limited to the debt securities of the countries concerned, but the whole financing sector's ability to issue unsecured credit weakened in a manner similar to what was observed in the most difficult phases of the financial crisis.

On 10 May, the ECB Governing Council decided to re-adopt the fixed-rate tender procedure with full allotment in the regular three-month longer-term refinancing operations (LTROs) in order to prevent the acute crisis from coming to a head. Furthermore, it was decided to conduct a supplementary six-month LTRO on 12 May. At that time, a new Securities Markets Programme was also launched. Under this programme, the Eurosystem can purchase securities, whenever needed, in dysfunctional private and public debt securities markets that are key to monetary policy transmission. The liquidity-providing impact of the programme was sterilised by weekly collections of one-week fixed-term deposits from banks in the amount equivalent to the volume of the purchases. The maximum bid rate in these liquidity-absorbing operations was the same as the policy rate, 1%. However, the highest accepted rate in the operations remained considerably lower and followed the path of short-term money market rates.

The European Central Bank agreed with the US Federal Reserve on the reactivation of the swap line used during the financial crisis. This swap line enabled the

Eurosystem to offer its counterparties US dollar financing at terms of 7 and 84 days against ECB-eligible collateral. However, except for the first week's operation of USD 10 billion, participation remained modest, and in the end there was only one 84-day operation. One-week operations were carried out throughout the rest of the year, and the swap line with the US Federal Reserve was rolled over in December until 1 August 2011.

The volume of liquidity allotted via market operations and the covered bond purchase programme reached in June its all-time high, peaking at more than EUR 900 billion at the end of June. The predefined purchases of covered bonds for an amount of EUR 60 billion were completed according to schedule by the end of June.

In the latter part of the year, financial markets devoted exceptionally strong attention to the country-specific allocation of Eurosystem refinancing. The banking systems of debt-ridden countries had to rely heavily – relative to the size of their countries' economies – on central bank refinancing, as private investors and depositors withdrew from the markets and interest rates rose.

### Liquidity declined significantly upon expiry of refinancing operations with extended maturities

By the end of 2009, the ECB Governing Council had decided to discontinue the conduct of refinancing operations with longer than normal maturities after the six-month operation in March.

Accordingly, the markets' main focus was

on the maturing of previously conducted large-volume refinancing operations with extended maturities and the resultant decline in excess liquidity. Since these operations matured on Thursdays, as did regular longer-term refinancing operations (LTROs), the Eurosystem carried out operations to provide banks with central bank funds that would bridge them over until the conduct of the next main refinancing operation (MRO).

Expiry of refinancing operations with longer than normal maturities essentially increased banks' participation in the regular market operations. Prior to the maturing of the first 12-month operation at the end of June, the volume of liquidity obtained by banks in the MROs amounted to an average of EUR 86 billion, from which the average rose to EUR 178 billion for the rest of the year. Meanwhile, the outstanding volume of three-month LTROs grew to EUR 168 billion, from only EUR 14 billion.

The ample liquidity of the banking system was reflected in the activity of Bank of Finland counterparties, as their participation in refinancing operations (82) in 2010 remained at historically low levels. They accessed central bank funds only in five tenders. By contrast, participation in liquidity-absorbing operations (45) was lively, reflecting the abundance of Bank of Finland counterparties' liquidity buffers. Bank of Finland counterparties accounted for about 4% of fixed-term deposits collected via liquidity-absorbing fine-tuning operations.

The effects of the sovereign debt crisis on interbank money markets waned

gradually towards the end of the year, and refinancing operations with extended maturities expired without problems. Excess liquidity declined to EUR 30-100 billion. As 2010 ended, of non-standard operations in euro, only the special-term refinancing operation with a maturity of one maintenance period and the Securities Markets Programme with its liquidityabsorbing operations remained in force. By contrast, it was decided to continue the fixed-rate tender procedure with full allotment in the main refinancing operations (MROs) and in the special-term refinancing operations with a maturity of one maintenance period, at least during the first three maintenance periods in 2011. The procedure of pre-fixed interest rate in the three-month longer-term refinancing operations (LTROs) was replaced by a procedure where the interest rate is indexed to the rate on the MROs, starting from October 2010.

# Range of short-term market interest rates widened upon expiry of operations with extended maturities

There is a clear negative interdependence between excess liquidity and short-term interest rates: the more liquidity, the more likely banks use the central bank's deposit facility for placing overnight deposits and with the less likelihood banks need to obtain overnight credit under the marginal lending facility. As excess liquidity increases so as to reach a considerably large volume, the likelihood of having to use marginal lending is extremely small for all banks. This causes the shortest interest rates to fall close to the rate on the deposit facility, and

slight changes in liquidity no longer have an impact on interest rates, as it is not profitable for banks to pay higher interest on excess short-term deposits than does the central bank.

The large amount of overnight deposits with central banks kept the EONIA, which reflects the level of the overnight rate in the money market, firmly about 0.1 percentage point higher than the rate of 0.25% on the deposit facility until the maturing of the one-year operation of EUR 442 billion at the end of June. As excess liquidity supply declined, the EONIA started to rise again. Owing to the averaging provision, which allows fulfilment of reserve requirements on the basis of average reserve holdings over the maintenance period, the bulk of banks' holdings of central bank funds are channelled into reserve holdings at the beginning of the maintenance period. As a result, the evolution of the EONIA replicated the pattern where, in the early part of the maintenance period, the EONIA was clearly closer to the policy rate, from which it declined, over the maintenance period, closer to the rate on the deposit facility and excess central bank funds were channelled into overnight deposits. These fluctuations did not, however, spill over to longer-term interest rates.

Normalisation of money markets raises short-term interest rates closer to the policy rate and reduces the size of the Eurosystem balance sheet

The non-standard measures to provide liquidity support were designed so as to

encourage banks to return to market-based financial intermediation. Excess liquidity that is channelled into overnight deposits constitutes a major cost for the banking system, as the price for central bank refinancing in market operations clearly exceeds the rate on the deposit facility. The better financial intermediation among banks operates, the smaller the need to use the central bank balance sheet for this purpose. Then, central bank refinancing extended to banks and, similarly, overnight deposits with the central bank decrease, which reduces the balance sheet size.

Consequently, the rise of the EONIA closer to the policy rate signals the normalisation of the money markets. In a situation where almost all money market participants have the opportunity of participating in the intermediation of market finance, the shortest market rates should again reflect the price at which the central bank provides (limited) central bank refinancing to the markets, rather than the level at which the central bank accepts excess liquidity from the banking sector. Another sign of money market normalisation was that trading activity increased in June after the maturing of the one-year operation. The daily trading volume of overnight deposits almost doubled, rising to about EUR 50 billion in the latter part of the year.

Eurosystem's collateral framework was changed as a consequence of the sovereign debt crisis

As part of the Eurosystem, the Bank of Finland extends central bank refinancing to credit institutions only against provision of adequate collateral. Eurosystem central banks have together defined the classes of assets eligible for collateral and the terms and conditions under which such assets may be used as collateral. It has been agreed that debt instruments fulfilling certain eligibility criteria are accepted as collateral. Collateral assets are priced daily. Assets are not accepted as collateral at their full value but they are subject to valuation haircuts. All credit institutions eligible as counterparties to the Eurosystem may use assets deposited with all euro area countries as collateral.

Since autumn 2008, the Eurosystem has temporarily accepted a broader-thanusual range of assets as collateral, because credit institutions' collateral needs had increased following strong demand for central bank credit during the financial crisis. The original aim was to restore the range of collateral back to its former level at the end of 2010. As uncertainty about the credit standards of Greece and some other euro area countries and fears about a decrease in available collateral because of credit rating downgrades increased, the ECB decided in April to continue the eligibility of assets rated in the BBB category even beyond the end of 2010. Before autumn 2008, only assets with ratings at the level of AAA, AA or A had qualified as collateral.

Continued eligibility as collateral of BBB-rated assets required an updated assessment of valuation haircuts applied to collateral assets, and the ECB announced a decision about a new schedule of valuation haircuts at the same time as the extension of eligibility for BBB-rated assets was made public. The new haircuts included a graduated credit risk element. Previously, the haircut reflecting mere credit risk for BBB-rated assets was a flat 5%, which was added on the basic haircut. In the new schedule of haircuts, the proportion of credit risk is already included in the basic haircut. The new valuation haircuts entered into force on 1 January 2011.

The loss of confidence in the financial markets continued in May 2010. The ECB then announced its decision to accept as collateral marketable debt instruments issued or guaranteed by the Greek government, even if the credit rating assigned by credit rating agencies to Greece were to fall below BBB. The decision was influenced by the Greek government's strong commitment to implementing an economic and financial adjustment programme, negotiated with the Greek authorities by the European Commission, in liaison with the ECB, and the International Monetary Fund. By mid-January 2011, credit rating agencies used by the Eurosystem had downgraded the Greek government rating to a level below BBB.

Assets temporarily accepted as collateral were removed from the list of eligible collateral at the end of 2010, except for BBB-rated assets. Eligibility status was lost by debt instruments denominated in the US dollar, the pound sterling and the Japanese yen, debt instruments issued by credit institutions which are traded on non-regulated markets and certain subordinated debt

instruments protected by acceptable guarantees.

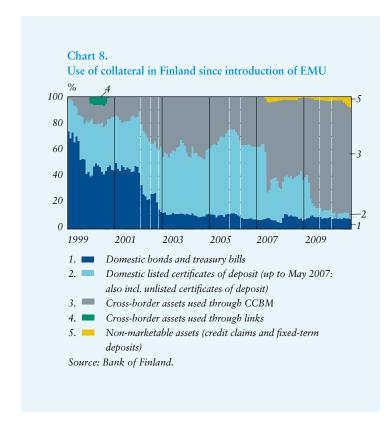
The Eurosystem saw it necessary to continue the tightening of eligibility criteria for asset-backed securities (ABSs) in 2010 on account of an increase in the risks related to them. A rating at the AAA level at issuance and at least a 'single A' level rating over the life of the security had already previously been determined as one eligibility criterion in order for the ABSs to remain eligible. The credit quality threshold for these assets was not lowered to the BBB level at any stage. In 2010, a requirement to have a rating from at least two eligible rating agencies was imposed on asset-backed securities. In addition, the

second best credit rating was taken as a basis for determining eligibility over the life of the security.

### Finnish credit institutions continued to hold large surplus collateral reserves

The total amount of assets put forward as collateral by Bank of Finland counterparties in 2010 averaged EUR 22.5 billion. Compared with the previous year, there was an increase of a good EUR 2.5 billion in collateral assets. The amount actually used for collateral purposes was well over EUR 12 billion, meaning that counterparties continued to hold large surplus collateral reserves. Collateral use of assets with temporary eligibility until the end of 2010 was limited in Finland.

The most significant part of collateral used by Bank of Finland counterparties in 2010 was cross-border debt instruments. These continued to increase their share of total collateral assets, accounting for more than 82% thereof. Cross-border collateral assets were delivered using the correspondent central banking model (CCBM), a mechanism established between central banks for transferring cross-border collateral, and were deposited in several Eurosystem countries. Domestic non-marketable assets continued to account for a very small share of the total collateral amount (Chart 8). The share of bonds and treasury bills remained at the same level as in previous years. The share of listed domestic certificates of deposit, falling within the limits introduced, in relation to total collateral amount declined to 4%. Links between central securities



depositories were not used for transferring collateral.

Foreign counterparties used about EUR 450 million worth of securities issued in Finland as collateral, which is just under EUR 100 million less than in the previous year. The Bank of Finland holds these collateral assets in custody for the account of other central banks on the basis of a 'correspondent central bank agreement'.

The purpose of the CCBM2 (Collateral Central Bank Management) project, launched by the ECB Governing Council in July 2008, is to bring greater efficiency to collateral management by harmonising procedures in the management of both domestic and crossborder collateral. The CCBM2 system, set up by the Nationale Bank van België/ Banque Nationale de Belgique and De Nederlandsche Bank, will provide collateral management services from a single technical platform. The system will be compatible with the TARGET2 and TARGET2-Securities systems, ensuring an automatic processing of collateral transactions. This will particularly enhance the collateral and liquidity management of multinational credit institutions. Despite technical concentration, national central banks will continue to be responsible for extending credit to their counterparties against delivery of adequate collateral.

The Eurosystem is currently finalising the technical documentation for the CCBM2 system, and the project is envisaged to reach completion in 2013.

#### **Payments**

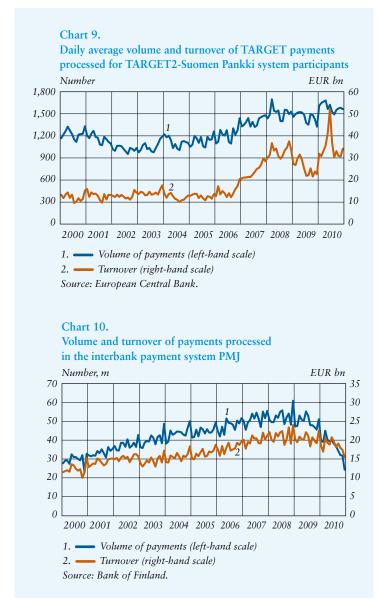
The Eurosystem conducts its monetary policy operations through the TARGET payment system (Trans-European Automated Real-time Gross settlement Express Transfer system). TARGET also plays a major role in the execution of large-value payments, and all key payment systems use TARGET for settlement purposes.

In December 2010, the TARGET2 system included 1,020 direct participants through 23 central banks. The Bulgarian central bank joined the system last in February 2010.

The name of the Bank of Finland's payment system is TARGET2- Suomen Pankki, and comprises 19 direct participants. The TARGET2 system as a whole executed on average 343,500 payments per day in 2010, with an aggregate value of about EUR 2,300 billion. TARGET2-Suomen Pankki processed 1,590 payments per day on average in 2010, with an aggregate value of about EUR 35.1 billion. The change compared with the previous year was marginal.

The TARGET2 system's availability level<sup>6</sup> reached 100% in 2010. The Eurosystem has ensured the continuity of TARGET2 services in a number of different ways. The production equipment is located in two countries, with each additionally maintaining backup systems. On top of this, Eurosystem central banks regularly test stand-by facilities with their participants in order to ensure execution of highly time-critical customer payments

<sup>&</sup>lt;sup>6</sup> Availability means that payments can be processed during the opening hours of the TARGET2 system.



even during longer-than-envisaged system outages.

The interbank retail payment system (PMJ) transmits wages and salaries, pension payments, credit transfers and card payments as batch transfers between 12 PMJ banks operating in Finland. The

Bank of Finland performs settlement for PMJ payments between the participants' TARGET2 accounts twice a day, once during daytime and once at night. Entry into force of the Payment Services Act in May led to transferring regular payments (wages and salaries, pensions and benefits) for execution in PMJ night processing. Earlier, debiting had already taken place on the preceding day and credits to end-customer accounts were made right at the beginning of the payment date. Under the new Act, debits and credits for regular payments must occur immediately during the same value date.

Following the shortening of payment execution times, delays caused by technical malfunctions have had a direct impact on credits entered in bank customer accounts. In autumn 2010, a number of different failures occurred in the systems of both the Bank of Finland and PMJ banks, affecting the payment execution schedule for wages and salaries, pensions and benefits. The cases of malfunction have been cleared, and all parties are committed to improving their operations in order to ensure a smooth operation of the systems, to the extent possible, and to avoid delays seen in the past.

The Single Euro Payments Area (SEPA) means that the PMJ service is approaching the end of its life cycle, as it is unable to process credit transfers compliant with the SEPA standard. A portion of domestic payments have already migrated for transmission via clearing corporations' payment services, such as the STEP2 service maintained by EBA Clearing.

#### Bank of Finland investment activities

The Bank of Finland invests in all about EUR 19,017 million worth of assets, consisting of the Bank's own financial assets, the share of foreign reserve assets transferred to the ECB and the Bank's pension fund assets. At the end of 2010, the value of the Bank's own financial assets, the foreign reserve assets transferred to the ECB and the Bank's pension fund assets amounted to EUR 17,534 million, EUR 957 million and EUR 526 million, respectively.

In 2010, the Investments division of the Banking Operations department was also responsible for managing the Covered Bond Purchase Programme (CBPP) and the Securities Markets Programme (SMP), both related to the implementation of the ECB's monetary policy.

### Bank of Finland financial assets and financial asset management

Financial assets constitute an important item in the Bank of Finland's balance sheet, accounting for about 38% of the assets side of the balance sheet. The financial assets comprise foreign reserves and assets denominated in euro (Table 1). Foreign reserves, in turn, are composed of US dollars, pound sterling, Japanese yen, gold and items in Special Drawing Rights (SDR) (Table 2). The Bank of Finland reduced its foreign reserve portfolio in 2010, abandoning Swiss franc-denominated investments and cutting back pound sterling-denominated investments. Euro-denominated assets were increased correspondingly.

Table 1.
Bank of Finland's financial assets

31	1 Dec 2010 EUR m	31 Dec 2009 EUR m	
Foreign reserves	4,135	5,294	
Gold	1,664	1,208	
SDR	439	314	
Euro-denominated financial assets	s 11,296	8,927	
Total	17,534	15,743	

Source: Bank of Finland.

Table 2. Distribution of Bank of Finland's financial assets by currency

Currency	31 Dec 2010 %	31 Dec 2009 %
US dollar (USD)	16	17
Pound sterling (GBP)	4	11
Japanese yen (JPY)	3	3
Swiss franc (CHF)	0	3
Gold (XAU)	10	8
SDR	3	2
Euro (EUR)	64	57
Total financial assets	100	100

Source: Bank of Finland.

### Objectives for, and return on, investment activities

From the viewpoint of the management of its financial assets, the Bank of Finland faces the challenge of aligning the partly even conflicting liquidity and return requirements placed on the central bank. On the one hand, the Bank must be able to provide liquidity, whenever necessary, to cover emergency finance and other central banking needs. On the other hand, return on investment must be good relative to the level of risk involved, to safeguard continued favourable development of the balance sheet.

In order to improve how strategic objectives are taken into account in the investment of financial assets, the Bank decided to divide financial asset management into two separate areas: liquid assets and investment assets. The strategic objective for the investment of liquid assets is to safeguard the Bank's ability to provide liquidity for acute policy needs under all circumstances. In the placement of investment assets, in turn, the aim is to safeguard the value of the assets and the Bank of Finland's

Table 3. Return on Bank of Finland's own financial assets in 2009 and 2010

	2010 %	2010 EUR m	2009 %	2009 EUR m
Interest rate return	2.84	407.3	3.22	437.3
Exchange rate return	2.85	408.7	0.03	3.9
Total return	5.69	816.0	3.25	441.2

Source: Bank of Finland.

Chart 11.

Return on Bank of Finland's own financial assets



ongoing ability to cope with its central bank commitments. The benchmarks set for investments and the limits established for credit risk ensure that, relative to the assets of other institutional investors, the Bank of Finland's financial assets are invested within the requirements of liquidity and security.

Total return on financial assets<sup>7</sup> in 2010 was 5.69%, about EUR 816 million, and breaks down into interest rate return and exchange rate return (Table 3). The objective set for return on the Bank's financial assets is the opportunity cost of holding the assets, which is the central bank interest rate for each investment currency. In 2010, the financial assets generated average return of 2.09% in excess of the central bank interest rate. The five-year moving average was 1.59% above the central bank interest rate.

Return on investment activities consists of interest rate return and exchange rate return. In 2010, interest rates fell in all main markets, which led to moderate interest rate return on invested assets. The current exceptionally low level of interest rates means that the next few years will be challenging for interest rate return on the financial assets. Exchange rate changes helped improve return on assets, as the euro weakened relative to all investment currencies. Viewed from a longer-term perspective, it appears that exchange rate effects dominate the other components of return on the Bank's financial assets (Chart 11).

<sup>&</sup>lt;sup>7</sup> Excluding return effects from gold investments and Special Drawing Rights.

Return on financial assets is largely determined by the strategic benchmark for investments. Portfolio managers have the opportunity of deviating from the strategic benchmark for generating return higher than the benchmark. For this 'active investment', the Bank has defined a profit target relative to the strategic benchmark, calculated in terms of a moving average of the last three years' returns. In the year under review, EUR 7.3 million of EUR 816 million total returns was derived from active investment.

#### Investments

The Bank of Finland's financial assets are invested in government and agency debt securities, covered bonds and corporate bonds. The strategic benchmark for investments was confirmed at the end of 2010 (Table 4). The investments of liquid assets are exclusively composed of US dollar-denominated government debt securities, which ensure the Bank of Finland's ability to provide emergency finance in foreign currency, if needed. The strategic benchmark for investment assets includes assets from all permitted investment classes. In investing its gold reserves, the Bank of Finland makes use of unsecured gold deposits similar to money market deposits, and gold interest rate swaps.

Investments are spread with a view to generating additional return and improving the return/risk ratio. In the management of resultant credit risks, the key principles are the determination of a minimum credit rating threshold for

issuers and an effective diversification of investments geographically, by sector and by rating category. The distribution of investments by credit rating and geographically is presented in the Notes on the balance sheet.

#### Main market developments

In 2010, developments in debt securities markets were influenced by the record low level of central banks' policy rates and non-standard stimulus measures. In the middle of the year, the US Federal Reserve (Fed) hinted at its plan to purchase US government paper in the secondary market, in an attempt to have an interest rate constellation in place that would support economic recovery and thereby enhance employment. Another aim of the Fed was higher inflation. Expectations of additional stimulus measures from the Fed led to a fall in interest rates in all main markets in the second half of the year. When, in November, the Federal Reserve finally announced measures to stimulate the economy, interest rates embarked on a

Table 4. Strategic allocation of Bank of Finland's asset portfolio

	Target allocation	
	%	
Central government		
debt instruments	70	
Agency debt instruments	16	
Covered bonds	5	
Corporate bonds	5	
Cash holdings	4	
Total	100	

clear rise. Markets had doubts about the effective impact of the measures on the real economy, and concerns about an overly strong acceleration of inflation increased.

In the euro area, in addition to the condition of the economies weakened by the financial crisis, the markets were nervous about the debt problems of the area's peripheral countries. Interest rate developments across euro area countries were heterogeneous, and there was a pronounced increase in risk premia for some countries. Government bond yields for countries considered safe, such as Germany and Finland, fell during the year, but those for European peripheral countries<sup>8</sup> increased appreciably. In the course of the autumn, bond yields also started to rise in the case of euro area countries that were deemed the strongest, as a pick-up in German economic growth and investors' concerns about the growing debt burden of even stronger countries reduced the attractiveness of bonds.

### Share of the ECB's foreign reserves managed by the Bank of Finland

Management of the foreign reserves of the European Central Bank has been distributed among the Eurosystem national central banks according to their respective capital keys. The foreign reserves managed on behalf of the ECB comprise assets denominated in US dollars and Japanese yen as well as gold. Foreign reserve management is based on

The value of the foreign reserve portfolio of the European Central Bank was approximately EUR 60.8 billion at the end of 2010. The share of the reserves denominated in yen and managed by the Bank of Finland on behalf of the ECB amounted to about EUR 957 million. At the end of 2010, the Bank of Finland and the Estonian central bank agreed on joint management of the ECB's foreign reserves following Estonia's accession to Economic and Monetary Union from the beginning of 2011. These two countries' combined share of the foreign reserves constitutes one investment portfolio, which brings greater efficiency to the overall foreign reserve management within the Eurosystem. The combined share of Finland and Estonia of the ECB's foreign reserves is denominated in Japanese yen and is managed at the Bank of Finland from the beginning of 2011. The ECB's Annual Report provides additional information on the management of its foreign reserves.

the premise that each national central bank may as a rule manage only one portfolio. The Bank of Finland manages part of the ECB's reserves denominated in Japanese yen. Since any foreign exchange intervention by the Eurosystem is conducted using the assets of the ECB, security and liquidity form the basic requirements for the investment of the foreign reserves.

<sup>&</sup>lt;sup>8</sup> Greece, Ireland, Italy, Portugal and Spain.

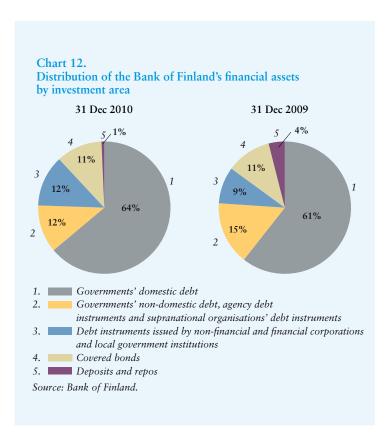
<sup>&</sup>lt;sup>9</sup> The Bank of Finland's and the Estonian central bank's combined share of the reserves.

#### Bank of Finland's pension fund assets

The objective of the Bank of Finland's pension fund is to develop the management of assets held to cover the Bank's pension liability in accordance with the generally accepted principles for the management of pension assets. These may deviate from the principles applied to the investment of the Bank's financial assets. As at 31 December 2010, the value of the pension fund's assets and that of the Bank's pension liability was EUR 526 million and EUR 543 million, respectively. Total return on assets in 2010 amounted to about 6.1%. More information on the pension fund's investment activities is available from the fund's own annual report.

### Covered Bond Purchase Programme and Securities Markets Programme

In July 2009, as a consequence of the financial crisis, the Eurosystem launched, as a monetary policy measure, a programme for purchasing covered bonds that met certain eligibility criteria and were issued in the euro area. The Covered Bond Purchase Programme was completed at the end of June 2010 upon achievement of the targeted volume of EUR 60 billion. The purchase programme helped improve the functioning of covered bond markets. During the programme, risk premia on covered bonds declined and issuance activity picked up. The Bank of Finland participated in the operation with a share corresponding to its capital key. The bonds purchased constitute part of the Bank of Finland's balance sheet (Chart 12).



In May 2010, the Governing Council of the ECB decided on new measures to stave off market disruptions that had originated from Greek problems and to ensure the operation of monetary policy transmission channels. This Securities Markets Programme allows the Eurosystem to purchase public and private debt securities in the secondary market. The Bank of Finland participates in the Securities Markets Programme as part of the Eurosystem by buying securities in accordance with jointly agreed principles. The total volume of the Eurosystem's purchases was EUR 73.5 billion at the end of 2010.

#### Box 5.

#### Definitions of risks

#### Exchange rate risk

Exchange rate risk refers to the risk that the net value – assets minus liabilities – of the bank's assets decreases in response to exchange rate changes.

#### Interest rate risk

Interest rate risk refers to the risk that the net value of the bank's assets decreases in response to interest rate changes.

#### Gold price risk

Gold price risk refers to the risk that the net value of the bank's assets decreases in response to changes in the price of gold.

#### Credit risk

Broadly speaking, credit risk means the risk that there is a change in the creditworthiness of a counterparty to a financial transaction or an issuer of securities. In practice, this may mean a credit rating upgrade or downgrade or a counterparty or issuer default.

#### Liquidity risk

Liquidity risk refers to the risk that the bank is unable to meet its obligations in time because of the difficulty in converting its assets into cash.

#### Operational risk

Operational risk refers to the risk that losses or extra costs arise from inadequate or failed internal processes, personnel, systems or external factors.

# Investment risks and risk management

#### Investment risks

In its investment activities, the Bank of Finland is exposed to market, credit, liquidity and operational risks. Of markets risks, the most significant for the Bank of Finland are exchange rate risk, interest rate risk and risk related to the price of gold (for a closer definition of risks, see Box 5).

Exchange rate risk is traditionally the main single market risk related to the central bank's investments, and this is also true in the case of the Bank of Finland. The reason for this is that central banks need to hold foreign reserves. <sup>10</sup> The Bank of Finland needs own foreign reserves in order to fulfil its commitment to responding to potential further calls by the European Central Bank on foreign reserve assets and to cover other foreign currency needs arising from central bank duties.

As a rule, the targeted size of the Bank of Finland's foreign reserve portfolio is assessed at three-year intervals, with the latest assessment undertaken at the end of 2009 for 2010–2012. In 2010, the foreign reserves were adjusted to conform to the assessment made at the end of 2009 by reducing the share of the pound sterling in the portfolio and by abandoning the Swiss franc altogether.

Besides foreign currency investments, the Bank of Finland has also

<sup>&</sup>lt;sup>10</sup> Unhedged foreign currency assets.

invested part of its assets in gold. The price of gold is determined by the markets, which results in the Bank of Finland's exposure to gold price risk.

The bulk of the Bank of Finland's financial assets are invested in interestrate instruments issued by governments and other issuers, as well as deposits. Accordingly, the Bank of Finland is exposed to interest rate risk and credit risk.

The Bank of Finland is exposed to liquidity risk because its financial assets are invested in instruments with longer maturities and, owing to the nature of central banking, it is not always known in advance when a payment need may arise, either in foreign currency or in euro. In the case of payments in euro, this risk is mitigated by Eurosystem central banks' possibility of money creation in euro. 11 Accordingly, the liquidity requirement for foreign currency investments can be considered to be higher than that for euro investments, although the requirements for the size and liquidity of the Bank's own foreign reserve portfolio have become lower in the context of the Eurosystem.

#### Management of investment risks

The Bank of Finland's risk management seeks to identify, measure and limit the risks related to its activities, using predefined methods, such as the Value-at-Risk or VaR method as well as stress and scenario analyses.

From the perspective of the Bank of Finland's risk management, particularly one theme surfaced in 2010: the debt problems of peripheral euro area countries and the resultant specific interest in credit risk generally associated with sovereign states. In 2010, the Eurosystem launched a Securities Markets Programme (SMP) for the purchase of public or private debt securities, which also increases the Bank of Finland's exposures. On 16 September 2010, the Governing Council of the ECB decided to set up a Risk Management Committee (RMC) with responsibility for, among others, the provision of information on risks related to monetary policy operations and the analysis of such risks. These factors have contributed to highlighting the importance of assessing the total financial risks attached to the Bank of Finland's balance sheet. Total financial risk exposure to the Bank of Finland's balance sheet is discussed separately on page 51.

Although the non-standard measures undertaken by the Eurosystem, notably the Covered Bond Purchase Programme (CBPP), and the Securities Markets Programme (SMP), concern monetary policy, they have also had repercussions on the investment of the Bank of Finland's own financial assets. Active investment related to securities purchased under these programmes has been suspended for the duration of these programmes.

<sup>&</sup>lt;sup>11</sup> Even so, the Bank of Finland's possibility to create money independently is limited within the Eurosystem.

#### Management of market risks

In order to mitigate exchange rate risk, the holdings of foreign reserves are determined so as to be adequate, but not overly large, for the execution of the Bank's duties, and spread among different currencies. Owing to an increase in the Bank of Finland's net SDR receivables and in the related exchange rate risk, the Bank undertook partial hedging against the SDR exchange rate risk in 2010 by selling other SDR component currencies (US dollar, pound sterling and Japanese yen) against the euro.

The Bank of Finland manages interest rate risk mainly in terms of 'modified duration'. Modified duration is a measure of changes in the value of

Chart 13. VaR figures\* for market risk in Bank of Finland's financial assets in 2010 600 500 400 300 2.00 100 1.1. 1.2. 1.3. 1.4. 1.5. 1.6. 1.7. 1.8. 1.9. 1.10. 1.11. 1.12 Total risk (excl. gold) 2. -Exchange rate risk Interest rate risk 4. — Total risk (incl. gold) \* One-month horizon, 95% confidence level. Source: Bank of Finland.

investments when the level of market interest rates changes. Interest rate risk is also controlled by spreading investments among several debt instruments with different maturities.

The Bank of Finland measures the daily levels of total market risk, exchange rate risk and interest rate risk in terms of the VaR figure (Chart 13). Active investment is subject to a VaR limit for interest rate risk.

#### Management of credit risks

As in the case of market risk, a VaR figure is also used to gauge credit risk and capture the level of credit risk, although the method applied is different from that for market risk. The credit risk VaR figure is calculated daily, using a portfolio credit risk model. A limit based on the VaR figure for credit risk is established for some investments. The limit enables to keep credit risk at a level that ensures low credit risk from the perspective of the Bank of Finland's total risk exposure.

Development of risk management methods constitutes an integral element of the Bank of Finland's risk management. In 2010, a change was made to the treatment of positions with short maturities in the calculation of VaR figures for credit risk. In this connection, the Board of the Bank of Finland decided on the establishment of new limit levels in June 2010. As sovereign credit risk has become a central concern, a need has arisen to ensure that sovereign credit risk is also duly taken into account in the risk management framework.

In addition to VaR limits, credit risk is controlled by defining eligible issuer and counterparty countries and debt instruments permitted for investment. The Bank of Finland may not invest in, for example, subordinated debt instruments. Moreover, counterparties and issuers are assigned the lowest acceptable credit rating, and the limits established are used to diversify trades and investments among several counterparties and issuers.

#### Management of liquidity risks

Liquidity risk is managed so as to ensure that part of the Bank's own financial assets is held in investments considered good in terms of their liquidity properties. This applies in particular to liquid assets. <sup>12</sup> Moreover, restrictions may have been placed on the maximum maturity of certain operations and investment instruments or on the Bank of Finland's holdings of such instruments.

#### Management of operational risks

Operational risk is managed by means of sound and well-documented work flows, adequate and professional staff, reliable information systems and well-tested backup arrangements. A more detailed description of the management of operational risks at the Bank of Finland is available in the Annual Report section Management and organisation, on page 78.

