



# BANK OF FINLAND ANNUAL REPORT 2015

Monetary policy enhanced through  
extensive asset purchases

Performance of Finnish economy  
still subdued

Digitalisation reshaping payments  
landscape







# **Bank of Finland Annual Report 2015**

*Front cover photo by Peter Mickelsson*

*The head of the Bank of Finland's Cash Department, Päivi Heikkinen, participated in a panel debate at the joint Bank of Finland / European Central Bank conference held at the Finlandia Hall in June.*

# Bank of Finland

Established 1811

## Street address

Snellmanin aukio, 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

## Regional offices

### Vantaa

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

### Oulu

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

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*Photo: Peter Mickelsson.*

# Foreword

Euro area monetary policy was significantly reinforced at the beginning of 2015. Inflation expectations were becoming ever more subdued and market expectations regarding the risk of deflation had increased towards the end of 2014. In January 2015, the Governing Council of the ECB decided to expand the asset purchase programme to also include bonds issued by euro area central governments, government agencies and European institutions. The purchase programme was linked to strong forward guidance, according to which purchases will be continued until there is a sustainable adjustment in the path of inflation to levels consistent with the objective of below, but close to, 2%. In implementing the expanded programme (EAPP), the Bank of Finland has played a key role alongside the other national central banks.

The EAPP is historic in its scale and rests on the ECB's monetary policy mandate. It has had a substantial impact on financial conditions and the real economy. The additional decisions taken in December, by which the duration and extent of the purchase programme were increased, expressed the wish to further bolster recovery in the euro area and ensure it would not be impeded by disruptions in the global economy.

Another historic step was taken when the Governing Council began to publish regular accounts of monetary policy meetings, starting with the January 2015 meeting. These accounts will allow the public and market participants a comprehensive view of the analysis underpinning monetary policy and the arguments and counter-arguments behind the decisions. Publishing accounts of the meetings is a new step forward in transparency by the ECB. Ever since it was established, the ECB has organised a press conference after each monetary policy meeting, at which the President of the ECB has answered questions from the press on monetary policy issues.

2015 saw a change of focus in the global economy. Growth slowed in the

emerging economies, while the advanced economies recovered, if only sluggishly. The slower growth in China was expected but nevertheless caused considerable uncertainty on the markets, especially in late August. The US economy continued to grow, and in December the Federal Reserve raised its key policy rate for the first time since the financial crisis.

Finland's economic performance has continued to be lacklustre. The Bank of Finland made the assessment that to overcome the difficulties in the Finnish economy will require action in three distinct areas. Firstly, Finland's cost-competitiveness must be improved. Secondly, the upward trend in public debt must be halted with the help of consolidation measures. A third and very important area for action is with regard to structural reforms to boost productivity, competition and labour supply. Such reforms can improve both the preconditions for economic growth and the long-term sustainability of the public finances.

Digitalisation will increase opportunities for economic growth, make payments and the financial system as a whole more efficient and foster improvements in the productivity of organisations. Bank of Finland experts have been actively involved in the digitalisation debate in all three areas.

During 2015, the Bank's communications entered the digital age as all publications were transferred to the net. Moreover, the Bank's communications experts have participated in social media much more than before. The aim has been to communicate the message in a more concise way without compromising quality, while simultaneously increasing interactivity. At the same time we have sought to reach new audiences.



Erkki Liikanen  
Governor  
24 February 2016

# Bank of Finland

The Bank of Finland is Finland's national central bank and a member of the Eurosystem. The Eurosystem comprises the European Central Bank and the national central banks of the 19 Member States of the European Union that have adopted the euro as their single currency.

The Bank of Finland's status is defined in the Finnish constitution. In Finland, the central bank is an independent institution governed by public law that operates under the guarantee and care of Parliament. Supervision of the Bank's activities is undertaken by the nine-member Parliamentary Supervisory Council, appointed by Parliament.

The Bank of Finland was established in 1811 and has operated under the auspices of the Diet of Finland (later the Parliament) since 1868. Finland's accession to the euro area took place at the beginning of 1999.

The core functions of the Bank of Finland include participation in the preparation of the euro area single monetary policy, operative central bank tasks, maintenance of the currency supply and supervision of financial market stability.

Euro area monetary policy is decided by the Governing Council of the European Central Bank, of which the Governor of the Bank of Finland is a member. Experts from the Bank of Finland support the Governor's activity on the Governing Council and participate in preparation of the single monetary policy in the various committees of the European System of Central Banks.

Within the Eurosystem, national central banks are responsible for the conduct of monetary policy on a decentralised basis. The Bank of Finland implements Eurosystem monetary policy operations with banks operating in Finland. It also

offers banks a variety of central bank services relating to interbank payments, central bank deposits and overnight liquidity against eligible collateral assets. The Bank of Finland's tasks also include prudent and productive investment of its own financial assets, such as the foreign reserve portfolio.

As part of the currency supply function, the Bank of Finland is responsible for the issuance of cash in Finland and for its quality and availability. The Bank has two regional offices for the management of currency supply: one in Oulu and one in Vantaa.

The Bank of Finland is responsible for safeguarding the stability of the Finnish financial markets in cooperation with the Financial Supervisory Authority (FIN-FSA) and the Ministry of Finance. FIN-FSA, which is Finland's national authority for financial and insurance supervision, operates in connection with the Bank of Finland but is independent in its decision-making. It is part of the European Single Supervisory Mechanism, which supervises euro area banks under the direction of the European Central Bank.

In 2015, the Board of the Bank of Finland comprised Governor Erkki Liikanen, Deputy Governor Pentti Hakkarainen and Member of the Board Seppo Honkapohja. FIN-FSA has a Board of its own, chaired by Pentti Hakkarainen, Deputy Governor of the Bank of Finland.

At the end of 2015, a total of 378 staff were employed in the Bank of Finland's head office in Helsinki and the regional offices in Oulu and Vantaa. The Bank of Finland and FIN-FSA together employed 568 persons in all. FIN-FSA produces its own annual report.



Photo: Peter Mickelsson.



Photo: Peter Mickelsson.

# Bank of Finland activities 2015

## Monetary Policy

### The ECB's monetary policy and its preparation

*The main objective of the Eurosystem's monetary policy is to maintain price stability in the euro area. The Governing Council of the ECB has defined this objective as meaning, in practice, that the year-on-year increase in consumer prices should be below, but close to, 2% over the medium term. Monetary policy can also support other economic policy objectives of the EU as long as the objective of price stability is not jeopardised.*

As a member of the ECB Governing Council, the Governor of the Bank of Finland participated in monetary policy decision-making in 2015, as usual. Experts from the Bank of Finland contributed to the preparation of monetary policy decisions and carried out other background work. They also lent support to the preparation of Governing Council meetings in the context of the Eurosystem's Monetary Policy Committee and Market Operations Committee.

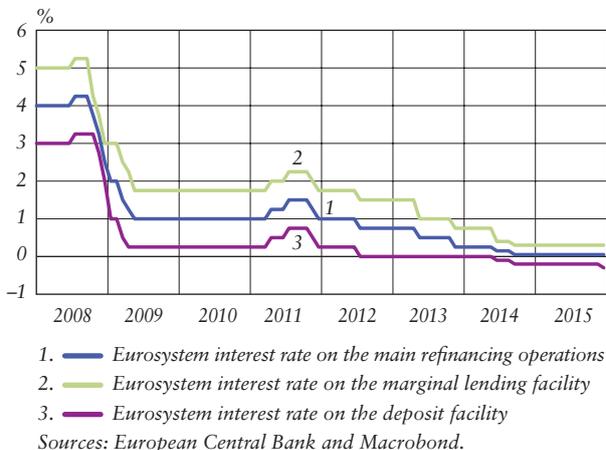
2015 was an historic year for the ECB from a monetary policy perspective. In January, a decision was made on an expanded asset purchase programme, under which combined monthly purchases of assets amounting to EUR 60 million have

been conducted since March 2015 (for more information on the programme, see Box 2). The positive turnaround in euro area economic growth strengthened throughout the year. Nevertheless, the uncertainty that began in the summer, the decline in the price of oil and deterioration in the world economic outlook led to a renewed weakening of inflation expectations. Consequently, in December, the Governing Council decided on further monetary policy accommodation. The interest rate on the deposit facility was lowered deeper into negative territory and the duration of the expanded asset purchase programme was extended.

### Historic decision at the beginning of the year: expanded asset purchase programme

At its final meeting of 2014, the Governing Council announced its intention to reassess the need for potential further measures in monetary policy implementation immediately at the beginning of 2015. In January, inflation expectations continued to subside and market expectations began to increasingly see a threat of a deflationary spiral. In September 2014, the Governing Council had decreased policy rates to their lowest levels in euro area history (Chart 1). The interest rate on the main refinancing operations was at 0.05% and the rate on the deposit facility was negative, at -0.20%. However, the further decline in inflation expectations pushed up the real interest rate, which unintentionally tightened the stance of monetary policy. At its meeting on

**Chart 1.**  
Eurosystem policy rates



22 January 2015, the Governing Council responded to increased expectations of additional measures and decided to expand the asset purchase programme launched the previous year.

The expanded asset purchase programme (EAPP) encompassed the purchases of asset-backed securities and covered bonds already launched in October and November 2014. In January, the Governing Council decided to broaden the scope of the purchases to also cover bonds issued by euro area sovereigns and state agencies, and supranational European institutions. It was decided to purchase public and private sector assets to a total of EUR 60 billion a month, starting in March 2015. At the same time, a decision was made to continue these purchases until at least September 2016, or beyond, if necessary, as a result of which the total amount of the purchases grew to at least EUR 1,140 billion.

A key role in the January decisions was assigned to forward guidance, under which the purchase programme was tied to the ECB's inflation target. It was announced that purchases would be conducted until the Governing Council saw a sustained adjustment in the path of inflation consistent with the aim of achieving inflation rates below, but close to, 2% over the medium term.

The operational modalities of the EAPP became clear at the March monetary policy meeting, and the programme was launched on 9 March. Government bonds are purchased on the secondary market according to the 'capital key', i.e. relative to the size of the Member State's economy. National central banks mainly purchase securities issued by their own governments. Purchases focus on euro-denominated, investment-grade government bonds with a maturity of 2–30 years. Moreover, it was outlined that the Eurosystem may have in its possession at most 25% of an individual issuer's bonds and a maximum 33% of each issue.

In accordance with the decision of the Governing Council, 80% of public sector

asset purchases are conducted in such a way that national central banks assume responsibility for the risks involved, while the risks are shared among the central banks in respect of the remaining 20%. Of the purchases under the regime of risk sharing, 12% are purchases of bonds issued by European institutions and 8% the ECB's purchases of bonds issued by all central governments and government-related bonds.

At its January meeting, in addition to the expanded asset purchase programme, the Governing Council changed the terms and conditions of the six targeted longer-term refinancing operations (TLTROs) not yet carried out. Under these operations, credit institutions are granted long-term collateralised credit and are encouraged to lend to the private sector. Such operations are being conducted on a quarterly basis until June 2016, with the amounts borrowed maturing in September 2018. The interest rate on future TLTROs will be fixed at the rate on the Eurosystem's main refinancing operations prevailing at the time of take-up. A fixed spread of 0.10 of a percentage point was applied to the first two TLTROs.

#### **Governing Council January decision reassures market participants**

The weakening of inflation expectations came to a halt in January in response to the Governing Council's announcement of the EAPP. In February, short-term inflation expectations, in particular, rose strongly. A renewed strengthening of expectations was seen in early April, when short-term inflation expectations already approached the levels observed at the beginning of 2014. The abatement of longer-term inflation expectations also stalled towards the end of January, although expectations remained a few tenths of a percentage point weaker.

Following the announcement of the EAPP, government bond yields remained at record low levels. In March, after the launch of the purchase programme, bond yields continued to decline. Yields on many

governments' debt instruments with short maturities fell, entering negative territory. In May, however, interest rate developments normalised in a certain respect. The interest rate correction was triggered by the rise in the world market price of oil, the acceleration of euro area inflation in April to zero and the positive outlook for private sector credit.

The strongest impacts of the EAPP on the euro's exchange rate were seen ahead of both the announcement and the launch of the programme. After April, the trade-weighted exchange rate of the euro strengthened, while still remaining much weaker than the previous year. The change of course in the economy showed signs of gathering momentum. Various sectors' confidence indicators pointed to an incipient strengthening of confidence and rose to higher levels than their longer-term averages.

The expanded asset purchase programme also improved the economic outlook for the euro area. The March 2015 ECB staff macroeconomic projections revised upwards the euro area GDP growth estimate for 2015 by 0.5 of a percentage point, to 1.5%. In December 2014, 1% growth had been projected. IMF and OECD forecasts also predicted an improvement of several tenths of a percentage point in euro area growth following the commencement of the EAPP. The June 2015 Eurosystem staff macroeconomic projections kept the GDP growth estimate at 1.5%.

#### **In the summer, uncertainty increased, adding to downside risks**

At the end of June 2015, the temporary breakdown of Greek loan negotiations increased uncertainty in the euro area. However, compared with the previous market turbulence originating in Greece in 2011–2012, the contagion effects on the markets were this time much more moderate. The euro area was already in a better shape economically and, in addition, via its forward guidance the Governing Council could convince the markets that

there was a commitment to do whatever it takes to stabilise the situation.

In late summer, the slowdown of economic growth in China led to the markets revising down their estimates of the Chinese growth outlook, which had remained strong. The Shanghai stock index collapsed, and the uncertainty spread quickly to major economic regions worldwide. The deceleration in Chinese growth, in combination with falling commodity prices, added to uncertainty and worsened growth prospects for other emerging economies, too. The price of oil embarked on a renewed fall in June, and this time there was much more cause found also on the demand side. The September 2015 ECB staff macroeconomic projections revised down the euro area GDP growth estimate by 0.10 of a percentage point, foreseeing 1.4% growth for 2015.

At its September meeting, the Governing Council responded to the downside risks. It decided to increase the public sector purchase programme's issue share limit from 25% to 33%, excluding situations whereby the Eurosystem could have blocking minority power. This served to increase the range of securities eligible for purchase. Moreover, the Governing Council emphasised its willingness and ability to act, if warranted, by using all the instruments available within its mandate to support economic activity. Particular emphasis was placed on the flexibility of the purchase programme. The programme can be adjusted in terms of its size, composition and duration, as necessary.

By the October meeting, the situation had changed little since late summer. Euro area domestic demand was still strong, but growth prospects for the emerging economies remained weak. Financial and commodity market developments were seen to reflect features that threatened to impair euro area economic activity. The introductory statement from the Governing Council's October meeting openly stated that the degree of monetary policy accom-

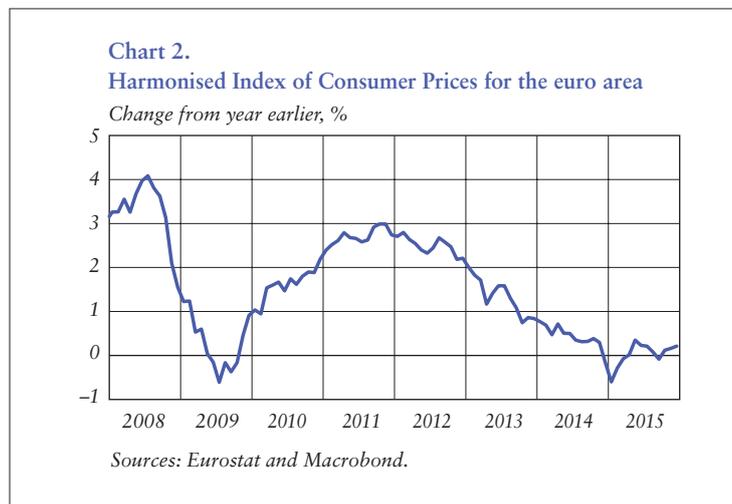
modation would be re-examined at the December monetary policy meeting, when the new Eurosystem staff macroeconomic projections for the euro area would be available. Thus, the December meeting was charged with great expectations. This was also noticeable on the markets. Inflation expectations strengthened discernibly across the board (Chart 2). The euro depreciated, stock prices rose and interest rates fell.

### Release of accounts of monetary policy discussions increases transparency

In December 2014, the Governing Council of the ECB made a decision on increasing transparency concerning monetary policy decision-making, starting from the beginning of 2015. The Bank of Finland has strongly supported a higher degree of transparency. To this end, accounts of monetary policy discussions were introduced, which provide a brief overview of Governing Council members' monetary policy discussions at their meeting. Given that the remit of the ECB's mandate has broadened during the crisis and the central bank has adopted new monetary policy instruments, it is increasingly important to provide the public and the markets with more information on the rationale behind the decisions taken. Consequently, the aim of publishing this information is to clarify the background to the decisions. The accounts offer a more comprehensive reflection than previously of the Governing Council's assessment of current and future economic trends.

The accounts are always published four weeks after the Governing Council meeting. The first account, covering the January meeting, was published on 19 February 2015. As monetary policy meetings are held according to a six-week cycle, eight accounts are released per year.

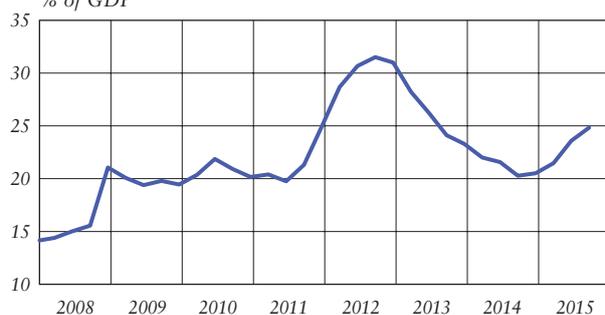
Each account deals first with an economic and market review provided by the members of the Executive Board of the ECB to the Governing Council, which is followed by a presentation of policy



options. The account then includes a summary of Governing Council deliberations on economic and monetary developments. As the account records the discussion on monetary policy, arguments for and against a decision and potential reservations will be covered. In order to ensure the independence of Governing Council members, no individual members are cited in the accounts. The first six accounts published during the year did not offer any surprises, but rather shed further light on the public statements by the Governing Council. The accounts are thus seen as tools in support of communication and capable of acting as 'market drivers' in a manner similar to the minutes of the meetings of the US Federal Reserve's Open Market Committee.

The impact of the account of the October interest rate meeting, in particular, was reflected in market perceptions. The account was released a couple of weeks before the year's last, i.e. December, interest rate meeting. It revealed that additional monetary stimulus measures were already under serious consideration in October. This further heightened expectations of more stimulus to be decided at the December meeting.

**Chart 3.**  
Eurosystem balance sheet  
% of GDP



Sources: European Central Bank and Macrobond.

### Monetary policy stance further eased in December

At its meeting on 3 December, the Governing Council had at its disposal the new Eurosystem staff macroeconomic projections for the euro area. GDP growth data remained largely the same as in the September projections, but the inflation outlook was revised slightly down. On the other hand, the monetary policy measures already taken had exerted desired effects. Borrowing by non-financial corporations and households had become easier and financing conditions had improved. This reinforced the requirement that a sustained adjustment in the path of inflation consistent with the objective of price stability be more clearly supported by monetary policy measures.

The monetary policy stance was further eased at the December meeting. The interest rate on the deposit facility was lowered by 0.10 of a percentage point, to -0.30%. The rates on the main refinancing operations (0.05%) and on the marginal lending facility (0.30%) were kept unchanged. The main refinancing operations and three-month refinancing operations were to be conducted as fixed rate tender procedures with full allotment until at least the end of 2017.

The duration of the EAPP was lengthened and its composition broadened. It was decided to extend the monthly purchases of EUR 60 billion by six months so as to run until at least March 2017. Accordingly, the purchase programme will increase in size to at least EUR 1,500 billion instead of the previous EUR 1,140 billion. The purchase programme was also enlarged so as to include marketable debt instruments issued by regional and local governments. The volume of asset purchases will also grow as a result of the decision to reinvest the principal payments on the securities purchased under the programme as they mature. This will contribute to maintaining an appropriate monetary policy stance and favourable liquidity conditions over a longer period of time (Chart 3).

By its decisions taken in 2015, the Governing Council has managed to significantly ease financial conditions in the euro area. The asset purchases have directly brought down long-term interest rates, while lowering the interest rate on the deposit facility has cut the shortest market rates. The private sector's funding costs have diminished and access to credit has improved. All this supports developments in the real economy and contributes to a return of inflation rates towards the price stability objective. In December, the Governing Council further underlined that it is willing and able to act by using all the instruments available within the ECB's mandate in order to maintain an appropriate degree of monetary accommodation.

During the year, the Governing Council also emphasised on several occasions that monetary stimulus alone is insufficient. Structural reforms are needed to strengthen sustainable economic growth and increase potential output. In addition, fiscal policies should support growth, while remaining in compliance with the Stability and Growth Pact. In order to reap the full benefits from the monetary policy measures, decisive action in other areas of economic policy will also be needed.

Box 1.

## Working group deliberated on EMU development needs

At the end of August 2015, Minister of Finance Alexander Stubb set up a working group to assess development needs in respect of European Economic and Monetary Union (EMU). Antti Suvanto, Adviser to the Board of the Bank of Finland, was invited to chair the group. The Bank of Finland's representative in the 8-member working group was Tuomas Välimäki, Head of Monetary Policy and Research. The working group submitted its report to Minister Stubb in early October.

The working group outlined two alternative visions for the development of EMU: 'an EMU based on centralised governance' and 'an EMU based on market discipline'. In each vision the relationship between power and responsibility creates a foundation for democratic acceptability.

In an EMU based on centralised governance, the supervision and control of Member States' fiscal and economic policies is strengthened. This would entail increasing joint – albeit limited – liability for Member States' risks and stability. To ensure that competence and responsibility would remain in the same hands, fiscal policy governance would require common resources, the deployment of which would be subject to joint decision-making at Union level.

The provision of some fiscal policy leeway or a cyclical stabilisation mechanism could, in the working group's opinion, be a desirable trend in terms of the stability of Member States and the euro area as a whole. A critical question is how the power over the use of such common resources could be exercised in a manner that enjoys adequate democratic acceptability.

An EMU based on market discipline builds on each Member State's full ownership of its own economic policies and their consequences. When responsibility for the exercise of a well-disciplined fiscal policy lies clearly at national level, the issues relating to the legitimacy of decision-making are naturally resolved through national decision-making processes. Fiscal policy

accountability is supported by market discipline and national fiscal policy rules with their compliance-monitoring institutions.

Market discipline strengthens when it is clearly communicated in advance that private creditors will suffer the loss of a significant part of the value of their assets in a potential restructuring of an insolvent sovereign. The threshold to debt restructuring is lowered if efforts to break the bank-sovereign feedback loop are successful. This is the aim of the completion of Banking Union.

The working group adopted a positive stance to the completion of Banking Union in a manner that would, in time, also include a single European deposit insurance scheme. Banking Union is compatible with both EMU visions.

The creation of a Capital Markets Union is an important initiative that promotes an effective single market. It will diversify the funding sources for SMEs, in particular, and reduce the predominant role of banks on the financial markets. A deepening and more decentralized capital market serves to dilute the effects of country-specific disruptions on domestic demand.

The working group underlined that the choice between the two visions does not constitute a statement in favour or against deeper integration, increasing joint liability or evolution towards a federal system. Integration can progress through development of the single market or harmonisation of corporate taxation and bankruptcy legislation, to achieve higher capital market efficiency. This will not entail increasing joint liability.

Joint liability may mean insurance-type risk-sharing, where joint liability is basically priced in such a way that each party bears the portion of the costs that corresponds to the protection it receives. This type of joint liability is compatible with an appropriately designed Banking Union. It does not require any support from federal developments. In turn, federal structures may be built without generating permanent fiscal transfers between Member States.

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

The Eurosystem implements the monetary policy decisions of the ECB Governing Council with the help of an operational framework that includes market operations, standing facilities and a minimum reserve system.

In 2015, the key monetary policy tools were outright transactions, which the Eurosystem conducted on the markets for government bonds, covered bonds and asset-backed securities. The Eurosystem also continued its traditional monetary policy operations, i.e. collateralised refinancing operations with different maturities.

The Bank of Finland is responsible for national implementation of the Eurosystem's single monetary policy. Credit institutions located in Finland hold current accounts with the Bank of Finland and participate in monetary policy operations through the Bank. In addition, the Bank of Finland carries out its own share of the Eurosystem's outright transactions.

### Monetary policy relaxed further: excess liquidity increased considerably

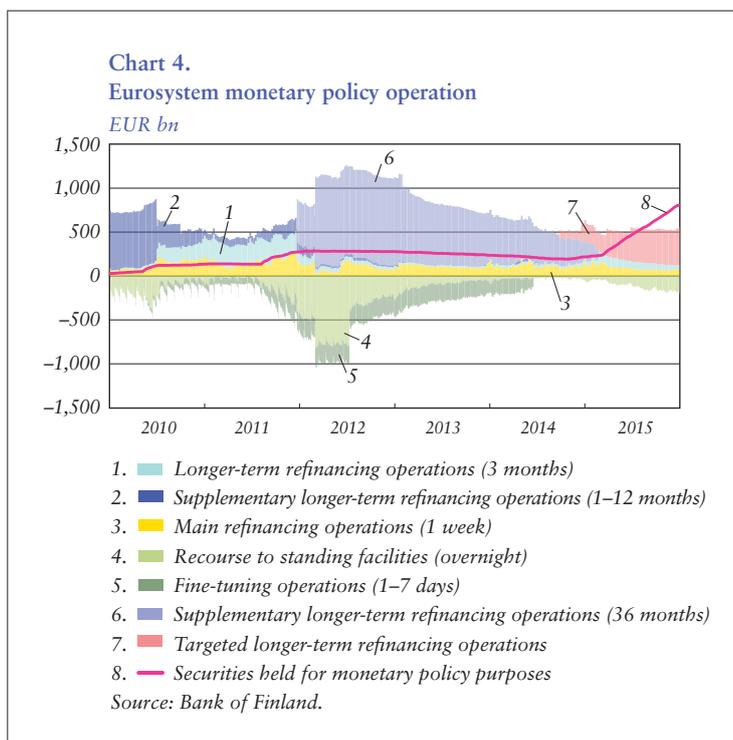
The Governing Council continued to relax its monetary policy in 2015. For more details on the measures, see 'The ECB's monetary policy and its preparation' on page 11 and Box 2, on page 18.