### Total financial risks in banking operations

The Bank of Finland's balance sheet total was EUR 46 billion at the end of 2010. Investment assets and intra-Eurosystem claims were among the most important items on the assets side of the balance sheet. On the liabilities side, banknotes in circulation, current accounts (covering the minimum reserve system), monetary policy operations, revaluation accounts, provisions as well as capital and reserves belonged to the biggest balance sheet items.

Risks to the Bank of Finland's investment reserves are mainly composed of exchange rate risk involved in the foreign reserve portfolio, interest rate risk associated with investments in interest-rate instruments and gold, as well as gold price risk. In addition, some investments carry credit risk which arises from changes in the issuers' credit ratings or from the possibility of an issuer default. Considering the balance sheet as a whole, the most important risk is caused by exchange rate volatility.

The Bank of Finland is responsible, according to its relative share, for risks involved in the Eurosystem's monetary policy refinancing operations and purchase programmes. <sup>13</sup> For this reason, the total Eurosystem balance sheet needs to be examined in order to identify the impact of the operations on the Bank of Finland's balance sheet. Counterparties

 $<sup>^{12}</sup>$  In 2010, by a Board decision, the Bank's own financial assets were divided into liquid assets and investment assets.

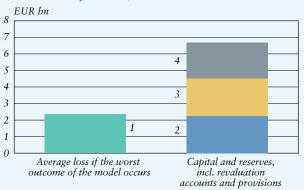
<sup>&</sup>lt;sup>13</sup> Refinancing operations, the Covered Bond Purchase Programme and the Securities Markets Programme are discussed in greater detail in the Annual Report section on the implementation of monetary policy.

Table 5. Monetary policy operations at the end of 2010

EUR m	Monetary policy refinancing operations	Covered Bond Purchase Programme	Securities Markets Programme
Eurosystem	546,747	60,852	73,976
Bank of Finland's contribution	n 9,823	964	1,329

Source: Bank of Finland.

Chart 14. Total financial risks, capital and reserves incl. revaluation accounts and provisions, 2010



1. Market and credit risk

2. Provisions

3. Revaluation accounts

4. Capital and reserves, excl. revaluation accounts and provisions Source: Bank of Finland.

to refinancing operations are required to provide adequate and separately specified collateral. The rating category of bonds purchased under the Covered Bond Purchase Programme is the best available rating and, in addition to normal issuer liability, the bonds are backed by a collateral pool. As regards risks related to the Securities Markets Programme, adequate capital buffers are in place to provide coverage. Table 5 shows the volumes of operations and purchase programmes at the end of 2010. The Bank of Finland's share of the exposure, equivalent to its capital key, also appears from the table.

The Bank of Finland's balance sheet may also be exposed to risks related to operational measures, the state of the banking system or exceptional circumstances.

Balance sheet risks are assessed using well-established market risk and credit risk models and different scenarios and balance sheet simulations. Risk assessment focuses on worst-case scenarios. When the risks to the Bank of Finland's balance sheet are thus added, the total risk exposure in the balance sheet is estimated at about EUR 2.4 billion on an annual basis. The Bank of Finland's capital and reserves, including revaluation accounts and provisions, totals EUR 6.7 billion, of which

<sup>&</sup>lt;sup>14</sup> Although the models are well-established, they fail to fully capture total risk exposure. Models use standard assumptions and, accordingly, the magnitude of risk assessments may vary depending on chosen assumptions. Of the outcomes of the model, the worst percentage is taken under review.

provisions<sup>15</sup> account for EUR 2.2 billion and revaluation accounts EUR 2.3 billion (Chart 14). A more detailed analysis of the structure of the balance sheet is provided in Financial statements.

Central banks may incur losses in safeguarding the stability and functioning of the financial system. This makes it necessary for the Bank of Finland to provide for risks in its balance sheet by ensuring the strength of the balance sheet. Maintenance of a strong balance sheet means reducing risks associated with the investment reserves, whenever necessary, and accumulating provisions and capital resources. Risks to the Bank of Finland's balance sheet have increased along with the unfolding of the financial

crisis. Risk buffers in the balance sheet, as well as capital and reserves, are adequate to cover identified risks. Capital and reserves, including revaluation accounts and provisions, ensure good risk absorption capacity for unforeseen risks, too.

<sup>&</sup>lt;sup>15</sup> The provisions dealt with here do not include pension liability provision and provision in respect of monetary policy operations.

#### Financial Markets and statistics

## Stability and efficiency of the financial system

The general government fiscal position has been adversely affected by the global financial crisis and the subsequent fiscal stimulation and fall in tax receipts. Some countries have also had to use substantial public funds to support the financial sector. Mistrust in the ability of the most leveraged European countries to service their loans became critical first in spring 2010 and again towards the end of the year. Exceptional pan-European cooperation measures were taken to stop the credit crisis. However, Europe and the stability of the global financial system are still prone to the risk of the crisis potentially dragging on or re-escalating.

The credit crisis notwithstanding, the international financial system improved its functioning in 2010. Financial institutions have – partly under public support – been able to improve their capital and liquidity buffers, which proved to be too small prior to the crisis. Inter-bank confidence has improved as reflected in, for example, a reduction in excessive liquidity in the euro area. Furthermore, surveys show that in the euro area the opportunities for households and companies to raise funds with reasonable terms have improved.

### Financial system in shape despite recession

Despite the recession, Finland's financial system has operated rather well. Evidence of this is the low amount of credit losses relative to the depth of the recession. The strength of Finnish

financial institutions reduces the risk of contagion from the most deeply indebted countries spreading into the Finnish financial system. As an open economy, however, Finland is not protected against disturbances affecting the global economy and financial system.

By and large, operations of the domestic financial system infrastructure have also been reliable. Following the introduction of the Single Euro Payments Area (SEPA), transfer of Finnish retail payments to a Europe-wide payment centre picked up at the end of the year. Some initial problems in implementation have been experienced, but without any serious threat to the reliability of the financial system. Finland is likely to be able to enter SEPA according to schedule by November 2011.

#### Risks affecting house price developments

Twice a year, the Bank of Finland publishes its evaluation regarding the stability of the domestic and international financial systems. This evaluation is targeted at all parties active in the financial sector, other authorities and general public, not only to inform them but to facilitate discussion about risks to financial stability. In the June 2010 evaluation, the Bank of Finland projected that at worst, rising house prices - which were increasing strongly in spring 2010 in Finland - could lead to an upward spiral that would only feed further increases. Rapidly rising house prices might encourage some households to purchase a house or an apartment for fear that postponing would further increase

purchasing costs. As regards the stability of the financial system we can make the positive observation that the rate of house price increases slowed down in the second half of 2010.

However, risks relating to strong housing demand have not disappeared. Partly due to a steady long term rise in housing loans, Finnish households' indebtedness is at peak levels: Household lending stock relative to disposable income is estimated to have risen to approximately 108% in 2010.

In its stability report of December 2010, the Bank of Finland estimates that the rise in household leverage does not pose an immediate threat to the stability of the Finnish financial system, but it does make both households and the economy increasingly vulnerable to rises in interest rates and financial and economic developments of negative nature. The Bank of Finland considers that the majority of direct threats to stability originate from outside Finland. If the sovereign debt crisis tightens its grip further, international financial markets risk coming to a standstill, which would also make it more difficult for Finnish companies to raise money and funds. Further continuation of the credit crisis also risks bringing global economic revival to a halt, which would hamper consumption, investment and export demand and weaken financial companies' operating environment.

# Evaluation of Finnish banks and insurance companies

The Bank of Finland was involved in projects coordinated by the Finnish

Financial Supervisory Authority and the Committee of European Banking Supervisors (CEBS) to prepare stress tests for the Finnish banking sector and the European banking system, respectively. The results of these tests were released in summer 2010. They show that Finnish banks and insurance companies would withstand it well if the economy were driven back into a recession and asset values sank considerably.

At the end of summer 2010, experts of the International Monetary Fund (IMF) released their conclusions regarding an Article IV consultation carried out in Finland in order to assess the current economic situation and policies as well as an update on the Financial Sector Assessment Program. Both of these assessments show that thanks to Finnish banks' strong capital and liquidity buffers and cautious approach to risk taking, Finland's financial system exited the global financial crises with relatively few problems. Banks under foreign ownership play a significant role in the Finnish banking system. The IMF considers it essential that authorities further improve cooperation in the supervision and crisis management of crossborder banking groups.

The international financial crisis showed that authorities should improve their ability to identify systemic risks jeopardising the stability of the entire financial system. The Bank of Finland is constantly developing its set of quantitative tools used in stability analysis. An example of such activity is the collaboration between the Bank of Finland and the Financial Supervisory Authority in the development

of the stress tests. Another example is the Bank of Finland's macroeconomic analytic model that was used in the evaluation of the macro economic impact of the so called Basel III reform. The results of this analysis were reported in the special issue of the Bank of Finland Bulletin focusing on financial stability.

#### Cooperation with other authorities

#### Basel III

In 2010, international cooperation between authorities with respect to the international financial and economic crisis shifted from acute crisis management towards the development of financial regulation and supervision. The preparation of international reforms in regulation has largely been coordinated by G20 and its Financial Stability Board. The practical implementation of the reform has been carried out by international organisations and institutions, in particular the Basel Committee on Banking Supervision.

The most important international project in regulation approved in 2010 was what is known as Basel III, a comprehensive package of banking regulation prepared by the Basel Committee. Basel III will serve to resolve a number of deficiencies in regulations on banks' capital and liquidity requirements that the financial crisis revealed. Along with Basel III, the EU is revising its Capital Requirement Directive to reflect Basel III. The aim is for Basel III to provide a variety of ways for individual banks and the entire financial system to improve their risk-bearing

capacity. In the future, banks will need to place more and better-quality own funds as buffer against losses. Two new quantitative liquidity requirements will also be imposed on banks to protect them against short-term liquidity risks and limit excessive raising of short-term funds. An important reform in principle is the right, to be granted to national authorities, to impose on banks an additional requirement on counter-cyclical capital buffers to restrict what is regarded as excessive growth of total lending.

Basel III reforms will be implemented gradually in that all new regulations will be fully functional by the end of 2018. In 2010, the Bank of Finland gave its statement to both the Basel Committee and the European Commission on their proposed reforms. In addition, the Bank of Finland took part in developing financial regulation within the EU via participation in Ecofin and the ESCB.

#### European Systemic Risk Board (ESRB)

In 2010, the EU approved legislation concerning the new framework for financial supervision. In the years preceding the financial crisis, national authorities were not able to identify with sufficient accuracy risks threatening the stability of the financial system. In February 2009, a committee of high-level officials, led by Jacques de Larosière, proposed the setting up of an EU-wide body charged with supervising risks affecting the entire financial system. This body, the European Systemic Risk Board, began operations at the beginning of 2011. It is responsible for seeking to

identify potential systemic risks in advance so that the propensity of the financial system to financial risks can be reduced and its capacity to bear disturbances improved. To prevent risks from materialising the Systemic Risk Board can issue risk alerts and action recommendations to the entire European Union, individual member states or groups of member states, new European financial supervision authorities or national financial supervisors.

The ECB and national central banks play a key role in the European Systemic Risk Board, which is chaired by the President of the ECB. Governors of the central banks of EU member states and the Vice-President of the ECB are voting members of the board, while national supervisory authorities are non-voting members. The Bank of Finland has taken an active part in preparing legislation and operations of the Board.

#### New financial supervisory authorities

At the beginning of 2011, new financial supervisory committees will begin their operations in Europe: European Banking Authority (EBA), European Insurance and Occupational Pensions Authority (EIOPA) and European Securities and Markets Authority (ESMA), all of which will replace previous comparable committees. The scope of operation of the new authorities will be considerably broader than that of their predecessors. For example, they can issue binding technical standards and, in certain circumstances, give a binding ruling on disagreements between national

supervisory authorities. National central banks, including the Bank of Finland, are non-voting members of the board of the European Banking Authority.

#### Other cooperation between authorities

The financial crisis showed that cooperation and exchange of information between central banks that are primarily responsible for the supervision of macroeconomic stability and financial supervisors that are responsible for the supervision of financial institutions must be increasingly closer. In 2010, the Bank of Finland and the Financial Supervisory Authority signed a memorandum of understanding regarding supervision of the stability of the financial system where they agreed on principles of cooperation and exchange of information.

The Bank of Finland actively contributes to cooperation between authorities on financial stability and the development of financial regulation and supervision both nationally and internationally. Cooperation between the central banks of the Nordic countries and Baltic States was enhanced. The parties agreed on the setting up the Nordic–Baltic Stability Group, which began operations in 2010.

### Impact of the financial crisis on financial system infrastructure

The projects to improve regulation following the financial crisis will also be reflected in the financial system infrastructure. The entire operating environment will be subjected to change in the near future. The infrastructure has already experienced strong integration as Finnish

units, now part of international operators, are seeking to improve the efficiency of their operations.

The overall reform of the Finnish Securities Markets has been under way throughout 2010. The Payment Services Act and Payment Institutions Act became effective 1 May 2010. They will streamline national legislation in Europe with respect to payment transfers to reflect the Payment Services Directive. The legislation will also lead to the emergence of a new type of payment services provider, payment institutions.

The payment system provided by ACH Finland has been assessed and found to comply with the general supervision principles governing payment systems. The contingency arrangements with respect to payment systems used in Finland have also been jointly assessed with the Euro system. The Bank of Finland payment and settlement simulator (BoF-PSS2) has been linked to be part of the large-value payment system (TARGET2) of euro area banks' oversight and development tools. Oversight of international infrastructure providers has been organised together with their principal oversight bodies.

The Bank of Finland organised, for the fourth time, a payment forum addressing future developments regarding payments. Key themes in recent discussions have been improvement of efficiency through, for example, integrating payments into financial administration processes, making use of European standards, electronic billing and mobile payments.

#### **Statistics**

The Bank of Finland is responsible for producing Finnish data for statistics on euro area monetary financial institutions (MFIs) and other financial and balance of payments statistics, together with corresponding national data. Compilation of statistics for the purposes of the ECB is one of the Bank of Finland's official tasks.

In the year under review, efforts were devoted to improving the utilisation of statistical data. The Bank of Finland actively reported on new statistics available, and economists' statistical competence at the Bank was improved through internal training. Further statistics were made available on the Bank's website, and new statistical data was produced for instance on original housing loan maturities and breakdown of interest rate fixation.

The overall renewal of the MFI statistical data collection framework was finalised in summer 2010. With the new data collection and compilation system, the Bank can fulfil the ECB's extended requirements relating to monetary and banking statistics. The new data collection system was developed in close cooperation with reporting banks and, in addition to the production of more comprehensive statistics, one of the objectives was also to reduce reporting burden on respondents. This objective was achieved, even though the new system requires more detailed collection of statistical information. Reporters no longer need to make all necessary classifications and aggregates, as the Bank can do this on behalf of the MFIs with more detailed basic data.

In summer 2010 the Bank started to collect quarterly data from deposit banks, management companies and investment firms on long-term savings contracts made by them and on the investment and holding of funds related to these contracts. These statistics were made available for the first time on the Bank of Finland's website in July.

Development of the Eurosystem's statistics continued in several statistical fields. As a result of the financial market crisis, the demand for statistics used in stability analysis in particular has increased. Within the ESCB, this was reflected especially in preparations with a view to providing statistical data to the European Systemic Risk Board (ESRB). The growing demand for stability statistics has also created the need to enhance cooperation between central bank statistical functions and financial supervisors. Other work streams in 2010 for further development of ESCB statistics included, in particular, the preparation of

securities holdings statistics, planning of comprehensive institution register for the financial sector and the development of statistics on insurance corporations based on existing information sources. In addition, the sovereign debt crisis also made the central banks of the ESCB pay more attention to statistical integrity and independency issues.

With respect to balance of payments statistics, a decision was made at the European level on the introduction of the IMF's revised balance of payments recommendations in the ESCB and EU in 2014. National preparations for the implementation were commenced already in 2010.

The compilation and dissemination of quarterly financial accounts was transferred within the agreed timetable from the Bank of Finland to Statistics Finland starting from the third quarter of 2010. For the harmonisation of MFI data, the Bank incorporated information required by the Statistics Finland to the MFI data collection.

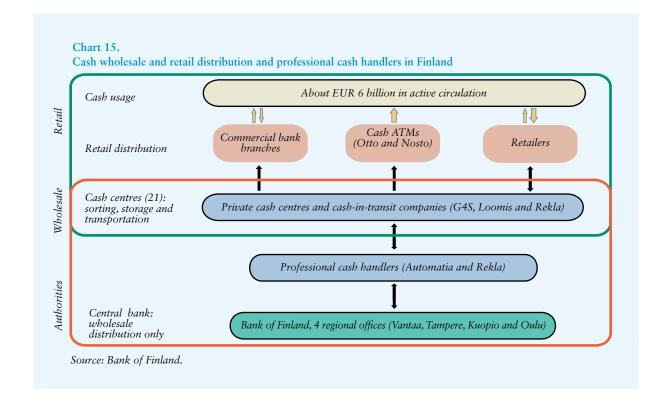


Governor Erkki Liikanen opens the Payments Forum event in May.

### Maintenance of currency supply

With the approval of the ECB, the Bank issues banknotes and coins in Finland and ensures their quality, authenticity and availability throughout the country. Through its currency supply operations, the Bank is responsible for wholesale distribution of cash based on household demand for cash and shops' estimates of orders for cash change. The Bank ensures the condition of the euro banknotes in use by exchanging unfit banknotes for new ones as they are returned. The continuous checking procedure, to ensure the banknotes' adequate fitness, requires that the notes are circulated within the central bank's regional office network and cash centres, in order to be examined.

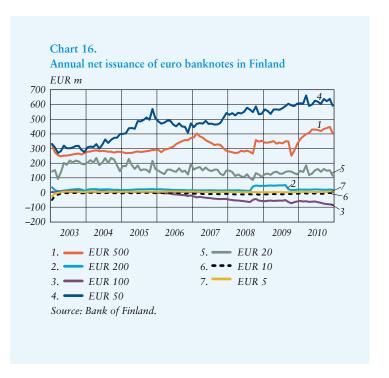
The private stakeholders of the currency supply chain ensure the supply of cash is maintained to the public. A majority of the cash is withdrawn by bank customers from ATMs. The largest quantities of banknotes and banknotes of the highest denominations are withdrawn as cash from bank branches. The individual members of the currency supply chain (banks, ATM operators and retailers) take care of counting the cash that is returned, of sorting and recycling the notes, usually with the assistance of the cash supply companies (G4S, Loomis and Rekla) (see Chart 15). Not only for logistical reasons, but also in order to avoid interest expenses, they return the cash they hold to the central bank.



The Bank of Finland has overall responsibility for the general functioning of the domestic currency supply as well as for its cost efficiency. It is important that the wholesale distribution of cash be designed so as to enable the various private participants in the currency supply chain appropriate operating prerequisites in order to enable the distribution of the cash. In recent years, the Bank of Finland has evaluated the cash supply flow in detail as well as looking into new solutions to the division of labour and where greater cost-efficiencies could be achieved. On the basis of this evaluation, the Bank of Finland began the first stages of the restructuring and extension of the cash depot system in 2010.

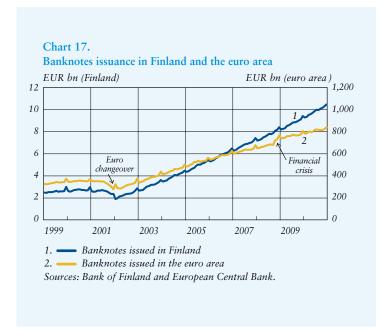
### Growth in euro banknotes issued in Finland and the euro area

After almost a decade, the increase in euro banknotes issued in Finland still shows no sign of levelling off. In fact, the amount of euro banknotes issued accelerated in 2010, in comparison to the previous year, to a little over EUR 1 billion euro. The value of euro banknotes issued in Finland has more than tripled in comparison to the markka times: The value of banknotes relative to GDP has risen from 1.7 per cent to close on 6 per cent. The increase in value of banknotes has mainly concentrated on the banknote denominations normally distributed through ATMs and on EUR 500 banknotes, which are used for bigger value purchases and savings (Chart 16). However, the strong increase in banknotes issued does not reflect an



increase in domestic banknote usage, rather the use of euro banknotes abroad and their migration abroad. There is a net outflow of euro banknotes from Finland due to the effects of tourism and purchases abroad as well as the fairly significant quantity taken abroad by foreign workers.

The increase in the amount of banknotes in circulation in the euro area is similar to the situation seen in Finland, although, from time to time during the reporting year, the demand for cash in Greece and Portugal has swelled as the countries' debt crises reached a head and the risks affecting bank deposit security increased (Chart 17). There was a 4% increase in banknotes in the euro area as a whole, while Finland saw an increase



in notes put into circulation was approximately twice the growth in nominal consumption levels or GDP growth; the increase of banknotes accessed from ATMs was as much as 13%.

The euro value of the cash dispensed via ATMs has remained close to previous level or has even dropped slightly, while there has been a clear reduction in the banknotes dispensed by banks. Over recent years, the size of cash withdrawals in Finland from ATMs has continued to increase as ATMs are used more seldom but, when used, the withdrawal itself is larger in value. Banks' orders for banknotes in 2010 have remained at close on previous levels, valued at EUR 2.2 billion. Although cash availability has stayed as before, payments by card continue to increase as the

opportunity to pay with smart chipequipped cards becomes increasingly general.

# Bank of Finland developed its cash depot system

In December 2010, the possibility to hold cash, interest free, outside the central bank depot system was extended to both of the Bank of Finland's wholesale customers (Automatia and Rekla) as the storage was significantly increased. The purpose of this move was to both logistically reduce the unnecessary transportation of cash from central bank to regional offices and to offer improved opportunities for localised sorting and recycling of the cash. Additional new sorting machines, that meet the new recycling regulations, have been taken on and with them increased the private cash handlers possibilities to make adequate authentication and fitness sorting of the banknotes. In turn, the central bank's role in cash recycling and the supervision of used banknotes fitness sorting has decreased, slightly. The development of the cash depot system, that has just been completed, aims at clarifying various aspects of the division of labour concerned and at improving the cost efficiency of the entire national economy's currency supply.

The additional storage arrangements that were taken into use at the end of 2010 extended the coin storage possibilities many times over, to EUR 15 million from the previous EUR 3.5 million and banknotes from EUR 32 million to EUR 46 million. Most of the storage capacity

has been divided up between both of the Bank of Finland's cash handling customers, in other words Automatia and Rekla, according to their volume of business, but anyway taking the minimum storage requirements into account for them to undertake their operations. It has been decided that the cash depot system will be further developed in the coming couple of years the terms of the expansion will include examination and changes of other functions.

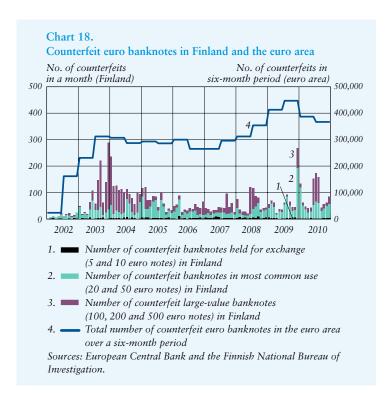
# Gradual progress in harmonisation of currency supply throughout euro area

There are fairly substantial differences between the currency supply arrangements implemented in the various euro area countries, which is why the European Central Bank has begun to systematically evaluate the harmonisation projects in different operational areas. The Eurosystem reviewed and extended their operational guidelines, normally issued to professional money handlers, concerning the recycling of banknotes returned from circulation in 2010 for authentication and fitness testing, to include retailers and casinos, for example. When it comes to the transportation of cash, harmonisation can be seen in the standardised electronic bookkeeping-related bar codes on money packages. On the other hand, the joint euro area banknote tender procedure (SETP) was still facing delays. Finland has been part of the Joint European Tender (JET) Group regarding the

framework agreement for the supply of euro banknotes. Similarly, Finland is involved at ownership level in the eightcountry CashSSP cash management system, which has developed at a rapid pace in recent years.

#### A downturn in counterfeit banknotes in the euro area, but more counterfeits found in Finland

The amount of counterfeit banknotes revealed in the euro area increased steadily from the middle of 2007 and only saw a downturn in 2010. The number of euro counterfeits detected dropped in 2010 by approximately 5%. The euro counterfeit situation, however, varies by country. The counterfeits detected in circulation in different euro countries are not necessarily of domestic origin or distributed by citizens of that country. In general, however, it is still fair to state that the euro is a very safe currency and that the chance of a normal consumer coming across a counterfeit banknote is extremely rare. It is extremely unlikely that a counterfeit banknote would find its way to a consumer, as the authenticity of all the banknotes flowing through the ATM system is checked by either the central bank of by professional money handlers' sorting machines. It has usually been the pattern that those wishing to pass counterfeit banknotes have tended to try and exchange them for purchases in shops. Counterfeiters are usually not interested in forging the smaller denomination banknotes, as their gain with smaller notes is relatively low.



In 2010, 1,052 counterfeits were detected, slightly more than in 2009 (Chart 18). The increase in volume was, in general, explained by a small number of large value counterfeiting attempts. The summer months saw the detection of 100 and 500 denominations in Finland. Due to the vigilance of retailers and cash handling companies, as well as the efficiency of the sorting machines and police operations, the counterfeiters have been caught. Despite the increase in counterfeits, Finland still has some of the lowest figures in the euro area.

### Other operations

#### **International operations**

### The Bank of Finland in the European System of Central Banks

Erkki Liikanen, Governor of the Bank of Finland, is a member of the Governing Council of the European Central Bank (ECB). The Governing Council is the highest decision-making body in the Eurosystem. It is composed of members of the Executive Board of the ECB and the governors of the national central banks of the countries that have introduced the euro. Pentti Hakkarainen. Vice Chairman of the Bank of Finland Board, is the Governor's personal alternate in the Governing Council. The Governing Council generally convenes twice a month in Frankfurt am Main. In the first meeting of the month the Council makes a thorough evaluation of developments in the financial and real economy on the basis of which it decides on such issues as its interest rate policy. In the second meeting of the month, discussion is generally concentrated on other tasks and responsibilities that come under the auspices of the ECB and the Eurosystem. In 2010 one of the Governing Council's meetings was held outside Frankfurt in Lisbon, hosted by the central bank of Portugal. Additionally, the ECB Governing Council has held teleconferences and made decisions using a written decision-making procedure.

The Governor of the Bank of Finland is also a member of the General Council of the ECB, which includes the governors of all EU member states as well as the President and Vice-President of the ECB. In 2010, the General Council convened five times.

Board members and experts from the Bank of Finland participated in the work of the European System of Central Banks (ESCB) in all stages of preparation. The Bank of Finland had at least one representative in each of the ESCB committees and in the Budget Committee, the Eurosystem IT Steering Committee and Human Resources Conference as well as in most of the working groups (altogether approximately 60). In September the Governing Council decided on the establishment of a new Risk Management Committee, bringing the total number of committees to 17 (see Box 6). In 2010, a total of 14 Bank of Finland employees were seconded to the ECB on fixed-term contracts of varying length.

The Eurosystem also includes a number of high-level temporary committees in such areas as IT and financial markets. Members of the Bank of Finland Board attended the meetings of these committees according to their respective operating areas.

The ECB also has an Audit Committee, whose task is to improve ECB and Eurosystem administration and supervision. It is composed of three members of the Governing Council. Since October 2009, Erkki Liikanen, Governor of the Bank of Finland, has been chairman of the committee.

#### Box 6.

#### Representatives of the Bank of Finland in the ECB, EU and other international bodies in 2010

#### Bank of Finland in the Governing Council of the ECB

Erkki Liikanen, member Maritta Nieminen, assistant Pentti Hakkarainen, alternate member Antti Suvanto, assistant

### Bank of Finland in the ESCB committees, the Budget Committee, the Eurosystem IT Steering Committee and the Human Resources Conference

International Relations Committee Sinikka Salo (until 24 October 2010) Pentti Hakkarainen (from 25 October

Olli-Pekka Lehmussaari

Accounting and Monetary Income

Committee Tuula Colliander

Committee on Cost Methodology

Annika Karjalainen Hanna Järvinen

Legal Committee Maritta Nieminen Eija Brusila

**Payment and Settlement Systems** 

Committee Marianne Palva Anna-Maija Tikkanen Market Operations Committee Pentti Pikkarainen (until 28

February 2010)

Harri Lahdenperä (from 1 March

2010)

Tuomas Välimäki

**Banking Supervision Committee** 

Kimmo Virolainen

Monetary Policy Committee Tuomas Saarenheimo

Jarmo Kontulainen

Risk Management Committee

Antti Nurminen Kaarina Huumo

Banknote Committee Mauri Lehtinen Kari Takala

**Internal Auditors Committee** 

Erkki Kurikka Pertti Ukkonen **Information Technology Committee** 

Armi Westin

Raimo Parviainen (until 4 February

2010)

Petteri Vuolasto (from 5 February

2010)

Statistics Committee Helka Jokinen Harri Kuussaari

**External Communications Committee** 

Mika Pösö Richard Brander

**Budget Committee** Pirkko Pohjoisaho-Aarti

**Eurosystem IT Steering Committee** 

Seppo Honkapohja

**Human Resources Conference** 

Antti Vuorinen

#### Representatives of the Bank of Finland on EU committees

European Systemic Risk Board,

General Board Erkki Liikanen

Economic and Financial Committee

Pentti Hakkarainen

Hannu Mäkeläinen, alternate member

**Economic Policy Committee** 

Veli-Matti Mattila

Committee of European Banking

Supervisors Kimmo Virolainen Committee on Monetary, Financial and Balance of Payments Statistics

Helka Jokinen

**Balance of Payments Committee** 

Harri Kuussaari

#### Representatives of the Bank of Finland in BIS, the International Monetary Fund (IMF) and OECD

BIS meeting of central bank governors

Erkki Liikanen

IMF Board of Governors

Erkki Liikanen, member Pentti Hakkarainen, deputy member **OECD Economic Policy Committee** 

Tuomas Saarenheimo

Samu Kurri

**OECD Financial Markets Committee** 

Jyrki Haajanen

### Bank of Finland and international economic policy

The Bank of Finland actively participates in international cooperation through various organisations and cooperation bodies. According to Finnish law, the Bank of Finland is responsible for the contacts of the Finnish Republic with the International Monetary Fund (IMF). The Governor of the Bank of Finland also regularly attends the meetings of the Bank for International Settlements (BIS). In addition, the Bank of Finland participates in six European Union committees and the activities of the Organization for Economic Co-operation and Development (OECD).

#### **International Monetary Fund**

Finland's representative in the highest governing body of the IMF, the Board of Governors, was the Bank of Finland Governor Erkki Liikanen, with Pentti Hakkarainen, Vice Chairman of the Board, being his alternate. The Board of Governors of the IMF convened its annual meeting in Washington, in October.

The Fund's International Monetary and Financial Committee (IMFC), an advisory committee, met in April and October. The committee was chaired by Egypt's Minister of Finance Youssef Boutros-Ghali. The representative of the Nordic-Baltic constituency in April was Finland's Minister of Finance Jyrki Katainen and in October Norway's Minister of Finance Sigbjørn Johnsen.

Responsibility for the Fund's operations rests with the 24-member

Executive Board and the Managing Director, who acts as the Board's Chairman. Dominique Strauss-Kahn from France continued as Managing Director.

Within the International Monetary Fund, Finland belongs to the Nordic-Baltic constituency, which has one common representative in the Board of the Fund. Per Callesen from Denmark began his term as representative of the constituency and member of the Board, in January. The Bank of Finland, together with the Ministry of Finance, contributed to the coordination within the Nordic-Baltic constituency, led by Denmark, in order to present a common view on issues to be discussed at the Board.<sup>1</sup>

The Nordic-Baltic Monetary and Financial Committee (NBMFC) convened three times in 2010 to prepare constituency positions. The Bank of Finland's representative in the Committee was Pentti Hakkarainen, Deputy Governor of the Bank of Finland. Also members of the NBMFC took part in a joint meeting of the Nordic-Baltic countries and a high level G20 representative from Korea, the current chair of the G20 group. At the meeting, which convened in Helsinki in August to discuss the G20 agenda, the constituency's representatives aimed to inform the G20 representatives about their views concerning the IMF's quota and governance reform as well as their policy regarding IMF functions. The

<sup>&</sup>lt;sup>1</sup> More information on the views presented by the Nordic-Baltic constituency in the Board of the IMF is available in the 'Biannual Report on Recent Policy Developments in the International Monetary Fund'. The Nordic-Baltic Office, IMF (http://suomenpankki.fi/en/suomen\_pankki/kv\_yhteistyo/imf.htm).

meeting was chaired by the high-level representative from Korea, Ambassador Ho-young Ahn and Martti Hetemäki, Permanent Under-Secretary of State from the Ministry of Finance in Finland.

The alternate members of the NBMFC also met twice in 2010 to make preparations for the committee meetings. Olli-Pekka Lehmussaari, Head of European and International Affairs at the Bank of Finland, was the Bank's representative at the alternate members' committee of the NBMFC, and he also chaired the committee. The tasks of the secretariat were handled by the Bank of Finland's European and International Affairs until the end of June 2010.

During the reporting year experts from the IMF prepared two country reports on Finland. The first of these examined the stability of the financial system, financial regulation and supervision. According to the IMF, the Finnish financial sector has survived the global financial crisis relatively well, mainly due to the conservative business mode, but also because of the authorities' efficient supervision and regulation. Particular attention was paid to the risks related to households' floating rate housing loans. With the current low level of interest rates, the share of these loans as a proportion of the stock of bank lending has grown rapidly. Due to the high level of foreign ownership of banks operating in Finland, the IMF sees that the future challenge will be efficient cross-border supervision and a wellfunctioning crisis management mechanism.