The expanded asset purchase programme (EAPP) substantially increased

the amount of securities held by the Eurosystem for monetary policy purposes (Chart 4). At the same time, it increased the amount of excess liquidity in the euro area banking system. At the end of 2014, excess liquidity amounted to EUR 200 billion, but during 2015 the amount steadily grew to more than EUR 600 billion (Chart 5).

Above all, liquidity expanded due to the Eurosystem's non-standard monetary policy measures. The monthly purchases of securities increased the amount of liquidity by EUR 60 billion, and during the year the amount of lending allocated through the targeted longer-term refinancing operations (TLTROs) also increased, to a total of EUR 418 billion (Chart 4).

Alongside its non-standard measures, the Eurosystem continued to conduct its main refinancing operations and regular three-month longer-term refinancing operations as fixed-rate tenders with full allotment. The increased liquidity due to the purchase programme and the TLTROs was counterbalanced by the steadily decreasing amount of financing allocated in these standard refinancing operations (Chart 4). However, the amount did slightly increase in February 2015, when the last of the supplementary three-year longer-term refinancing operations implemented in 2012 matured. The banks reacted by temporarily increasing the amount of financing through standard operations, but the amount of



Box 2.

## Implementation of ECB purchase programmes at the Bank of Finland

As with previous monetary policy asset purchase programmes, the Bank of Finland was also involved in implementation of the purchase programmes launched by the ECB in 2014 and 2015. Here we describe the Bank of Finland's involvement in the new expanded asset purchase programme (EAPP), which comprises three component programmes: 1) a public sector purchase programme, 2) an asset-backed securities purchase programme and 3) a third covered bond purchase programme.

### Public sector asset purchase programme

Under the public sector asset purchase programme (PSPP), the ECB and national central banks will purchase euro-denominated bonds of sovereigns, state agencies and supranational European institutions. In line with the decision of the ECB Governing Council, 80% of purchases under the PSPP will be at the individual national central banks' own risk and for the other 20% the risks will be shared among the central banks collectively. Of the shared-risk purchases, 12% of total purchases under the programme will consist of supranational European institutions' debt securities and 8% of all countries' government bonds and state agencies' debt securities, which the ECB will purchase. Thus, the Bank of Finland will purchase only Finnish debt securities at its own risk.

The Bank of Finland purchases debt securities issued by the Finnish government and programme-approved debt securities of Finnish state agencies (Finnvera and the Unemployment Insurance Fund) in accordance with the capital key, i.e. relative to the size of the Member State's (Finland's) economy.

At the end of 2015, the total value of the PSPP stood at EUR 494.9 billion. Purchases of Finnish debt securities by the ECB and the Bank of Finland totalled a combined EUR 8.09 billion. On average, the Eurosystem purchased Finnish debt securities to a value of around EUR 800 million per month. At the

end 2015, the Bank of Finland's share of these purchases stood at EUR 7.3 billion, as indicated on the Bank's balance sheet.

### Practical implementation of the PSPP at the Bank of Finland

The ECB coordinates purchases between the national central banks on a daily basis. In the Bank of Finland, purchases are the responsibility of a purchase team within the Banking Operations Department, with activities separated from investment of the Bank's own assets. The Bank of Finland purchases only Finnish debt securities included within the programme at its own risk. Trades are conducted primarily within an electronic trading system with the Bank's domestic and foreign securities trading counterparties.

Purchases within the PSPP are conducted only on the secondary market, as direct funding of euro area countries is prohibited by the Treaty on the Functioning of the European Union. Trades are timed so as not to coincide with government bond auctions or new issues, so the Eurosystem can avoid influencing the results of said auctions and new issues.

The purchase programme aims to be market neutral, meaning that, in their transactions, the central banks take into account factors such as the prevailing prices of securities, their availability and the market levels of repurchase agreements. From the perspective of purchase programme implementation, the market liquidity of Finnish government bonds remained fairly good throughout the year.

In order to bolster market liquidity, most Eurosystem central banks offer securities lending on their purchased debt securities. The Bank of Finland's PSPP holdings can be borrowed via Euroclear's securities lending and borrowing programme. Moreover, the Bank of Finland's securities trading counterparties participating in the PSPP can also

borrow securities bilaterally through repurchase agreements. Information on securities that can be borrowed is published on the Bank of Finland website each week.

### Third purchase programme for covered bonds

The current covered bond purchase programme (CBPP3) is the third in the series. The Bank of Finland also participated in implementation of the first two programmes. CBPP3 was launched in October 2014, and by the end of December 2015 the Bank of Finland's purchases under the programme totalled EUR 2.5 billion.

The ECB coordinates purchases on a daily basis, and the purchases themselves are conducted on a decentralised basis within the Eurosystem. National central banks specialise in covered bonds from different countries. The risks attendant on the purchases are borne jointly. The Bank of Finland participates through purchases of Finnish banks' euro-denominated covered bonds. Purchases are conducted on both primary and secondary markets, meaning that – in contrast to the PSPP – under the CBPP3, debt securities are also purchased from new issues. Purchases on the primary market further programme implementation, particularly as covered bonds are less readily available on the secondary markets than e.g. government bonds.

### Purchase programme for asset-backed securities

The asset-backed securities purchase programme (ABSPP) was launched in

November 2014. The Eurosystem is independently responsible for all purchase decisions, but execution was initially outsourced to four asset managers and one Eurosystem national central bank.

In September 2015, the Governing Council decided to extend the agreement with two external asset managers and concentrate a larger proportion of purchases on two Eurosystem national central banks. The decision was consistent with the original objective of gradually transferring execution of purchases to Eurosystem central banks. The Bank of Finland does not execute purchases, but does participate in purchase decisions. Programme risks are spread across the national central banks.

### Amounts of debt securities purchased under the programmes, and their publication

The ECB announces on its website each week and month the amounts of debt securities purchased under the programmes across the Eurosystem as a whole. In connection with the monthly amounts under the PSPP, the ECB also indicates the distribution of purchases by country and the average maturity of purchases. For the CBPP3 and ABSPP, only the distribution between primary and secondary markets is indicated without a country-by-country breakdown.

The Bank of Finland's purchases under the different programmes are indicated on the Bank's balance sheet. The attached table presents the purchased amounts published by the ECB and the Bank of Finland for 2015.

Table.

### Amounts of debt securities purchased by the Eurosystem and the Bank of Finland under the different purchase programmes

<i>Purchases as published by the ECB and the Bank of Finland (31 Dec 2015, EUR million)</i>	<i>PSPP</i>	<i>CBPP3</i>	<i>ABSPP</i>
<i>Amount for programme as a whole<sup>1</sup></i>	494,930*	143,340**	15,322**
<i>Amount of Finnish debt securities (purchases by Bank of Finland and ECB)<sup>2</sup></i>	8,086*	Not published	Not published
<i>Bank of Finland purchases<sup>3</sup></i>	7,303**	2,538**	–

\* Book value.

\*\* Amortized cost.

Sources: European Central Bank (1 and 2) and Bank of Finland (3).

financing allocated through these operations trended downwards after their growth peaked in February.

The amount of financing allocated in the weekly main refinancing operations settled at about EUR 70 billion towards the end of 2015. The amount of outstanding credit allocated in the monthly refinancing operations with a maturity of 3 months increased during the year from EUR 50 to 100 billion, but returned to its original level in December 2015. The one-week dollar-denominated refinancing operations were also continued. The amount of liquidity allocated in these varied between zero and USD 925 million.

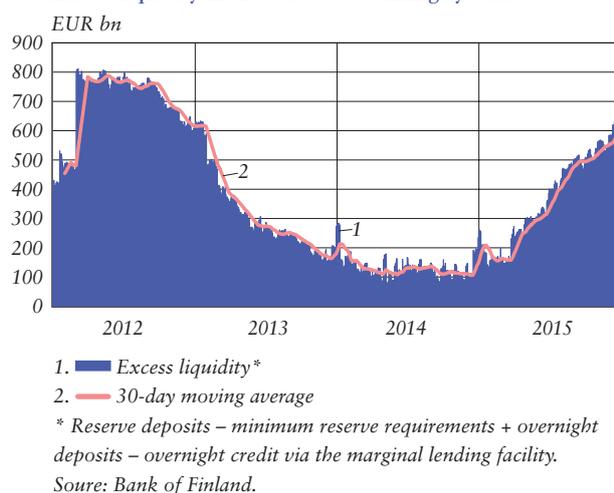
Net use of the standing facilities (marginal lending facility minus deposit facility) turned clearly negative when the growing liquidity led some banks to increase their overnight deposits with the central bank. The negative rate on the deposit facility means that banks have to pay the Eurosystem for their overnight deposits and current account deposits in excess of the minimum reserve requirements. A negative deposit rate can also be applied to deposits by customers not involved in monetary policy.

#### Amount of collateral provided to the central bank decreased

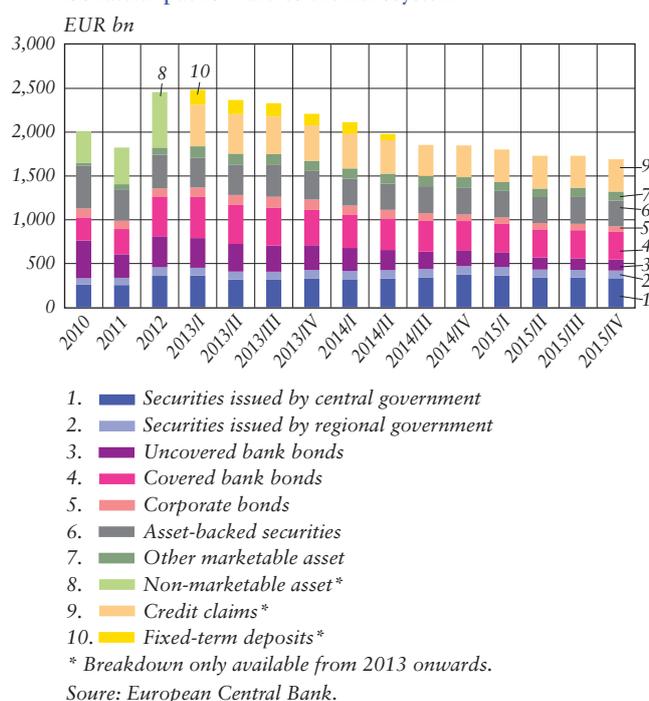
Central bank credit requires adequate collateral from the counterparty banks. Eligible assets should fulfil the Eurosystem eligibility criteria, and certain risk management measures and rules regarding the use of assets as collateral are applied.

Both the eligibility criteria and risk management measures have been adjusted several times during the financial crises. The aim of the measures has been to ensure sufficiency of collateral, but at the same time there has been a need to guard the Eurosystem against the risks involved in central bank credit provision. However, during 2015 no major adjustments of the collateral provisions were required.

**Chart 5.**  
Excess liquidity in the euro area banking system



**Chart 6.**  
Collateral put forward to the Eurosystem



The total amount of collateral submitted to the Eurosystem continued to shrink, declining from an average of EUR 1,950 billion in 2014 to about EUR 1,750 billion (Chart 6). The total amount of collateral decreased particularly in the first months of 2015 following maturity of the three-year refinancing operations.

Total collateral assets are used to cover the monetary policy refinancing operations and the intraday credits granted to the banks for payment service purposes. A large proportion of the provided collateral comprises excess collateral. When the focus in monetary policy implementation had shifted from collateralised lending to securities purchases, counterparties' need to prepare for participation in new refinancing operations decreased, which has also enabled a smaller buffer of additional collateral.

Viewed by type of collateral, the division of collateral provided to the Eurosystem remained fairly unchanged. The most common type of collateral was debt instruments issued by the public sector, i.e.

central and regional government (a total of 25%), the second most common were non-marketable credit claims (21%), and in third place came covered bank bonds (18%).

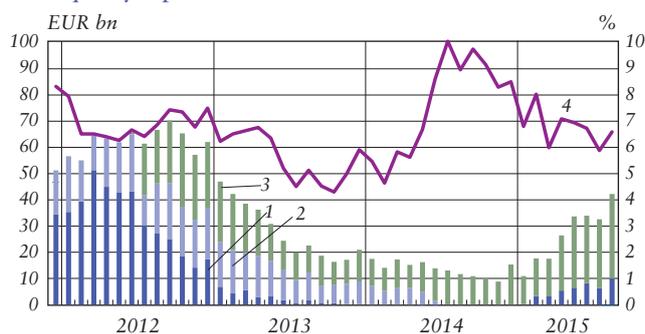
### Bank of Finland counterparties have little need for central bank funding

16 credit institutions located in Finland act as Bank of Finland monetary policy counterparties in refinancing and deposit operations. These institutions are subject to minimum reserve requirements and financial supervision and fulfil the rest of the eligibility criteria for counterparties. The counterparties comprise Finnish banks and Finnish branches of several Nordic banks. In 2015, the Eurosystem more closely specified its requirements for reporting of prudential information on capital, leverage and liquidity ratios for its assessment of the financial soundness of counterparties. They were revised in order to better correspond with the legislation on European banking regulation. The revision did not affect the composition of the group of Bank of Finland counterparties.