The second country assessment, the Fund's Article IV consultation, concerned Finland's economic situation and economic policies. The global crisis and the international collapse of trade caused an 8 per cent reduction in Finland's GDP in 2009. According to the IMF's assessment, the Government's broad economic stimulus policy to support growth in 2009-2010 was well justified, although the public sector's long-lasting budget surplus turned to a deficit in 2009. The IMF recommended strengthening the public sector financial balance from the beginning of 2011 and placed emphasis on controlling growth in public expenditure and broadening the tax base. The IMF particularly encouraged authorities to undertake structural reforms in order to reduce the fiscal sustainability gap.

#### International Monetary Fund as lender

As a result of the international financial crisis, several of the IMF member countries had to resort to agreeing on financial arrangements with the Fund in 2010. Within Europe, Greece found itself with a public sector financial crisis and therefore agreed on a sizeable financial arrangement with the European Union and the International Monetary Fund in May 2010. In order to secure financing the Greek government committed itself to following an austere savings programme for several years and to implementing a range of structural reforms in order to improve the country's international competitiveness and productivity.

In December, Ireland agreed on a large international borrowing arrangement with the IMF, the European Union and a number of individual EU member countries in order to overcome a serious balance of payments crisis. The Irish economy had drifted into a deep recession in 2009. As a result the imbalances in the public sector financial position and in the funding of the whole financial system led to a crisis that seemed to threaten the stability of the financial markets in the entire European Union, last autumn. In order to secure the lending arrangement, Ireland committed itself to a series of tight measures, aimed at stabilising the country's banking system and reducing the size of the banking sector relative to GDP.

Since the eruption of the financial crisis, lending arrangements by the IMF to member countries have grown rapidly. In addition to the general resources composed of the member countries' quotas, the IMF has the possibility to increase its lending resources through bilateral borrowing arrangements with member countries. In April of the reporting year, the Bank of Finland signed a bilateral agreement with the IMF in the amount of EUR 1.3 billion.

#### IMF Governance Reform

The IMF's quota and governance reform, which was launched some years ago, reached the decision-making stage in the year under review. In November, the Fund's Executive Board and the leaders of the G20 group accepted the proposed

quota and governance reform. The final stamp of approval was given when the Board of Governors of the IMF voted on it in December. According to the proposal, the member countries' total quotas will be doubled to SDR 476.8 billion (Special Drawing Rights). At the same time, there will be a rebalancing of the member countries' relative votes, according to which a good six per cent of votes will be transferred from developed countries to emerging market economies and developing countries. Finland's quota will increase from SDR 1,263.8 million to SDR 2,410.6 million. Finland's voting share will shrink from 0.59 per cent of total voting rights to 0.51 per cent by the time the reform enters into force.

Until now the five largest member countries of the IMF have each appointed a representative to the Fund's Executive Board, while the remaining members of the Board have been elected. The governance reform brings about a change in this procedure, whereby all members of the Executive board will be elected and members of the Board whose constituency consists of at least seven countries can appoint two alternate executive directors. The coming into force of the quota and governance reform requires ratification by the member countries, and the deadline is set for the annual meeting of 2012.

#### G20 cooperation

Due to its unique expertise and membership of 187 countries, the International Monetary Fund plays a central

role in the work of the G20. The IMF prepares the policy recommendations for the Group's meetings, aimed at achieving strong, sustainable and balanced economic growth. The Fund has been specifically given the task of evaluating the spillover effects of the G20 economies and the reduction of global imbalances within the Mutual Assessment Process (MAP). The Fund's Executive Board has been tasked with evaluating the process after practical application. In its April meeting, the Funds' International Monetary and Financial Committee endorsed the cooperation between the IMF and G20 regarding the Mutual Assessment Process. During the reporting year, the International Monetary Fund also drew up policy recommendations on exit strategies from the unorthodox and unprecedented stimulus measures that had been required worldwide, as a result of the global crisis.

#### **EU** committees

Over the course of the reporting year, the European Systemic Risk Board, which is part of the new European System of Financial Supervision, was established. The Systemic Risk Board will concentrate on financial market supervision at the macro level. The Board is made up of a General Board, a Steering Committee, a Secretariat as well as an Advisory Scientific Committee and an Advisory Technical Committee. The main decision making body of the European Systemic Risk Board is the General Board, where the Governor of the Bank of Finland

Erkki Liikanen is a voting member. The other Finnish member is Anneli Tuominen, Director General of Finland's Financial Supervisory Authority. The European Systemic Risk Board commenced operations from the beginning of 2011. In December, the ECB closed down the Eurosystem's of Banking Supervision Committee and, under a new mandate, establish the Financial Stability Committee which will continue the former committee's activities.

The European Union's Economic and Financial Committee (EFC) prepares issues related to the economic and monetary union for discussion by the EU Council meeting in the composition of the ministers of economics and finance (ECOFIN). The members of the committee comprise representatives of the Ministries of Finance in the EU member states and of the national central banks, and their personal alternates. In addition, the committee comprises representatives of the ECB and the European Commission. The representatives of the national central banks participate in the meetings of the committee in its extended composition (11 meetings in 2010), where matters concerning economic conditions, financial markets and the IMF are discussed. In 2010, the committee focused on the financial markets crisis and on the corrections and reform measures it has introduced. Also cooperation with the G20 and the IMF matters were often handled by the committee.

The Economic and Financial Committee convenes biannually in the

composition known as the Financial Stability Table (FST), attended by representatives of the supervisory committee, who provide their reports on the stability of the financial markets. In 2010, the discussions at these meetings were dominated by the evaluation and management of the severe financial market situation and changes in the EU's supervisory structure.

In matters concerning the IMF, the Economic and Financial Committee, EFC, with the assistance of a sub-committee, prepared the EU stance on current IMF issues related to the Fund's functions and governance.

The EU's Economic Policy
Committee (EPC) prepares issues in
relation to the broad economic policy
guidelines and structural political issues
belonging for example to the revised
Lisbon strategy. This Committee was
composed of representatives from the
member states' Ministries of Finance and
central banks (including the Bank of
Finland) as well as from the European
Commission and ECB.

The Committee of European Banking Supervisors (CEBS) discussed issues concerning regulation and supervision of the banking sector as well as preparing itself for the changes in EU banking supervision. In the reporting year, the Committee planned and implemented a stress test concerning the European Union's largest banks. The results of the stress test were published in July 2010. The committee members are member countries' banking supervisors and supervision experts from national central banks.

The Committee on Monetary, Financial and Balance of Payments Statistics (CMFB) is composed of representatives of national statistical authorities, the Eurostat, the national central banks and the ECB. The Committee's task is to improve conditions for statistical cooperation between the ECB and Eurostat and issue statements on statistical matters.

The Eurostat's Balance of Payments Committee is composed of representatives of central banks and statistical authorities responsible for balance of payments statistics. The purpose of the Committee is to assist the Eurostat in the implementation of the European Parliament and Council regulation on EU balance of payments statistics.

#### **Bank for International Settlements**

The Bank for International Settlements arranges six regular meetings of central bank governors a year, all of which are attended by the Governor of the Bank of Finland. In 2010, these meetings addressed the current economic situation in the world economy and developments in financial markets regulation at the global level. These discussions are highly relevant for establishing international financial market supervision and development policies.

At the beginning of 2010, the Bank for International Settlements initiated a new practice, whereby it Global Economy sessions, composed of Governor level participants, also handled topical international financial market issue. The Governor of the Bank of Finland also participates in these sessions.

As a shareholder of BIS, the Bank of Finland was represented at the BIS annual general meeting in June.

#### Other international activities

In the course of 2010, members of the Bank of Finland Board participated in a number of international meetings, seminars, conferences and other events.

The tradition of an annual gettogether of the Governors of the Nordic central banks continued with the governors and experts of the five Nordic NCBs meeting in June in Stavanger, Norway. The Nordic central banks' joint stability units' contact group had prepared a paper for the meeting, on the basis of which the central banks' macrostability tasks, questions regarding the respective institutions and the Nordic perspective of these issues were discussed. The governors also met unofficially several times during the year at other events from Nordic countries' meetings to other international happenings.

### Communications

The Bank of Finland's effective and specifically targeted communication is geared to keep the general public well informed of the role and activities of the Bank and the Eurosystem. Monetary policy, financial markets and payment instruments are key areas of focus with special interest on the activities of the Bank of Finland and the Eurosystem in these areas.

The global economic crisis was also reflected in the Bank of Finland's communications. We attempted to make the various phases of the crisis comprehendible to a broader audience through a wide range of articles written by the Bank's experts, through interviews and other types of presentations. Members of the Board of the Bank of Finland also handled the issue of developments in the prevailing economic situation in their own speeches and writings.

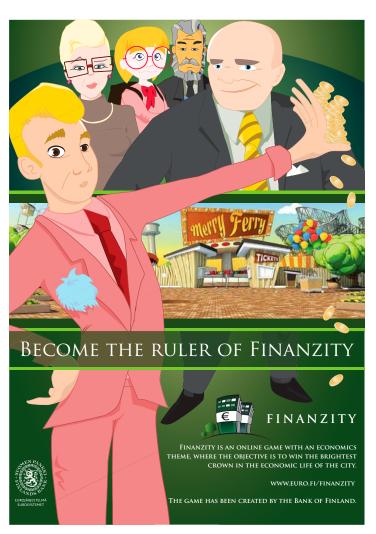
The most important publication of the Bank of Finland's external communications process is Euro & talous (in Finnish), which is translated as the Bank of Finland Bulletin (in English) and which, from the beginning of 2011, will now be published five times a year. In the spring and autumn Bank of Finland's economic outlook editions presented the Bank's forecast. The special Financial Security edition appeared at the end of the year.<sup>2</sup> The articles addressed the themes of monetary policy, the economic

 $<sup>^2\,</sup>$  A number of the articles in the Finnish language Euro & talous edition were also published in English in the Bank of Finland Bulletin.

situation as well as several special themes from the massive public debt in Japan to regulation of the financial markets. There were four press conferences given by the Governor of the Bank, arranged over the year in connection with the release of Euro & talous.

An important channel of communication alongside the press conferences is the bank's website, which includes facts about the tasks of the Bank of Finland and coverage on the Eurosystem tasks in addition to press releases on the ECB's monetary policy decisions. On the website readers can also access BoF Online, which appeared nine times in 2010. The Bank of Finland's publications can be found under the link 'Publications'. <sup>3</sup>

As part of its communications process, the Bank of Finland aims to increase the economic knowledge and interest in economic issues amongst the school-aged public. At the end of 2010, the Bank published Finanzity, an online game on www.euro.fi; the page for the school aged public, with the aim of developing economic skills in the young in Finland, in particular. Finanzity has been designed as support material for teaching economics and the objective of the game is to teach those playing it matter related to the management of their personal finances, to promote the key concepts of economics and improve the players' knowledge of central banking. Economics teachers were also



The Bank's Finanzity online game aims to promote young peoples' economic awareness.

closely involved in the realisation of the game concept.<sup>4</sup>

The Bank of Finland was one of the main organisers of the Economic Guru Challenge, which was arranged for the 13th time and is aimed at senior high school pupils. The winner of the 2010

<sup>&</sup>lt;sup>3</sup> A number of the Bank's publication are also available in printed format. For a summary of the key publications issued in 2010, see the Appendices (p. 135).

<sup>&</sup>lt;sup>4</sup> The Finanzity game can be played at www.euro.fi/finanzity.

challenge was Lauri Mikkola from the Helsingin Suomalainen Yhteiskoulu School. The prizes for the competition will be handed out in March at the Bank of Finland.

Dozens of students and other visitor groups visited the Bank of Finland Museum in 2010 to hear the most recent developments in the economic outlook. Bank of Finland experts also took part as lecturers in special training events on economic affairs tailored to teachers at eight locations in Finland.

The Bank of Finland Museum permanent exhibition on the history of

money, the Bank and the European Central Bank received some 9,000 visitors in the course of 2010. The Museum's seasonal exhibition on the devaluations of the Finnish markka in 1957 and 1967 was on display throughout the year. The Museum arranged eight events in the Studia Monetaria lecture series on macroeconomics and economic history, attracting an average of more than 50 participants per lecture.

In 2010 a discussion series held at the Bank of Finland Museum was launched, entitled 'Talouskirja Nyt',

The 'Talouskirja Nyt' (Economic Books Today) events have tempted many people interested in economics to the Bank of Finland Museum. The audience included the Minister of Economic Affairs Mauri Pekkarinen, in the middle of the picture, and the Director General of the Financial Supervisory Authority Anneli Tuominen, right.



Photo: Jaakko Koskentola.

aimed at the general public and centred on recently published books on economic issues. At each of the events a recently published book on a current economic issue was presented, at which it was possible to discuss with the author or editor and a representative from the Bank of Finland. The series was opened by researchers Marja-Liisa Halko and Anne Mikkola as well as Professor Riitta Hallinoja, with a discussion on the theme of women, men and the economy. A discussion of the book, the Return of the Robber Barons lead by author Professor Markku Kuisma came next followed by a discussion session on the book Out of the Financial Crisis by Olavi Ala-Nissilä, who is a member of the European Court of Auditors. The last session of the year looked at the publication "SATAkomitea - Miksi asioista päättäminen on niin vaikeaa?" (The SATA committee - Why is decision making so difficult?) by Osmo Soininvaara, on the social welfare policy changes of the 1980s in Finland. In all approximately 150 persons attend the four sessions.

## Management and organisation

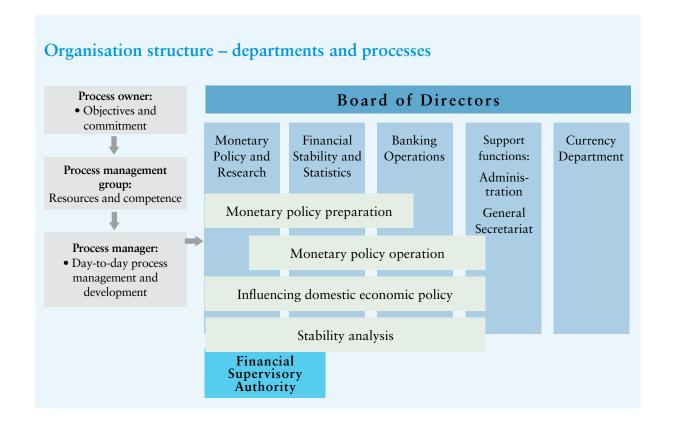
## Management system

The key elements of the Bank of Finland's management system, in addition to the Bank's strategy, are the objectives and results framework, the action planning framework, staffing and budgetary ceilings and overall risk assessment. Overall risk assessment and analysis is integrated with action planning at department, unit and process levels. The long-term objective of the management system is to facilitate review and analysis of the Bank's overall risk position. Performance appraisal and pay discussions with staff are another part of the Bank's management system. The management system is designed to

seamlessly integrate all the individual elements to facilitate implementation of the strategy.

In the course of the year, implementation of the process management approach was further extended at the Bank. To complement the existing processes of monetary policy preparation and monetary policy operation, two new core processes were introduced: the process for influencing domestic economic policy and the stability analysis process.

Introduction of process management has permitted competence utilisation across the Bank's departments in policy



preparation. Staff competence and experience was drawn on in the development of the governance framework and practical operations. The measures which resulted from the proposals of the scenario working groups, appointed by the borad, were outlined in a report submitted late 2010. The Bank is an expert organisation that promotes initiative and self-direction.

### **Action planning**

Action planning at department and process level is conducted with a three-year timeline. The objectives, the relevant indicators and major challenges for individual departments, are written down in the form of objectives and results contracts, signed annually by the respective head of department.

#### Objectives and results framework

The objectives and results framework embodies the Bank's agreed strategic objectives and the indicators against which achievement of the objectives is measured. Department- and process-specific objectives are derived from the Bank's strategy by area of competence (achievement of strategic objectives at Bank level, see Table 74). On an indicator scale of 1–5, achievement of the strategic objectives for 2010 was successful.

The Bank's heads of department are responsible for management and administration of their respective departments, ie for achievement of the set objectives and for personnel and budgetary issues. The aim has been to increasingly delegate

decision-making power to division and unit heads.

# Service competence and exercise of influence

The Bank of Finland is an influential member of the Eurosystem and the domestic economic policy debate. The Governor participates in the meetings of the ECB Governing Council which are held to analyse monetary and economic developments. Based on these analyses, decisions are made concerning the entire the euro area. The issues to be addressed at the meetings are prepared by the Bank's staff for the benefit of the Governor.

Service competence and exercise of influence is measured by customer surveys addressed to the Bank's senior management and staff, as well as customers and stakeholders. The Bank's influence in domestic economic policy making is assessed against the indicator of media coverage in the objectives and results framework.

#### Efficient use of resources

In the investment of the Bank's financial assets, the objective is to ensure capital adequacy and provide for stable profit distribution to the state. The yield of the Bank's financial assets is monitored on a quarterly basis by means of yield reports and forecasts.

The Bank has set specific objectives for the development of staff and budgetary resources. Staff and budgetary developments are monitored by the Board on a quarterly basis. The

development of resources is benchmarked against other central banks. The Bank's staff objective for 2013 is 410 employees.

### Efficiency of internal processes

Process management has been introduced for the Bank's four core processes. This approach has been established and there is smooth interaction between the processes. The Bank of Finland and FIN-FSA, which operates in conjunction with the Bank, signed a Memorandum of Understanding (MoU) on the division of responsibilities and exchange of information. Fulfilment of the spirit of the MoU is monitored in the reporting of the Financial Stability and Statistics department.

The scope for remote working at the Bank has been expanded by means of information technology solutions. The Bank has a wireless local area network (WLAN) in place.

### Competence and wellness at work

A new management support tool, the management index, was introduced at the beginning of 2011.

# Risk management within corporate governance

In October 2010, the Board adopted risk management principles for the Bank. In line with these principles, risk management is an integral element of the Bank of Finland's governance framework. Annual reporting on objectives and results incorporates an evaluation of the likelihood of the risks

being realised over the period under review. The Bank's risks are divided into strategic risks, financial risks and operational risks. Overall responsibility for the provision and governance of risk management and the definition of the level of risk exposure rests with the Bank's Board, but each employee is responsible for the management of risks falling within his or her own job description and tasks.

According to the risk management responsibilities adopted by the Board, the Head of the General Secretariat is responsible for coordination of strategic risk management, whereas the Head of the Administration department is responsible for coordination of the assessment and reporting of operational risk management and for monitoring and reporting total financial risks.

#### Strategic risks

The Bank of Finland's strategic risks are related to strategic choices and the underlying assumptions regarding changes in the domestic and international operating environment.

In 2010, the strategic risk management process was incorporated into the action planning process. At the same time, it was decided that strategic risk management would become a standing issue on the agenda of senior management strategy seminars. This approach to strategic risk assessment will be applied for the first time in the 2011 strategy seminar.

#### Total financial risks

In the Bank's organisation, the monitoring and reporting of total financial risks in the balance sheet has been entrusted to the risk control division of the Administration department, which is responsible for assessment, analysis and management of portfolio risks. For a more detailed discussion of the total financial risks in the balance sheet, see page 51.

The Bank of Finland's total financial risks are largely associated with the investment of the Bank's own financial assets. The decision-making powers and responsibilities in the area of investments and related risk management are therefore carefully defined.

The decision-making framework for investment activities and risk management involves several different bodies inside the Bank of Finland's organisation. These are the Board, the markets committee, the investments group and the risk group, with the Board and the markets committee playing the most important role.

#### Operational risks

Review of the Bank of Finland's operational risks takes place within the action planning framework. The key operational risks in the fields of competence of individual departments are identified and recognised in the action plans. The departments also assess whether management of the reported risk is sufficient for their purposes. Risk assessment approaches vary by department. The risks of the Bank's core

functions have mainly been assessed against set objectives and their achievement. However, the damage, loss and reputational aspects could be applied in the assessment of the risks related to systems and security.

The risk identification process highlights the risks related to the Bank's processes and practices. In order to enhance risk management, better operation and management of the processes is required, rather than introduction of major development projects. Personnel risks, in turn, mainly focus on issues of competence, the solution of which calls for prioritisation at bank level. The risks to the central bank's basic operational functions, such as estimates of the threats of robbery or misappropriation, have remained largely unchanged.

The findings of the risk identification process are used for improving and controlling operational action planning both at department-level and in the Bank as a whole.

## Bank of Finland objectives and results framework

		Strategic guideline	Indicator	Objective	Outturn 12/2009	Outturn 12/2010
		1. The Bank of Finland's success within the Eurosystem builds on research and analysis.	Governor's assessment of effectiveness of Eurosystem decision making, by meeting	4	4.1	4.1
			International effectiveness on the IMF's work	4	4.6	4.8
	SS	2. The Bank of Finland exercises influence in domestic	Media coverage of forecast report	4	4.1	4.0
	service competence and effectiveness	economic policy-making by combining macroeconomic and financial market expertise.	Media coverage of stability report	4	4.3	3.6
٠	Iec	·	Stakeholder satisfaction survey	4	4.6	4.4
_	5 5	3. The Bank of Finland	TARGET2 customer satisfaction	4	4.5	4.5
	ce an	guarantees that financial market participants operating in Finland have access to inter-	Stakeholder rating for influence in financial markets	4	4.0	3.8
,	peten	nationally competitive central bank services.	Rating from conference participants	4	4.5	4.1
	e com	4. The Bank of Finland is responsible for maintenance of Finland's currency supply and for the improvement of its quality, efficiency and security.	Satisfaction of professional cash-handling counterparties	4	3.1	3.4
	ervic		Consumer satisfaction survey on the quality of banknotes	4	4.0	3.9
-	7		Consumer satisfaction with the coverage of the ATM network	4	4.0	4.0
		5. Public confidence in the Bank of Finland and awareness of the activities of the Bank and the	Results of VIP image survey	Upper quartile of the benchmark group	4./32.	4./30.
		Eurosystem is promoted through effective and well- targeted communications.	Results of Omnibus survey on the public's awareness of the Bank	Upper quartile of the benchmark group	3./12.	3./12.
	urces	6. The Bank of Finland's financial assets are invested in accordance with international commitments and crisis management requirements, with a view to allowing for stable profit distribution without jeopardising the Bank's	Interest income on the Bank's own financial assets, after deduction of the average of the lowest-risk market interest rates on currency investments, weighted by share of investment (five-year moving average)	≥0	1.22 percentage points	1.59 percentage points
	ot resources	capital adequacy.	Distributed earnings (EUR)  Even distribution of earnings  EUR 260 million		EUR 260 million	EUR 195 million
			Equity	EUR 2,610 million	EUR 2,815 million	EUR 3,011 million
	II Efficient use		Balance of payments risk buffers from currency-den- ominated net receivables	More than 40% of currency positions	51.7%	72.5%
Ī	크	The Bank of Finland is one of	Bank's headcount	462 persons	453 persons	441 persons
<b>,</b>		the most efficient EU central banks in terms of the number of staff and operating costs.	Total man-years (excl. the Board)	494 man-years	484 man-years	470 man years
			Departmental operating expenses	EUR 58 million	EUR 56 million	EUR 55 million

i	8. Process management is introduced to improve the	Process management			12/2010
	speed and quality of the Bank	established and integrated with core processes	4 (2010)	4	-
	of Finland's internal processes.	Achievement of the speed and quality goals set out in objectives and results contracts	To be specified in department-specific and process-specific contracts	To be assessed at department and process levels	To be assessed at department and process levels
nal pr		Through-time of forecast process	25 days	19 days	19 days
inter		Through-time of stability analysis	25 days	13 days	23 days
ioning	9. The Bank of Finland and Financial Supervisory Authority improve their exchange of information and division of responsibilities.	To be assessed against the outcome of a separate development project	To be specified on the basis of the outcome of the development project	Separate develop- ment project under- way	MoU signed on 7 December 2010
mooth fur	10. The Bank of Finland's ICT environment enables efficient work regardless of time and location shifts.	ICT availability	4	3.2	3.7
	11. The activities of the Bank of Finland are ecologically sustainable.	Total CO2 emissions (energy use) kg/ EUR 1,000 in operating expenses	Lower load	103.2	80.0
		Waste kg / operating expenses of EUR 1,000		1.82	1.77
ırk	12. The competence of the Bank of Finland's staff is raised.	Number of doctoral degrees (persons)	> 32 persons	33	35
		Educational level index	> 5.8	5.7	5.8
iess at	13. The Bank of Finland's research meets international	Number of articles in refereed journals / researcher-year	1.5	1.9	2.1
elln	standards in core areas.	Number of researcher-years	> 15 man-years	10.8 man-years	13.4 man-years
Competence and wellness at work		Evaluation of the influence of the research function	4	Evaluation in 2009	Recommendations reflected in organisation and priorities of research
npeter	14. Through cooperation we enhance pleasure in our daily	Employee satisfaction index	Rising trend	3.3	Reported every second year
IV Con	work at the Bank of Finland and foster innovation.	Leadership index	Rising trend	To be reported in 2010	3.7
		Sick leave absence (%)	< 3.5%	3.2%	2.7%

#### Box 7.

### Process for influencing domestic economic policy

The year 2010 was the first full year of operation of the process for influencing domestic economic policy. The process is designed to produce analyses of the Finnish economy and its structures and to compile research and analyses conducted by other domestic and foreign institutions on themes of key importance to the Finnish economy. This serves as the basis for formulation of opinions on topical domestic issues of fiscal and structural policy. Some of the focal points of interest include the soundness and sustainability of Finnish public finances, productivity and wage developments and the interaction between the macroeconomy and financial markets in Finland.

When forming its opinions on domestic economic policy, the Bank of Finland draws on the analyses and policy views generated by the process. Analyses and research findings, as too the Bank's opinions, are made available to the public by way of publications, public appearances and eg hearings of parliamentary committees. Twice a year the Bank publishes its macroeconomic forecast for the Finnish economy in the *Economic Outlook* issue of the Bank of Finland Bulletin. The editorial addresses topical issues of domestic economic policy. Once a year the *Economic Outlook* also includes the Bank's analysis of Finland's public finances.

The process has broad access to the competence and expertise available in the Bank of Finland's departments, with the main emphasis being on macroeconomic and financial market competence and the Bank's in-house production of financial statistics. The process is headed by a process manager, who is also chairman of the expert group responsible for the practical operation of the process. Group members include representatives of Monetary Policy and Research as well as Financial Stability and Statistics. The Governor of the Bank of Finland is the owner of the process.

Topics under review by the process in the year included the global financial crisis and its effects on

the Finnish economy. Here, special attention was focused on the effects of the crisis and consequent economic downturn on the soundness and sustainability of Finland's public finances and on the potential effects of sustainability-enhancing policy measures on the national economy and, therewith, public finances. Changes in corporate financing structures during the financial crisis and the support measures taken to secure companies' access to funding were also addressed, similarly as pre-crisis wage and other economic developments, such as the cyclical conditions prevailing in office and business construction. Although the primary causes of the economic downturn were to be sought outside Finnish borders, economic developments in Finland in the period leading up to the financial crisis demonstrate trends that increased Finland's vulnerability to a sudden and severe deterioration of the external environment.

In the year, the structural changes in the Finnish economy were also analysed within the process. During the economic downturn, Finnish economic structures changed at an accelerated pace in step with the contraction of output and the loss of employment witnessed in traditional export industries. An analysis of the foreign trade in services has been undertaken to explore to what extent the loss of goods exports can be compensated for by export of services. In this work, hitherto unpublished sectoral data and service type data were used. In addition, sectoral productivity developments were analysed. It was discovered that although many of the Finnish industrial sectors enjoy top level productivity by global measure, certain service sectors, in particular, seem to be experiencing problems with the productivity development. These problems do not relate only to basic services provided by the public sector, but also to some of the marketdriven services. Increasing competition is one way of raising productivity in these sectors.

#### Box 8.

### Stability analysis process

The stability analysis process is designed to analyse financial stability and systemic risks and to prepare stability-enhancing measures. The process, which serves to support the Bank of Finland's exercise of influence in the field of macroprudential policy, was introduced in 2010. The owner of the process is the Deputy Governor of the Bank of Finland.

The analysis benefits from the broad financial market and macroeconomic competence available in the Bank and the in-house statistical production. Quantitative analysis methods are developed within the process, with a view to producing analyses of high quality.

The international financial crisis highlighted the need for more comprehensive prediction and prevention of systemic risks that pose an overall threat to financial stability. This procedure, which is referred to as macroprudential supervision, is based on the stability analysis. Macroprudential supervision differs in nature from traditional microprudential supervision, which focuses on individual banks and financial institutions and their exposure to various kinds of risks. Microprudential and macroprudential supervision are mutually complementary and their interaction is of utmost importance. This is reflected in the close cooperation with the FIN-FSA. For conduct of the process, international cooperation is also vital, considering the global nature of Finnish financial markets and the interlinkage of financial institutions.

As part of the reform of EU financial supervision, a decision was taken to set up a European Systemic Risk Board (ESRB) in connection with the ECB to coordinate macroprudential supervision at EU level. The stability analysis process contributed to the preparations for the establishment of ESRB and will support the Governor in his exercise of influence in the Board when it commences its work

in early 2011. Thus, the process has both a domestic and an EU dimension.

As macroprudential policy is still only at the formulation stage, resources of macroeconomic research, globally as well as at the Bank, are allocated to the design of both analysis and policy tools. The counter-cyclical capital buffers built into the Basel III regulatory framework are one such example of tools of macroprudential policy. The future challenge will be how to implement concrete policy measures based on macroprudential analysis. The Bank's research unit makes its special competence available for policy-related work involved in the process.

In the first year of the stability analysis process, a status report was prepared to foster the development of stability analysis tools, and, consequently, development work started, for example, in the areas of stress tests and macroprudential indicators. Analyses were undertaken of the international proposals for revisiting the financial regulatory framework and of the long-term effects of the new capital adequacy framework, ie the Basel III regime, for Finland. The findings of the process are reported for example in the annual *Financial Stability* issue of the Bank of Finland Bulletin.

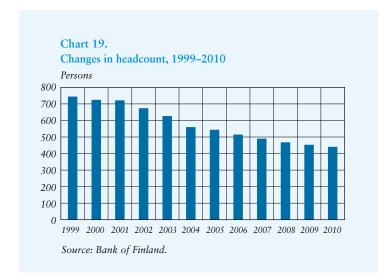
## Personnel

The Bank of Finland's human resources management focuses on competence utilisation across departments, competence augmentation through job rotation, on generating a motivating and creative working environment and measuring performance according to set objectives.

The Bank of Finland performs its employer role in an ethically sustainable, egalitarian and equitable manner, maintaining the conditions for a modern and wise learning organisation. Towards the end of the year, a joint Bank–FIN-FSA equal rights working group started its operations.

The Bank of Finland measures its employer brand on a regular basis. In the 2010 Universum Graduate Survey of academic and university graduates, the Bank ranked among the 10 most attractive employers overall, topping the list of public-sector employees.

The long-term coaching programme targeted at the Bank's superiors and



senior-level experts and introduced in 2007 was completed in autumn 2010. The aim of this solutions-oriented coaching programme was to promote the operation of the Bank's governance system and to enhance leadership and cooperation skills as well as individual work performance.

An employee satisfaction survey is conducted every other year to monitor job satisfaction in the Bank. The job satisfaction index (JSI) of the previous survey was 3.3, which matches the benchmark of expert organisations. In 2010, a decision was taken to introduce a leadership index to measure the leadership performance of all the Bank's superiors on an annual basis. The Bank of Finland's leadership index (3.7) is above the average for expert organisations (3.5). The Bank also decided to conduct a corporate wellness survey in 2011.

In 2010, the decision was taken to transfer the payment and management of the Bank of Finland's pensions to the payroll and financial management service company Silta Oy as of 1 January 2011. This reshuffle will not affect retirement provision or pension financing, which will remain the responsibility of the Bank of Finland.

At the end of 2010, the Bank of Finland had 441 employees. Of the total staff, 59% held expert positions. The number of staff in attendance declined over the year by 2.6%. Since joining the EMU, the Bank's headcount has been reduced by 41% in keeping with the strategy (Chart 19), reflecting retirements and a tight recruitment policy.

Table 6. Highlights of human resource management<sup>1</sup>

	2009	2010
Staff size		
Headcount, Bank of Finland	453	441
Headcount, Financial Supervisory Authority	211	209
Man-years, Bank of Finland	484	470
Turnover rate for those leaving the Bank's service	9%	9%
Turnover rate for those entering the Bank's service	8%	6%
Internal mobility	10%	11%
Number of newly retired employees	22	21
Average effective retirement age	59 years	59 years
Number of pensions currently paid <sup>2</sup>	1 096	1 127
Staff structure		
Average staff age	46 years	45 years
Proportion of experts and superiors	64%	67%
Proportion of women	49%	49%
Education level index <sup>3</sup>	5,7	5,8
Salaries and bonuses		
Salaries in relation to market salaries <sup>4</sup>	100%	98%
Fixed increases in pay	3.5%	1%
General increase	1.8%	1%
Performance-based increase	1.7%	-
Bonuses as a proportion of payroll	0.23%	0.50%
Average pay for womenlaverage pay for men	100%	99%
Pensions		
Pensions paid <sup>5</sup>	EUR 22 million	EUR 22 million
Competence		
Training costs/payroll	3.5%	3,6%
Training days/man-year	3.0	3.3
Wellness at work		
Absence rate	3.2	2.7
lob satisfaction index (JSI) (employee attitude surv		-

Figures refer to the Bank of Finland, unless otherwise mentioned. Figures referring to the Financial Supervisory Authority are published in the FIN-FSA Annual Report.
Includes pensions paid to the retired employees of the FIN-FSA.