As in previous years, the deposits in the central bank by Bank of Finland counterparties were considerable due to the ample supply of liquidity. Negative interest is paid on all deposits exceeding the minimum reserve requirement, regardless of whether the banks transfer their excess funds into the deposit facility or leave them in their current accounts with the central bank. In 2015, the total reserve holdings in excess of the minimum reserve requirement averaged EUR 27 billion in Finland, which was more than EUR 10 billion above the level in 2014 (Chart 5). However, Finland's share of deposits in the whole Eurosystem decreased in 2015. In relative terms, the increasing liquidity surplus in the banking system raised the balances on central bank accounts more in other euro countries than in Finland.

Also as in previous years, Bank of Finland counterparties' need for central bank funding, including the targeted refinancing

**Chart 7.**  
**Liquidity deposited with the Bank of Finland**



1. Use of deposit facility
2. Fixed-term deposits
3. Current account balances exceeding reserve requirements
4. Share in Eurosystem deposits (right-hand scale)\*

\* Includes use of deposit facility, fixed-term deposits and current account balances exceeding reserve requirements (average over reserve maintenance period).

Sources: European Central Bank and Bank of Finland.

operations by the Eurosystem, was very small in 2015. In Finland, the average amount of outstanding monetary policy credits was EUR 670 million, compared with a full EUR 700 million in 2014. During the whole year, only three banks participated in the refinancing operations.

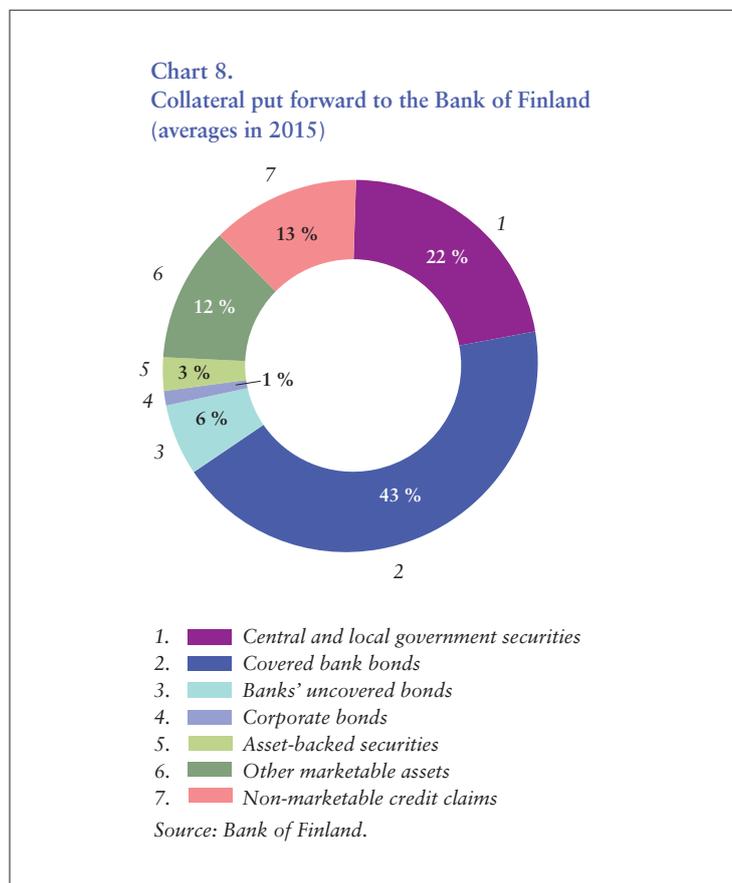
The amount of collateral provided by the counterparties to the Bank of Finland was considerable compared to the amount of refinancing operations, although the total amount decreased by EUR 3 billion to about EUR 21.6 billion during the year. Only an average of 3% of this amount represented collateral for monetary policy credits, 70% covered the limit for intraday credit maintained by banks for handling payment transactions, and the remaining 27% formed a collateral surplus.

The Bank of Finland counterparties still mostly favoured covered bank bonds as collateral. Their proportion of all provided collateral averaged 43% (Chart 8). The second most common collateral was debt instruments issued by central and regional government (a total of 22%), while third came non-marketable credit claims (13%).

### The Bank of Finland and economic policy in Finland

In 2015, the Bank of Finland analysed developments in both the domestic and the global economy and participated in a variety of ways in the economic debate in Finland. The members of the Bank of Finland Board and experts from the Bank were consulted on several occasions by Parliament and also presented assessments in other domestic fora. As is customary, the Bank of Finland also published two forecasts for Finnish macroeconomic developments: the first in June and the second in December.

As in previous years, the Bank of Finland assessment was that overcoming the difficulties in the Finnish economy will require action in three areas. The first of these is structural reform measures to



enhance the preconditions for economic growth and long-term sustainability in the public finances. The second involves consolidation measures to halt the growth in public debt, while the third area comprises measures to improve cost-competitiveness.

The Bank of Finland pointed out that significant progress is needed in all three areas to enable favourable economic developments. Considerable steps have already been taken in the form of pension reform as well as the pay settlement of autumn 2013, which slowed wage growth. Measures have also been implemented to consolidate the public finances. However, these measures have not yet been sufficient.

Finland's GDP was still roughly 7% lower in 2015 than just before the onset of the economic troubles in 2008. The contraction in the economy thereafter has

been due to muted international economic trends, industrial restructuring relating especially to mobile phone production, dwindling working-age population, faster growth in labour costs in Finland than in most other countries and (particularly since 2014) intensification of problems in the Russian economy.

Average labour productivity in Finland has declined since 2008 due to the problems in the economy. The employment situation has weakened, but the unemployment rate is still well below the average for the euro area. There has been a substantial deterioration in the public finances, which now need to be prepared for a growth in the old-age dependency ratio and – partly reflecting this – weak long-term growth prospects.

#### **Continued subdued developments in the Finnish economy**

GDP in 2015 remained broadly unchanged from the previous year. Thus, economic developments in Finland remained weak, since GDP had contracted during the three previous years. There was scarcely any change in export volumes, and investments declined further. Private consumption, for its part, continued to increase, with private consumption relative to GDP reaching a record level in value terms. Industrial production continued to contract, while

services output increased. The unemployment situation weakened further, the unemployment rate rising to around 9.5% of the labour force.

Inflation continued on a downward path, with a fall in the price of energy products and slower growth in wages. Consumer prices were roughly at the same level as the previous year. In the latter part of the year, inflation in Finland fell below the average for the euro area, after having mainly been above the euro area average since 2008.

General government net lending remained negative despite consolidation measures. The relation of general government gross debt to GDP increased to over 60%.

GDP developments in 2015 proved broadly consistent with the Bank of Finland forecast published in December 2014. The forecast of June 2014 had still pointed towards more favourable economic developments. Compared with the December 2014 forecast, exports and private investment showed weaker developments than anticipated, while private investment grew more than projected. In the forecasts published in 2015, the Bank of Finland kept the economic growth forecast for 2016 roughly unchanged from the December 2014 forecast.

Box 3.

### Bank of Finland in domestic economic policy debate

While the Bank of Finland participates in decision-making regarding the monetary policy of the euro area and monetary policy implementation, it also participates in domestic economic policy debate. This is based on the Bank's democratically determined objectives and independence.

The Bank of Finland's statements relating to domestic economic policy are based on objectives set for the Bank and the Eurosystem. According to the Act on the Bank of Finland and the EU Treaties, the primary objective is price stability. Without prejudice to this objective, a further task is to support the EU's general economic policies with a view to achieving the objectives of the Union. These include balanced economic growth.

The law provides the Bank of Finland with a broad independence to act for the achievement of its objectives. One means to this end is participation in domestic economic debate.

The sustainability of the public finances is key to the attainment of price stability and balanced economic growth. Another key factor is the stable evolution of domestic costs.

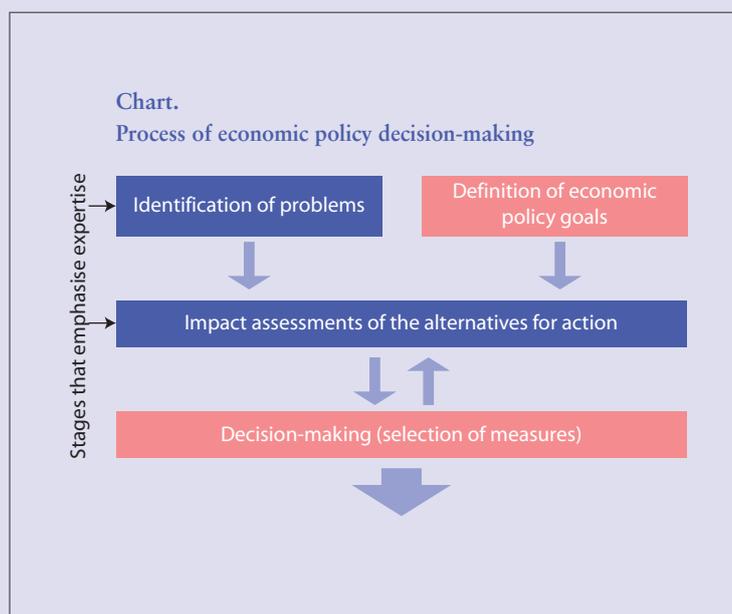
The Bank of Finland assesses extensively the conditions for the achievement of its objectives and the related risks. One key factor is financial stability. When preparing the Bank of Finland's macroeconomic forecast and financial stability assessment, there are often questions that emerge over economic developments and the Bank's objectives and which need to be brought up in the domestic debate.

Economic policy decision-making can be seen as a process where some of the stages emphasise capitalisation of economic expertise and some highlight value-based judgement. The Bank of Finland's participation in the domestic debate concerns

primarily the stages of the decision-making process that require expertise. These stages are the identification of problems and assessment of the potential effects of the alternatives for action (see Chart).

The Bank of Finland regularly evaluates the sustainability of the public finances and cost developments, and the scale of threats thereto. The Bank also estimates the path of fiscal policy, structural reforms and cost level developments that make possible the achievement of the objectives.

The choice of individual fiscal policy measures often encompasses value judgements that the central bank is not mandated to make. Instead, the Bank of Finland assesses how potential structural reforms would affect fiscal sustainability, how potential fiscal policy measures would affect the public finances and what effects labour market decisions would have on cost developments.



The Bank of Finland can also recommend the implementation of individual policy measures if it seems highly unlikely that the objectives will be achieved without them. Such measures include the pension reform agreed by the Finnish Parliament in 2015.

The Bank of Finland's statements are based on expertise. Otherwise they would not be useful in achieving the objectives set for the central bank. The Bank's statements are based on research, international experience or otherwise publicly justified analysis.

*Mika Arola from the State Treasury, Tuomas Välimäki from the Bank of Finland, Mikko Spolander from the Ministry of Finance and Kimmo Virolainen from the Bank of Finland at the opening of the exhibition 'Our mutual debt – government borrowing 1859–2015' at the Bank of Finland Museum in April.*



Photo: Peter Mickelsson.

## Financial system

*The Bank of Finland contributes to the stability of the financial system by identifying and assessing systemic risks to financial stability and by promoting measures for early prevention of such risks both in Finland and at European level.*

*The Governor of the Bank of Finland is a decision-maker on the European Systemic Risk Board (ESRB), an EU body within the European System of Financial Supervisors (ESFS). The ESRB analyses risks to the financial system in the EU and issues warnings and recommendations to national authorities for stability-enhancing measures. The Governing Council of the ECB also deals with issues relating to financial stability. Bank of Finland experts participate in the preparation of these issues and in other background work performed within committees and working groups. This work is undertaken in cooperation with the Financial Supervisory Authority (FIN-FSA).*

*Drawing on the joint analysis and impact assessments of Bank of Finland and FIN-FSA experts, the Finnish macroprudential authority – the FIN-FSA board – took its first decisions on the adoption of macroprudential tools in 2015. In its opinions and assessments, the Bank of Finland emphasised that the decision-makers should be ensured access to a broader toolset to prevent any excessive exuberance and crises on the financial market.*

### Financial stability

The gradual recovery of the euro area economy has bolstered the area's financial stability and strengthened its banking sector. The profitability of euro area banks improved in 2015 from the weak levels witnessed in previous years. The improvement in capital adequacy has strengthened banks' lending capacity and risk resilience.

Notwithstanding the improvement in banks' lending capacity, marked-based and non-bank funding sources have gained in importance, especially for large non-financial corporations. Banks' share of debt financing extended to non-financial corporations in the euro area has dropped by 10 percentage points since the end of 2008, and now stands at 40%.

However, small and medium-sized companies, in particular, still depend on banks as a source of finance. The extensive Action Plan on Building a Capital Markets Union announced by the European Commission in September 2015 is designed to diversify the sources of funding for non-financial corporations and, by extension,

generate investment, jobs and economic growth in Europe.

On the European financial markets, 2015 was calmer than many previous years. Notwithstanding this, strong market fluctuations were caused notably in early summer by the escalation of the political situation in Greece, and from late summer onwards by the rising uncertainty about future developments in the Chinese economy.

Slowing growth in the emerging economies and the substantial level of debt that has been sustained in recent years cause risks to financial stability to build up in the international financial system. In Sweden and Norway, by contrast, concerns have been raised by the high level of household debt and the strong and protracted increase in house prices. The potential emergence of disruptions in these housing markets could also spill over to Finland, not least via the integrated Nordic banking system.

### **Profitability and capital adequacy of banking sector remain good**

Despite several years of subdued performance in the Finnish economy, the profitability and capital adequacy ratios of

Finnish banks have remained good. The low level of interest rates has reduced the relative importance of net financial income in banks' income structure, while the relative importance of securities-related and other income has increased thereby underpinning banks' profitability. However, following the change in income structure, banks' income development has become more exposed to financial disruptions.

The capital adequacy of the banks operating in Finland improved during the course of 2015. At the end of September 2015, Core Tier 1 capital (CET1) stood at 19.6% (12/2014: 15.8%), while the average total capital ratio was 21.6% (12/2014: 17.3%). The ratio of CET1 to own funds was just under 91%, and the quality of own funds continued to be good.

The improvement in capital adequacy ratios reflects capital acquisition and higher retained earnings. Banks have increasingly adopted the Internal Ratings-Based Approach to credit risk, which has contributed to a reduction in risk-weighted assets and an improvement in capital adequacy ratios.

Banks' impairment losses increased slightly in the course of 2015, but the changes have been negligible. In the first half of 2015, loan losses accounted for just 0.1% of the credit portfolio, while at the end of June 2015, non-performing assets amounted to 1.5% of lending with impairments and debt instruments. The capital ratio for the EU over the corresponding period was 5.8%. The non-performing assets of banks operating in Finland are among the lowest in the EU.

The liquidity and funding of banks operating in Finland have remained good. The low level of interest rates notwithstanding, access to deposit funding has remained stable, while access to market funding based on longer maturities has been smooth. The new EU Liquidity Coverage Ratio (LCR) for banks was introduced in October at an initial level of 60%. The full LCR (100%) will become effective at the beginning of 2018.

In addition to the spillover of risks from the international financial markets, the risks to the Finnish financial system relate primarily to the weak performance of the Finnish real economy and the persistent rise in the ratio of household debt to disposable income.

### **Higher growth in stock of private sector lending**

Growth in private-sector interest-bearing debt picked up slightly in 2015. The rate of growth in household lending was somewhat faster in 2015 than the year before. In November 2015, the rate of growth stood at 2.5%, compared with 2.0% a year earlier.

All key items of household debt posted growth. The expansion of the housing loan stock was supported by the wider use of interest-only periods on housing loans and other forbearance arrangements provided by the banks in 2015, as well as by an increase in new housing loan drawdowns.

In November 2015, growth in the stock of housing loans amounted to 2.5%, against just 1.6% a year earlier. The increase in consumer loans and other loans, such as study loans, has been faster.

A shift has taken place in the structure of total housing-related household debt, with the share of housing corporation loans held by households increasing strongly. At the end of September 2015, the volume of housing corporation loans amounted to EUR 14.3 billion, nearly 16% up on a year earlier. They accounted for just over 10% of the household loan stock of EUR 136.3 billion in September, against just under 7% of all household loans five years earlier.

As a consequence of the increase in household debt, the ratio of debt to disposable income has increased further. At the end of September 2015, the debt-to-income ratio stood at 123.5%, compared with 121.6% a year earlier. Amidst rising indebtedness, the debt servicing capacity of households has, nevertheless, remained good. The volume of bad loans held by

households has remained small relative to the lending stock. For example, at the end of June, banks' non-performing housing loans amounted to just over EUR 1 billion, i.e. 1.2% of their housing loan portfolio.

### Financial system policy

The purpose of macroprudential policy is to prevent excessive exuberance and crises in the financial system. In Finland, the FIN-FSA board has taken macroprudential decisions on a quarterly basis since the beginning of 2015.

The decisions draw on the macroeconomic perspective and expertise of key authorities, including the Bank of Finland. In the euro area, the ECB Governing Council takes macroprudential decisions with a view to the financial stability of the euro area as a whole (see Box 4, p. 29).

To ensure financial stability it is essential that decision-makers have access to sufficient instruments for the exercise of their tasks, i.e. macroprudential tools. The macroprudential authority must assess on a case-by-case basis the timing and appropriateness of deploying the macroprudential tools provided in legislation.

#### **Bank of Finland active in domestic macroprudential policy**

During the course of the year, in its financial stability analyses, the Bank of Finland expressed its opinion on the adoption of macroprudential tools. In its opinions, the Bank, among other things, underscored the need to dampen potential overheating on the housing loan market and household over-indebtedness by measures other than the loan-to-value (LTV) ratio to be introduced in July 2016.

As of 2015, the FIN-FSA board has had the power to decide on a quarterly basis on the imposition on banks of a

counter-cyclical capital buffer requirement of at most 2.5%. Adoption of this macroprudential tool was not appropriate in 2015 due to the weak economic cycle.

With the macroprudential decision of the second quarter of 2015, an additional capital requirement of 0.5–2% was imposed on the systemically important institutions (O-SII) of Nordea Bank Finland, OP Group, Danske Bank and Municipality Finance, which was to be fulfilled in January 2016.

In an opinion delivered in justification of the aforementioned macroprudential decision, the Bank of Finland raised the issue of a possible need for setting higher risk weights for housing loans used in capital adequacy calculations. Drawing on the analysis by the Bank of Finland and FIN-FSA, the FIN-FSA board state in their final macroprudential decision of 2015 that housing loan risk weights are low from a macroprudential perspective, taking into account assessments of their adequacy for covering losses on housing loans in serious stress situations and the need to prepare for systemic risks relating to household debt. At this time, FIN-FSA also decided to commence preparations for increasing the risk weights.

In cooperation with FIN-FSA, the Bank of Finland participates in the preparation of financial stability and macroprudential policy issues in working groups and committees under the ECB and the European Systemic Risk Board. The key themes raised in the Nordic-Baltic Macroprudential Forum of central banks and banking supervisors in 2015 included the means available for reining in household debt in the region, cross-border recognition of regulations on a reciprocal basis, i.e. the principle of reciprocity, and the macroprudential policy implications of potential changes in the Nordic banking sector.

Box 4.

## Banking Union institutions in Finland

The Banking Union of EU countries rests on three pillars: the Single Supervisory Mechanism (SSM), the Single Resolution Mechanism (SRM) and a European Deposit Insurance Scheme. 2015 was the SSM's first full year of operation. The European Central Bank (ECB) exercises direct supervision of all significant credit institutions operating in the euro area. In Finland, this direct supervision applies to Nordea Bank Finland, OP Group, Danske Bank and, as of 2016, Municipality Finance.

In Finland, the Financial Supervisory Authority (FIN-FSA) participates in the supervision of significant credit institutions and in the decision-making of the SSM, and is solely responsible for the supervision of less significant banks. The Supervisory Board of the SSM prepares draft decisions for approval by the ECB Governing Council. If the Governing Council does not object to the draft decision within a prescribed period, it is considered to have been adopted. The Finnish participants on the Supervisory Board are the FIN-FSA Director General, a representative appointed directly by the ECB and a representative of the Bank of Finland.

With the establishment of Banking Union, the ECB was also assigned macroprudential powers in the countries participating in Banking Union. The ECB has the right to tighten the use of macroprudential tools provided for in the Capital Requirements Regulation and Directive. The Governing Council takes macroprudential decisions. The ECB and the national central banks together analyse the weaknesses and shock-absorption capacity of the financial system, within the ESCB Financial Stability Committee. The Bank of Finland and FIN-FSA together prepare macroprudential cooperation with the ECB.

The Governing Council and the Supervisory Board also regularly convene for a Macroprudential Forum to discuss issues

from the combined perspective of banking supervision and macroprudential supervision.

The Single Resolution Mechanism (SRM) is the second pillar of Banking Union. The SRM consists of the EU Single Resolution Board (SRB), the Single Resolution Fund (SRF) and national resolution authorities. The SRM was fully operational at the beginning of January 2016.

Banks will contribute to the Single Resolution Fund, which will be gradually built up to the target level of around EUR 55 billion by 2024. The countries participating in Banking Union have agreed that each member country will pay extraordinary contributions to the Fund during a transitional period if the financial resources of the Fund are not sufficient to resolve any crisis situation at hand.

The SRM enables resolution of banks and investment firms should these encounter serious financial difficulties despite single banking supervision. According to the key principle of bail-in, owners and creditors will be the primary bearers of the losses of a failed bank.

The new Finnish resolution authority, the Financial Stability Authority, commenced operations in summer 2015. The Ministry of Finance is responsible for performance management and overall supervision of the Authority. The Financial Stability Authority has an Advisory Board tasked to secure cooperation and information sharing between the authorities within the Authority's areas of responsibility. The Advisory Board consists of representatives appointed by the Financial Stability Authority, the Ministry of Finance, the Bank of Finland and FIN-FSA. The Financial Stability Authority operates in conjunction with FIN-FSA and the Bank of Finland. The Authority participates in the activities of the EU Single Resolution Mechanism within the Single Resolution Board and in resolution

colleges. The Authority also attends to deposit guarantee tasks, administering the Finnish Deposit Guarantee Fund.

Both the SRM and the SSM are based on the Single Rulebook observed by all EU countries. The aim is convergence of regulatory, supervisory and resolution practices.

The third pillar of Banking Union – in addition to the SSM and SRM – will be formed by the European Deposit Insurance Scheme. In the same way as the other building blocks of Banking Union, the deposit insurance scheme will, when operational, improve the risk resilience of the financial system and weaken the bank-sovereign loop. So far, the deposit guarantee regime has only advanced as far as partial harmonisation of national deposit guarantee schemes. The challenge associated with the current decentralized scheme are the uncertainties surrounding its effectiveness in widespread systemic crises.

In November 2015, the European Commission put forward a proposal for a new single European Deposit Insurance Scheme (EDIS), with implementation scheduled to take place in three phases by 2024. The proposal includes several mechanisms for limitation of the risks in the European Deposit Insurance Scheme until the conditions for the targeted fully common deposit guarantee scheme are in place.

The strengthening of financial stability and the shock-absorption capacity of the financial system is a necessary condition for ensuring the sustainability of Economic and Monetary Union. The completion of Banking Union and creation of a broader Capital Markets Union provide economically viable means of addressing the shortcomings of Economic and Monetary Union and promoting stability-enhancing risk-sharing mechanisms. The Bank of Finland supports the achievement of these goals.

*Panelists at the joint Bank of Finland / European Central Bank conference at the Finlandia Hall in June.*



*Photo: Peter Mickelsson.*

## Financial market infrastructure

One of the Bank of Finland's statutory tasks is to participate in maintaining the reliability and efficiency of the payment system and overall financial system and participate in their development. An efficient financial market infrastructure – payment systems as well as securities trading, clearing and settlement systems – provides the basis for the stability of the financial markets.

The Bank of Finland's oversight tasks include the monitoring of systems and the conduct of oversight assessments. Given that mainly foreign payment and settlement systems are employed in Finland, this involves extensive international cooperation. The Bank of Finland is actively involved in oversight and policy work both inside and outside the Eurosystem.

In June 2015, in cooperation with the European Central Bank (ECB), the Bank of Finland organised an international conference on retail payments. During the conference in Helsinki, nearly 200 experts and academics reflected on retail payment trends, changes in payment methods and regulatory effects. Digitalisation and its impacts surfaced as the main discussion themes (see Box 5). Speakers at the conference included Yves Mersch, Member of the Executive Board of the ECB, Andrus Ansip, Vice-President of the European Commission, and Jonathan Faull, Director General (for Internal Market and Services) at the European Commission.

The Payments Council, established in 2014 to develop retail payments, continued its work, under the guidance of the Bank of Finland, for the furthering of the recommendations in the previous year's working group reports. Meanwhile, the Payments Forum convened for the ninth time in May. This time, the event, organised by the Bank of Finland for Finnish market participants, focused on payment innovations and cyber security. During the year under review, the

Bank of Finland also revised the data collection based on the ECB Regulation on payment statistics. A summary of the statistics was published on the Bank of Finland website, with comprehensive time series posted on the ECB website.

In June, the first central securities depositories and central banks adopted the pan-European securities settlement platform known as TARGET2-Securities (T2S). This is a sizeable project launched by the Eurosystem for harmonising the post-trade infrastructure. The introduction was preceded by a positive oversight assessment of the platform on the part of the Eurosystem and securities market supervisors. The assessment was approved by the Governing Council of the ECB in April 2015. Central securities depositories and central banks are due to become platform users in several different stages, amid significant challenges posed to the project timetables. The Bank of Finland will join the platform in September 2016.