The education level index is calculated from the basic level of education of staff. The index is from 1 to 8.

<sup>&</sup>lt;sup>4</sup> The Bank of Finland's (incl. FIN-FSA's) reference group in the HAY market salary survey is made up of organisations representing the bank of Finland's (incl. FIN-FSAs) reference group in the HAI market salary survey is made up of organisations represting the banking and financial sectors, public sector, and industrial and service sectors. The Bank of Finland's remuneration policy is targeted at the median level of the HAY market salary survey for all organisations (basic salary + benefits).

5 Includes pensions paid to the retired employees of the FIN-FSA.

In 2010, the turnover rate for those entering the Bank's service stood at 6%, while that for those leaving the Bank's service amounted to 9% (42 persons). The reasons for leaving the Bank were retirement (21), expiry of fixed-term contract (11) and employment with another organisation (10). There were 29 external appointments in all in 2010.

The FIN-FSA's headcount at the end of the year amounted to 209 staff, with 73% in expert positions.

#### Labour market issues

The Bank's collective civil service agreement concluded in 2010 is valid from 1 October 2010 to 29 February

2012. The general pay rise in 2010 was 1% of wages and salaries, on top of which a lump-sum payment equalling 6.65% of the basic salary, or not less than EUR 350, became payable to all staff. Of the aggregate payroll for the departments, a minimum of 0.22% was set aside for structural pay adjustments.

Working groups were set up in connection with the collective bargaining negotiations to review the practices for fixed-term appointment of permanent staff members and the working hours scheme. At the same time, a permanent pay statistics working group was also appointed.





Photo: Peter Mickelsson.

## Budget and operative costs

Drawing up of the Bank of Finland's budget is directed by the objectives of the Budgetary and staffing framework. Efficient acquisition procedures for goods and services support the implementation of the budget. The various departments' three year rolling budgets are drawn up in accordance with the Bank's planning timeline. The budgetary framework covers planning of staff expenses, staff-related expenses, IT and other costs. In autumn 2010, the Board of the Bank of Finland ratified the budget for 2011, while the 2012-2013 budget will be confirmed at a later date. The Bank of Finland Board also ratified the budget drawn up for the Financial Supervisory Authority.

### Bank of Finland's budget

The Bank of Finland's operating expenses for 2010 totalled EUR 83.0 million. Operating expenses include a contribution of EUR 8.5 million to the Bank's pension fund. Operating income amounted to EUR 14.4 million. The net operating expenses totalled EUR 68.6 million. Investment expenses amounted to EUR 7.2 million in 2010. Investment expenditure on renovations totalled EUR 2.7 million. The majority of these investments concerned the premises in Vantaa. Other long-term acquisitions totalled EUR 4.5 million.

The other increases in 2011 were mainly attributable to additions to IT and real estate costs as well as to costs related to the return of markka coins and banknotes. Activities in preparation for the Bank's 200th Anniversary year in 2011 are behind some of the increase in staff-related costs. With falling staff

Table 7.
Budget for the Bank of Finland, EUR m

	Outturn	Budgeted
	2010	2011
1. Operating expenses and incom	e	
EXPENSES	66.4	63.6
Staff expenses	34.3	34.3
Pension fund contributions	8.5	
Staff-related expenses	3.0	4.4
Other expenses	20.5	24.9
DEPRECIATION	7.2	9.0
Total	73.6	72.6
Banknote acquisition costs	5.7	4.8
Cash depot system	0.2	0.6
Banking service expenses	3.5	3.9
Total operating expenses	83.0	81.9
INCOME		
Banking service income	1.6	1.6
Real estate	9.3	10.3
Other income	1.0	0.9
Services to FIN-FSA	2.5	2.7
Total income	14.4	15.5
NET	68.6	66.4
2. Investment		
Real estate investment	2.7	5.3
Head office premises	0.4	1.3
Vantaa premises	2.0	3.7
Other premises	0.3	0.3
IT equipment and software	3.8	6.3
Money handling machines	0.1	0.4
Security equipment	0.5	1.4
Other	0.1	0.2
Total investment	7.2	13.6

Totals/sub-totals may not add up because of rounding.

numbers, staff expenses are estimated to decrease slightly. In 2011, investment expenditure is estimated at EUR 13.6 million, with the majority relating to Vantaa premises and IT equipment and software.

Table 8.
Budget for the Bank of Finland's pension fund, EUR m

	Outturn 2010	Budgeted 2011
1. Operating expenses and income		
EXPENSES		
Staff expenses	0.1	0.2
Pension fund activities expenses	0.7	0.8
Pension fund real estate expenses	0.8	0.8
DEPRECIATION	1.1	1.2
PENSIONS		
Pensions paid	22.1	23.3
Total expenses	24.8	26.3
INCOME		
Employment pension contributions	9.8	9.9
Pension fund contributions	10.0	
Rents	1.2	1.2
Internal rents	1.9	1.9
Total income	22.9	13.0
NET	0	-13.3
2. Investment		
Real estate of the pension fund	1.0	0.3
Total investment	1.0	0.3

Totals/sub-totals may not add up because of rounding.

### Pension fund's budget

The pension fund's operating expenses for 2010 totalled EUR 24.8 million. Pensions paid (EUR 22.1 million) was the largest cost item. Operating income amounted to EUR 22.9 million, including the contribution to the Bank of Finland and Financial Supervisory Authority pension fund of EUR 10.0 million.

Investment expenditure arising from the renovation of pension fund premises totalled EUR 1.0 million in 2010. Renovation expenditure in 2011 is estimated at EUR 0.3 million. The pension fund's expenses are estimated to increase in the three coming years, which is largely due to growth in pensions paid.

The pension fund's activities are presented in the fund's own annual report.

### Financial Supervisory Authority's budget

The FIN-FSA's operating expenses for 2010 totalled EUR 25.4 million. Staff expenses include a contribution of EUR 1.5 million paid to the pension fund. Funding of operations amounted to EUR 28.2 million. Operating income is estimated at EUR 26.9 million, of which the Bank of Finland's contribution to funding accounts for EUR 1.3 million. The surplus for the period was EUR 2.9 million. The surplus will be taken into account in the following accounting period, when setting the supervisory and processing fees. Investment expenditure totalled EUR 0.2 million.

Operating expenses for 2011 are estimated at EUR 26.9 million.
Supervisory and processing fees for 2011 are estimated at EUR 24.4 million.
Investment expenditure for 2011 is estimated at EUR 0.9 million.

The FIN-FSA produces its own annual report on its activities.

Table 9. Budget for the Financial Supervisory Authority, EUR m

	Outturn 2010	Budgeted 2011
1. Operating expenses and income		
EXPENSES		
Staff expenses	18.3	19.2
Staff-related expenses	0.9	1.0
Other expenses	3.6	3.8
DEPRECIATION	0.1	0.2
SERVICES FROM THE BANK		
OF FINLAND	2.5	2.7
Total operating expenses	25.4	26.9
FUNDING OF OPERATIONS		
Supervision fees	23.0	23.1
Processing fees	1.0	0.9
Bank of Finland contribution to funding	1.3	1.3
Surplus/deficit transferred from last year	2.9	2.9
Total income	28.2	24.4
Surplus transferred to next year	2.9	1.3

Totals/sub-totals may not add up because of rounding.

## **Environment**

In 2010, the Bank of Finland put into practice criteria laid down in the EU's EMAS decree (Eco-Management and Audit Scheme), in relation to its own environmental management. This means that due consideration is given to environmental issues, at both the action planning and implementation stages. The objective is continuous environmental protection development and improvement in the effectiveness of the Bank's energy and materials usage. The Bank monitors the environmental effects from its operations using two environmental performance indicators that are proportionate to operating expenses: the relative amount of carbon dioxide emissions and the total amount of waste.

The main environmental impact of the Bank of Finland's activities arises from heat and electricity consumption. The energy efficiency of two of the Bank's properties has been improved over the year, with changes in one case meaning that the warmth from the building's outgoing air is collected and in the other case, where water in the cooling system is cooled first using cold outside air. In terms of information technology, the virtual nature of the server and the newest multi-function equipment taken into use for copying purposes as well as the emissions limits set on company cars have all contributed to improved energy usage at the Bank. Three of the Bank's properties have been able to qualify for and be granted the Finnish Swan award for their environmental achievements concerning ecofriendly cleaning and recycling.

The personnel are encouraged to undertake ecological working methods and good practice in this is evaluated on an annual basis. The Bank's waste is sorted and unnecessary printing of documents is avoided. Office paper consumption dropped through the increased use of two-sided printing. Two thirds of staff said that they are making efforts to turn off their computer screen

Table 10. Bank of Finland's environmental performance

	Määrä		
	2008	2009	2010
Electric energy consumption (MW)	20,380	21,470	10,798
Heat energy consumption (MW)	12,640	14,430	14,029
Water consumption (m <sup>3</sup> )	52,610	38,680	41,412
Waste (ton)	165	168	164
Office paper and publications consumption (ton)	41	37	40
CO <sub>2</sub> emission from business trips (ton)	1,590	1,810	1,948
CO <sup>2</sup> , emission balance (ton)	8,760	9,540	7,420

Source: Bank of Finland.

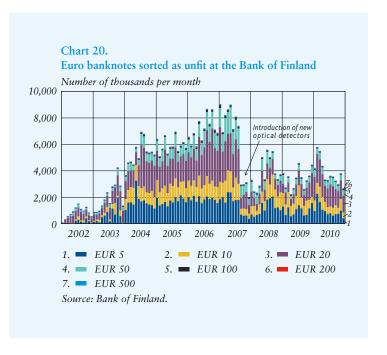
when they leave their desks at the end of the day and turn off their entire computer terminal for the weekends. In many of the staffs' working spaces, it is possible to adjust the thermostat, adjusting the temperature down during longer periods of absence and turn the lights of when leaving the room for more than 10 minutes.

In 2010, for every thousand euro of operating expenses, the Bank created 1.77 kg of waste and 80 kg of CO2 emissions. Electrical energy consumption has been monitored separately to other Bank energy consumption. Of the total waste mixed waste was down in volume by one third over the previous year. The number of air kilometres flown as business trips increased by 9% over the previous year.

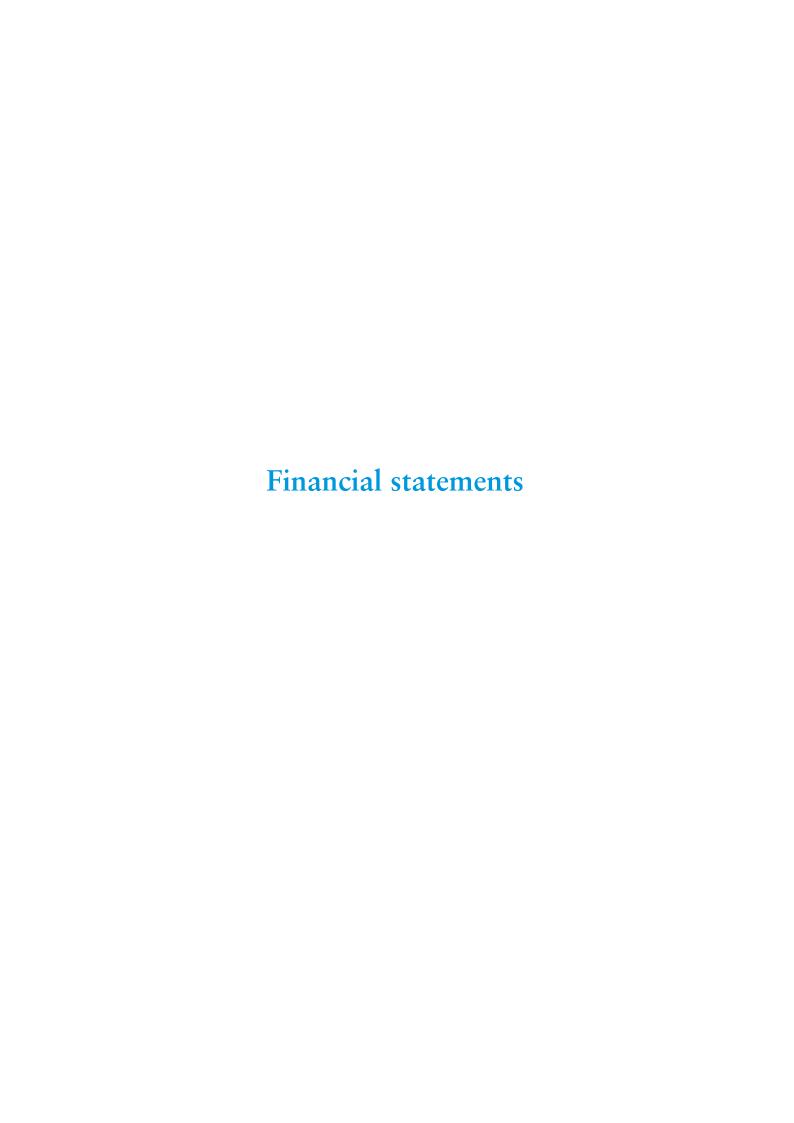
# The environmental impact of banknote series

One of the tasks of the currency supply function within the Bank of Finland is the destruction of unfit banknotes and their replacement with new notes. In all, banknotes valuing EUR 46.1 million were sorted as unfit and replaced with notes fit for circulation or by new notes, in 2010. The denomination of the majority of notes that needed to be destroyed were EUR 20, mainly used in ATMs, and EUR 5, frequently used as change in cash transactions. These denominations accounted for approximately two thirds of all the notes needing to be destroyed (Chart 20).

The Bank of Finland delivers banknotes that have been deemed unfit



for circulation as shredded mixed waste for burning in waste treatment plants. Environmental issues have been taken into account in the design of both the current and future euro banknote series and the aim has been aim to minimise the use of environmentally hazardous materials in the production processes involved in making the notes. In normal use euro banknotes are harmless to users and handlers alike.



## Balance sheet, EUR million

		31 Dec 2010	31 Dec 2009
AS	SETS		
1	Gold and gold receivables	1,664	1,208
2	Claims on non-euro area residents denominated in		
	foreign currency	5,223	6,225
	Receivables from the International Monetary Fund	1,815	1,609
	Balances with banks and security investments,		
	external loans and other external assets	3,408	4,617
3	Claims on euro area residents denominated in foreign currency	712	1,120
4	Claims on non-euro area residents denominated in euro	1,662	845
5	Lending to euro area credit institutions related to		
	monetary policy operations denominated in euro	50	2,710
	Main refinancing operations	0	20
	Longer-term refinancing operations	50	2,690
6	Other claims on euro area credit institutions denominated in euro	1	126
7	Securities of euro area residents denominated in euro	11,668	8,002
	Securities held for monetary policy purposes	2,203	531
	Other securities	9,466	7,471
8	Intra-Eurosystem claims	23,921	14,280
	Participating interest in ECB	99	78
	Claims equivalent to the transfer of foreign reserves Claims related to TARGET2 and	722	722
	correspondent accounts (net)	19,686	9,535
	Net claim related to the allocation of euro banknotes		
	within the Eurosystem	3,414	3,945
9	Other assets	1,090	1,130
	Euro area coins	22	19
	Tangible and intangible fixed assets	171	189
	Other current assets	551	528
	Other	346	393
	Total assets	45,990	35,646

Totals/sub-totals may not add up because of rounding.

		31 Dec 2010	31 Dec 2009
LL	ABILITIES		
1	Banknotes in circulation	13,880	13,330
2	Liabilities to euro area credit institutions related to		
	monetary policy operations denominated in euro	21,696	13,543
	Current accounts (covering the minimum reserve system)	9,383	8,085
	Overnight deposits	9,113	5,458
	Fixed-term deposits (liquidity-absorbing		
	fine-tuning operations)	3,200	-
3	Liabilities to other euro area residents denominated in euro	262	14
4	Liabilities to non-euro area residents denominated in euro	1,021	234
5	Liabilities to euro area residents denominated in foreign currency	0	248
6	Liabilities to non-euro area residents denominated in foreign currency	23	363
7	Counterpart of special drawing rights allocated by the IMF	1,377	1,295
8	Intra-Eurosystem liabilities	33	-
9	Other liabilities	151	155
10	Revaluation account	2,274	1,703
11	Provisions	2,814	2,325
12	Capital and reserves	2,175	2,015
	Primary capital	841	841
	Reserve fund	1,334	1,174
13	Profit for the financial year	283	420
	Total liabilities	45,990	35,646

## Profit and loss account, EUR million

		1 Jan-31 Dec 2010	1 Jan-31 Dec 2009
1 I	Interest income	598	590
2 I	Interest expense	-71	-71
3 N	NET INTEREST INCOME	527	519
4 F	Foreign exchange rate differences	221	15
5 S	Securities price differences	69	101
	Change in foreign exchange rate and orice difference provision	-290	-116
	NET RESULT OF FINANCIAL OPERATIONS, WRITE-DOWNS AND RISK PROVISIONS	527	519
7 N	Net result of pooling of monetary income	-33	21
	Share in ECB profit	26	2
	Provisions in respect of monetary policy operations	32	31
10 (	Other central banking income	9	19
C	CENTRAL BANKING PROFIT	561	590
11 (	Other income	36	43
(	Operating expenses	-106	-112
	Staff costs	-51	-53
	Pension fund contribution	-10	-10
	Administrative expenses	-32	-31
	Depreciation of fixed assets	<b>-7</b>	<b>-7</b>
	Banknote procurement costs Other expenses	-6 0	−10 −1
(	OPERATING PROFIT	491	521
F	Profit for the pension fund	24	48
	Income of the pension fund	58	76
	Expenses of the pension fund	-34	-28
20 (	Changes in provisions	-232	-149
21 F			

96 | Bank of Finland Annual Report 2010 Financial statements

## Appendices to the financial statements, EUR million

	31 Dec 2010	31 Dec 2009
Shares and other interests, nominal value		
Bank for International Settlements (BIS) <sup>1</sup>	22.4 (1.96%)	22.4 (1.96%)
Shares in housing companies	2.8	2.8
Other shares and interests	0.0	0.0
Total	25.2	25.2
Bank of Finland's liability share in the APK fund	0.2	0.2
Liability arising from pension commitments		
Bank of Finland's pension liability	543.3	540.0
– of which covered by reserves	525.8	503.0
Customer service office		
Deposits	22.6	20.8
Loans	3.9	4.5

 $<sup>^{1}</sup>$  In parentheses, the Bank of Finland's relative holdings of the BIS shares in circulation.

### The Bank of Finland's real estate

Building Address		Year of completion	Volume m³ (approx.)	
Helsinki	Rauhankatu 16	1883/1961/2006	52,100	
	Rauhankatu 19	1954/1981	40,500	
	Snellmaninkatu 6 <sup>1</sup>	1857/1892/2001	23,600	
	Snellmaninkatu 2 <sup>1</sup>	1901/2003	3,200	
	Ramsinniementie 34	1920/1983/1998	4,600	
Киоріо	Puutarhakatu 4	1993	13,000	
Oulu	Kajaaninkatu 8	1973	17,200	
Tampere	Hämeenkatu 13 $b^1$	1942	36,000	
Vantaa	Turvalaaksontie 1	1979	324,500	
Inari	Saariseläntie 9	1968/1976/1998	6,100	

 $<sup>^{1}</sup>$  Transferred to the ownership of the Bank of Finland's pension fund from the beginning of 2002.

The Board proposes to the Parliamentary Supervisory Council that EUR 87,508,457.28 of the profit of EUR 282,508,457.28 be transferred to the reserve fund according to section 21, subsection 2 of the Act on the Bank of Finland and that the remaining EUR 195,000,000 be made available for the needs of the State.

Helsinki, 23 February 2011

THE BOARD OF THE BANK OF FINLAND

Erkki Liikanen, Chairman

Pentti Hakkarainen Seppo Honkapohja

. /. Arno Lindgren

## Accounting conventions

#### 1. General accounting conventions

The Bank of Finland observes the economic-based accounting principles and techniques adopted by the Governing Council of the ECB, and the Bank's annual accounts are drawn up in accordance with these harmonised principles. In accordance with section 11 of the Act on the Bank of Finland, the Parliamentary Supervisory Council confirms, on the proposal of the Board, the principles applied in drawing up the annual accounts.

The Bank of Finland's profit and loss account also comprises incomes and expenses of the Bank's pension fund and of the Financial Supervisory Authority. The pension fund's investment portfolio is valued monthly at the market price of the last day of the month.

## Revaluation of items denominated in foreign currency and gold

Items denominated in foreign currency and gold are converted into euro at the exchange rate prevailing on the balance sheet date. Foreign currency-denominated items have been revaluated on a currency-by-currency basis. Revaluation differences related to foreign exchange rate movements and securities price movements are treated separately. Unrealised gains are recorded in the revaluation account. Unrealised losses are taken to the profit and loss account if they exceed previous corresponding unrealised revaluation gains registered in the revaluation account. Unrealised losses taken to the profit and loss account are not reversed against any future unrealised gains in subsequent years.

Currency	2010	2009
US dollar	1.3362	1.4406
Japanese yen	108.6500	133.1600
Australian dollar	1.3136	1.6008
Norwegian krone	7.8000	8.3000
Danish krone	7.4535	7.4418
Swedish krona	8.9655	10.2520
Swiss franc	1.2504	1.4836
Pound sterling	0.86075	0.8881
Canadian dollar	1.3322	1.5128
Special Drawing Rights (SDRs)	0.8642	0.9186
Gold	1,055.418	766.3470

In the case of gold, no distinction is made between price and exchange rate differences; rather, a single revaluation is made. Realised gains and losses related to foreign exchange rate movements during the financial year are calculated on the basis of the daily net average rate method. Foreign exchange rates used in the financial statements are presented in the Table, left.

#### 3. Valuation and amortisation of securities

Income and expenses are recognised in the period in which they are earned or incurred. Realised income and expenses are entered in the profit and loss account. The difference between the acquisition price and nominal value of securities is entered as income or expense over the maturity of the security. Gains and losses related to securities price movements have been calculated using the average cost method.

Unrealised gains are entered in the revaluation account. Unrealised losses are taken to the profit and loss account if they exceed previous corresponding unrealised revaluation gains registered in the revaluation account. Unrealised losses taken to the profit and loss account are not reversed against any future unrealised gains in subsequent years. Both eurodenominated and foreign currency-denominated securities are valued on a security-by-security basis. If unrealised losses are entered in the profit and loss account in respect of a security or a currency, the average price of the security or the net average rate of the currency is adjusted correspondingly before the beginning of the next financial year.

Reverse repurchase agreements, or reverse repos, are recorded as collateralised deposits on the assets side of the balance sheet. Repurchase agreements, or repos, are recorded as collateralised loans on the liabilities side of the balance sheet. Securities sold under repurchase agreements remain on the Bank's balance sheet.

The pension fund's investment portfolio is valued monthly at the market price of the last day of the month, reported by external portfolio managers.

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 31 December 2010 were used.

Marketable securities classified as held-to-maturity, non-marketable securities and illiquid equity shares are all valued at amortised cost subject to impairment.

## 4. Accounting conventions relating to intra-ESCB balances

Transactions between the national central banks (NCBs) of EU countries are primarily processed via TARGET2, the Trans-European Automated Real-time Gross settlement Express Transfer system. These transactions give rise to bilateral balances in accounts held between EU central banks. These bilateral balances are novated to the ECB daily, leaving each NCB with a single net bilateral position vis-à-vis the ECB only.

### 5. Valuation of fixed assets

As from the beginning of the financial year 1999, fixed assets have been valued at acquisition price less depreciation. Depreciation is calculated on a straight-line basis over the expected economic lifetime of an asset, starting, as a rule, from the calendar month following acquisition.

The counteritem of buildings and land capitalised in the 1999 balance sheet at market prices is the revaluation account. Depreciation in respect of buildings and land has been entered by adjusting the revaluation account downwards so that depreciation does not affect the Bank's income or expense.

The economic lifetimes of assets are calculated as follows:

 computers, related hardware and software, and motor vehicles: 4 years

- machinery and equipment: 10 years
- buildings: 25 years.

Fixed assets with a value of less than EUR 10,000 are written off in the year of acquisition.

#### 6. Banknotes in circulation

The ECB and the 16 euro area NCBs, which together comprise the Eurosystem, issue euro banknotes. <sup>1</sup> The total value of euro banknotes in circulation is allocated to the NCBs on the last banking day of each month in accordance with the banknote allocation key.2 The ECB has been allocated a share of 8% of the total value of euro banknotes in circulation, whereas the remaining 92% has been allocated to NCBs according to the banknote allocation key. This is disclosed under the balance sheet liability item 'Banknotes in circulation'. The difference between the value of euro banknotes allocated to each NCB in accordance with the banknote allocation key and the value of euro banknotes that it actually puts into circulation also gives rise to remunerated intra-Eurosystem balances. These claims or liabilities, which incur interest,3 are disclosed under the sub-item 'Intra-Eurosystem claims/liabilities: Net claim/liability related to the allocation of euro banknotes within the Eurosystem'. In the Bank of Finland's balance sheet, the item is on the asset side.

The monetary income on euro banknotes is allocated in proportion to the NCBs' paid-up shares in the capital of the ECB. The interest income and expense on these balances is cleared through the accounts of the ECB and is disclosed under 'Net interest income'. The ECB's capital key is adjusted every five years and whenever a new Member State

 $<sup>^1</sup>$  ECB Decision of 13 December 2010 on the issue of euro banknotes (ECB/2010/29), OJ L 35, 9.2.2011, p. 26–30.

<sup>&</sup>lt;sup>2</sup> 'Banknote allocation key' means the percentage that results from taking into account the ECB's share in the total euro banknote issue and applying the subscribed capital key to the NCB's share in that total.

<sup>&</sup>lt;sup>3</sup> ECB Decision of 6 December 2001 on the allocation of monetary income of the national central banks of participating Member States from the financial year 2002 (ECB/2001/16).

joins the European Union.

The income accruing to the ECB on the share of 8% of the total value of euro banknotes in circulation is generally distributed to the NCBs.<sup>4</sup>

#### 7. Changes in accounting conventions

Key for subscription of the ECB's capital,	
1 January 2010	%
Nationale Bank van België/	
Banque Nationale de Belgique	2.4256
Deutsche Bundesbank	18.9373
Central Bank of Ireland	1.1107
Bank of Greece	1.9649
Banco de España	8.3040
Banque de France	14.2212
Banca d'Italia	12.4966
Central Bank of Cyprus	0.1369
Banque centrale du Luxembourg	0.1747
Central Bank of Malta	0.0632
De Nederlandsche Bank	3.9882
Oesterreichische Nationalbank	1.9417
Banco de Portugal	1.7504
Banka Slovenije	0.3288
Národná banka Slovenska	0.6934
Suomen Pankki – Finlands Bank	1.2539
Subtotal Eurosystem	69.7915
Българска народна банка	
(Bulgarian National Bank)	0.8686
Česká národní banka	1.4472
Danmarks Nationalbank	1.4835
Eesti Pank	0.1790
Latvijas Banka	0.2837
Lietuvos bankas	0.4256
Magyar Nemzeti Bank	1.3856
Narodowy Bank Polski	4.8954
Banca Națională a României	2.4645
Sveriges Riksbank	2.2582
Bank of England	14.5172
Subtotal for non-euro area NCBs	30.2085
Total	100.0000

There were no changes in accounting conventions in the financial year 2010.

### 8. Monetary income

Monetary income accruing to NCBs in the performance of monetary policy functions in the ESCB is calculated and allocated to NCBs in accordance

with the Statute and any decisions by the ECB's Governing Council.

#### Interim profit distribution

The Governing Council of the ECB has decided that the seigniorage income of the ECB, which arises from the 8% share of euro banknotes allocated to the ECB, and the ECB's (net) income arising from securities purchased under the Securities Markets Programme (SMP) shall be due in full to the NCBs in the same financial year it accrues. The ECB shall distribute this income in January of the following year in the form of an interim distribution of profit<sup>5</sup>. The amount of the ECB's income on euro banknotes in circulation may be reduced in accordance with any decision by the Governing Council in respect of expenses incurred by the ECB in connection with the issue and handling of euro banknotes. Before the end of the year the Governing Council decides whether all or part of the ECB's income arising from SMP securities and, if necessary, all or part of the ECB's income on euro banknotes in circulation should be retained to the extent necessary to ensure that the amount of the distributed income does not exceed the ECB's net profit for that year.

The Governing Council may also decide to transfer all or part of the ECB's income arising from SMP securities and if necessary, all or part of the ECB's income on euro banknotes in circulation to a provision for foreign exchange rate, interest rate, credit and gold price risks.

#### 9. Pension fund

In 2001 the decision was made to create a pension fund in the Bank of Finland's balance sheet for the management of the Bank's pension liability. The purpose of this measure, which came into force from

<sup>&</sup>lt;sup>4</sup> ECB Decision of 6 November 2005 on the issue of euro banknotes (ECB/2005/11).

<sup>&</sup>lt;sup>5</sup> ECB Decision 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 (ECB/2010/24), OJ L 6, 11.1.2011, p. 35–36.

the beginning of 2002, is to ensure that the funds related to the coverage of the pension liability are invested in a lucrative manner. A separate annual report will be prepared on the pension fund of the Bank of Finland. The assets of the pension fund are recorded in the Bank of Finland's balance sheet item 'Other assets'.

The ECB guideline on accounting and financial reporting does not regulate accounting for the pension fund. The pension fund's investments are valued at market price, and revaluations are recognised in profit or loss. The fund's financial statements are drafted using market prices prevailing in the last day of the year. The pension fund's real estate is recorded in the balance sheet at value prevailing on transfer date less annual depreciation. If the balance sheet value of real estate has been covered by revaluation, the corresponding depreciation is recorded by reversing the revaluation so that depreciation has no impact on the pension fund's income or expense.

#### 10. Recording of provisions

Provisions can be made in the annual accounts, if they are necessary for safeguarding the real value of Bank's funds or for smoothing out variations in profit and loss arising from changes in exchange rates or market value of securities.

Provisions can be made, as necessary, to cover the Bank's pension liabilities.

### 11. Off-balance sheet items

Gains and losses arising from off-balance sheet items are treated in the same manner as gains and losses arising from on-balance sheet items. Forward foreign exchange transactions are taken into account when the net average cost of a currency position is calculated.

| Bank of Finland Annual Report 2010 Financial statements

## Notes on the balance sheet

#### **Assets**

### 1. Gold and gold receivables

The Bank's holdings of gold total 1,576,476 troy ounces (1 troy ounce = 31.103 g). In the annual accounts, gold has been valued at market price. At the beginning of 1999 the Bank of Finland – and the other NCBs participating in the Eurosystem – transferred about 20% of its gold holdings to the ECB.

Gold	31 Dec 2010	31 Dec 2009
Holdings (troy ounces, million)	1.6	1.6
Price: euro per troy ounce	1,055.4	766.3
Market price value (EUR m)	1,663.8	1,208.1
Change in market value (EUR m)	455.7	228.3

## 2. Claims on non-euro area residents denominated in foreign currency

The item consists of claims on non-euro area residents denominated in foreign currency and included in the Bank's foreign reserves, and holdings of special drawing rights (SDRs) allocated by the International Monetary Fund (IMF).

Breakdown of receivables from the IMF denor	ninated in
foreign currency	

, 0	31 Dec 2010		31 Dec 2009	
	EUR m	SDR m	EUR m	SDR m
Reserve tranche				
in the IMF	297.4	257.0	294.0	270.1
SDRs	1,380.0	1,192.5	1,308.2	1,201.7
Other receivables				
from the IMF	138.0	119.3	6.3	5.8
Total	1,815.3	1,568.8	1,608.5	1,477.6

EUR/SDR exchange rate in financial years 2009 and 2010				
2010 2009				
End-March	0.89	0.89		
End-June	0.83	0.91		
End-September	0.88	0.92		
End-December	0.86	0.92		

Finland's quota in the IMF amounts to SDR 1,263.8 million. The reserve tranche is the part of the Bank's quota that has been paid to the IMF in foreign currency. Another part of the quota was formerly paid to the IMF in Finnish markka. The IMF has lent this part back to the Bank of Finland. The net effect of the Finnish markka quota on the Bank's balance sheet is zero, since the above-mentioned receivables and the liability are included in the same balance sheet item.

The Bank of Finland's SDR allocation amounts to EUR 1,380 million. The SDRs are reserve assets created and allocated by the IMF to its member countries. They are used in currency transactions as normal currency units. The value of 'Receivables from the IMF' changes on the basis of foreign exchange transactions between the member countries. In addition, its value is affected by interests earned and paid as well as remuneration on the Bank's claims in the IMF.

The Bank of Finland's receivables from the IMF total EUR 1,815.3 million.

In summer 2010, the Accounting and Monetary Income Committee (AMICO) of the ESCB made a decision on the treatment of SDR hedging trades which differs from the general currency-specific valuation principle. Sales of SDR component currencies made for hedging against the SDR exchange rate risk are regarded as reductive items in calculating the amount and market valuation of SDR items. Hence, such sales do not decrease the amount of component currencies and do not have an effect on the market valuation of the respective currencies.