The Bank of Finland, in cooperation with the Financial Supervisory Authority, is closely monitoring the three-stage project of the Finnish Central Securities Depository, Euroclear Finland, for migration to T2S, which has been postponed until September 2017. At the same time, market readiness for T2S transition is being monitored. Cooperation with the Financial Supervisory Authority is also pursued with a view to monitoring the activities of central counterparties. A new foreign central counterparty began equity clearing on the Finnish market in November.

The Bank of Finland is also maintaining and further developing its Payment and Settlement System Simulator and the TARGET2 Simulator, the latter built for the Eurosystem on the basis of the former. The Payment and Settlement System Simulator is used worldwide as a quantitative analysis tool. The Bank of Finland organised an international simulator seminar for the 13th time in August.

## Digitalisation is reshaping the payments landscape

Payments constitute an essential element of economic activity. Digitalisation as part of a broader change in society is also reshaping the payments landscape.

The bulk of payments made in Finland is currently executed digitally, with the share of electronic payments per inhabitant in Finland ranking amongst the highest in the world. In recent years, digitalisation has further boosted the market entry of new payment applications. Meanwhile, digitalisation has also been harnessed more widely for enhancing the efficiency of corporate financial administration. For example, e-invoicing, which is closely linked to payments, enables the achievement of significant savings, as digital data allows the automation of internal corporate processes and reporting.

Exploitation of new technologies has facilitated and speeded up payment execution. For example, contactless proximity payments enable a greater smoothness in payment transactions and in purchases at retailer point-of-sale terminals. Contactless proximity payments are set to become increasingly popular, driven by the growing issuance of suitable cards and updates of payment terminals, especially in 2015. Although, for the time being, proximity payments only apply to amounts below EUR 25.00, they can be expected to reduce, in particular, the number of small cash payments at retailer point-of-sale terminals.

The 24/7 environment that has become increasingly common alongside the Internet has increased consumer expectations of real-time electronic payments. Execution of instant person-to-person payments is currently feasible using mobile devices: for example, if one of the diners pays a common restaurant bill, the others may split the bill among themselves and pay

their respective shares to the payer through a mobile application. In addition, applications known as digital wallets are available for making instant payments. In Finland, these types of services are not yet widely used for the time being.

Besides banks, payment applications are also offered by new actors such as technology and telephone manufacturers, telephone operators, international online retailers and Internet service providers. These market entrants have covered the making of a payment in the background of a purchase transaction. The payment method is already determined in connection with the introduction of an application or service, and upon purchase the payer is not required to play an active role. The practical payment execution takes place unnoticed. The new solutions stress the convenience of the customer experience.

Digital currencies, such as Bitcoin, also seek to challenge traditional payment systems. However, their use has so far been very limited. Of more relevance is the possibility afforded by decentralised ledgers and blockchain technologies in the background of such digital currencies for the purpose of undertaking different types of transactions between the parties involved and for performing a reliable and prompt verification of data authenticity.

Despite strong growth in the number of new payment applications, their underlying payment systems have remained almost unchanged. New payment methods continue to rely largely on traditional payment instruments, notably cards. The future of current systems will depend on whether new technical solutions, e.g. blockchain technology, can be utilised to accomplish systems with a sufficient degree of reliability and security.

### Payment system services

In accordance with its strategy, the Bank of Finland ensures the availability of competitive central bank services in Finland.

The Bank of Finland provides payment system services via its TARGET2 component, TARGET2-Suomen Pankki. TARGET2 (Trans-European Automated Real-time Gross settlement Express Transfer system), a system owned and operated by the Eurosystem for the processing of banks' payments in real time and on a gross basis, has for a long time already served as a cornerstone for these services. TARGET2 is also used for executing the Eurosystem's monetary policy operations, and other key financial market infrastructures use TARGET2 for settlement purposes.

TARGET2 has functioned reliably, and in 2015 again met the availability requirements set for it. During the course of the year, the system processed, on average, about 344,000 payments per day, with an aggregate value of approximately EUR 1,900 billion. Compared with the previous year, the volume of payments decreased slightly; however, their value remained at

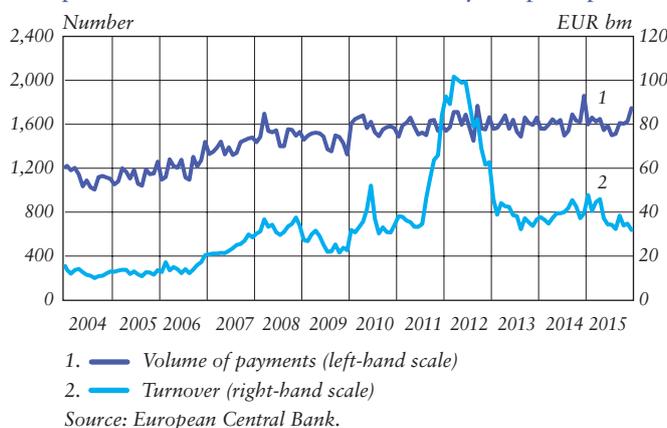
the same level. In December 2015, TARGET2 had some 1,000 direct participants connected to the system through 24 central banks' components.

The volume of payments executed by TARGET2-Suomen Pankki remained virtually unchanged, but their aggregate value declined slightly. An average of 1,600 payments per day were processed. The aggregate value of these payments was approximately EUR 38 billion (Chart 9). At the end of the year, TARGET2-Suomen Pankki had 23 participants, of which three were ancillary systems.

2015 was the first full year for the Bank of Finland to provide collateral management services to its customers via its new collateral management system, BoF-CMS-Cola, which went live in late 2014. During the year, EUR 21.6 billion worth of collateral assets, on average, were managed via Cola.

As part of its own internal TARGET2-Securities (T2S) project, the Bank of Finland carried out work to promote system testing in 2015. Migration to the T2S platform will broaden the range of central bank services available to customers, with the Bank of Finland beginning to offer its customers the possibility of holding cash accounts for securities settlement in central bank money.

**Chart 9.**  
Daily average volume and turnover of TARGET payments processed for TARGET2-Suomen Pankki system participants



## Financial asset management

The Bank of Finland manages financial assets totalling EUR 18,560 million. These comprise the Bank of Finland's financial assets, the share of foreign reserve assets transferred to the European Central Bank and the Bank of Finland's pension fund assets. At the end of 2015, the value of the Bank's financial assets, the foreign reserve assets transferred to the ECB and the Bank's pension fund assets amounted to EUR 16,883 million, EUR 1,045 million and EUR 632 million, respectively.

### The Bank of Finland's financial assets and financial asset management

The Bank of Finland's financial assets comprise foreign reserves, the euro-denominated fixed-income investment portfolio, gold and equities. The foreign reserves consist of the foreign currency-denominated investment portfolio, the liquidity portfolio and items denominated in IMF Special Drawing Rights (SDRs) (Table 1).

#### Objectives for the management of financial assets

The Bank of Finland invests its assets on the international financial markets. The objective of financial asset management is to meet the liquidity, security and return requirements placed on the central bank in respect of the assets managed. In managing its financial assets, the Bank of Finland secures the value of these assets and its ability, when necessary, to support the liquidity of the banking system.

The liquidity of the financial assets is secured by maintaining a specific liquidity portfolio, the purpose of which is to ensure the Bank's ability to provide liquidity for acute policy needs under all circumstances. The aim of managing the investment portfolio is to safeguard the value of the financial assets and the Bank of Finland's

Table 1.

#### The Bank of Finland's financial assets

	31 Dec 2015 EUR m	31 Dec 2014 EUR m
Gold	1,534	1,557
Foreign reserves	6,193	5,644
SDR	381	524
Liquidity portfolio	1,474	1,316
Foreign currency-denominated investment portfolio	4,338	3,804
Euro-denominated financial assets	9,023	9,227
Equity	132	10
<b>Total</b>	<b>16,883</b>	<b>16,438</b>

The impact of SDR hedging transactions has been taken into account by reducing SDR component currencies in the foreign currency-denominated investment portfolio and by increasing euro-denominated financial assets.

Source: Bank of Finland.

Table 2.

#### Distribution of the Bank of Finland's financial assets by currency

Currency	31 Dec 2015 EUR m	31 Dec 2014 EUR m
Euro (EUR)	9,156	9,237
US dollar (USD)	4,487	3,942
Pound sterling (GBP)	880	793
Japanese yen (JPY)	445	385
Gold (XAU)	1,534	1,557
SDR	381	524
<b>Total financial assets</b>	<b>16,883</b>	<b>16,438</b>

The impact of SDR hedging transactions has been taken into account by reducing SDR component currencies (USD, GBP, JPY) and by increasing the euro component. Equity investments are included within the euro entry.

Source: Bank of Finland.

Table 3.

#### Return\* on the Bank of Finland's own financial assets in 2015 and 2014

	2015 %	2015 EUR m	2014 %	2014 EUR m
Interest rate return	0.39	57.5	1.39	183.9
Currency revaluation	3.83	551.2	3.82	523.4
Equity return	10.81**	2.1	0.00	0.1
<b>Total</b>	<b>4.25</b>	<b>610.9</b>	<b>5.26</b>	<b>707.2</b>

\* Excluding gold and SDR.

\*\* As investments in equity increase, the return percentage and the absolute return in euro terms are not directly comparable.

Source: Bank of Finland.

ability to meet its forthcoming central bank obligations. Strict limits set for investment risks ensure that the Bank's financial assets are managed prudently.

The total return on the Bank of Finland's financial assets in 2015 was 4.25%, i.e. about EUR 610.9 million. This

return breaks down into interest rate and equity returns and valuation changes due to exchange rate movements (Table 3). The general low level of interest rates is reflected in the interest rate return, which in 2015 was in positive territory in the amount of EUR 57.5 million. Equity investments generated returns of EUR 2.1 million in 2015, reflecting the rise in stock prices. In 2015, valuation changes due to exchange rates were positive, at EUR 551.2 million, as the euro depreciated against the US dollar and the pound sterling.

Fixed-income investment portfolios are subject to strategic allocation and duration. The Bank's Investments division is allowed to deviate from these by making active investment decisions within pre-set bounds for permitted leeway and strict risk limits. Both interest rate risk and credit risk were reduced in 2015. Portfolio returns are benchmarked against public indices that are customised for central bank needs. In 2015, the investments generated a return of 0.01%, i.e. EUR 1.3 million, above the benchmark indices. The excess return according to the three-year rolling average was 0.08%.

Table 4.

**Allocation of the Bank of Finland's liquidity and fixed-income investment portfolios at the end of 2015**

Liquidity portfolio	Allocation at year-end (%)
Government debt instruments	100
Fixed-income investment portfolios	Allocation at year-end (%)
Government debt instruments	59
Government-related debt instruments	25
Covered bonds	8
Corporate bonds	7
Cash holdings	0
<b>Total</b>	<b>100</b>

Source: Bank of Finland.

**Equity holdings increased prudently**

The Bank of Finland's financial assets are invested in government and government-related securities, covered bonds, corporate bonds and equities (Table 4).

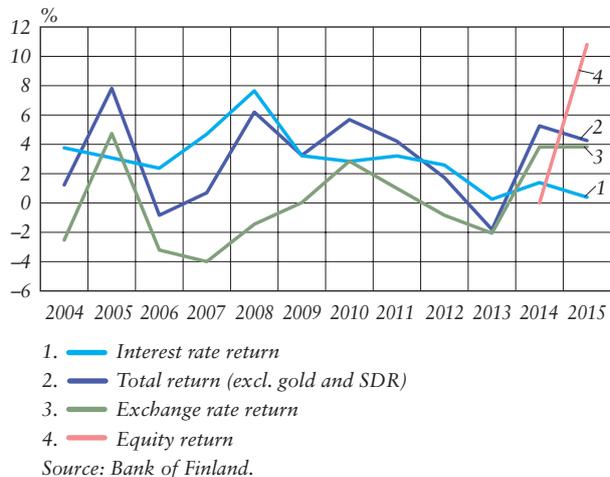
The average maturity of the financial assets at the end of 2015 was 2 years for investments in the US dollar and pound sterling, 1.5 years for euro-denominated investments and 1 year for investments in the Japanese yen.

Equity holdings were increased in 2015 according to plan, in compliance with a prudent approach and within the limits permitted by the role of the central bank (Chart 10).

**Part of ECB reserves managed together with Estonian central bank**

Management of the foreign reserves of the European Central Bank has been distributed

Chart 10. Return on the Bank of Finland's own financial assets



among the Eurosystem national central banks according to their respective capital keys. The emphasis is on security and liquidity, as the key purpose of the reserves is to ensure the availability of sufficient resources for the Eurosystem's potential foreign exchange interventions.

The Bank of Finland manages part of the ECB's reserves together with the Bank of Estonia. The value of Finland's and Estonia's pooled US dollar-denominated portfolio of the ECB's foreign reserves was at the end of 2015 about EUR 1,045 million. The ECB's Annual Report provides additional information on the management of its foreign reserves.

#### **Management of Bank of Finland Pension Fund assets unchanged**

The objective of the Bank of Finland Pension Fund is to manage the assets held to cover the Bank's pension liabilities in accordance with the generally accepted principles for the management of pension assets. These may deviate from the principles applied to the management of the central bank's financial assets.

On 31 December 2015, the value of the pension fund's assets was EUR 632 million, with the Bank's pension liabilities amounting to EUR 576 million. The total return on assets in 2015 amounted to 6.0%. More information on the pension fund's asset management is available from the fund's own annual report.

#### **Investment risks and risk management**

In investing its own financial assets, the Bank of Finland is exposed to market risks, credit risks, liquidity risks and operational risks. Market risks include exchange rate risk, interest rate risk and risks arising from fluctuations in the price of gold and stock prices. More precise definitions of the risks can be found in the Notes on risk management (p. 106).

The most significant risk involved in the Bank of Finland's financial asset

management is exchange rate risk. This stems from the Bank of Finland holding a foreign reserve portfolio for the purpose of discharging its central bank functions.

The targeted size and currency composition of the foreign reserve portfolio is assessed by the Bank of Finland at three-year intervals. No need for changes to the decisions taken on the basis of the 2013 assessment was seen in 2015. A new assessment will be undertaken in early 2016.

The Bank of Finland does not generally hedge foreign currency-denominated investments and claims against exchange rate risk. However, hedging against SDR exchange rate risk has been effected by selling other SDR component currencies (US dollar, pound sterling and Japanese yen) against the euro.

In addition to foreign currency-denominated investments, the Bank of Finland also maintains a euro-denominated investment portfolio. Financial assets are mainly invested in fixed-income instruments, but the Bank of Finland's financial assets also include equity holdings and gold.

#### **Modified duration for fixed-income investments declined slightly**

Interest rate risk related to fixed-income investments is managed by spreading the investments among several debt instruments with differing maturities. In managing interest rate risks, the Bank of Finland relies primarily on 'modified duration' (see 'Notes on risk management', p. 106). The modified duration of the Bank of Finland's fixed-income investments at the end of the year was approximately 1.7, compared with around 2 at the end of 2014.

Equity investments were commenced in November 2014. They are made as indirect investments via equity funds and are distributed across several markets and several companies, which reduces the risks related to equity holdings.

The daily levels of total market risk, exchange rate risk, interest rate risk and

equity risk are measured in terms of the VaR figure (see 'Notes on risk management', p. 106 and Chart 11). Moreover, the VaR figure is used to limit the fixed-income investment portfolio interest rate risk relative to the benchmark index.

The Bank of Finland has imposed on its counterparties, and on issuers of securities serving as investments, criteria designed to ensure sufficient counterparty and issuer creditworthiness. One of the factors in assessing creditworthiness is the use of public credit ratings provided by rating agencies and market-based indicators. Additionally, credit risk is managed by diversifying investments, within established limits, among several issuers and counterparties. The total credit risk arising from investments is gauged and monitored in terms of a separate credit risk VaR method.

Liquidity risk is managed by restricting the size of holdings of individual issues or of total issuer debt. There are also restrictions in place for the length of maturities of

some instruments and for securities lending and short selling.

Monitoring of operational risks covers, among other things, risks related to staff and information systems. These are managed by, for example, regularly tested and sufficient backup arrangements and reliable and well-documented workflows and instructions.

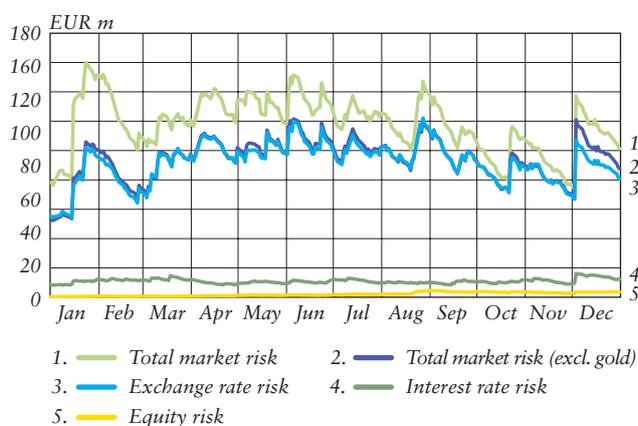
### No change in the amount of financial assets

The Board of the Bank of Finland takes decisions of key relevance to the risks in financial asset management. Apart from decisions relating to the total amount of financial assets, strategic allocation and foreign reserves, these also encompass decisions on the size of the liquidity portfolio. In particular, investment instruments included in the liquidity portfolio must be saleable within a short period of time and at low cost.

In 2015, the Board changed neither the size of the liquidity portfolio nor the amount of financial assets. The Board takes decisions on the amount of the Bank's financial assets in accordance with the Agreement on Net Financial Assets (ANFA) between the Eurosystem's national central banks and ECB. ANFA sets rules and limits for holdings of such financial assets as are related to the national tasks of the national central banks. The expression 'net financial assets' refers to the difference between the assets not directly related to monetary policy on the assets side of the central bank's balance sheet and the liabilities not directly related to monetary policy on the liabilities side of the balance sheet. The amount of net financial assets is followed as an average. The Bank of Finland's net financial assets at the end of 2015 amounted to EUR 8.4 billion.

For more information on risk management in connection with financial asset management, and breakdowns and risk measures concerning the Bank of Finland's investments, see 'Notes on risk management' (p. 106).

**Chart 11.**  
VaR figures for market risk in Bank of Finland's financial assets in 2015\*



\* One-day horizon, 99% confidence level.

Source: Bank of Finland.

Photo: Peter Mickelsson.



## Banknotes and coins

Cash is dispensed in Finland via ATMs and bank branches, and it can also be withdrawn at the checkout in some shops. The Bank of Finland is responsible for ensuring the good condition and sufficient availability of physical payment instruments – i.e. banknotes and coins. The Bank serves in currency supply as a wholesale distributor of cash, whereas cash management companies are responsible for the distribution of cash to the public. As part of the Eurosystem, the Bank of Finland is responsible for ensuring strong confidence in the authenticity of cash. The Bank contributes to making counterfeiting more difficult through its participation in the update of euro banknotes' security features and replacement of the first banknote series with the new one.

### Cash issuance continued to grow

The number of banknotes issued by the Bank of Finland continued to grow at a fairly brisk pace in 2015. This was due almost entirely to growth in the number of EUR 50 banknotes. Net orders of these amounted to EUR 800 million (Chart 12). Growth in the number of EUR 50 banknotes is mainly explained by their popularity as travel money. Issuance of cash has picked up in the euro area, too, but the bulk of this growth was due to stronger demand for euro cash outside the euro area and the fact that the escalation of the Greek crisis increased demand for banknotes (Chart 13).

The orders and returns of EUR 20 banknotes, which play a key role in cash payments in Finland, have remained

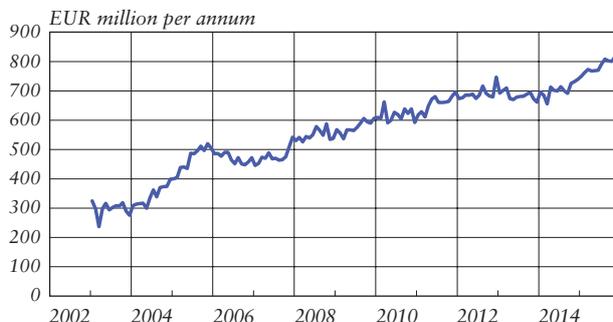
broadly unchanged, which points to a stable use of the EUR 20 banknote as a domestic payment instrument. Based on banknote orders from the Bank of Finland, the EUR 20 is the most used banknote in consumer payments and also the most common banknote distributed through ATMs. Since EUR 20 banknotes are used in cash payments, domestic demand for coins follows closely developments in the use of these banknotes.

The smallest-denomination banknotes in Finland – the EUR 10 and EUR 5 – are mainly used as change for purchases using EUR 20 and EUR 50 banknotes dispensed via ATMs. They are also widely used in small cash payments. Statistical data on developments in the issuance of the EUR 5 banknote of the new banknote series indicates that there have also been ample outflows of small-denomination banknotes from Finland (Chart 14). At present, returns of EUR 5 and EUR 10 banknotes of the old series have dried up almost entirely, even though only about half of the banknote stock issued by the Bank of Finland has been replaced.

### Distribution of cash decreasing

The use of cash as a payment instrument requires that there are banknotes and coins available. Well-functioning distribution and currency supply are preconditions for the use of cash for both consumers and commerce. The use of cash has decreased not only because of the easy and rapid use

**Chart 12.**  
Annual net orders of EUR 50 banknotes from the Bank of Finland



Source: Bank of Finland.

of electronic payment methods and growing number of wireless points of sale but also because the availability of cash via bank offices and ATMs started to decline notably in 2015.

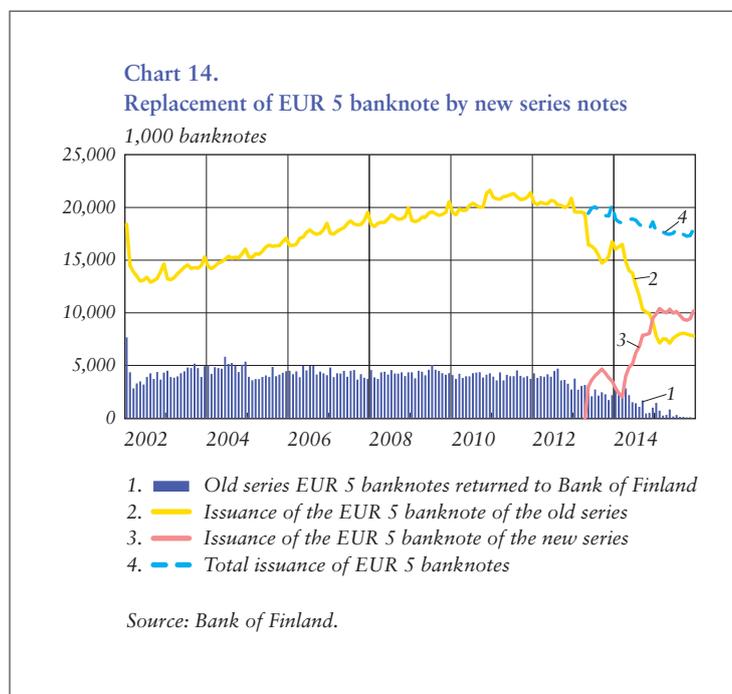
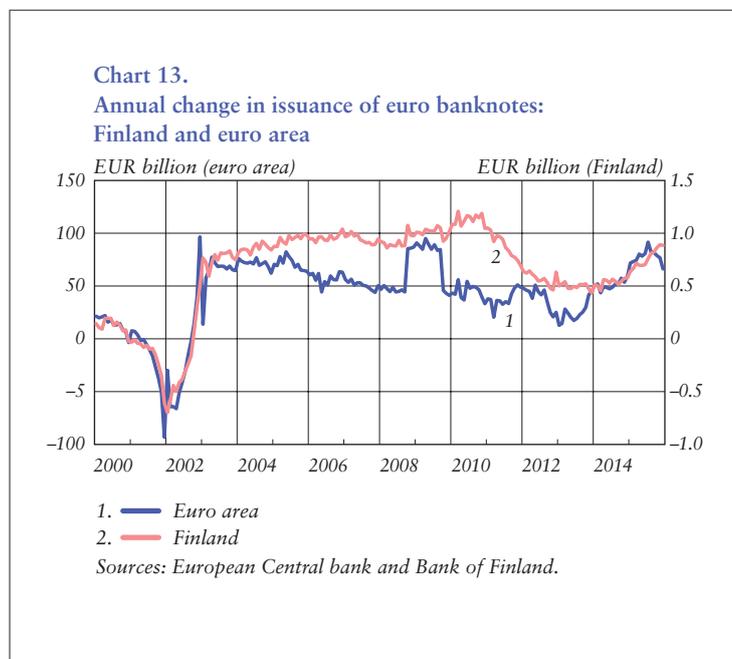
The banks' joint 'Otto' ATM network was cut by about 170 units in 2015. Around 50 of these were replaced with new 'TalletusOtto' cash recycling machines (CRMs) which also circulate cash independently. The number of ATMs was cut in the largest cities and population centres, in particular. The ATM network has been thinned mainly in response to the contraction in the use of cash.

In recent years, the largest commercial banking groups in Finland have rapidly weakened the availability of currency supply services from bank branches. In 2015, the number of bank branches providing currency supply services contracted by 43, to 852 branches. Cash withdrawals at the checkout in stores have been more widely available for a few years and are already offered in thousands of shops, but they have become more common only very recently.