Claims on non-euro area residents denominated in foreign currency

In addition to the IMF items, this item includes balances with banks and security investments, as well as external loans and other external assets.

Breakdown of claims on non-euro area residents denominated in foreign currency				
	31 Dec 2010	31 Dec 2009		
	EUR m	EUR m		
Balances with banks	79.7	71.6		
Coupon bonds	3,198.0	3,797.2		
Discount papers	127.1	105.8		
Other	2.9	2.0		
Total	3,407.7	3,976.6		

At the beginning of 1999, the Bank of Finland transferred part of its claims denominated in US dollar and Japanese yen to the ECB.

Currency breakdown of securities of non-euro area residents
denominated in foreign currency

Currency	31 Dec 2010		31 Dec 2009	
	EUR m	%	EUR m	%
Pound sterling	547.9	16.5	1,028.1	26.3
Swiss franc	_	_	459.9	11.8
US dollar	2,248.9	67.6	2,010.8	51.5
Japanese yen	528.3	15.9	404.2	10.4
Total	3,325.1	100.0	3,903.0	100.0

Maturity breakdown of securities of non-euro area residents
denominated in foreign currency

Maturity	31 Dec 2010		31 Dec 2009	
	EUR m	%	EUR m	%
Up to 1 year	849.4	25.5	920.9	23.6
Over 1 year	2,475.7	74.5	2,982.1	76.4
Total	3,325.1	100.0	3,903.0	100.0

## Claims on euro area residents denominated in foreign currency

This item consists of balances with banks, security investments and other claims on euro area residents denominated in foreign currency.

Breakdown of claims on euro area residents denominated in
foreign currency

31 Dec 2010	31 Dec 2009
EUR m	EUR m
32.9	45.5
675.8	1,074.4
0.0	0.0
2.8	0.2
711.6	1,120.1
	32.9 675.8 0.0 2.8

Currency breakdown of securities of euro area residents denominated in foreign currency						
Currency	31 Dec 2	2010	31 Dec	2009		
	EUR m	%	EUR m	%		
Pound sterling	161.1	23.8	416.8	38.8		
Swiss franc	0.0	0.0	0.0	0.0		
US dollar	493.2	73.0	609.9	56.8		
Japanese yen	21.4	3.2	47.7	4.4		
Total	675.8	100.0	1,074.4	100.0		

#### Maturity breakdown of securities of euro area residents denominated in foreign currency

Maturity	31 Dec 2010		31 Dec	2009
	EUR m	%	EUR m	%
Up to 1 year	226.2	33.5	397.4	37.0
Over 1year	449.6	66.5	677.0	63.0
Total	675.8	100.0	1,074.4	100.0

### Claims on non-euro area residents denominated in euro

This item includes balances with banks outside the euro area, denominated in euro, coupon bonds and discount papers issued outside the euro area as well as euro-denominated receivables from the Bank for International Settlements (BIS).

#### Claims on non-euro area residents denominated in euro 31 Dec 2010 31 Dec 2009 EUR m EUR m Balances with banks 1,046.4 416.2 Coupon bonds 615.2428.7 Discount papers 0.0 0.0 Other 0.0 0.01,661.5

#### Maturity breakdown of securities of non-euro area residents denominated in euro

Total

Maturity	31 Dec 2010		31 Dec	2009
	EUR m	%	EUR m	%
Up to 1 year	164.0	27.0	182.3	42.5
Over 1 year	451.2	73.0	246.4	<i>57.5</i>
Total	615.2	100.0	428.7	100.0

845.0

# 5. Lending to euro area credit institutions related to monetary policy operations denominated in euro

This item consists of claims relating to monetary policy instruments used by the Bank of Finland to implement monetary policy as part of the Eurosystem. The item includes claims (+ interest) on Finnish credit institutions, and the amount recorded is determined by credit institutions' liquidity needs.

Main refinancing operations are liquidity-providing operations which are conducted weekly in the form of reverse transactions and executed through standard tenders. They play a pivotal role in fulfilling the objectives of Eurosystem's market operations and provide the bulk of refinancing to the banking sector. At the end of 2010, there were no claims on main refinancing operations.

Longer-term refinancing operations are liquidity-providing transactions that are executed once a month in the form of reverse transactions and carried out through standard tenders. Claims on longer-term refinancing operations totalled EUR 50.0 million.

The Eurosystem's total claims on monetary policy operations amount to EUR 546,747 million, of which the Bank of Finland holds EUR 50 million on its balance sheet. In accordance with Article 32.4 of the Statute, any risks from monetary policy operations, if they were to materialise, should eventually be shared in full by the Eurosystem NCBs, in proportion to the prevailing ECB capital key shares.

Lending to euro area credit institutions related to monetary policy operations denominated in euro

operations denominated in euro		
	31 Dec 2010	31 Dec 2009
	EUR m	EUR m
Main refinancing operations	0	20.0
Longer-term refinancing operations	50.0	2,690.0
Total	50.0	2,710.0

## 6. Other claims on euro area credit institutions denominated in euro

This item consists of euro-denominated deposits and balances with euro area credit institutions. The balance sheet total for this item was EUR 0.6 million in the

financial year 2010, compared with EUR 125.8 million in the previous year.

## Securities of euro area residents denominated in euro

In order to report securities held for monetary policy purpose separately, the item 'Securities of euro area residents denominated in euro' has been divided into two sub-positions: 'Securities held for monetary policy purposes' and 'Other securities'.

#### 7. 1 Securities held for monetary policy purposes

This item contains securities, acquired by the Bank of Finland within the scope of the purchase programme for covered bonds<sup>1</sup>, and public debt securities acquired in the scope of the securities markets programme<sup>2</sup>. The securities are classified as held-to-maturity.

The total Eurosystem NCB's holding of SMP securities amounts to EUR 60,873 million, of which the Bank of Finland holds EUR 1,237.8 million on its balance sheet. In accordance with Article 32.4 of the Statute, any risks from holdings of SMP securities, if they were to materialise, should eventually be shared in full by the Eurosystem NCBs, in proportion to the prevailing ECB capital key shares.

Securities	held	for	monetary	policy	purposes

	31 Dec 2010	31 Dec 2009
	EUR m	EUR m
Securities held for monetary policy		
purposes	2,202.7	530.6

Securities held for monetary policy purposes						
Maturity	31 Dec 2	2010	31 Dec	2009		
·	EUR m	%	EUR m	%		
Up to 1 year	164.9	7.5	47.5	9.0		
Over 1 year	2,037.8	92.5	483.1	91.0		
Total	2,202.7	100.0	530.6	100.0		

<sup>&</sup>lt;sup>1</sup> ECB Decision of of 2 July 2009 on the implementation of the covered bond purchase programme (ECB/2009/16), OJ L 175, 4.7.2009, p. 18–19.

 $<sup>^2\,</sup>$  ECB Decision of 14 May 2010 establishing a securities markets programme (ECB/2010/5), OJ L 124, 20.5.2010, p. 8–9.

### 7.2 Other securities

This item includes coupon bonds and discount papers issued in the euro area.

Breakdown of other securities of euro area residents denominated in euro				
31 Dec 2010 31 Dec 200				
	EUR m	EUR m		
Coupon bonds	9,048.8	7,067.6		
Discount papers	417.0	403.6		
Total	9,465.8	7,471.2		

Maturity breakdown of other securities of euro area residents denominated in euro					
Maturity 31 Dec 2010 31 Dec 2009					
	EUR m	%	EUR m	%	
Up to 1 year	2,556.5	27.0	1,693.0	22.7	
Over 1 year	6,909.2	73.0	5,778.2	77.3	
Total	9,465.8	100.0	7,471.2	100.0	

## Intra-Eurosystem claims

This balance sheet item includes the following claims:

- participating interest in ECB
- claims equivalent to the transfer of foreign reserves
- claims related to TARGET2 and correspondent accounts (net)

### NCBs' paid-up shares in the ECB's increased capital

	Subscribed capital until 31 December 2009	Paid-up capital until 31 December 2009	Subscribed capital from 29 December 2010	Paid-up capital from 29 December2010
Nationale Bank van België/				
Banque Nationale de Belgique	139,730,385	139,730,385	261,010,385	180,157,051
Deutsche Bundesbank	1,090,912,027	1,090,912,027	2,037,777,027	1,406,533,694
Central Bank of Ireland	63,983,566	63,983,566	119,518,566	82,495,233
Bank of Greece	113,191,059	113,191,059	211,436,059	145,939,392
Banco de España	478,364,576	478,364,576	893,564,576	616,764,576
Banque de France	819,233,899	819,233,899	1,530,293,899	1,056,253,899
Banca d'Italia	719,885,688	719,885,688	1,344,715,688	928,162,355
Central Bank of Cyprus	7,886,333	7,886,333	14,731,333	10,168,000
Banque centrale du Luxembourg	10,063,860	10,063,860	18,798,860	12,975,526
Central Bank of Malta	3,640,732	3,640,732	6,800,732	4,694,066
De Nederlandsche Bank	229,746,339	229,746,339	429,156,339	296,216,339
Oesterreichische Nationalbank	111,854,588	111,854,588	208,939,588	144,216,254
Banco de Portugal	100,834,460	100,834,460	188,354,460	130,007,793
Banka Slovenije	18,941,025	18,941,025	35,381,025	24,421,025
Národná banka Slovenska	39,944,364	39,944,364	74,614,364	51,501,030
Suomen Pankki – Finlands Bank	72,232,820	72,232,820	134,927,820	93,131,154
Subtotal for euro area NCBs1	4,020,445,722	4,020,445,722	7,510,020,722	5,183,637,388
Българска народна банка/				
(Bulgarian National Bank)	50,037,027	3,502,592	93,467,027	3,505,014
Česká národní banka	83,368,162	5,835,771	155,728,162	5,839,806
Danmarks Nationalbank	85,459,278	5,982,149	159,634,278	5,986,285
Eesti Pank	10,311,568	721,810	19,261,568	722,309
Latvijas Banka	16,342,971	1.144.008	30.527.971	1.144.799
Lietuvos bankas	24,517,337	1,716,214	45,797,337	1,717,400
Magyar Nemzeti Bank	79,819,600	5,587,372	149,099,600	5,591,235
Narodowy Bank Polski	282,006,978	19,740,488	526,776,978	19,754,137
Banca Națională a României	141,971,278	9,937,989	265,196,278	9,944,860
Sveriges Riksbank	130,087,053	9,106,094	242,997,053	9,112,389
Bank of England	836,285,431	58,539,980	1,562,145,431	58,580,454
Subtotal for non-euro area NCBs1	1,740,206,681	121,814,468	3,250,631,681	121,898,688
$Total^1$	5,760,652,403	4,142,260,189	10,760,652,403	5,305,536,076

<sup>&</sup>lt;sup>1</sup> Due to rounding, subtotals and totals may not correspond to the sum of all figures shown.

- net claims related to the allocation of euro banknotes within the Eurosystem
- share in ECB's income derived from banknotes and securities purchased under the Securities Markets Programme
- net result of pooling of monetary income.

The share in the ECB's capital of each NCB participating in the Eurosystem is determined on the basis of a so-called capital key. The capital key is calculated relative to the population and gross-domestic product of each country. It is adjusted every five years and when new members join the EUR. The Bank of Finland's percentage share in the ECB's capital has been 1.2539% since 1 January 2009.

The ECB increased its subscribed capital by EUR 5 billion from EUR 5.76 billion to EUR 10.76 billion with effect from 29 December 2010. The NCBS of the euro area countries shall pay up their increased capital in three equal annual instalments. The first instalment was paid on 29 December 2010, and the remaining two instalments will be paid at the end of 2011 and 2012, respectively. The Bank of Finland paid the first instalment, EUR 20.9 million, of its contribution to the increase in the ECB's capital, on 29 December 2010.

Item 'Claims equivalent to the transfer of foreign reserves' includes the share of foreign reserve assets transferred by the Bank of Finland to the ECB when Finland joined the Eurosystem. The claims 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. They are denominated in euro at a value fixed at the time of their transfer.

This item also consists of net balances of NCBs' TARGET2 accounts if the Bank of Finland has had a claim against the Eurosystem in the period under review.

Net claim related to the allocation of euro banknotes within the Eurosystem consists of a so-called CSM item (Capital Share Mechanism) relating to the subscription of ECB's capital, less the so-called ECB issue. The amount of euro banknotes in circulation under the CSM is adjusted in the balance sheet to correspond to the ECB's capital key. The figure for ECB issue represents the ECB's share (8%) of euro banknotes in circulation. For both figures, the counter entry is recorded under the balance sheet liability item 'Banknotes in circulation'3.

#### Other assets

This item consists of the Bank of Finland's holdings of euro coins, fixed assets (buildings, machinery and equipment) and investment assets (shares and other equity). The item also includes pension fund asset and investment items, valuation results of off-balance sheet items, accruals and other assets.

Tangible fixed assets		
Book value	31 Dec 2010	31 Dec 2009
	EUR m	EUR m
Land	8.6	8.6
Buildings	146.5	154.2
Machinery and equipment	9.1	10.2
Art and numismatic collection	0.4	0.4
Total	164.6	173.3

Intangible fixed assets		
Book value	31 Dec 2010	31 Dec 2009
	EUR m	EUR m
PT	( )	5.0
IT systems	6.3	5.8
_Total	6.3	5.8

Other holdings and sundry	31 Dec 2010	31 Dec 2009
assets	EUR m	EUR m
Euro area coins	21.6	19.5
Shares and other equity	25.2	25.2
Pension fund's investments	525.7	502.8
Accruals	337.9	281.2
Other sundry assets	8.4	121.8
Total	918.8	950.5

<sup>&</sup>lt;sup>3</sup> According to the accounting regime chosen by the Eurosystem on the issue of euro banknotes, a share of 8% of the total value of the euro banknotes in circulation is allocated to the ECB on a monthly basis. The remaining 92% of the value of the euro banknotes in circulation are allocated to the NCBs also on a monthly basis, whereby each NCB shows in its balance sheet a share of the euro banknotes issued corresponding to its paid-up share in the ECB's capital. The difference between the value of the euro banknotes allocated to the NCB according to the aforementioned accounting regime, and the value of euro banknotes put into circulation, is recorded as a 'Net Intra-Eurosystem claim/liability related to the allocation of euro banknotes within the Eurosystem'.

In the table below, land and buildings also include land (EUR 5.5 million) and buildings (EUR 31.9 million) owned by the Bank of Finland's pension

fund. These are included in other holdings and sundry assets. Intangible assets also include shares and other equity.

EUR m	Land	Buildings	Machinery and equipment	Art and numis- matic collection	Intangible assets	Total
Acquisition cost 1 Jan 2010	14.1	296.9	28.9	0.4	47.6	387.8
Additions	_	3.2	1.8	0.01	2.9	8.0
Deductions	_	_	0.1	_	_	0.1
Acquisition cost 31 Dec 2010	14.1	300.1	30.6	0.4	50.5	395.6
Deprecitiation during financial year	_	11.8	2.9	_	2.4	17.2
Accumulated depreciation 31 Dec 2010	_	121.7	21.5	_	19.0	162.1
Book value 31 Dec 2010	14.1	178.4	9.1	0.4	31.5	233.5
Book value 31 Dec 2009	14.1	187.0	10.2	0.4	31.0	242.7

### Liabilities

### 1. Banknotes in circulation

This item consists of the Bank of Finland's share, in accordance with the ECB's capital key and adjusted for the share allocated to the ECB, of the total amount of euro banknotes in circulation. In 2010 the Bank's share of euro banknotes in circulation was EUR 13,880.3 million.

Banknotes in circulation	31 Dec 2010	31 Dec 2009
	EUR m	EUR m
EUR 5	108.2	102.7
EUR 10	48.6	53.2
EUR 20	2,109.3	1,994.8
EUR 50	4,803.3	4,210.9
EUR 100	-53.0	31.3
EUR 200	364.9	346.5
EUR 500	3,085.1	2,681.0
Total	10,466.3	9,420.4
ECB issue	-1,206.9	-1,159.1
CSM figure	4,620.9	5,068.6
Banknotes in circulation in accord-		
ance with the ECB's capital key	13,880.3	13,330.0

### Liabilities to euro area credit institutions related to monetary policy operations denominated in euro

This item consists of interest bearing liabilities to credit institutions and includes credit institutions'

minimum reserve account balances and overnight deposits. The item results for the Bank of Finland from the performance of monetary policy functions as part of the Eurosystem. The minimum reserve system aims at stabilising money market interest rates and increasing the structural liquidity needs of the banking system. The average of credit institutions' daily minimum reserve account balances must be at least as high as the reserve requirement during a maintenance period. Due to the financial crisis overnight deposits were exceptionally high in 2010 and 2009.

## 3. Liabilities to other euro area residents denominated in euro

This item consists of euro-denominated liabilities to the public sector and credit institutions other than those subject to the reserve requirement.

# 4. Liabilities to non-euro area residents denominated in euro

This item consists of balances of international organisations and non-euro area banks with the Bank of Finland and repurchase agreements with non-euro area counterparties.

# Liabilities to euro area residents denominated in foreign currency

This item consists of assets denominated in foreign currency deposited by the State Treasury for its own payments.

### Liabilities to non-euro area residents denominated in foreign currency

This item includes foreign currency-denominated repurchase agreements entered into for the purpose of managing foreign reserves.

### Counterpart of special drawing rights allocated by the IMF

This item is the counteritem of SDRs (cf. item on the asset side). Originally the amount of SDRs and their counteritem were equal. As a result of transactions, the Bank of Finland's claims related to SDRs were bigger than their counteritem on the liabilities side of the balance sheet at the end of 2010. On the liabilities side, the counteritem was SDR 1,189.5 million. In the balance sheet, the item is presented in euro, valued at the rate prevailing on the last day of the year (EUR 1,376.6 million).

### 8. Intra-Eurosystem liabilities

This item includes the net balances of other central banking accounts and the ECB account relating to TARGET2, if the Bank of Finland has a net liability against the Eurosystem in the period under review. Intra-Eurosystem liabilities and claims have been elaborated on in more detail in the notes on the balance sheet under assets item 'Intra-Eurosystem claims'. At the end of financial year 2010, the Bank of Finland had intra-Eurosystem liabilities relating to the redistribution of monetary income in an amount of EUR 32.9 million.

### 9. Other liabilities

31 Dec 2010	31 Dec 2009
EUR m	EUR m
127.1	128.6
16.5	16.1
0.0 7.6	0.7 9.9 <b>155.3</b>
	127.1 16.5 0.0

#### 10. Revaluation account

This item includes revaluations of land and buildings and other valuation differences arising from changes in accounting practice in 1999. The item also includes unrealised valuation gains arising from the market valuation of foreign currency-denominated items and securities.

### 11. Provisions

Under section 20 of the Act on the Bank of Finland, provisions can be made in the annual accounts, if they are necessary for safeguarding the real value of the Bank's funds or for smoothing out variations in profit and loss arising from changes in exchange rates or market values of securities. At the end of 2010 these provisions totalled EUR 2,814 million. Provisions consist of a general provision, provision against real value loss, pension liability provision, provision in respect of monetary policy operations as well as foreign exchange rate and price difference provision.

The pension liability provision is made to cover Bank of Finland's pension liabilities. The Bank's pension liabilities total EUR 543.3 million: 96.8% of this amount is covered by the pension provision, ie EUR 525.8 million.

In accordance with Article 32.4 of the Statute, the provision against counterparty risks in monetary policy operations is allocated between the NCBs of participating Member States in proportion to their subscribed capital key shares in the ECB prevailing in the year when the defaults have occurred. In accordance with the general accounting principle of prudence, the Governing Council has reviewed the appropriateness of the volume of this provision and decided to reduce the provision by EUR 1.8 billion as at 31 December 2010, from a total amount of EUR 4.0 billion as at 31 December 2009. The Bank of Finland's share in the provision decrease amounted to EUR 32.2 million. In 2009, the Bank's share in the provision totalled EUR 71.6 million.

The respective adjustments are reflected in the NCBs' profit and loss accounts. In the case of the Bank of Finland, the resulting income amounted to EUR 32.2 million in 2010 (see 'Net result of pooling of monetary income' in the notes on the profit and loss account).

### 12. Capital and reserves

This item consists of the Bank's primary capital and reserve fund. Under section 21 of the Act on the Bank of Finland, the loss shall be covered from the reserve fund, if the annual accounts of the Bank show a financial loss. If the reserve fund is insufficient to cover part of the loss, the uncovered part may be left temporarily uncovered. Any profits in subsequent years shall be used first to cover such uncovered losses.

Capital and reserves (EUR m)	31 Dec 2010	31 Dec 2009
Primary capital	840.9	840.9
Reserve fund	1,334.0	1,173.7
Total	2,174.9	2,014.6

Profit for the financial year (EUR m)	2010	2009
Transferred for the needs of the State	195.0	260,0
Bank of Finland's share of profit		
(transferred to reserve fund)	87.5	160.3
Total	282.5	420.3

### 13. Profit for the financial year

The profit for the financial year 2010 totalled EUR 282.5 million.

Provisions (EUR m)	Provisions as at 1 Jan 2009	Changes in provisions 2009	Total provisions 31 Dec 2009	Changes in provisions 2010	Total provisions 31 Dec 2010
Foreign exchange rate and price difference provision	_	116	116	290	406
General provision	995	0	995	100	1,095
Provision against real value loss	539	101	640	109	748
Pension liability provision	456	47	503	23	526
Provisions in respect of monetary policy operations	102	-31	72	-32	39
Total	2,092	233	2,325	489	2,814

## Notes on the profit and loss account

### 1. Interest income

Interest income received outside the euro area (EUR m)		2010			2009		
	Euro- denominated	Foreign currency- denominated	Total	Euro- denominated	Foreign currency- denominated	Total	
Gold investments	0.0	2.0	2.0	0.0	-0.1	-0.1	
Non-euro area coupon bonds	15.3	98.6	113.9	16.7	119.4	136.1	
Non-euro area discount papers	0.0	0.1	0.1	0.0	3.0	3.0	
Non-euro area deposits	2.7	0.7	3.4	1.5	0.8	2.4	
Other	0.0	5.7	5.7	0.7	2.3	3.0	
Total	17.9	107.2	125.1	18.9	125.5	144.4	

Interest income received from		2010			2009		
the euro area (EUR m)	Euro- denominated	Foreign currency- denominated	Total	Euro- denominated	Foreign currency- denominated	Total	
Euro area coupon bonds	228.2	37.5	265.7	258.5	47.4	305.9	
Euro area discount papers	5.6	0.0	5.6	2.5	0.1	2.5	
Euro area deposits	0.3	0.1	0.4	0.8	1.7	2.5	
ESCB items	119.8	0.0	119.8	90.8	0.0	90.8	
Monetary policy items	80.4	0.0	80.4	43.3	0.0	43.3	
Other	0.0	0.7	0.7	0.0	0.5	0.5	
Total	434.2	38.4	472.5	395.9	49.7	445.6	

Total interest income		2010			2009	
(EUR m)	Euro- denominated	Foreign currency- denominated	Total	Euro- denominated	Foreign currency- denominated	Total
Interest income received outside the euro area	17.9	107.2	125.1	18.9	125.5	144.4
Interest income received from the euro area	434.2	38.4	472.5	395.9	49.7	445.6
Total	452.1	145.5	597.6	414.7	175.2	589.9

Interest income from and outside the euro area totalled EUR 597.6 million. Of this, EUR 145.5 million consisted of foreign currency-denominated interest income and EUR 452.1 million on eurodenominated interest income.

Interest income on ESCB items totalled EUR 119.8 million. Of this, EUR 6.2 million consisted of claims on transfers of foreign reserves to the ECB. Interest income due to the claims and liabilities pertaining to the ECB's share of euro banknotes, the application of the ECB capital key and the adjustments, EUR 36.3 million, is entered on a net basis. Interest income on TARGET2 balances totalled EUR 77.2 million.

### Interest expense

Interest expense paid outside the euro area (EUR m)	2010			2009		
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Euro- denominated	Foreign currency- denominated	Total	Euro- denominated	Foreign currency- denominated	Total
Non-euro area deposits	-1.9	-0.4	-2.3	-0.3	-0.4	-0.7
Other	0.0	-4.0	<b>-4</b> .0	0.0	-1.7	-1.7
Total	-1.9	-4.4	-6.4	-0.3	-2.1	-2.4

Interest expense paid in the euro area (EUR m)	Euro- denominated	2010 Foreign currency- denominated	Total	Euro- denominated	2009 Foreign currency- denominated	Total
ESCB items	0.0	0.0	0.0	-2.1	0.0	-2.1
Monetary policy items	-64.1	0.0	-64.1	-58.6	0.0	-58.6
Other	-0.3	-0.3	-0.7	-5.9	-1.6	-7.5
Total	-64.4	-0.3	-64.8	-66.9	-1.6	-68.1
Total interest expense	-66.3	-4.8	-71.1	-66.9	-3.6	-70.5

Interest expense paid in and outside the euro area totalled EUR 71.1 million. Of this, EUR 40.1 million was paid on minimum reserve deposits, EUR 12.9 million on overnight deposits and EUR 11.1 on fixed-term deposits.

### 3. Net interest income

Net interest income	31 Dec 2010 EUR m	31 Dec 2009 EUR m
Interest income		
Financial assets	397.5	455.8
Monetary policy items	80.4	43.3
ESCB items	119.8	90.8
Total	597.7	589.9
Interest expense		
Financial assets	-7.0	-9.9
Monetary policy items	-64.1	-58.6
Liabilities to the ESCB	0.0	-2.1
Total	-71.1	-70.5
NET INTEREST INCOME	526.6	519.4

### 4. Foreign exchange rate differences

This item includes realised exchange rate gains and losses as well as valuation losses arising from the sale of currency positions. In 2010 gains related to foreign exchange rate movements amounted to EUR 220.6 million.

### 5. Securities price differences

This item includes realised gains and losses as well as valuation losses arising from the sale of securities. In the accounts, securities are treated on a security-by-security basis. In 2010 the realised gains related to securities price movements totalled EUR 69.3 million.

### Change in foreign exchange rate and price difference provision

Realised net gains arising from foreign exchange rate and price differences, EUR 289.9 million, were used to increase provisions in accordance with the financial reporting policy. All provisions have been specified in the notes on the balance sheet under assets.

### 7. Net result of pooling of monetary income

This item shows the net sum of monetary income paid to and redistributed from the Eurosystem. The amount of each NCB's monetary income is determined by using the actual income that derives from the earmarkable assets that are held against the liability base. The liability base consists of the following items: banknotes in circulation; liabilities to credit institutions related to monetary policy operations denominated in euro; net intra-Eurosystem liabilities resulting from TARGET2 transactions, and net intra-Eurosystem liabilities related to the allocation of euro banknotes within the Eurosystem. Any interest paid on liabilities included within the liability base is to be deducted from the monetary income to be pooled.

Earmarkable assets consist of the following items: lending to credit institutions related to monetary policy operations denominated in euro; securities held for monetary policy purposes; eurodenominated claims equivalent to the transfer of foreign reserves; net claims resulting from TARGET2 transactions; net claims related to the allocation of euro banknotes; and the amount of each NCBs' gold holdings in proportion to each NCB's capital key share. Gold is considered to generate no income. Where the value of earmarkable assets exceeds or falls short of the value of its liability base, income is calculated for the difference by applying the interest rate on main refinancing operations. The monetary income pooled by the Eurosystem is to be allocated among the NCBs according to the subscribed capital key. The actual net result of pooling of monetary income totalled EUR -32.9 million in 2010.

### 8. Share in ECB profit

The ECB distributed EUR 1,466 million profit for the financial year 2009, of which the Bank of Finland's

share recorded for the financial year 2010 totalled EUR 26.3 million.

# Provision in respect of monetary policy operations

In accordance with the general accounting principle of prudence, the Governing Council deemed it appropriate to establish provisions totalling EUR 5.7 billion against the risks arising from transactions with Eurosystem counterparties during 2008. In accordance to Article 32.4 of the Statute, these risks will be shared among all the national central banks of participating Member States (NCBs) in proportion to their subscribed capital key shares in the ECB prevailing in 2008.

As a result, a provision for EUR 102 million equivalent to 1.78603% of the total provision was created.

In the financial statements for 2010, by a decision of the Governing Council, the above-mentioned provision was decreased by EUR 1.8 billion to reflect the increase in collateral prices and payments by the debtor. The Bank of Finland's share of the decrease was EUR 32.2 million.

### 10. Other central banking income

This item includes dividend income, EUR 8.7 million, consisting primarily of shares in the Bank for International Settlements. In 2010, the ECB's income on SMP securities and on euro banknotes in circulation amounting to EUR 1,093.0 million was fully retained by the ECB in accordance with a decision of the Governing Council with respect to the establishment of a provision for foreign exchange rate, interest rate, credit and gold price risk.

### 11. Other income

This item consists of the Financial Supervisory Authority's supervision and processing fees, EUR 24.0 million, income from real estate, EUR 9.2 million, as well as commissions and fees.

### 12. Staff costs

Staff costs	31 Dec 2010 EUR m	31 Dec 2009 EUR m
Salaries and fees	40.6	42.7
Employer's payments to the pension fund	7.6	7.6
Other staff-related costs	2.6	2.9
Total	50.8	53.1

Average staff size	2010 Number of staff	2009 Number of staff
Bank of Finland	456	462
Financial Supervisory Authority	211	205
Total	667	667

Basic salaries paid to the members of the Board in 2010

	EUR
Erkki Liikanen	254,270
Pentti Hakkarainen	220,550
Sinikka Salo	147,645
Seppo Honkapohja	187,300
Total	809,765

Fringe benefits (meal benefit, company-paid telephone and company car) paid to the members of the Board totalled EUR 49,573. Board member Sinikka Salo retired from the Bank on 16 October 2010.

### 13. Pension fund contribution

Upon approval of the Parliamentary Supervisory Council, the Bank of Finland paid a contribution of EUR 10 million to the Bank's pension fund in 2010 so as to bring the value of the pension fund's assets closer to the targeted pension liability coverage.

	31 Dec 2010 EUR m	31 Dec 2009 EUR m
Pension fund contribution	10.0	10.0

### 14. Administrative costs

Administrative costs	2010	2009
	EUR m	EUR m
Supplies and purchases	0.7	0.9
Machinery and equipment	3.0	3.3
Real estates	10.9	10.7
Staff-related expenses	3.9	3.8
Purchase of services	11.7	11.1
Other	1.3	1.2
Total	31.5	31.1

This item includes rents, meetings and interest grouprelated costs, expenses arising from the purchase of services and cost of equipment. Expenses involved in training, travel and recruitment of staff are also recorded under this item.

### 15. Depreciation of fixed assets

Depreciation of tangible fixed assets	31 Dec 2010 EUR m	31 Dec 2009 EUR m
Land	-	-
Buildings	2.1	1.8
Machinery and equipment	2.9	2.8
Art and numismatic collection	_	_
Pension fund's land and buildings	1.1	1.0
Total	6.1	5.6

Depreciation of intangible	31 Dec 2010	31 Dec 2009
fixed assets	EUR m	EUR m
IT systems	2.4	2.2
Total	2.4	2.2

Depreciations do not include depreciations arising from the revaluation of land and buildings.

### 16. Banknote procurement costs

Banknote procurement costs totalled EUR 5.7 million.

### 17. Other expenses

The bulk of other expenses is related to the use and maintenance of property.

### 18. Income of the pension fund

This item includes income of the Bank of Finland pension fund's investment activities, EUR 28.8

million. The item also includes the Bank of Finland's and Financial Supervisory Authority's employer contributions as well as employee's share of premium income, EUR 9.8 million. The contribution of EUR 10.0 million paid by the Bank of Finland to the pension fund is also included in this item.

### 19. Expenses of the pension fund

This item includes expenses of the Bank of Finland pension fund's investment activities, EUR 1.0 million, pensions paid, EUR 22.4 million, management costs and depreciations of fixed assets managed by the pension fund.

### 20. Changes in provisions

This item includes the increase of the pension liability provision, EUR 23.7 million, the increase of the provision against real value loss, EUR 108.5 million, and the increase of the general provision, EUR 100 million. All provisions have been specified on the notes on the balance sheet under liabilities.

### 21. Profit for the financial year

Profit for the financial year 2010 totalled EUR 282,5 million. The Board proposes to the Parliamentary Supervisory Council that EUR 195 million of the profit would be made available for the needs of the State.

### Off-balance sheet commitments

This item contains the Bank of Finland's derivative contracts.

Derivative contracts	31 Dec 2010	31 Dec 2009
	EUR m	EUR m
Nominal value of FX futures contracts		
Purchase agreements	0	0
Sales agreements	0	13.6
Market value of FX swap contracts	-2	-1.1
Market value of GIRS contracts	1.3	1.7
Market value of IRS contracts	0	0
Market value of FX forward contracts	0	0
Total	-0.7	14.2

Five-year review The following table presents the Bank of Finland's balance sheets and profit and loss accounts for the past five financial years.

BALANCE SHEET (EUR m)	2010	2009	2008	2007	2006
Assets					
Gold and gold receivables	1,664	1,208	980	896	761
Claims on non-euro area residents denominated in foreign currency	5,223	6,225	4,597	4,515	4,750
Receivables from the International Monetary Fund	1,815	1,609	356	260	279
Balances with banks and security investments, external loans and other external assets	3,408	4,617	4,241	4,254	4,470
Claims on euro area residents denominated in foreign currency	712	1,120	2,577	1,394	1,061
Claims on non-euro area residents denominated in euro	1,662	845	581	394	368
Lending to euro area credit institutions related to monetary policy operations denominated in euro	50	2,710	2,600	230	1,025
Main refinancing operations	0	20	350	30	500
Longer-term refinancing operations	50	2,690	2,250	200	525
Other claims on euro area credit institutions denominated in euro	1	126	0	3	60
Securities of euro area residents denominated in euro	11,668	8,002	7,265	6,863	4,998
Securities held for monetary policy purposes	2,203	531	_	-	_
Other securities	9,466	7,471	7,265	6,863	4,998
Intra-Eurosystem claims	23,921	14,280	10,162	7,465	5,886
Participating interest in ECB	99	78	73	73	74
Claims equivalent to the transfer of foreign reserves	722	722	717	717	717
Claims related to TARGET2 and correspondent accounts (net)	19,686	9,535	5,197	2,951	1,157
Net claim related to the allocation of euro banknotes within the Eurosystem	3,414	3,945	4,174	3,724	3,938
Other assets	1,090	1,130	1,254	1,048	933
Euro area coins	22	19	22	24	25
Tangible and intangible fixed assets	171	189	185	196	204
Other current assets	551	528	481	508	488
Other	346	393	566	320	216
Total assets	45,990	35,646	30,016	22,809	19,843

BALANCE SHEET (EUR m)	2010	2009	2008	2007	2006
Liabilities					
Banknotes in circulation	13,880	13,330	12,532	11,148	10,419
Liabilities to euro area credit institutions related to monetary policy operations denominated in euro	21,696	13,543	8,110	5,910	3,766
Current accounts (covering the minimum reserve system)	9,383	8,085	1,015	2,901	3,765
Overnight deposits	9,113	5,458	7,095	9	1
Fixed-term deposits (liquidity-absorbing fine-tuning operations)	3,200	_	-	3,000	-
Liabilities to other euro area residents denominated in euro	262	14	3,009	0	0
Liabilities to non-euro area residents denominated in euro	1,021	234	37	4	4
Liabilities to euro area residents denominated in foreign currency	0	248	0	0	0
Liabilities to non-euro area residents denominated in foreign currency	23	363	-	88	-
Counterpart of special drawing rights allocated by the IMF	1,377	1,295	158	153	163
Intra-Eurosystem liabilities	33	-	-	-	-
Other liabilities	151	155	191	171	162
Revaluation account	2,274	1,703	1,622	854	762
Provisions	2,814	2,325	2,092	2,368	2,676
Capital and reserves	2,175	2,015	1,864	1,704	1,596
Primary capital	841	841	841	841	841
Reserve fund	1,334	1,174	1,023	863	756
Profit for the financial year	283	420	401	410	293
Total liabilities	45,990	35,646	30,016	22,809	19,843

PROFIT AND LOSS ACCOUNT (EUR m)	2010	2009	2008	2007	2006
Interest income	598	590	844	709	528
Interest expense	<b>-</b> 71	-71	-223	-146	-100
Net interest income	527	519	621	563	428
Foreign exchange rate differences	221	15	-485	-379	-56
Securities price differences	69	101	37	-34	-100
Change in foreign exchange rate and price difference provision	-290	-116	448	413	156
Net result of financial operations, write-downs and risk provisions	527	519	621	563	428
Net result of pooling of monetary income	-33	21	26	8	5
Share in ECB profit	26	2	-	-	_
Provisions in respect of monetary policy operations	32	31	-102	-	_
Other central banking income	9	19	25	3	3
Central banking profit	561	590	569	574	437
Other income	36	43	41	29	31
Operating expenses	-106	-112	-116	-108	-95
Staff costs	-51	-53	-46	-46	-47
Pension fund contribution	-10	-10	-30	-22	-10
Administrative expenses	-32	-31	-27	-26	-25
Depreciation of fixed assets	<b>-</b> 7	-7	-8	-8	-7
Banknote procurement costs	-6	-10	-4	-4	-5
Other expenses	0	-1	-2	-2	-1
Operating profit	491	521	494	495	373
Profit for the pension fund	24	48	-22	21	18
Changes in provisions	-232	-149	-71	-106	-98
Profit for the financial year	283	420	401	410	293

### Notes on risk management

# Decision-making framework for investment of financial assets and risk management

The highest decision-making body is the Board of the Bank of Finland. It is responsible for key decisions and principles related to the investment of the Bank's financial assets and the management of the associated risks. Its scope of responsibility includes decisions on the size of financial assets, principles governing investment risk management, the size and currency distribution of foreign reserves, strategic allocation of investment assets and the level of interest rate and credit risks.

Within the limits imposed by the Board, the markets committee makes detailed decisions on the investment of the financial assets and the related risk management. Such decisions include criteria for counterparties and issuers and more specific credit risk limits. The Board member responsible for the Bank of Finland's own investments is the chairperson of, and decision-maker in, the markets committee.

Within the limits imposed by the Board and the markets committee, a small proportion of decisions is delegated to the investment group and the risk group. However, the main focus of these groups is to prepare decisions for consideration by higher decision-making bodies. In addition, the investment group acts as an internal decision-maker within the Banking Operations department and as a coordinator of matters common to the investment and risk control functions. The Head of Banking Operations chairs the investment group and makes decisions within the group. The Head of the risk control unit operating under the Bank's Administration department chairs the risk group and makes decisions within the group.

The Bank also has a risk committee which deals with issues concerning investment activities and risk management, while not being an actual decision-making body. The risk committee is commissioned to conduct independent assessment and control of investment risks and the related risk management.

Whenever necessary, it may submit matters to the Board for information or decision.

### Risk control relating to investment activities

The control of risks related to investment activities is the task of the risk control unit operating under the auspices of the Administration department. Risk control is therefore separate from the Bank's actual investment activity, which is the task of the investment unit operating under the Banking Operations department. This organisational separation of the two functions aims at ensuring that risk control is independent of the investment function.

The Bank of Finland Board revised the responsibilities of the risk control unit in 2010. The responsibilities of the risk control unit include control of risks associated with investment activities, pricing of instruments, and reporting on risks and returns. The risk control unit produces risk reports on a daily basis and return reports at monthly intervals. The risks to, and return on, the financial assets are reviewed by the markets committee four times a year and twice a year by the Board.

The Risk Control unit also maintains an overall risk management framework and develops risk management methods.

### Risk measures and breakdowns relating to the Bank of Finland's financial assets

Breakdown of debt securities and deposits in the Bank of Finland's financial assets by credit rating<sup>1,2</sup>

31 Dec 2010	31 Dec 2009
%	%
73.7	78.5
3.9	7.2
9.7	6.5
2.3	1.1
4.9	3.9
2.5	0.5
1.3	0.6
0.1	0.3
1.0	1.0
0.0	0.4
0.6	_
	3.9 9.7 2.3 4.9 2.5 1.3 0.1 1.0

<sup>&</sup>lt;sup>1</sup> Covered bonds have been classified according to their own credit rating and not the credit rating of the issuer. Credit rating AAA includes the Bank for International Settlements (BIS). Central banks of Japan and the United States are dealt with according to the credit rating of the state.

Source: Bank of Finland.

Table 2. Breakdown of debt securities in the Bank of Finland's financial assets by home state of the issuer (according to market value of debt security)

Country or region	31 Dec 2010 %	31 Dec 2009 %
Euro area	71.5	64.6
France	22.1	16.7
Germany	21.7	21.5
Finland	6.8	7.0
The Netherlands	6.0	4.8
Spain	4.7	5.3
İtaly	3.6	2.7
Austria	3.4	3.6
Belgium	1.4	1.2
Portugal	0.7	0.6
Greece	0.6	0.3
Ireland	0.6	0.8
Luxembourg	0.0	0.1
Europe excl. euro area	7.4	13.7
United Kingdom	4.0	6.5
Sweden	2.2	2.6
Denmark	0.8	0.9
Norway	0.5	0.6
Switzerland	0.0	3.1
America	10.2	9.4
United States	9.1	7.6
Canada	1.1	1.7
Asia and Pacific Ocean		
Region	4.8	4.1
Japan	4.2	3.5
Australia	0.6	0.5
Singapore	0.1	0.1
International institutions	6.1	8.2

Table 3. Sensitivity of the Bank of Finland's financial assets to exchange rate and interest rate changes

Constitute of the Dame of I mand of manager and the transfer and most over the original of the dame of		
EUR m	2010	2009
Change in the value of Bank of Finland's financial assets after appreciation of the euro exchange rate by 15% relative to currencies of foreign reserves as at 31 Dec	-759	-875
Change in the value of Bank of Finland's financial assets after an interest rate rise of 1%, with the amount, composition and modified duration for the financial assets as at 31 Dec	-370	-337

Source: Bank of Finland.

<sup>&</sup>lt;sup>2</sup> The Bank of Finland also holds unrated instruments of short maturities (EUR 181.7 million). In the Table, they are classified according to Moody's KMV model.

Table 4. VaR figures for the Bank of Finland's financial assets VaR figures for market risk<sup>1</sup> (one-month horizon, 95% confidence level)

		20	10	
EUR m	Average	Highest	Lowest	31 Dec
Interest rate risk	85	128	60	99
Exchange rate risk	215	330	150	193
Total risk (excl. gold)	241	358	174	214
Total risk (incl. gold)	318	510	194	307

	2009			
EUR m	Average	Highest	Lowest	31 Dec
Interest rate risk	109	152	73	82
Exchange rate risk	250	507	127	173
Total risk (excl. gold)	290	518	156	203
Total risk (incl. gold)	346	691	188	225

### VaR figures for credit risk<sup>2</sup> (one-year horizon, confidence levels of 95%, 99% and 99.9%)

		20	10	
EUR m	Average	Highest	Lowest	31 Dec
Credit risk (95%)	6	7	4	6
Credit risk (99%)	22	31	18	22
Credit risk (99.9%)	69	85	56	77

		20	09	
EUR m	Average	Highest	Lowest	31 Dec
Credit risk (95%)	6	10	4	4
Credit risk (99%)	22	30	18	20
Credit risk (99.9%)	78	106	60	69

 $<sup>^{1}</sup>$  The figures include debt securities purchased under the Covered Bond Purchase Programme (CBPP).

<sup>&</sup>lt;sup>2</sup> The figures do not include debt securities purchased under the Covered Bond Purchase Programme (CBPP). Source: Bank of Finland.

### Auditor's report

In our capacity as the auditors elected by Parliament, we have audited the accounting records, financial statements and administration of the Bank of Finland for the financial year 2010 in accordance with generally accepted auditing standards.

During the financial year the Bank's Internal Audit audited the Bank's accounting records and activities. We have examined the internal audit reports.

We have read the Bank's annual report and received representations from the Board concerning the Bank's activities.

The financial statements have been drawn up in accordance with the principles of financial statements approved by the Parliamentary Supervisory Council and current rules and regulations. The financial statements give a true and fair view of the Bank's financial position and results.

We propose that the profit and loss account and balance sheet for the financial year audited by us be approved. We recommend that the profit for the financial year be disposed of as proposed by the Board.

Helsinki, 10 March 2010

### Olli Nepponen

Eero Heinäluoma Esko Kiviranta

Markku Koskela Kari Manner

Authorised Public Accountant Authorised Public Accountant

> . / . Kalervo Virtanen Authorised Public Accountant

# Statement regarding the audit as defined in the Article 27 of the statute of the European System of Central Banks and the European Central Bank

We have audited the accounting records and the financial statements of the Bank of Finland for the year ended 31 December 2010 as defined in the Article 27.1 of the Statute of the European System of Central Banks and the European Central Bank. The financial statements have been prepared in accordance with the Accounting Principles and Methods approved by the Governing Council of the European Central Bank as well as with the Act on the Bank of Finland. The financial statements comprise the balance sheet, the income statement and notes to the financial statements.

### The responsibility of the Board

The Board is responsible for the preparation and fair presentation of the financial statements in accordance with the laws and regulations governing the preparation of the financial statements.

### **Auditor's Responsibility**

Our responsibility is to perform an audit in accordance with the International Standards on Auditing and ethical guidance prepared by IFAC (International Federation of Accountants), good auditing practice in Finland as well as the Auditing Act, when applicable, and to express an opinion on these financial statements based on our audit. Good auditing practice requires that we plan and perform the audit to obtain reasonable assurance whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances.

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 financial statements give a true and fair view of the financial performance and financial position of the Bank of Finland in accordance with the Accounting Principles and Methods approved by the Governing Council of the European Central Bank.

Helsinki, 28 February 2011

KPMG Oy Ab

Raija-Leena Hankonen Authorised Public Accountant

# **Appendices**

## Monetary policy measures of the Eurosystem in 2010

In accordance with the decisions of the Governing Council of the ECB, the key ECB interest rate remained unchanged throughout the year 2010. The interest rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility were 1.00%, 1.75% and 0.25% respectively. The main refinancing operations continued to be conducted as fixed-rate tender procedures with full allotment.  March  On 4 March 2010, the Governing Council of the ECB decided to return to variable rate tender procedures in the three-month longer-term refinancing operations, starting with the operation to be allotted on 28 April 2010.  May  On 10 May 2010, the Governing Council of the ECB decided to launch a Securities Markets Programme (SMP). This programme allows the Eurosystem to purchase public and private debt securities in the secondary market. The Governing Council also decided to adopt a fixed-rate tender procedure with full allotment in the regular three-month longer-term refinancing operations to be allotted in May and June. It was further decided to conduct a six-month longer-term refinancing operation with full allotment on 12 May, at a rate fixed at the average minimum bid rate of the main refinancing operations over the life of the operation (ie an indexed rate, which was also used in the 12-month operation conducted in December 2009).  June  In accordance with the decision of the Governing Council of the ECB on 10 June 2010, a fixed rate tender procedure with full allotment was also used in the regular three-month longer-term refinancing operations allotted during the third quarter of 2010.  September  At its meeting held on 2 September 2010, the Governing Council of the ECB decided to continue conducting, at least until the end of 2010, special-term refinancing operations with a maturity of one maintenance period as fixed-rate tender procedures with full allotment, where the fixed rate is the same as the rate on the main refinancing operations prevailing at the time. It was further d
procedures in the three-month longer-term refinancing operations, starting with the operation to be allotted on 28 April 2010.  May  On 10 May 2010, the Governing Council of the ECB decided to launch a Securities Markets Programme (SMP). This programme allows the Eurosystem to purchase public and private debt securities in the secondary market. The Governing Council also decided to adopt a fixed-rate tender procedure with full allotment in the regular three-month longer-term refinancing operations to be allotted in May and June. It was further decided to conduct a six-month longer-term refinancing operation with full allotment on 12 May, at a rate fixed at the average minimum bid rate of the main refinancing operations over the life of the operation (ie an indexed rate, which was also used in the 12-month operation conducted in December 2009).  June  In accordance with the decision of the Governing Council of the ECB on 10 June 2010, a fixed rate tender procedure with full allotment was also used in the regular three-month longer-term refinancing operations allotted during the third quarter of 2010.  September  At its meeting held on 2 September 2010, the Governing Council of the ECB decided to continue conducting, at least until the end of 2010, special-term refinancing operations with a maturity of one maintenance period as fixed-rate tender procedures with full allotment, where the fixed rate is the same as the rate on the main refinancing operations prevailing at the time. It was further decided to continue the conduct of the regular three-month refinancing operations in the last quarter of the year with full allotment and at a rate fixed at the average minimum bid rate of the main refinancing operations over the life of the operation.  December  On 2 December 2010, the Governing Council of the ECB decided to continue conducting the main refinancing operations as fixed rate tenders with full allotment until 12 April 2011. It was
Programme (SMP). This programme allows the Eurosystem to purchase public and private debt securities in the secondary market. The Governing Council also decided to adopt a fixed-rate tender procedure with full allotment in the regular three-month longer-term refinancing operations to be allotted in May and June. It was further decided to conduct a six-month longer-term refinancing operation with full allotment on 12 May, at a rate fixed at the average minimum bid rate of the main refinancing operations over the life of the operation (ie an indexed rate, which was also used in the 12-month operation conducted in December 2009).  June  In accordance with the decision of the Governing Council of the ECB on 10 June 2010, a fixed rate tender procedure with full allotment was also used in the regular three-month longer-term refinancing operations allotted during the third quarter of 2010.  September  At its meeting held on 2 September 2010, the Governing Council of the ECB decided to continue conducting, at least until the end of 2010, special-term refinancing operations with a maturity of one maintenance period as fixed-rate tender procedures with full allotment, where the fixed rate is the same as the rate on the main refinancing operations prevailing at the time. It was further decided to continue the conduct of the regular three-month refinancing operations in the last quarter of the year with full allotment and at a rate fixed at the average minimum bid rate of the main refinancing operations over the life of the operation.  December  On 2 December 2010, the Governing Council of the ECB decided to continue conducting the main refinancing operations as fixed rate tenders with full allotment until 12 April 2011. It was
rate tender procedure with full allotment was also used in the regular three-month longer-term refinancing operations allotted during the third quarter of 2010.  September  At its meeting held on 2 September 2010, the Governing Council of the ECB decided to continue conducting, at least until the end of 2010, special-term refinancing operations with a maturity of one maintenance period as fixed-rate tender procedures with full allotment, where the fixed rate is the same as the rate on the main refinancing operations prevailing at the time. It was further decided to continue the conduct of the regular three-month refinancing operations in the last quarter of the year with full allotment and at a rate fixed at the average minimum bid rate of the main refinancing operations over the life of the operation.  December  On 2 December 2010, the Governing Council of the ECB decided to continue conducting the main refinancing operations as fixed rate tenders with full allotment until 12 April 2011. It was
conducting, at least until the end of 2010, special-term refinancing operations with a maturity of one maintenance period as fixed-rate tender procedures with full allotment, where the fixed rate is the same as the rate on the main refinancing operations prevailing at the time. It was further decided to continue the conduct of the regular three-month refinancing operations in the last quarter of the year with full allotment and at a rate fixed at the average minimum bid rate of the main refinancing operations over the life of the operation.  December  On 2 December 2010, the Governing Council of the ECB decided to continue conducting the main refinancing operations as fixed rate tenders with full allotment until 12 April 2011. It was
main refinancing operations as fixed rate tenders with full allotment until 12 April 2011. It was
decided to continue the procedure adopted in September for the regular three-month refinancing operations in the first quarter of 2011, as well.

Appendices

## Key measures affecting the financial markets in 2010

February	The Governing Council of the ECB approved the Eurosystem's contribution to the European Commis-
February	sion's public consultation on its Communication on banking crisis management and resolution, launched in October 2009. The Communication contains three main areas: 1) early intervention mechanisms, 2) crisis resolution measures and 3) insolvency proceedings, ie reorganisation and winding up.
March	The Governing Council of the ECB approved the establishment of the SEPA Council for the Single Euro Payments Area (SEPA). The SEPA Council will be a forum, under the co-chairmanship of the ECB and the European Commission, where users of SEPA services will also be involved. The aim is to promote the realisation of a common market for EU retail payments in euro. The SEPA Council met for the first time in June.
April	The Governing Council of the ECB decided to keep the minimum credit threshold for both marketable and non-marketable assets in the Eurosystem collateral framework at investment-grade level, in BBB/Baa3, beyond the end of 2010.
May	The Governing Council of the ECB 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, irrespective of the time of issue.
June	The Governing Council of the ECB decided on the ECB's contribution to the work of the Van Rompuy Task Force for the strengthening of European economic governance. The Task Force aims at 1) strengthening national budget surveillance in the EU countries, 2) improving competitiveness surveillance within the EU and 3) outlining an effective financial crisis mechanism for the euro area.
July	The EU's Economic and Financial Affairs Council (ECOFIN) commissioned in June the Committee of European Banking Supervisors (CEBS) to organise an EU-wide stress-testing exercise for the banking sector, in cooperation with the ECB, the European Commission and national supervisory authorities. The results of the stress tests conducted among a total of 91 European banks were published on 23 July. The scenario assumptions in the test, ie the deterioration of the macroeconomic environment, market risks and sovereign risk shocks, caused the Tier 1 capital ratio of seven banks to weaken below the 6% threshold by the end of the test period, 2011. These banks' combined shortfall of Tier 1 own funds was EUR 3.5 billion. In connection with the stress test results, the banks disclosed consistently their exposures to government debt.
September	The Eurosystem published an assessment report on the implementation status of the Eurosystem's business continuity oversight expectations for systemically important payment systems. The assessment confirmed that the business continuity and crisis communication arrangements of the operators are maintained at high standards.
	The Governing Council of the ECB issued a Guideline amending Guideline on a Trans-European Automated Real-time Gross settlement Express Transfer system (TARGET2). The Guideline is applicable since 22 November 2010.

### October

The Governing Council of the ECB decided to assign to the ECB primary oversight responsibility for the SEPA credit transfer and SEPA direct debit schemes, which are run by the European Payments Council (EPC).

The Eurosystem expressed its support to legislation, currently in preparation, that will establish a mandatory timeline for migration to SEPA payment instruments and provide for discontinuation of earlier methods of payment.

### December

The Governing Council of the ECB decided to establish loan-by-loan information requirements for asset-backed securities (ABSs) in the Eurosystem collateral framework. The information requirements will be first introduced for retail mortgage-backed securities.

The Governing Council of the ECB decided to increase the capital of the European Central Bank. The decision increases the ECB's subscribed capital from EUR 5.76 billion to EUR 10.76 billion.

### EU regulatory projects and their implementation in Finland

### April

The deadlines expired for comments in the public consultation on the regulatory reform (Basel III) proposed by the Basel Committee on Banking Supervision (BCBS) and the European Commission's proposal, with similar contents, for amending the EU's Capital Requirements Directive (CRD 4).

### June

The European Commission proposed a more centralised system for supervision of credit rating agencies operating within the EU, with a focus on the new European Securities and Markets Authority (ESMA). This new authority would be entrusted with exclusive supervisory powers over credit rating agencies registered in the EU. This would also include the EU branches of such agencies. ESMA would have powers to perform on-site inspections, launch investigations and submit proposals for sanctions. In order to increase competition, institutions applying for credit rating should also provide all other interested credit rating agencies with access to the information they give to their own credit rating agencies.

The European Commission launched a public consultation on new corporate governance rules for financial institutions, which would apply to both banks and insurance companies.

At its summit meeting, the EU expressed a wish to introduce systems for levies and taxes on financial institutions in all member states. At the Toronto summit of G20 countries, the EU defended its position for the introduction of a global bank tax but failed to receive adequate backing.

Bank of Finland Annual Report 2010 Appendices

### July

The European Parliament approved legislation that restricts the amount and timing of bonuses paid by banks. The legislative objective is to contain banks' risk-taking and increase long-term approaches in decision-making.

The European Commission proposed that the level of deposit protection be increased to EUR 100,000 throughout the EU by the end of 2010. In 2009, the coverage in the EU was increased from EUR 20,000 to EUR 50,000. It was also proposed that the definition of deposits eligible for deposit protection be expanded and the time for paying out compensation be shortened to seven days. Deposit guarantee schemes would be funded by contributions paid by banks so that banks having riskier business models would have to pay higher contributions. The Commission also proposed changes to investor compensation schemes that protect against fraud and negligence or in the event of errors or problems in an investment firm's systems. The amount of compensation payable to investors would increase from EUR 20,000 to EUR 50,000. Similar changes are in the pipeline for the insurance sector.

### August

In Finland, a new Act on Mortgage Credit Banks entered into force, including provisions on the issuance of covered bonds. The reform allows the issuance of these bonds not only for mortgage credit banks but also for deposit banks and credit institutions such as the Mortgage Society of Finland and Municipality Finance. This provides these institutions with a cheaper funding channel. The reform brings Finnish legislation on collateralised bond markets to the level that already prevails elsewhere in Europe.

The Basel Committee on Banking Supervision (BCBS) launched a public consultation on counter-cyclical capital buffers related to the Basel III reform agenda. The aim is to ensure that the banking sector as a whole has adequate capital resources in place to maintain the provision of credit to the private sector in economic downturns, as well.

### September

The European Commission published a package of legislative proposals to strengthen existing tools in situations where member states fail to comply with the obligations imposed on them in the Stability and Growth Pact. The package also includes proposals for semi-automatic sanctions.

The European Commission proposed the tightening of legislation and supervision concerning short selling of financial instruments and trading in OTC derivatives. The draft regulation requires investors to clear derivatives trades through central counterparties. Trades done in OTC derivatives would have to be reported to a trade repository administered by the European Securities and Markets Authority (ESMA) and positions in shorted securities would have to be disclosed to regulators and to the market if certain thresholds are exceeded.

The Government proposed amendment of the Credit Institutions Act. The amendment implements two directives (CRD 2 and CRD 3) amending the Capital Requirements Directive, which are aimed at tightening capital requirements and restricting securitisation and remuneration schemes. In addition to the changes required under the directives, the Government proposes more effective supervision of foreign credit institutions' branches operating in Finland.

### October

The European Commission proposed a new EU framework for crisis management in the financial sector to resolve banks' problems prior to their getting out of hand. The objective is that all institutions can be allowed to fail without jeopardising wider financial stability or risking that tax payers are called on to pay the costs. For covering the costs arising from bank failures, banks would be required to pay contributions to national funds in advance. Financial institutions and EU authorities must prepare resolution plans in case of serious financial stress or failure. Supervisory authorities will be provided with powers to require replacement of the management of troubled banks, the implementation of recovery plans or that banks divest themselves of activities or business lines that pose excessive risks.

The European Commission published a consultation document on requirements concerning counter-cyclical capital buffers. The content of the document corresponds to that of the document published by the Basel Committee on Banking Supervision in August 2010 (see above).

The European Parliament approved a Directive on Alternative Investment Fund Managers (AIFM). Under the Directive, these investment funds must register with competent authorities and meet the reporting and capital requirements set out in the Directive.

### December

Finland reformed legislation on consumer credits. Consequently, for example, firms offering instant loans, finance companies, mail order businesses and lenders operating in connection with online commerce must register in order to be able to continue their operations. The legislation also requires compliance with good lending practice, ie to act openly and in a responsible manner, taking account of the consumer's interest. These amendments implement the Directive on credit agreements for consumers of the European Parliament and of the Council.

The European Commission proposed revision of the provisions of the Markets in Financial Instruments Directive (MiFID), with a view to taking account of changes that technological developments and new financial products have brought to the market. Another aim is that sanctions for infringement of the provisions would be based on common minimum requirements throughout the EU countries.

The Committee of European Banking Supervisors (CEBS) finalised its recommendations related to the remuneration schemes of credit institutions and investment firms. The provisions on remuneration of the directive amending the Credit Requirements Directive (CRD 3) became effective in Finland on 31 December by virtue of a new Ministry of Finance decree. The decree provides that at least 50% of bonuses must be in the form of shares and that a significant proportion of bonuses must be paid out in three to five years' time. Requirements regarding corporate governance are also tightened, especially for senior management and staff having an impact on the financial institution's risk profile.

Amendments, relating to changes in the Capital Requirements Directive (CRD 2 and CRD 3), to the relevant standards of the Financial Supervisory Authority (FIN-FSA) entered into force at the turn of the year.

The European Commission launched a consultation on implementing measures in connection with solvency regulation concerning insurance companies (Solvency II).

Other issu	ies
January	In Finland, the Government proposed amendment of the investment funds Act (Act on Common Funds). Following the amendment, foreign holders of fund units can have their Finnish fund units registered in the same manner as shares in the book-entry system. In practice, this means migration to nominee registration. The purpose is to improve the international competitiveness of Finnish investment funds and to bring greater efficiency to the administration of fund investments.
February	On 3 February, the European Commission adopted recommendations for Greece to correct its budget deficit and to improve its competitiveness. At the end of 2009, the Greek general government deficit almost accounted for 13% of the country's GDP, ie considerably more than Greece had originally anticipated.
	The Government proposed transfer of pension-related issues regarding personal customers from the State Treasury to Keva, the Local Government Pensions Institution.
March	Eurogroup Heads of State or Government agreed that, if necessary, the Greek economy could be supported with bilateral loans in addition to financing from the International Monetary Fund (IMF).
	The Financial Supervisory Authority (FIN-FSA) cancelled Sofia Bank's authorisation on 28 March in order to safeguard the interests and equal treatment of depositors and other creditors.
April	Greece submitted an official loan request to the euro area countries and the International Monetary Fund (IMF) on 23 April.
	The validity of temporary legislation concerning pension institutions' investment operations and solvency was extended until the end of 2012. The legislative provisions were amended in December 2008 as a consequence of the financial crisis so as to enable pension institutions to conduct effective investment operations in line with long-term objectives even in an uncertain market situation.
	An expert group that had assessed solvency requirements for earnings-related pension schemes in the private sector identified a need for several revisions in current solvency legislation. Such reforms would improve employee pension institutions' chances of carrying out profitable investment operations with greater flexibility in the next few years, when economic growth is expected to be slow. Another aim would be to improve assessment of risks involved in investment operations of employee pension institutions.

### May

On 2 May, euro area finance ministers agreed on the activation of stability support to Greece. The financial package is a three-year loan programme amounting to EUR 110 billion. The share of the International Monetary Fund (IMF) of the loan arrangement is at most EUR 30 billion, with euro area countries contributing EUR 80 billion. The tranches of the loan are released to Greece on a quarterly basis. In order to make drawdowns on the loan, Greece is required to comply with an economic programme prepared as a condition for the financial package. Repayment of each loan tranche will commence after three years from the drawdown of the tranche, allowing for a repayment period of two years.

Parliament approved an additional appropriation of EUR 1.6 billion to prepare for Finland's share of the financial package extended to Greece.

On 10 May, EU finance ministers agreed on a package of measures to preserve financial stability in Europe. The package consists of three parts: the European Financial Stabilisation Mechanism (EFSM) contributes about EUR 60 billion, the European Financial Stability Facility (EFSF) about EUR 440 billion and the IMF about EUR 250 billion. The European Financial Stability Facility is a limited liability company established under Luxembourg law and owned by all countries belonging to the euro area.

The European Commission announced that Estonia met all the criteria required for the adoption of the single European currency. Estonia's budget deficit accounted for 1.7% of GDP in 2009. The general government debt was also small, only 7.2% of GDP.

### June

The Government submitted a bill for an act by virtue of which the Council of State could provide guarantees for the issuance of debt instruments by the European Financial Stability Facility.

The Government proposed approval by Parliament of the framework agreement made between the euro area countries and the European Financial Stability Facility. The agreement concerns procedures to be applied if a euro area member state is to request financing from other euro area member states. The framework agreement also concerns procedures in connection with the debt issuance of the European Financial Stability Facility and related guarantees.

A report by the working group examining the overhaul of the Securities Markets Act was published. According to the analysis of Professor Eva Liljeblom, the combined direct and indirect implications from an extension of the multi-tiered custody of securities are clearly positive.

### July

EU finance ministers gave their final approval for Estonia's request to adopt the euro with effect from 1 January 2011.

### August

Staff teams from the European Commission, the ECB and the IMF visited Athens for the first quarterly review of the Greek government's economic programme.

The ministries of finance, central banks and financial supervisory authorities of the Nordic and Baltic countries signed a memorandum of understanding (MoU) concerning cooperation in connection with cross-border financial stability, crisis management and crisis resolution. The MoU also includes the establishment of the first European cross-border stability group.

Appendices

### September

The European Parliament approved the establishment of the European Systemic Risk Board (ESRB) and three new supervisory authorities. The new supervisory authorities are the European Banking Authority (EBA), the European Insurance and Occupational Pensions Authority (EIOPA) and the European Securities and Markets Authority (ESMA). The most important task of the European Systemic Risk Board is to monitor systemic risks threatening the financial system and to issue warnings thereof. The supervisory authorities based in London, Frankfurt and Paris are responsible for supervising the banking, insurance and securities markets and coordinating national supervisory measures.

The Basel Committee on Banking Supervision reached agreement on the new capital requirements framework for banks (Basel III). The minimum requirement for common equity relative to risk-weighted assets will be raised from 2% to 4.5%. As there is an additional requirement for holding a capital conservation buffer of 2.5% to be met with common equity, which banks are allowed to use in full on condition that no bonuses and dividends are distributed, this will bring the total capital requirement to 7%. The definition of common equity has been tightened in order to ensure the availability of equity capital for absorbing potential losses. The new requirements will be phased in gradually by 2019.

### October

Parliament approved in the second reading the shareholders' framework agreement on the European Financial Stability Facility (EFSF).

The Government proposed changes to provisions concerning the calculation of employee pension institutions' solvency limit and coverage for technical provisions. The purpose of the changes is to ensure that better account is taken of risks in connection with pension institutions' investment classification and calculation of the solvency limit.

### November

The new capital and liquidity standards (Basel III) were approved at the G20 Seoul summit in South Korea.

A financial package totalling EUR 85 billion was established for implementing structural reforms in the Irish economy and banking sector. Of this financial assistance, EUR 35 billion is earmarked for carrying out banking sector reorganisations and EUR 50 billion for covering the Irish government's financing needs over the next few years. The package is financed by the Irish Treasury (EUR 17.5 billion), the International Monetary Fund (EUR 22.5 billion) and the European Commission's European Financial Stabilisation Mechanism (EFSM) (EUR 22.5 billion), while the remaining EUR 22.5 billion is covered from the European Financial Stability Facility (EFSF) and via bilateral loans in which the UK, Sweden and Denmark together provide EUR 4.8 billion to Ireland. EU finance ministers approved the financial assistance programme for Ireland on 28 November.

EU finance ministers decided on a permanent crisis management framework, the European Stability Mechanism (ESM). It will become operational in June 2013, after expiry of the mandate of the temporary European Financial Stability Facility. In accordance with the new mechanism, all euro area government bonds issued as from 1 July 2013 will include collective action clauses that enable debt rescheduling by qualified majority decisions.

### December

Parliament approved Finland's participation in the provision of guarantees for the issuance of debt instruments by the European Financial Stability Facility (EFSF), ie the Government was afforded a mandate to grant EUR 741 million worth of guarantees to the EFSF.

The European Council adopted the general features of the European Stability Mechanism (ESM) and agreed on changing the Treaty on the Functioning of the European Union, as required to create the mechanism. The funds of the European Stability Mechanism could be used to provide short-term financial assistance to euro area member states in financial distress. Loan-based assistance would only be provided on the basis of a stringent programme of economic and fiscal adjustment. Another aim is to make the private sector, such as banks, participate in burden sharing.

New legislation no longer requires non-life insurance companies to make provisions for guarantee schemes in their balance sheets. Statutory accident insurance holds about EUR 68 million in provisions for guarantee schemes. Companies offering statutory non-life insurance continue to be jointly and severally responsible for exposures to an insurance company that has become under winding-up or liquidation proceedings.

Bank of Finland Annual Report 2010 Appendices

## Main opinions issued by the Bank of Finland 2010

Opinion	Subject	Date
To the Finance Committee of Parliament	Study on Finland's internationalised grey economy	30 Sep
To Euroclear Finland	Amendments to the rules of Euroclear Finland and amendments to the decisions by the managing director	16 Nov
	Technical consolidation of Euroclear Sweden and Euroclear Finland (White Paper: Creating a single process for two markets; Nordic consolidation of Euroclear Sweden and Euroclear Finland)	16 Nov
To the Financial Supervisory Authority	Amendment of Standard (4.3a) on own funds and their minimum amounts	9 Sep
	Amendment of Standard (RA4.8) on the COREP reporting framework	9 Sep
	Amendment of Standard (4.3h) on capital requirements for securitisation	9 Sep
	Amendment of Standard (4.3g) on capital requirements for market risk	17 Sep
	Amendment of Standard (4.3d) on capital requirements for credit risk under the Internal Ratings Based Approach	29 Sep
	Amendment of Standard (5.2b) on disclosure obligation of the issuer and shareholder	28 Sep
	Amendment of Standard (4.5) on disclosure of capital adequacy data to the market	14 Oct
	Amendment of Standard (4.3c) on capital requirements for credit risk under the standardised method	14 Oct
	Amendment of Standards (4.3e and 4.3f) on credit risk mitigation techniques	1 Nov
	Revision of reporting by insurance companies	10 Dec
To the Ministry of Justice	Draft for a Government bill for amending the Act on netting, the Act on financial collateral and the promissory notes Act	18 Mar
To the Ministry of Social Affairs and	Report by an expert group examining the revision of solvency regulation for earnings-related pension schemes in the private sector	
Health	- first-phase implementation	28 May
	- second and third-phase implementation	15 Dec

o the Ministry of inance	Draft by the Ministry of Finance for a reply to the questions posed in the European Commission's communication (An EU framework for Crisis Management in the Banking Sector)	15 Jan
	Government Bill for an Act on mortgage credit bank activity	22 Feb
	Government Bill for an Act amending the Credit Institutions Act	25 Mar
	Application by SIX X-clear AG for authorisation as a foreign clearing corporation under the Securities Markets Act	29 Apr
	Application by European Central Counterparty Limited for authorisation as a foreign clearing corporation under the Securities Markets Act	3 May
	Application by ACH Finland for approval as a system falling within the scope of application of the act on settlement finality	18 May
	Application by European Multilateral Clearing Facility for authorisation as a foreign clearing corporation under the Securities Markets Act	20 Aug
	Confirmation of the sum of contributions to Investors' Compensation Fund in 2010	6 Sep
	Rules of the clearing system of ACH Finland	15 Sep
	Government Bill for amendment of the Act on the Financial Supervisory Authority	29 Sep
	Ministry of Finance Decree on the calculation of minimum regulatory capital and large exposure limits of credit institutions and investment firms, as well as financial and insurance conglomerates	18 Nov
	Decree on remuneration schemes of credit institutions and investment firms	23 Nov
	Application by OP-Palvelut (OP Services Ltd) regarding criteria for granting clearing party rights	15 Dec
	Application by Euroclear Finland for confirmation of the company's rules	22 Dec

134 | Bank of Finland Annual Report 2010 Appendices

## Bank of Finland's publications in 2010

Periodical publications	
Euro & talous	(in Finnish) Four quarterly issues.
Euro & talous special issue	Two issues focusing on the economic outlook and one issue focusing on the stability of the financial system.
Bank of Finland Bulletin	Two issues.
Bank of Finland Bulletin special issue	Two issues of Economic outlook; one issue of Financial Stability.
Annual report	Published separately in Finnish, Swedish and English.
Research publications	
Discussion Papers	22 online studies and reports in the areas of macroeconomics and financial markets were published in English.
Research Newsletter	Four quarterly issues of the online research bulletin in Finnish and in English.
Studies and reports	8 online studies and reports were published in the <i>BoF Online series</i> .  Four quarterly issues of the Financial Market Report were published
	in Finnish and in English.
	Corporate funding survey, published in October (in Finnish only).
Statistical publications	Financial markets, a monthly online publication (in Finnish, Swedish and English).
	Finland's balance of payments, a monthly online publication (in Finnish, Swedish and English).
	Finland's balance of payments, annual review, published online in September (in Finnish, Swedish and English).
	Finnish bond issues, published online in May (in Finnish, Swedish and English).
	Monetary and banking statistics, a monthly online publication (in Finnish, Swedish and English).
	Financial statistics, annual review, published online in February (in Finnish, Swedish and English).
	Financial accounts, published online in January, April, July and October (in Finnish, Swedish and English).
	International Reserves and Foreign Currency Liquidity, a monthly publication (in English).

Studies published by the	Institute for Economies in Transition
Research publications	20 online studies were published in the <i>BOFIT Discussion Papers</i> series (in English).  5 publications appeared in the <i>BOFIT Online</i> series (in Finnish or in English).
Monitoring publications	BOFIT Viikkokatsaus, a weekly online publication (in Finnish).  BOFIT Weekly, a weekly online publication (in English).  BOFIT Venäjä-ennuste, a bi-annual online publication (in Finnish).  BOFIT Forecast for Russia, a bi-annual online publication (in English).  BOFIT Venäjä-tilastot, an online publication (in Finnish).  BOFIT Russia Statistics, an online publication (in English).  BOFIT Kiina-ennuste, a bi-annual online publication (in Finnish).  BOFIT Forecast for China, a bi-annual online publication (in English).  BOFIT Kiina-tilastot, an online publication (in Finnish).  BOFIT China Statistics, an online publication (in English).  Focus/Opinion – Asiantuntijan näkemys series, 9 online articles were published (in Finnish).  Focus/Opinion – Expert view series, 9 online articles were published (in English).
Orders and subscriptions	A comprehensive list of publications is available on the Bank of Finland's website (http://www.suomenpankki.fi/en/julkaisut/Pages/default.aspx).  The Bank of Finland website offers a service where these publications can be subscribed to free of charge.  The subscriber will be alerted by email of the publication of their desired publication Online subscriptions can be made at the Bank of Finland's website:  Bank of Finland > Publications > Order and Subscribe to electronic publications and reports.  The Bank's publications Euro & talous (in Finnish) and Bank of Finland Bulletin as well as the Bank's and ECB's annual reports also appear in print. Online subscriptions to the printed copies can be made at the Bank of Finland's website:  Bank of Finland > Publications > Order and subscribe to printed publications.  Back copies of printed publications can also be ordered from that same website address.

136 | Bank of Finland Annual Report 2010 Appendices

# Supplementary tables

Totals/sub-totals may not add up because of rounding.

- 0 less than half the final digit shown
- . logically impossible
- .. data not available
- ni
- \_ change in contents of series

Table 1.
Monthly balance sheet of the Bank of Finland, EUR m

Assets	Jan	Feb	Mar
1 Gold and gold receivables	1,208	1,208	1,208
<ul> <li>Claims on non-euro area residents denominated in foreign currency</li> <li>Receivables from the IMF</li> <li>Balances with banks and security investments, external loans and other external assets</li> </ul>	5,488 1,609 3,879	<b>6,058</b> 1,602 <b>4,4</b> 56	5,957 1,581 4,376
3 Claims on euro area residents denominated in foreign currency	1,246	1,165	1,128
<ul> <li>4 Claims on non-euro area residents denominated in euro</li> <li>4.1 Balances with banks, security investments and loans</li> <li>4.2 Claims arising from the credit facility under ERM II</li> </ul>	<b>960</b> 960 -	<b>507</b> 507 -	<b>694</b> 694 -
5 Lending to euro area credit institutions related to monetary policy operations denominated in euro 5.1 Main refinancing operations 5.2 Longer-term refinancing operations 5.3 Fine-tuning reverse operations 5.4 Structural reverse operations 5.5 Marginal lending facility 5.6 Credits related to margin calls	2,590 - 2,590 - - - -	2,490 - 2,490 - - -	2,390 - 2,390 - - -
6 Other claims on euro area credit institutions denominated in euro	0	475	11
<ul> <li>Securities of euro area residents denominated in euro</li> <li>Securities held for monetary policy purposes</li> <li>Other euro-denominated securities</li> </ul>	8,138 584 7,554	<b>8,213</b> 601 7,612	8,872 700 7,612
8 General government debt denominated in euro	-	-	-
9 Intra-Eurosystem claims 9.1 Participating interest in ECB 9.2 Claims equivalent to the transfer of foreign reserves 9.3 Claims related to the issuance of ECB debt certificates 9.4 Claims related to TARGET and correspondent accounts (net) 9.5 Other intra-Eurosystem claims	6,551 78 722 - 2,084 3,666	8,436 78 722 - 4,015 3,620	12,910 78 722 - 8,490 3,620
10 Other assets	1,083	1,099	1,102
Total assets	27,264	29,651	34,272

Totals/sub-totals may not add up because of rounding. Source: Bank of Finland.

Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1,298	1,298	1,298	1,594	1,594	1,594	1,514	1,514	1,664
<b>5,768</b> 1,637	<b>5,537</b> 1,756	<b>5,612</b> 1,756	6 <b>,251</b> 1,881	5,962 1,882	5,472 1,847	<b>5,657</b> 1,754	5,332 1,754	<b>5,223</b> 1,815
4,131	3,781	3,856	4,370	4,081	3,625	3,904	3,578	3,408
1,018	1,093	1,034	1,041	1,072	918	795	767	712
1,243 1,243 -	<b>1,383</b> 1,383	<b>1,059</b> 1,059 -	<b>1,366</b> 1,366	<b>1,189</b> 1,189 -	1,724 1,724 -	<b>675</b> 675 -	<b>1,934</b> 1,934 -	<b>1,662</b> 1,662
2,540 - 2,540 - -	2,545 - 2,545 - -	2,545 - 2,545 - -	540 - 540 - - -	540 - 540 - - -	540 - 540 - - -	115 - 115 - -	90 - 90 - -	50 - 50 - - -
121	- 0	- 158	- 106	- 0	0	- 78	- 10	- 1
8,901 751 8,150	10,024 1,730 8,294	10,898 2,013 8,885	10,733 2,056 8,677	11,020 2,046 8,974	11,391 2,012 9,379	11,652 2,029 9,624	11,771 2,090 9,681	11,668 2,203 9,466
-	_	-	-	-	-	-	_	-
10,437 78 722 - 6,033	18,892 78 722 - 14,488	21,052 78 722 - 16,648	20,304 78 722 - 15,932	10,768 78 722 - 6,396	10,325 78 722 - 6,030	8,523 78 722 - 4,414	12,313 78 722 - 8,205	23,921 99 722 - 19,686
3,603 1,110	3,603 1,151	3,603 1,161	3,572 1,028	3,572 1,080	3,494 1,092	3,308 1,010	3,308 1,019	3,414 1,090
32,434	41,922	44,816	42,963	33,225	33,055	30,019	34,751	45,990

Table 1. (cont.)

Liabi	lities	Jan	Feb	Mar
1	Banknotes in circulation	12,952	12,964	13,051
2 2.1 2.2 2.3 2.4 2.5	Liabilities to euro area credit institutions related to monetary policy operations denominated in euro Current accounts (covering the minimum reserve system) Deposit facility Fixed-term deposits Fine-tuning reverse operations Deposits related to margin calls	6,103 1,072 5,031 - -	7,914 2,972 4,942 - -	12,263 7,175 5,087 - -
3	Other liabilities to euro area credit institutions denominated in euro	-	145	-
4 4.1 4.2	Liabilities to other euro area residents denominated in euro General government Other liabilities	35 - 35	25 - 25	21 - 21
5	Liabilities to non-euro area residents denominated in euro	245	151	266
6	Liabilities to euro area residents denominated in foreign currency	1	1	433
7 7.1 7.2	Liabilities to non-euro area residents denominated in foreign currency Deposits, balances and other liabilities Liabilities arising from the credit facility under ERM II	<b>-9</b> -9 -	478 478 -	203 203 -
8	Counterpart of special drawing rights allocated by the IMF	1,295	1,295	1,295
9 9.1 9.2 9.3	Intra-Eurosystem liabilities Liabilities related to promissory notes backing the issuance of ECB debt certificates Liabilities related to TARGET and correspondent accounts (net) Other intra-Eurosystem liabilities (net)	- - - -	- - -	- - -
10	Other liabilities	834	901	962
11	Revaluation account	1,703	1,703	1,703
12.2 12.3	Capital and reserves Primary capital Reserve fund Pension provisions Other provisions	<b>4,106</b> 841 1,174 437 1,654	4,075 841 1,174 437 1,623	4,075 841 1,174 437 1,623
Tota	l liabilities	27,264	29,651	34,272

Totals/sub-totals may not add up because of rounding. Source: Bank of Finland.

D	Nov	Oct	Sep	Aug	Jul	Jun	May	Apr
13,8	13,570	13,472	13,523	13,543	13,564	13,497	13,306	13,193
21,6	10,523	6,753	8,987	9,474	19,000	21,840	19,583	9,846
9,3	4,594	4,568	6,656	966	6,383	3,034	3,989	1,924
9,1	4,029	1,885	2,031	7,229	3,797	17,306	15,594	7,922
3,2	1,900	300	300	1,279	8,820	1,500	-	-
	- -	-	-	- -	-	- -	-	_
	-	-	-	-	105	158	-	105
2	21	18	21	23	29	11	14	18
	-	-	_	-	_	_	_	-
2	21	18	21	23	29	11	14	18
1,0	1,517	511	1,019	380	476	603	711	515
	4	146	24	3	3	115	<b>-9</b>	<b>-</b> 7
	133	133	19	386	444	254	20	243
	133	133	19	386	444	254	20	243
	-	-	-	-	-	-	-	-
1,3	1,356	1,356	1,433	1,433	1,433	1,340	1,340	1,340
	_	_	_	_	_	_	_	_
	-	_	-	-	-	-	-	-
	_	_	_	-	_	_	_	_
	-	-	-	-	-	-	-	-
4	920	924	707	661	586	862	820	1,045
2,2	2,207	2,207	2,823	2,823	2,823	2,060	2,060	2,060
4,9	4,500	4,500	4,500	4,500	4,500	4,075	4,075	4,075
8	841	841	841	841	841	841	841	841
1,3	1,334	1,334	1,334	1,334	1,334	1,174	1,174	1,174
5	503	503	503	503	503	437	437	437
2,2	1,822	1,822	1,822	1,822	1,822	1,623	1,623	1,623
45,9	34,751	30,019	33,055	33,225	42,963	44,816	41,922	32,434

Table 2. Key interest rates of the Eurosystem

Fixed rate tenders Interest rate on main refinancing operations			Variable rate tenders Minimum bid rate		
Decision date	Effective	%	Decision date	Effective	%
22 Dec 1998	1 Jan 1999	3.00	8 Jun 2000	28 Jun 2000	4.25
8 Apr 1999	14 Apr 1999	2.50	31 Aug 2000	6 Sep 2000	4.50
4 Nov 1999	10 Nov 1999	3.00	5 Oct 2000	11 Nov 2000	4.75
3 Feb 2000	9 Feb 2000	3.25	10 May 2001	15 May 2001	4.50
16 Mar 2000	22 Mar 2000	3.50	30 Aug 2001	5 Sep 2001	4.25
27 Apr 2000	4 May 2000	3.75	17 Sep 2001	19 Sep 2001	3.75
8 Jun 2000	15 Jun 2000	4.25	8 Nov 2001	14 Nov 2001	3.25
,	,		5 Dec 2002	11 Dec 2002	2.75
			6 Mar 2003	7 Mar 2003	2.50
			5 Jun 2003	6 Jun 2003	2.00
			1 Dec 2005	6 Dec 2005	2.25
			2 Mar 2006	8 Mar 2006	2.50
8 Oct 2008	15 Oct 2008	3.75	8 Jun 2006	15 Jun 2006	2.75
6 Nov 2008	12 Nov 2008	3.25	3 Aug 2006	9 Åug 2006	3.00
4 Dec 2008	10 Dec 2008	2.50	5 Nov 2006	11 Oct 2006	3.25
15 Jan 2009	21 Jan 2009	2.00	7 Dec 2006	13 Dec 2006	3.50
5 Mar 2009	11 Mar 2009	1.50	8 Mar 2007	14 Mar 2007	3.75
2 Apr 2009	8 Apr 2009	1.25	7 Jun 2007	13 Jun 2007	4.00
7 May 2009	13 May 2009	1.00	3 Jul 2008	9 Iul 2008	4.25

Stand	111g	tacı	ities
		,	

Inte	terest rate on deposit facility  Interest rate on marginal lending facility			Interest rate on marginal lending		
Decision date	Effective	%	Decision date	Effective	%	
22 Dec 1998	1 Jan 1999	2.00	22 Dec 1998	1 Jan 1999	4.50	
22 Dec 1998	4 Jan 1999	2.75	22 Dec 1998	4 Jan 1999	3.25	
21 Jan 1999	22 Jan 1999	2.00	21 Jan 1999	22 Jan 1999	4.50	
8 Apr 1999	9 Apr 1999	1.50	8 Apr 1999	9 Apr 1999	3.50	
4 Nov 1999	5 Nov 1999	2.00	4 Nov 1999	5 Nov 1999	4.00	
3 Feb 2000	4 Feb 2000	2.25	3 Feb 2000	4 Feb 2000	4.25	
16 Mar 2000	17 Mar 2000	2.50	16 Mar 2000	17 Mar 2000	4.50	
27 Apr 2000	28 Apr 2000	2.75	27 Apr 2000	28 Apr 2000	4.75	
8 Jun 2000	9 Jun 2000	3.25	8 Jun 2000	9 Jun 2000	5.25	
31 Aug 2000	1 Sep 2000	3.50	31 Aug 2000	1 Sep 2000	5.50	
5 Oct 2000	6 Oct 2000	3.75	5 Nov 2000	6 Oct 2000	5.75	
10 May 2001	11 May 2001	3.50	10 May 2001	11 May 2001	5.50	
30 Aug 2001	31 Aug 2001	3.25	30 Aug 2001	31 Aug 2001	5.25	
17 Sep 2001	18 Sep 2001	2.75	17 Sep 2001	18 Sep 2001	4.75	
8 Nov 2001	9 Nov 2001	2.25	8 Nov 2001	9 Nov 2001	4.25	
5 Dec 2002	6 Dec 2002	1.75	5 Dec 2002	6 Dec 2002	3.75	
6 Mar 2003	7 Mar 2003	1.50	6 Mar 2003	7 Mar 2003	3.50	
5 Jun 2003	6 Jun 2003	1.00	5 Jun 2003	6 Jun 2003	3.00	
1 Dec 2005	6 Dec 2005	1.25	1 Dec 2005	6 Dec 2005	3.25	
2 Mar 2006	8 Mar 2006	1.50	2 Mar 2006	8 Mar 2006	3.50	
8 Jun 2006	15 Jun 2006	1.75	8 Jun 2006	15 Jun 2006	3.75	
3 Aug 2006	9 Aug 2006	2.00	3 Aug 2006	9 Aug 2006	4.00	
5 Oct 2006	11 Oct 2006	2.25	5 Nov 2006	11 Oct 2006	4.25	
7 Dec 2006	13 Dec 2006	2.50	7 Dec 2006	13 Dec 2006	4.50	
8 Mar 2007	14 Mar 2007	2.75	8 Mar 2007	14 Mar 2007	4.75	
7 Jun 2007	13 Jun 2007	3.00	7 Jun 2007	13 Jun 2007	5.00	
3 Jul 2008	9 Jul 2008	3.25	3 Jul 2008	9 Jul 2008	5.25	
8 Öct 2008	8 Oct 2008	2.75	8 Oct 2008	8 Oct 2008	4.75	
8 Oct 2008	9 Oct 2008	3.25	8 Oct 2008	9 Oct 2008	4.25	
6 Nov 2008	12 Nov 2008	2.75	6 Nov 2008	12 Nov 2008	3.75	
4 Dec 2008	10 Dec 2008	2.00	4 Dec 2008	10 Dec 2008	3.00	
15 Jan 2009	21 Jan 2009	1.00	15 Jan 2009	21 Jan 2009	3.00	
5 Mar 2009	11 Mar 2009	0.50	5 Mar 2009	11 Mar 2009	2.50	
2 Apr 2009	8 Apr 2009	0.25	2 Apr 2009	8 Apr 2009	2.25	
7 May 2009	13 May 2009	0.25	7 May 2009	13 May 2009	1.75	
Source: European Centi	ral Bank.					

142 | Bank of Finland Annual Report 2010 Supplementary tables

Table 3. Reserve base of euro area credit institutions subject to reserve requirements, EUR bn

Reserve base as of:	Total	Total Liabilities to which a 2% reserve coefficient is applied			Liabilities to which a 0% reserve coefficient is applied			
		Deposits (overnight, up to 2 years' agreed maturity and notice period)	Debt securities up to 2 years' agreed maturity	Deposits (over 2 years' agreed maturity and notice period)	Repos	Debt securities over 2 years' agreed maturity		
	1	2	3	4	5	6		
2009								
Dec	18,318.2	9,808.5	760.4	2,475.7	1,170.1	4,103.5		
2010								
Jan	18,454.5	9,829.1	766.1	2,465.6	1,225.0	4,168.7		
Feb	18,516.2	9,828.1	759.3	2,479.5	1,282.5	4,166.8		
Mar	18,587.9	9,807.3	782.8	2,506.7	1,283.5	4,207.6		
Apr	18,861.5	9,912.0	764.4	2,584.6	1,345.7	4,254.8		
May	19,045.5	9,996.2	746.7	2,600.7	1,411.7	4,290.0		
Jun	19,018.2	9,998.7	721.2	2,586.9	1,314.3	4,397.2		
Jul	18,966.5	9,918.6	703.0	2,594.9	1,344.0	4,405.9		
Aug	19,138.1	10,019.3	707.4	2,618.7	1,366.2	4,426.5		
Sep	18,836.5	9,944.2	670.0	2,566.5	1,307.2	4,348.6		
Oct	18,986.4	9,901.3	658.2	2,632.7	1,399.4	4,394.9		
Nov	19,190.9	9,970.1	669.9	2,715.6	1,465.9	4,369.5		
Dec	18,948.1	9,962.6	644.3	2,683.3	1,335.4	4,322.5		

### Reserve base of Finnish credit institutions subject to reserve requirements, EUR m

Reserve base as of:	Total	Liabilities to reserve coefficient		Liabilities to which a 0% reserve coefficient is applied			
		Deposits (overnight, up to 2 years' agreed maturity and notice period)	Debt securities up to 2 years' agreed maturity	Deposits (over 2 years' agreed maturity and notice period)	Repos	Debt securities over 2 years agreed maturity	
2000	1	2	3	4	5	6	
2009 Dec	237,817	175,794	22,462	6,238	135	33,188	
2010							
Jan	233,044	169,931	22,344	6,306	135	34,329	
Feb	238,480	174,081	22,266	6,736	258	35,140	
Mar	233,284	169,481	21,250	6,523	548	35,482	
Apr	234,889	170,663	20,809	6,581	90	36,746	
May	246,069	181,322	20,735	6,735	90	37,187	
Jun	254,880	190,088	20,086	6,475	373	37,857	
Jul	262,484	197,095	20,855	6,283	652	37,599	
Aug	262,456	197,177	20,224	6,675	150	38,230	
Sep	261,508	198,567	18,744	6,632	157	37,409	
Oct	241,916	177,930	19,547	6,522	156	37,761	
Nov	267,007	189,443	19,195	6,452	11,500	40,417	
Dec	281,947	197,370	19,314	6,459	17,878	40,925	

Table 4. Reserve maintenance of euro area credit institutions subject to reserve requirements, EUR bn

Maintenance period ending in	Required reserves	Actual reserves	Excess reserves	Deficiencies	Interest rate on minimum reserves, %
	1	2	3	4	5
2009					
Dec	210.2	211.4	1.2	0.0	1.00
2040					
2010					
Jan	210.1	211.2	1.2	0.0	1.00
Feb	209.5	210.9	1.4	0.0	1.00
Mar	210.9	211.8	1.0	0.0	1.00
Apr	211.4	212.5	1.2	0.0	1.00
May	211.2	212.4	1.2	0.0	1.00
Jun	211.3	212.5	1.3	0.0	1.00
Jul	213.0	214.4	1.4	0.0	1.00
Aug	214.3	215.7	1.4	0.0	1.00
Sep	213.9	215.3	1.4	0.0	1.00
Oct	211.9	213.1	1.2	0.0	1.00
Nov	214.0	215.2	1.2	0.0	1.00
Dec	211.8	212.5	0.7	-0.5	1.00
2011					
Jan	210.5	212.4	1.9	0.0	1.00

Source: European Central Bank.

### Reserve maintenance of Finnish credit institutions subject to reserve requirements, EUR m

Maintenance period ending in	Required reserves	Actual reserves	Excess reserves	Deficiencies	Interest rate on minimum reserves, %
	1	2	3	4	5
2009					
Dec	3,628	3,640	11.7	0.0	1.00
2010					
Jan	3,695	3,704	9.3	0.0	1.00
Feb	3,932	3,944	11.5	0.0	1.00
Mar	3,812	3,823	10.6	0.0	1.00
Apr	3,894	3,903	9.1	0.0	1.00
May	3,782	3,792	10.7	0.0	1.00
Jun	3,797	3,826	29.5	0.0	1.00
Jul	4,008	4,020	12.1	0.0	1.00
Aug	4,170	4,181	10.5	0.0	1.00
Sep	4,326	4,335	8.9	0.0	1.00
Oct	4,315	4,322	6.7	0.0	1.00
Nov	4,313	4,323	9.2	0.0	1.00
Dec	3,917	3,931	14.3	0.0	1.00
200	3,5 17	0,701	15	•••	1.00
2011					
Jan	4,141	4,147	6.6	0.0	1.00
Source: Bank of Finland					

Table 5. Euro area monetary aggregate M3 and corresponding items of Finnish monetary financial institutions<sup>1</sup>

	Euro	area monetary aggreg	gate M3		bilities of Finnish mod titutions included in	
	Stock <sup>3</sup> , EUR bn	12-month change <sup>3,4</sup> , %	3-month mov avg of 12-month change <sup>3,4</sup> , %	Stock, EUR bn	12-month change <sup>4</sup> , %	3-month mov avg of 12-month change <sup>4</sup> , %
	1	2	3	4	5	6
2006	7,753.9	10.0	9.8	102.9	8.2	8.7
2007	8,653.9	11.6	11.9	122.8	19.7	18.6
2008	9,399.7	7.6	7.1	129.2	5.0	5.7
2009	9,338.0	-0.4	-0.2	127.6	-1.7	-1.7
2010	9,524.2	1.7	1.7	135.0	4.3	3.2
2010						
Jan	9,321.0	0.1	-0.2	128.7	-2.9	-2.6
Feb	9,326.5	-0.4	-0.1	127.9	-3.2	-3.3
Mar	9,342.6	-0.1	-0.2	127.1	-3.9	-3.2
Apr	9,375.3	-0.3	-0.1	127.4	-2.6	-2.7
Мау	9,392.9	0.0	0.0	129.8	-1.6	-1.8
Jun	9,434.8	0.3	0.1	128.9	-1.3	-1.1
Jul	9,441.4	0.2	0.5	130.6	-0.3	-0.5
Aug	9,509.6	1.1	0.8	129.2	0.0	-0.1
Sep	9,496.9	1.1	1.1	129.3	-0.1	0.4
Oct	9,476.2	1.1	1.4	130.8	1.2	1.3
Nov	9,538.3	2.1	1.6	130.8	2.7	2.7
Dec	9,524.2	1.7	1.7	135.0	4.3	3.2

Table 6. Key market interest rates

	Eonia rate		Euribor rates (actual/360)						
		1-month	2-month	3-month	6-month	9-month	12-month	5-year	ent bonds 10-year
	1	2	3	4	5	6	7	8	9
2006	2.84	2.945	3.018	3.083	3.238	3.353	3.440	3.59	3.78
2007	3.87	4.080	4.194	4.277	4.351	4.406	4.449	4.18	4.29
2008	3.87	4.276	4.484	4.644	4.727	4.774	4.826	3.88	4.30
2009	0.71	0.888	1.057	1.218	1.429	1.529	1.610	2.70	3.74
2010	0.44	0.570	0.663	0.813	1.083	1.223	1.352	1.78	3.00
2010									
Jan	0.34	0.437	0.537	0.680	0.977	1.107	1.232	2.385	3.494
Feb	0.34	0.421	0.522	0.662	0.965	1.098	1.225	2.187	3.385
Mar	0.35	0.406	0.507	0.645	0.952	1.089	1.215	2.095	3.258
Apr	0.35	0.404	0.504	0.644	0.954	1.096	1.224	2.029	3.361
May	0.34	0.423	0.526	0.687	0.982	1.121	1.249	1.587	3.033
Jun	0.35	0.446	0.553	0.728	1.012	1.152	1.281	1.488	2.923
Jul	0.48	0.583	0.669	0.849	1.104	1.245	1.373	1.508	2.854
Aug	0.43	0.640	0.726	0.896	1.147	1.290	1.421	1.327	2.623
Sep	0.45	0.618	0.711	0.881	1.137	1.286	1.420	1.336	2.581
Oct	0.70	0.784	0.842	0.998	1.224	1.363	1.495	1.688	2.627
Nov	0.59	0.834	0.925	1.042	1.269	1.409	1.541	1.808	2.823
Dec	0.50	0.811	0.909	1.022	1.251	1.394	1.526	2.03	3.19
Sources: Europ	ean Central Ba	nk, Reuters an	d Bloomberg.						

Excl. negotiable instruments held by central governments and non-euro area residents.
 Excl. notes and coins held by the public.
 Seasonally and calendar effect adjusted.
 Calculated from monthly differences in stocks adjusted for reclassifications, other revaluations, exchange rate variations and any other changes which do not arise from transactions.
 Sources: European Central Bank and Bank of Finland.

Table 7. Nominal competitiveness indicators for Finland and the effective exchange rate of the euro calculated by the ECB

	Narrow indicator <sup>i</sup>	Narrow plus euro area indicator <sup>1</sup>	Broad indicator <sup>1</sup>	Effective exchange rate of the euro, narrow group of countries <sup>1</sup>
		arch 1999 = 100	of countries-	
	1	2	3	4
2006	103.7	101.9	102.8	107.8
2007	108.0	104.0	104.8	113.3
2008	114.5	107.0	107.3	121.0
2009	115.8	107.6	108.8	120.8
2010	107.6	103.6	104.3	112.2
2010				
Jan	114.4	106.9	108.0	119.0
Feb	111.5	105.4	106.4	115.8
Mar	111.0	105.1	105.9	115.8
Apr	109.7	104.6	105.1	114.3
Мау	106.1	102.8	103.3	110.2
Jun	103.6	101.6	102.2	107.5
Jul	105.2	102.5	103.1	109.6
Aug	104.7	102.2	102.9	109.1
Sep	104.9	102.3	103.1	109.5
Oct .	108.7	104.0	105.0	113.9
Nov	107.4	103.5	104.4	112.3
Dec	104.9	102.2	103.0	109.5

<sup>&</sup>lt;sup>1</sup> An upward movement of the index represents an appreciation of the euro. The narrow indicator comprises 12 countries, 1999, the narrow plus euro area indicator 23 countries, and the broad indicator 37 countries. Sources: European Central Bank and Bank of Finland.

Table 8. Harmonised Index of Consumer Prices for euro area and Finland, annual change, %

	Euro area	Finland
	1	2
006	2.2	1.3
007	2.1	1.6
008	3.3	3.9
009	0.3	1.6
010	1.6	1.7
010		
Jan	0.9	1.6
Feb	0.8	1.3
Mar	1.6	1.5
Apr	1.6	1.6
Мау	1.7	1.4
Jun	1.5	1.3
Jul	1.7	1.3
Aug	1.6	1.3
Sep	1.9	1.4
Oct	1.9	2.3
Nov	1.9	2.4
Dec	2.2	2.8

Table 9. Key euro exchange rates, currency-value of one euro

	į.	US dollar	771.7			
	Low	Average	High	Low	Average	High
	1	2	3	4	5	6
2006	1.1826	1.2556	1.3331	137.50	146.02	156.93
2007	1.2893	1.3705	1.4874	150.93	161.25	168.68
2008	1.2460	1.4708	1.5990	115.75	152.45	169.75
2009	1.2555	1.3948	1.5120	113.65	130.34	138.09
2010	1.1942	1.3257	1.4563	106.19	116.24	134.23
2010						
Jan	1.3966	1.4272	1.4563	125.95	130.34	134.23
Feb	1.3489	1.3686	1.3984	120.66	123.46	126.73
Mar	1.3338	1.3569	1.3765	120.67	123.40	125.93
Apr	1.3245	1.3406	1.3615	123.50	125.33	123.93
	1.2223	1.2565	1.3238	109.53	125.33	127.42
May	1.1942	1.2209	1.2391	108.31	110.99	113.74
Jun	1.1942		1.2391	108.14		113.74
Jul	1.2328	1.2770			111.73	
Aug	1 1	1.2894	1.3253	106.19	110.04	113.66
Sep	1.2697	1.3067	1.3648	106.41	110.26	113.85
Oct	1.3705	1.3898	1.4101	111.87	113.67	115.10
Nov	1.2998	1.3661	1.4244	109.00	112.69	115.15
-						
Dec	1.3064	1.3220	1.3435	107.99	110.11	111.00
Dec	1.3064	1.3220  Pound sterling	1.3433	107.99	Swedish krona	111.88
Dec	1.3064 Low		1.3435 High	107.99 Low		High
Dec		Pound sterling		<u> </u>	Swedish krona	
	Low	Pound sterling Average	High	Low	Swedish krona Average	High
2006	Low 7	Pound sterling Average 8	High 9	Low 10	Swedish krona Average 11	High 12
2006 2007	Low 7 0.66800	Pound sterling Average  8 0.68173	High 9 0.7006	Low 10 8.9661	Swedish krona Average 11 9.2544	High 12 9.4733
2006 2007 2008	Low 7 0.66800 0.65485	Pound sterling Average  8 0.68173 0.68434	High 9 0.7006 0.7348	Low 10 8.9661 9.0190	Swedish krona Average 11 9.2544 9.2501	High 12 9.4733 9.4754
2006 2007 2008 2009	Low 7 0.66800 0.65485 0.74130	Pound sterling Average  8 0.68173 0.68434 0.79628	High 9 0.7006 0.7348 0.9786	Low 10 8.9661 9.0190 9.2790	Swedish krona Average 11 9.2544 9.2501 9.6152	High 12 9.4733 9.4754 11.2305
2006 2007 2008 2009 2010	Low  7  0.66800 0.65485 0.74130 0.84255	Pound sterling Average  8 0.68173 0.68434 0.79628 0.89094	High 9 0.7006 0.7348 0.9786 0.9610	Low  10  8.9661  9.0190  9.2790  10.0778	Swedish krona Average  11  9.2544  9.2501  9.6152  10.6191	High  12  9.4733  9.4754  11.2305  11.7135
2006 2007 2008 2009 2010	Low  7  0.66800 0.65485 0.74130 0.84255	Pound sterling Average  8 0.68173 0.68434 0.79628 0.89094	High 9 0.7006 0.7348 0.9786 0.9610	Low  10  8.9661  9.0190  9.2790  10.0778  8.9630	Swedish krona Average  11  9.2544  9.2501  9.6152  10.6191	High  12  9.4733  9.4754  11.2305  11.7135
Dec  2006 2007 2008 2009 2010 Jan Feb	7 0.66800 0.65485 0.74130 0.84255 0.81040	8 0.68173 0.68434 0.79628 0.89094 0.85784	9 0.7006 0.7348 0.9786 0.9610 0.9114	Low  10  8.9661  9.0190  9.2790  10.0778	Swedish krona Average  11  9.2544  9.2501  9.6152  10.6191  9.5373	High  12  9.4733  9.4754  11.2305  11.7135  10.2723
2006 2007 2008 2009 2010 <b>2010</b> Jan	7 0.66800 0.65485 0.74130 0.84255 0.81040 0.86160	Round sterling Average  8 0.68173 0.68434 0.79628 0.89094 0.85784  0.88305	High  9  0.7006 0.7348 0.9786 0.9610 0.9114  0.90045	Low  10  8.9661  9.0190  9.2790  10.0778  8.9630	Swedish krona Average  11  9.2544  9.2501  9.6152  10.6191  9.5373	High  12  9.4733  9.4754  11.2305  11.7135  10.2723
2006 2007 2008 2009 2010 Jan Feb Mar	Low  7  0.66800 0.65485 0.74130 0.84255 0.81040  0.86160 0.86760 0.88980	Pound sterling Average  8 0.68173 0.68434 0.79628 0.89094 0.85784  0.88305 0.87604 0.90160	High  9  0.7006 0.7348 0.9786 0.9610 0.9114  0.90045 0.89270 0.91140	10 8.9661 9.0190 9.2790 10.0778 8.9630 10.1165 9.7260 9.6650	Swedish krona Average  11  9.2544  9.2501  9.6152  10.6191  9.5373  10.1939  9.9505  9.7277	High  12  9.4733  9.4754  11.2305  11.7135  10.2723  10.2723  10.2405  9.7945
2006 2007 2008 2009 2010 Jan Feb Mar Apr	0.66800 0.65485 0.74130 0.84255 0.81040 0.86160 0.86760 0.88980 0.86240	Round sterling Average  8 0.68173 0.68434 0.79628 0.89094 0.85784  0.88305 0.87604 0.90160 0.87456	High  9  0.7006 0.7348 0.9786 0.9610 0.9114  0.90045 0.89270 0.91140 0.88485	10 8.9661 9.0190 9.2790 10.0778 8.9630  10.1165 9.7260 9.6650 9.5680	Swedish krona Average  11  9.2544 9.2501 9.6152 10.6191 9.5373  10.1939 9.9505 9.7277 9.6617	High  12  9.4733  9.4754  11.2305  11.7135  10.2723  10.2723  10.2405  9.7945  9.7575
2006 2007 2008 2009 2010 Jan Feb Mar Apr May	0.66800 0.65485 0.74130 0.84255 0.81040 0.86160 0.86760 0.88980 0.86240 0.84295	8 0.68173 0.68434 0.79628 0.89094 0.85784  0.88305 0.87604 0.90160 0.87456 0.85714	High  9  0.7006 0.7348 0.9786 0.9610 0.9114  0.90045 0.89270 0.91140 0.88485 0.87035	10 8.9661 9.0190 9.2790 10.0778 8.9630  10.1165 9.7260 9.6650 9.5680 9.5306	Swedish krona Average  11  9.2544 9.2501 9.6152 10.6191 9.5373  10.1939 9.9505 9.7277 9.6617 9.6641	High  12  9.4733  9.4754  11.2305  11.7135  10.2723  10.2723  10.2405  9.7945  9.7575  9.8310
2006 2007 2008 2009 2010 Jan Feb Mar Apr May Jun	0.66800 0.65485 0.74130 0.84255 0.81040 0.86160 0.86760 0.88980 0.86240 0.84295 0.81040	8 0.68173 0.68434 0.79628 0.89094 0.85784  0.88305 0.87604 0.90160 0.87456 0.85714 0.82771	9 0.7006 0.7348 0.9786 0.9610 0.9114  0.90045 0.89270 0.91140 0.88485 0.87035 0.83570	10 8.9661 9.0190 9.2790 10.0778 8.9630  10.1165 9.7260 9.6650 9.5680 9.5306 9.5120	Swedish krona Average  11  9.2544 9.2501 9.6152 10.6191 9.5373  10.1939 9.9505 9.7277 9.6617 9.6641 9.5723	High  12  9.4733  9.4754  11.2305  11.7135  10.2723  10.2723  10.2405  9.7945  9.7575  9.8310  9.6597
2006 2007 2008 2009 2010 Jan Feb Mar Apr May Jun Jul	0.66800 0.65485 0.74130 0.84255 0.81040 0.86160 0.86760 0.88980 0.86240 0.84295 0.81040 0.82215	Pound sterling Average  8 0.68173 0.68434 0.79628 0.89094 0.85784  0.88305 0.87604 0.90160 0.87456 0.85714 0.82771 0.83566	9 0.7006 0.7348 0.9786 0.9610 0.9114 0.90045 0.89270 0.91140 0.88485 0.87035 0.83570 0.84830	10 8.9661 9.0190 9.2790 10.0778 8.9630  10.1165 9.7260 9.6650 9.5680 9.5306 9.5120 9.4033	Swedish krona Average  11  9.2544 9.2501 9.6152 10.6191 9.5373  10.1939 9.9505 9.7277 9.6617 9.6641 9.5723 9.4954	High  12  9.4733  9.4754  11.2305  11.7135  10.2723  10.2723  10.2405  9.7945  9.7575  9.8310  9.6597  9.6250
2006 2007 2008 2009 2010 Jan Feb Mar Apr May Jun Jul Aug	0.66800 0.65485 0.74130 0.84255 0.81040 0.86160 0.86760 0.88980 0.86240 0.84295 0.81040 0.82215 0.81650	Pound sterling Average  8 0.68173 0.68434 0.79628 0.89094 0.85784  0.88305 0.87604 0.90160 0.87456 0.85714 0.82771 0.83566 0.82363	9 0.7006 0.7348 0.9786 0.9610 0.9114 0.90045 0.89270 0.91140 0.88485 0.87035 0.83570 0.84830 0.83520	10 8.9661 9.0190 9.2790 10.0778 8.9630  10.1165 9.7260 9.6650 9.5680 9.5306 9.5120 9.4033 9.3570	Swedish krona Average  11  9.2544 9.2501 9.6152 10.6191 9.5373  10.1939 9.9505 9.7277 9.6617 9.6641 9.5723 9.4954 9.4216	High  12  9.4733  9.4754  11.2305  11.7135  10.2723  10.2723  10.2405  9.7945  9.7575  9.8310  9.6597  9.6250  9.5021
2006 2007 2008 2009 2010 Jan Feb Mar Apr May Jun Jul Aug Sep	0.66800 0.65485 0.74130 0.84255 0.81040 0.86160 0.86760 0.88980 0.86240 0.84295 0.81040 0.82215 0.81650 0.82205	Round sterling Average  8 0.68173 0.68434 0.79628 0.89094 0.85784  0.88305 0.87604 0.90160 0.87456 0.85714 0.82771 0.83566 0.82363 0.83987	9 0.7006 0.7348 0.9786 0.9610 0.9114  0.90045 0.89270 0.91140 0.88485 0.87035 0.83570 0.84830 0.83520 0.86180	10 8.9661 9.0190 9.2790 10.0778 8.9630  10.1165 9.7260 9.6650 9.5680 9.5306 9.5120 9.4033 9.3570 9.1276	Swedish krona Average  11  9.2544 9.2501 9.6152 10.6191 9.5373  10.1939 9.9505 9.7277 9.6617 9.6641 9.5723 9.4954 9.4216 9.2241	High  12  9.4733  9.4754  11.2305  11.7135  10.2723  10.2723  10.2405  9.7945  9.7575  9.8310  9.6597  9.6250  9.5021  9.3490
2006 2007 2008 2009 2010 Jan Feb Mar Apr May Jun Jul Aug Sep Oct	0.66800 0.65485 0.74130 0.84255 0.81040 0.86160 0.86760 0.88980 0.86240 0.84295 0.81040 0.82215 0.81650 0.82205	Round sterling Average  8 0.68173 0.68434 0.79628 0.89094 0.85784  0.88305 0.87604 0.90160 0.87456 0.85714 0.82771 0.83566 0.82363 0.83987 0.87638	9 0.7006 0.7348 0.9786 0.9610 0.9114  0.90045 0.89270 0.91140 0.88485 0.87035 0.83570 0.84830 0.83520 0.86180 0.89255	10 8.9661 9.0190 9.2790 10.0778 8.9630  10.1165 9.7260 9.6650 9.5680 9.5306 9.5120 9.4033 9.3570 9.1276 9.1990	Swedish krona Average  11  9.2544 9.2501 9.6152 10.6191 9.5373  10.1939 9.9505 9.7277 9.6617 9.6641 9.5723 9.4954 9.4216 9.2241 9.2794	High  12  9.4733  9.4754  11.2305  11.7135  10.2723  10.2723  10.2405  9.7945  9.7575  9.8310  9.6597  9.6250  9.5021  9.3490  9.3610
2006 2007 2008 2009 2010 Jan Feb Mar Apr May Jun Jul Aug Sep	0.66800 0.65485 0.74130 0.84255 0.81040 0.86160 0.86760 0.88980 0.86240 0.84295 0.81040 0.82215 0.81650 0.82205	Round sterling Average  8 0.68173 0.68434 0.79628 0.89094 0.85784  0.88305 0.87604 0.90160 0.87456 0.85714 0.82771 0.83566 0.82363 0.83987	9 0.7006 0.7348 0.9786 0.9610 0.9114  0.90045 0.89270 0.91140 0.88485 0.87035 0.83570 0.84830 0.83520 0.86180	10 8.9661 9.0190 9.2790 10.0778 8.9630  10.1165 9.7260 9.6650 9.5680 9.5306 9.5120 9.4033 9.3570 9.1276	Swedish krona Average  11  9.2544 9.2501 9.6152 10.6191 9.5373  10.1939 9.9505 9.7277 9.6617 9.6641 9.5723 9.4954 9.4216 9.2241	High  12  9.4733  9.4754  11.2305  11.7135  10.2723  10.2723  10.2405  9.7945  9.7575  9.8310  9.6597  9.6250  9.5021

Table 10. Other euro exchange rates, currency-value of one euro, average

	Czech koruna	Danish krone	Estonian kroon	Hungarian forinti	Lithuanian litas	Latvian lats	Puolan zloty
	1	2	3	4	5	6	7
2006	28.342	7.459	15.647	264.263	3.453	0.696	3.896
2007	27.766	7.451	15.647	251.357	3.453	0.700	3.784
2008	24.946	7.456	15.647	251.512	3.453	0.703	3.512
2009	26,435	7.446	15.647	280.327	3,453	0.706	4.328
2010	25.284	7.447	15.647	275.480	3.453	0.709	3.995
2010							
Jan	26.133	7.442	15.647	269.428	3.453	0.709	4.070
Feb	25.979	7.444	15.647	271.211	3.453	0.709	4.014
Mar	25.541	7.442	15.647	265.397	3.453	0.708	3.891
Apr	25.308	7.443	15.647	265.531	3.453	0.708	3.878
May	25.663	7.441	15.647	276.782	3.453	0.708	4.057
Jun	25.780	7.441	15.647	281.485	3.453	0.708	4.105
Jul	25.328	7.452	15.647	283.752	3.453	0.709	4.081
Aug	24.806	7.450	15.647	281.452	3.453	0.708	3.990
Sep	24.651	7.448	15.647	282.102	3.453	0.709	3.955
Oct	24.531	7.457	15.647	274.013	3.453	0.709	3.950
Nov	24.633	7.455	15.647	275.509	3.453	0.709	3.952
Dec	25.174	7.453	15.647	277.616	3.453	0.710	3.996

	Turkish lira	Australian dollar	Canadian dollar	Chinese yuan renminbi	Hong Kong dollar	Indonesian rupiah	South Korean won
	15	16	17	18	19	20	21
2006		1.667	1.424	10.010	9.755	11512.372	1198.581
2007		1.635	1.468	10.418	10.691	12528.325	1272.988
2008		1.742	1.559	10.224	11.454	14165.164	1606.087
2009		1.773	1.585	9.528	10.811	14443.740	1772.904
2010		1.442	1.365	8.971	10.299	12041.705	1531.821
2010							
Jan	2.103	1.562	1.488	9.744	11.078	13263.604	1624.758
Feb	2.076	1.543	1.445	9.346	10.630	12786.054	1582.702
Mar	2.082	1.488	1.389	9.262	10.531	12434.532	1542.588
Apr	1.998	1.446	1.347	9.151	10.406	12101.701	1494.527
May	1.946	1.444	1.306	8.579	9.784	11517.009	1465.814
Jun	1.927	1.431	1.267	8.325	9.509	11169.391	1483.223
Jul	1.967	1.459	1.332	8.654	9.931	11546.777	1538.851
Aug	1.948	1.434	1.341	8.752	10.019	11573.265	1522.394
Sep	1.953	1.394	1.351	8.810	10.147	11716.160	1517.100
Oct	1.980	1.416	1.415	9.266	10.783	12407.160	1560.304
Nov	1.972	1.381	1.383	9.089	10.594	12223.997	1544.165
Dec	2.016	1.330	1.333	8.787	10.278	11925.214	1513.739

Sources: European Central Bank and Bank of Finland.

	Swiss franc	Icelandic krona	Norwegian krone	Bulgarian lev	Croatian kuna	Romanian leu	Russian rouble
	8	9	10	11	12	13	14
2006	1.573	87.757	8.047	1.956	7.325		34.111
2007	1.643	87.634	8.017	1.956	7.337		35.018
2008	1.587		8.224	1.956	7.224		36.421
2009	1.510		8.728	1.956	7.340		44.138
2010	1.380		8.004	1.956	7.289		40.263
2010							
Jan	1.477		8.182	1.956	7.294	4.138	42.575
Feb	1.467		8.097	1.956	7.303	4.120	41.284
Mar	1.448		8.037	1.956	7.262	4.087	40.122
Apr	1.434		7.932	1.956	7.259	4.131	39.133
May	1.418		7.891	1.956	7.263	4.177	38.271
Jun	1.377		7.906	1.956	7.223	4.243	38.151
Jul	1.346		8.020	1.956	7.220	4.261	39.132
Aug	1.341		7.933	1.956	7.252	4.240	39.190
Sep	1.309		7.916	1.956	7.287	4.265	40.256
Oct	1.345		8.111	1.956	7.328	4.279	42.147
Nov	1.344		8.146	1.956	7.383	4.294	42.336
Dec	1.281		7.902	1.956	7.391	4.293	40.739
	Malaysian	New	Philippine	Singatore	Thai	South	IMF
	Malaysian ringgit	New Zealand dollar	Philippine peso	Singapore dollar	Thai baht	South African rand	IMF SDRs
		Zealand		Singapore dollar 25		African	
2006	ringgit	Zealand dollar	peso	dollar	baht	African rand	SDRs
	ringgit 22	Zealand dollar 23	peso 24	dollar 25	baht 26	African rand 27	SDRs 28
2007	22 4.604	Zealand dollar 23 1.937	24 64.379	25 1.994	26 47.594	African rand 27 8.531	SDRs 28 0.853
2007 2008	22 4.604 4.708	Zealand dollar 23 1.937 1.863 2.077 2.212	24 64.379 63.026 65.172 66.338	25 1.994 2.064 2.076 2.024	26 47.594 44.214 48.475 47.804	African rand  27  8.531  9.660  12.059  11.674	28 0.853 0.895 0.930 0.904
2007 2008 2009	22 4.604 4.708 4.889	Zealand dollar 23 1.937 1.863 2.077	24 64.379 63.026 65.172	25 1.994 2.064 2.076	26 47.594 44.214 48.475	African rand  27  8.531 9.660 12.059	28 0.853 0.895 0.930
2007 2008 2009 2010	22 4.604 4.708 4.889 4.908 4.267	Zealand dollar 23 1.937 1.863 2.077 2.212 1.838	24 64.379 63.026 65.172 66.338	25 1.994 2.064 2.076 2.024 1.806	26 47.594 44.214 48.475 47.804	African rand  27  8.531  9.660  12.059  11.674	28 0.853 0.895 0.930 0.904 0.869
2007 2008 2009 2010 <b>2010</b> Jan	22 4.604 4.708 4.889 4.908	Zealand dollar 23 1.937 1.863 2.077 2.212 1.838	24 64.379 63.026 65.172 66.338	25 1.994 2.064 2.076 2.024 1.806	26 47.594 44.214 48.475 47.804	African rand  27  8.531  9.660 12.059 11.674 9.698	28 0.853 0.895 0.930 0.904 0.869
2007 2008 2009 2010 <b>2010</b> Jan Feb	22 4.604 4.708 4.889 4.908 4.267 4.817 4.674	Zealand dollar 23 1.937 1.863 2.077 2.212 1.838	24 64.379 63.026 65.172 66.338 59.739 65.702 63.317	25 1.994 2.064 2.076 2.024 1.806 1.993 1.933	26 47.594 44.214 48.475 47.804 42.014 47.150 45.360	African rand  27  8.531  9.660 12.059 11.674  9.698  10.649 10.496	28 0.853 0.895 0.930 0.904 0.869
2007 2008 2009 2010 <b>2010</b> Jan Feb Mar	22 4.604 4.708 4.889 4.908 4.267 4.817 4.674 4.508	Zealand dollar 23 1.937 1.863 2.077 2.212 1.838 1.965 1.961 1.930	24 64.379 63.026 65.172 66.338 59.739 65.702 63.317 61.999	25 1.994 2.064 2.076 2.024 1.806 1.993 1.933 1.899	26 47.594 44.214 48.475 47.804 42.014 47.150 45.360 44.111	African rand  27  8.531 9.660 12.059 11.674 9.698  10.649 10.496 10.059	28 0.853 0.895 0.930 0.904 0.869 0.912 0.890 0.888
2007 2008 2009 2010 2010 Jan Feb Mar Apr	4.604 4.708 4.889 4.908 4.267 4.817 4.674 4.508 4.294	Zealand dollar  23  1.937 1.863 2.077 2.212 1.838  1.965 1.961 1.930 1.881	64.379 63.026 65.172 66.338 59.739 65.702 63.317 61.999 59.788	25 1.994 2.064 2.076 2.024 1.806 1.993 1.933 1.899 1.851	26 47.594 44.214 48.475 47.804 42.014  47.150 45.360 44.111 43.279	African rand  27  8.531 9.660 12.059 11.674 9.698  10.649 10.496 10.059 9.866	28 0.853 0.895 0.930 0.904 0.869  0.912 0.890 0.888 0.884
2007 2008 2009 2010 2010 Jan Feb Mar Apr May	4.604 4.708 4.889 4.908 4.267 4.817 4.674 4.508 4.294 4.087	Zealand dollar  23  1.937 1.863 2.077 2.212 1.838  1.965 1.961 1.930 1.881 1.801	64.379 63.026 65.172 66.338 59.739 65.702 63.317 61.999 59.788 57.315	25 1.994 2.064 2.076 2.024 1.806 1.993 1.933 1.899 1.851 1.750	26 47.594 44.214 48.475 47.804 42.014  47.150 45.360 44.111 43.279 40.714	African rand  27  8.531 9.660 12.059 11.674 9.698  10.649 10.496 10.059 9.866 9.612	28 0.853 0.895 0.930 0.904 0.869  0.912 0.890 0.888 0.884 0.850
2007 2008 2009 2010 2010 Jan Feb Mar Apr May Jun	4.817 4.674 4.508 4.267 4.817 4.674 4.508 4.294 4.087 3.985	Zealand dollar  23  1.937 1.863 2.077 2.212 1.838  1.965 1.961 1.930 1.881 1.801 1.767	24 64.379 63.026 65.172 66.338 59.739 65.702 63.317 61.999 59.788 57.315 56.594	25 1.994 2.064 2.076 2.024 1.806 1.993 1.933 1.899 1.851 1.750 1.708	26 47.594 44.214 48.475 47.804 42.014  47.150 45.360 44.111 43.279 40.714 39.635	African rand  27  8.531 9.660 12.059 11.674 9.698  10.649 10.496 10.059 9.866 9.612 9.340	28 0.853 0.895 0.930 0.904 0.869  0.912 0.890 0.888 0.884 0.850 0.831
2007 2008 2009 2010 2010 Jan Feb Mar Apr May Jun Jul	4.817 4.674 4.508 4.267 4.817 4.674 4.508 4.294 4.087 3.985 4.092	Zealand dollar  23  1.937 1.863 2.077 2.212 1.838  1.965 1.961 1.930 1.881 1.801 1.767 1.792	64.379 63.026 65.172 66.338 59.739 65.702 63.317 61.999 59.788 57.315 56.594 59.072	25 1.994 2.064 2.076 2.024 1.806 1.993 1.933 1.899 1.851 1.750 1.708 1.759	26 47.594 44.214 48.475 47.804 42.014  47.150 45.360 44.111 43.279 40.714 39.635 41.273	African rand  27  8.531 9.660 12.059 11.674 9.698  10.649 10.496 10.059 9.866 9.612 9.340 9.635	28 0.853 0.895 0.930 0.904 0.869  0.912 0.890 0.888 0.884 0.850 0.831 0.849
2007 2008 2009 2010 2010 Jan Feb Mar Apr May Jun Jul Aug	4.817 4.674 4.508 4.267 4.817 4.674 4.508 4.294 4.087 3.985 4.092 4.065	Zealand dollar  23  1.937 1.863 2.077 2.212 1.838  1.965 1.961 1.930 1.881 1.801 1.767 1.792 1.806	64.379 63.026 65.172 66.338 59.739  65.702 63.317 61.999 59.788 57.315 56.594 59.072 58.245	1.993 1.993 1.993 1.933 1.899 1.851 1.750 1.708 1.759 1.748	26 47.594 44.214 48.475 47.804 42.014  47.150 45.360 44.111 43.279 40.714 39.635 41.273 40.937	African rand  27  8.531 9.660 12.059 11.674 9.698  10.649 10.496 10.059 9.866 9.612 9.340 9.635 9.419	28 0.853 0.895 0.930 0.904 0.869  0.912 0.890 0.888 0.884 0.850 0.831 0.849 0.849
2007 2008 2009 2010 2010 Jan Feb Mar Apr May Jun Jul Aug Sep	4.817 4.674 4.508 4.267 4.817 4.674 4.508 4.294 4.087 3.985 4.092 4.065 4.057	Zealand dollar  23  1.937 1.863 2.077 2.212 1.838  1.965 1.961 1.930 1.881 1.801 1.767 1.792 1.806 1.796	64.379 63.026 65.172 66.338 59.739  65.702 63.317 61.999 59.788 57.315 56.594 59.072 58.245 57.772	1.993 1.993 1.993 1.933 1.899 1.851 1.750 1.708 1.759 1.748	26 47.594 44.214 48.475 47.804 42.014  47.150 45.360 44.111 43.279 40.714 39.635 41.273 40.937 40.264	African rand  27  8.531 9.660 12.059 11.674 9.698  10.649 10.496 10.059 9.866 9.612 9.340 9.635 9.419 9.324	28 0.853 0.895 0.930 0.904 0.869  0.912 0.890 0.888 0.884 0.850 0.831 0.849 0.849
Feb Mar Apr May Jun Jul Aug Sep Oct	4.817 4.674 4.508 4.267 4.817 4.674 4.508 4.294 4.087 3.985 4.092 4.065 4.057 4.309	Zealand dollar  23  1.937 1.863 2.077 2.212 1.838  1.965 1.961 1.930 1.881 1.801 1.767 1.792 1.806 1.796 1.850	64.379 63.026 65.172 66.338 59.739  65.702 63.317 61.999 59.788 57.315 56.594 59.072 58.245 57.772 60.285	1.994 2.064 2.076 2.024 1.806 1.993 1.933 1.899 1.851 1.750 1.708 1.759 1.748 1.744 1.812	26 47.594 44.214 48.475 47.804 42.014  47.150 45.360 44.111 43.279 40.714 39.635 41.273 40.937 40.264 41.636	African rand  27  8.531 9.660 12.059 11.674 9.698  10.649 10.496 10.059 9.866 9.612 9.340 9.635 9.419 9.324 9.617	28 0.853 0.895 0.930 0.904 0.869  0.912 0.890 0.888 0.884 0.850 0.831 0.849 0.849 0.856 0.885
2007 2008 2009 2010 2010 Jan Feb Mar Apr May Jun Jul Aug Sep	4.817 4.674 4.508 4.267 4.817 4.674 4.508 4.294 4.087 3.985 4.092 4.065 4.057	Zealand dollar  23  1.937 1.863 2.077 2.212 1.838  1.965 1.961 1.930 1.881 1.801 1.767 1.792 1.806 1.796	64.379 63.026 65.172 66.338 59.739  65.702 63.317 61.999 59.788 57.315 56.594 59.072 58.245 57.772	1.993 1.993 1.993 1.933 1.899 1.851 1.750 1.708 1.759 1.748	26 47.594 44.214 48.475 47.804 42.014  47.150 45.360 44.111 43.279 40.714 39.635 41.273 40.937 40.264	African rand  27  8.531 9.660 12.059 11.674 9.698  10.649 10.496 10.059 9.866 9.612 9.340 9.635 9.419 9.324	28 0.853 0.895 0.930 0.904 0.869  0.912 0.890 0.888 0.884 0.850 0.831 0.849 0.849

Table 11. Irrevocable euro conversion rates as from 1 Jan 1999

Country	Currency	Units of currency per euro	Euro since	Country	Currency	Units of currency per euro	Euro since
Austria	schilling	13,7603	1 Jan 1999	Luxembourg	franc	40,3399	1 Jan 1999
Belgium	franc	40,3399	1 Jan 1999	Netherlands	guilder	2,20371	1 Jan 1999
Germany	mark	1,95583	1 Jan 1999	Portugal	escudo	200,482	1 Jan 1999
Spain	peseta	166,386	1 Jan 1999	Greece	drakma	340,750	1 Jan 2001
Finland	markka	5,94573	1 Jan 1999	Slovenia	tolar	239,640	1 Jan 2007
France	franc	6,55957	1 Jan 1999	Cyprus	pound	0,585274	1 Jan 2008
Ireland	pound	0,787564	1 Jan 1999	Malta	lira	0,429300	1 Jan 2008
Italy	lira	1936,27	1 Jan 1999	Slovakia	koruna	30,1260	1 Jan 2009

Table 12. Exchange rate mechanism ERM II

Currency	Central rate EUR 1 =	Fluctuation band, %	Upper rate*	Lower rate*	Valid from
	1	2	3	4	5
Danish krone	7.46038	± 2.25	7.62824	7.29252	1 Jan 1999
Estonian kroon	15.6466	± 15	17.9936	13.2996	28 Jun 2004
Lithuanian litas	3.45280	± 15	3.97072	2.93488	28 Jun 2004
Latvian lats	0.702804	± 15	0.808225	0.597383	2 May 2005

Source: European Central Bank.

Table 13. Banknotes sorted at the Bank of Finland, number in millions

Euro banknotes		2005	2006	2007	20081	2009	2010
500	euro	1.6	1.5	1.7	2.4	2.1	1.9
200	"	1.3	1.2	1.2	1.3	1.3	1.2
100	"	5.4	5.2	5.7	6.8	6.5	6.8
50	"	76.5	79.6	83.9	86.6	84.5	84.3
20	,,	179.3	180.7	191.3	188.4	177.5	176.3
10	,,	32.2	31.1	32.0	40.0	42.4	40.9
5	"	39.6	38.8	39.0	49.2	52.8	48.3
Total		335.9	338.1	354.7	374.7	366.9	359.6

Deductions from 2008 figures mainly accounted for by banks' own sorted banknote packages, intended for use in ATMs, returned to the same cash handler and not sorted by the Bank of Finland.
Source: Bank of Finland.

## Organisation of the Bank of Finland

11 March 2011

### PARLIAMENTARY SUPERVISORY COUNCIL

Timo Kalli, Chairman, Antti Kalliomäki, Vice Chairman, Pekka Ravi, Tanja Karpela, Martti Korhonen, Mika Lintilä, Marja Tiura, Jutta Urpilainen, Ben Zyskowicz

Anton Mäkelä, Secretary to the Parliamentary Supervisory Council

### BOARD

### Erkki Liikanen Governor

Monetary policy preparation and implementation, domestic economic policy, membership of the Governing Council and General Council of the ECB.

Member of the Board to whom the Heads of the General Secretariat, Banking Operations, and Internal Audit report.

Arno Lindgren, Secretary to the Board

### Pentti Hakkarainen Deputy Governor

Financial stability issues, currency supply services, financial administration and procurement, risk control, Chairman of the Board of the Financial Supervisory Authority.

Member of the Board to whom the Heads of Financial Stability and Statistics, and Currency report.

### **Seppo Honkapohja** Member of the Board

Research, investments of financial assets, administration.

Member of the Board to whom the Heads of Monetary Policy and Research, and Administration report.

### **DEPARTMENTS**

Monetary Policy and Research Tuomas Saarenheimo	<ul><li>Forecasting</li><li>International and Monetary Economy</li><li>Information Services</li></ul>	Institute for Economies in Transition (BOFIT)	Research
Financial Stability and Statistics Kimmo Virolainen	Macroprudential Analysis     Oversight of Market Infrastructure	Statistics  • Balance of Payments  • Financial Statistics	• Information Management
Banking Operations Harri Lahdenperä	Market Operations	• Investments	Payment and Settlement Division
Currency Mauri Lehtinen	Regional Offices     Kuopio, Oulu,     Tampere, Vantaa	Currency Operations     Division	Currency Technology Division
General Secretariat Antti Suvanto	Communications European and International Affairs Legal Affairs	Strategy and Organisation	Senior Secretarial Staff
Administration Pirkko Pohjoisaho-Aarti	<ul> <li>Financial Administration and Procurement</li> <li>In-House Services</li> <li>Language and Publication Services</li> </ul>	Personnel     Risk Control	Information Technology Security and Property Management
Internal Audit Erkki Kurikka			

The Financial Supervisory Authority, headed by Anneli Tuominen, operates in association with the Bank of Finland.