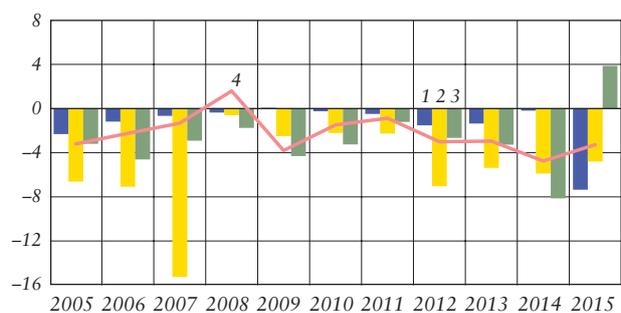
Over the past 10 years, the number of ATMs has declined by 15%. At the same time, cash withdrawals have decreased by around 40%. However, the weaker availability of cash has been in line with developments in the demand for cash, and the ATM network has been thinned according to developments in the number of cash withdrawals (Chart 15). Hence, the trend can be assessed to be primarily market-based, and the decline in the use of cash reflects consumers' own choices.

#### Introduction of the new EUR 20 banknote

The design of the third banknote in the new banknote series – the EUR 20 – was unveiled in February 2015, and the banknote began circulating on 25 November 2015. The design of the new banknote series is based on the theme of the first series. The architectural style of the EUR 20 banknote is the Gothic period.



**Chart 15.**  
Use of cash and availability of cash services in Finland



1. ■ Number of ATMs, %
2. ■ Number of bank branches providing currency supply services, %
3. ■ Cash withdrawals per ATM, %
4. — Distribution of euro cash to the public, annual change, %

Sources: Automatia Pankkiautomaatit Oy and Bank of Finland.

However, the new banknotes have been visually modified to accommodate a range of new and enhanced security features. The new EUR 20 banknote incorporates security features that are similar to those included in the new EUR 5 and EUR 10 banknotes issued earlier.

The authenticity of the banknote can be checked by looking at it against the light, feeling the note and tilting it. The authentication of the EUR 20 banknote is easy with the emerald green value numeral that changes colour, the portrait watermark and the portrait window in the hologram. The portrait window in the hologram is easy to find when the banknote is looked at against the light: the portrait window becomes transparent and reveals a portrait of Europa, a figure from Greek mythology. The portrait window can be seen on both sides of the banknote.

The Eurosystem, which is responsible for the security and integrity of euro banknotes, develops banknote technology on a continuous basis. The new security features are a response to the challenges of advances in counterfeit technologies. With the introduction of the second series, euro banknotes are even more secure and public confidence in the single currency remains high.

### Number of euro counterfeits now increasing

The number of counterfeits detected in the euro area in the first half of 2015 declined from the second half of 2014. In the second half of 2015 banknote counterfeits have been rather stable, but new batches of high-quality counterfeits have been found in Central Europe. The number of counterfeit banknotes found in circulation began to grow in Finland but they are still rare. In Finland, banknotes are of good quality, and people know how to identify counterfeits.

In 2015, a total of 1,085 counterfeit banknotes were found in circulation in Finland. The most commonly found counterfeit was the EUR 20 (538 notes), followed by the EUR 50 (399 notes). These two denominations were also the most commonly counterfeited banknotes in the euro area as a whole. Together, they accounted for 86% of all counterfeits in the first half of 2015.

Since 2012, euro area countries have been permitted to issue two commemorative series of EUR 2 coins per year. In 2015, Finland issued two such coins, the first featuring Jean Sibelius and the second featuring Akseli Gallen-Kallela. There were only 1,134 counterfeit euro coins detected in circulation in Finland.



Photo: Peter Mickelsson.

Senior adviser Helvi Kinnunen of the Bank of Finland was in October awarded the Eino H. Laurila national income medal in recognition of her active work in promoting economic research. The medal was presented by Antti Suvanto, Adviser to the Board of the Bank of Finland. Standing on the right is Marjo Bruun, Director General of Statistics Finland, and on the left, Ari Tyrkkö, Head of Coordination and International Activities at Statistics Finland.

## Other operations

### Research

Economic research at the Bank of Finland supports the Bank's policy preparation, operational development and external influence. The aim of the Research unit is to produce internationally top-ranking research in areas of key importance to the Bank's activities. This allows the Bank to make a strong contribution to debate on monetary policy and financial market developments, both in Finland and internationally.

The role of the Research unit in the Bank's policy development remained substantial in 2015. Policy-related activities supported the Bank's efforts to increase the profile of its research economists as experts in their field. An example of this are the economists' activities in Eurosystem working groups.

#### Monetary research

Important economic research themes and topics that kept the international research community busy in 2015 were

- the long-term slowing of economic growth
- the macroeconomic effects of demographics and population ageing
- the lower bound on the nominal interest rate
- the yield curve and the equilibrium real interest rate
- global imbalances and currency wars in the liquidity trap
- the importance of beliefs and information production for cyclical fluctuations and particularly the ongoing economic recession.

Issues related to the interaction between financial market supervision and the macro economy were widely discussed and examined in international research activities. The research community was also interested in the

role of cash as new payment instruments are introduced. In this context, digitalisation is an important underlying factor.

The key topic, and also the most widely discussed, was the long-term growth of the global economy. The protracted decline and, according to current estimates, the very low level of real interest rates also sparked discussion. Researchers and decision-makers were also exercised by the capital requirements on banks.

Fading growth in the emerging economies, particularly China, but also the weakness of the growth outlook for some advanced economies seem to have fuelled pessimism over future global economic growth. Lower bounds on nominal interest rates and slow inflation, in part even deflation, have meant that real interest rates have remained too high and cannot contribute to the adjustment of global imbalances. The importance of global output as an adjustment mechanism, in turn, will grow. This will increase the probability of liquidity traps that will lure individual economies.

#### Scientific meetings

In 2015, the Bank of Finland organised several international scientific meetings on themes touching on its research activities.

In June, the Bank hosted with the ECB a biennial joint conference in Helsinki, this time under the title 'Retail payments at a crossroads: economics, strategies and future policies'.

In July, the Bank hosted a biennial joint meeting in cooperation with the European Money and Finance Forum (SUERF) under the title 'Liquidity and Market Efficiency – Alive and Well?' The keynote speakers were Hyun Song Shin (BIS) and George Pennacchi (Illinois University). Bengt Holmström (MIT) gave the lunchtime speech.

In August, the Bank participated in the tenth annual international seminar on 'Risk, Financial Stability and Banking', held in São Paulo, Brazil. The seminar was hosted by

Box 6.

## Research projects at the Bank of Finland in 2015

In 2015, a total of 30 studies were published in the Bank of Finland Discussion Paper series. The projects examined issues including the effects of bonus caps and deferrals on bankers' risk-taking, the features of models suitable for analysing banking crises, and the net stable funding ratio requirement when money is endogenous.

The findings show that bonus caps and deferrals reduce risk-taking by bankers. Machine learning methods, in turn, outperform conventional statistical methods in predicting financial crises, but the use of multiple modelling techniques is a necessity in order to collect information on different types of vulnerabilities. The findings also show that the requirement for the net stable funding ratio reduces banks' liquidity risks by encouraging the use of deposit funding, but it also restricts the possibility to grant loans, as deposit money is created by lending. This contradiction may be destabilising if the amount of foreign debt is substantial.

Projects focusing on macroprudential analysis studied e.g. the role of forward guidance and transparency in the comparison of inflation and price level targeting, macroeconomic synchronicity between members in a monetary union and between non-monetary union members, rational exuberance booms and asymmetric business cycles.

The feasibility of inflation targeting or price level targeting in monetary policy depends on the extent of shocks to the economy. In the case of small shocks to expectations, the inflation target benefits from transparency, in contrast to the price level target, irrespective of whether the central bank conducts forward guidance or not. In the case of large shocks, price level targeting, together with forward guidance, form a better monetary policy strategy than

inflation targeting, in terms of inflation, the stability of interest rates and welfare losses.

For the most part, monetary unions are more synchronous than non-monetary unions in the case of real GDP growth, unemployment and inflation. Optimistic beliefs lead to a fall in private investment in information, reducing the quality of information available. This gives rise to episodes of rational exuberance where optimism sustains booms even as fundamentals decline in the build-up to crises. On the other hand, the quantity of information varies according to the level of economic activity. Thus, recoveries are slow since the low levels of investment and output provide little information about improvements in the state of the economy.

Other projects examined issues including indicators used in setting the countercyclical capital buffer, partial bank runs, the effect of finance on long-term economic growth, and the effect of social capital on debt contracting by firms.

The findings show that the household debt-to-disposable income ratio, debt service ratio, residential property price-to-income ratio, current account-to-GDP ratio, leverage ratio, loans-to-deposits ratio and the total assets-to-GDP ratio are good indicators that measure private sector credit developments and debt burden, overvaluation of property prices, external imbalances and the strength of bank balance sheets. During a bank run, some depositors empty their accounts, increasing the likelihood that the government will honour its commitment to guarantee the remaining deposits. This explains why bank runs are often in practice gradual and partial. Indicators of the efficiency of financial intermediaries explain the long-term growth of the economy. In turn, debt holders perceive social capital as providing environmental pressure constraining firms' opportunistic behaviour in debt relationships.

Banco Central do Brasil. The best research inputs presented at the seminar will possibly be published in a forthcoming issue of the journal *Review of Finance*.

In September, the Bank of Finland organised in cooperation with the European Systemic Risk Board a meeting under the title 'Systemic Risk Analytics'. Keynote speakers included Philippe Hartman (ECB) and Erkki Liikanen, Governor of the Bank of Finland.

In October, the Bank hosted its joint annual meeting in cooperation with the Centre for Economic Policy Research (CEPR). This year the theme was 'Housing Market, Monetary Policy and Macroprudential Policy'. The keynote speaker was Matteo Iacoviello (Federal Reserve Board), and the participants engaged in lively debate on the interaction of the three factors listed in the theme.

In November, the Bank of Finland co-organised with the Banking and Financial Institutions Supervisory Agency of Chile the seminar 'Banking Stability and Sustainability', which took place in Santiago de Chile. Keynote speakers included Rodrigo Vergara (Governor of Banco Central de Chile), Anat Admati (Stanford University) and David Kreps (Stanford University).

### **Bank of Finland Institute for Economic in Transition**

The research efforts of the Bank of Finland Institute for Economies in Transition (BOFIT) concentrate mainly on applied research with a focus on monetary and exchange-rate policy issues and the functioning of financial systems. The primary target countries are Russia and China, although individual research topics often require the use of more extensive comparative data. Collaboration between research, monitoring and forecasting forms the foundation for the work of BOFIT's experts.

In 2015, BOFIT continued to publish (in both Finnish and English) its popular weekly digest of economic news items from Russia and China. These go out to around 2,100 subscribers all over the world.

Another aspect of BOFIT's work was the presentation of topical information in seminars on the Russian and Chinese economies and the publication of reports based thereon. These seminars on Russia and China (presented in Finnish) are very popular, and they attract more followers online than attend the seminars in person.

BOFIT research is published initially in BOFIT's own Discussion Papers series and later in refereed scientific journals. In 2015, a total of 33 Discussion Papers were published. In addition, 11 shorter reports were published in the BOFIT Policy Brief series. As well as the articles of the in-house researchers, the Discussion Papers series also includes articles by visiting scholars and studies presented at BOFIT's seminars and workshops. A total of 22 visiting scholars from 11 countries worked with BOFIT in 2015.

In connection with the Bank of Finland's March and September forecasts for the international economy, BOFIT published forecasts for the economic outlook for Russia and China in the immediate years ahead. The persistent difficulties in the Russian economy and the various spill-over effects of slowing economic growth in China have increased demand for BOFIT analyses in both Finland and abroad. There has also been an increase in the number of presentations given to various types of audiences as well as in media interest in developments in Russia and China.

In October, BOFIT organised in Hong Kong its third conference on the Chinese economy. The conference was co-organised by City University of Hong Kong and focused on the Chinese financial system and financial intermediation. Borrowing by Chinese non-financial corporations is currently growing at a rapid pace, increasing the risks to financial stability. The keynote speeches were delivered by Robert McCauley (Bank for International Settlements) and Mark Spiegel (Federal Reserve Bank of San Francisco).

In November, BOFIT organised a workshop in Moscow in cooperation with

the Higher School of Economics. The workshop was entitled 'Banking in Emerging Markets: Challenges and Opportunities', and the focus was particularly on the challenges facing the Russian banking system.

## Statistics

The Bank of Finland is responsible for producing the Finnish data for euro area financial statistics. Statutory ESCB statistics were produced in 2015 as required and disseminated according to schedule.

In the development of ESCB statistics, the focus was on the harmonisation of data collection and production. Another key objective was to extend the use of data in line with changes in information needs. Information needs related to banking supervision and macroprudential policy have increased strongly, to the level of traditional statistical needs related to monetary policy.

In banking sector data collection, the ESCB continued to develop the European reporting framework. This is based on the harmonisation of basic information collected from banks so as to avoid overlap in reporting to various authorities and to enable the compilation of necessary statistics and indicators for various policy and supervisory purposes on the basis of the harmonised basic information. Bank of Finland representatives were in 2015 actively involved in ESCB working groups planning the European reporting framework.

Over the long term, the key element in the European reporting framework will be the granular analytical credit database, on the establishment of which the ECB took a decision in spring 2014. In 2015, progress was achieved in the planning of the database, and in December the draft Regulation on the future database was published on the ECB website. In Finland, financial sector representatives have already been actively involved in the project since the first stages of preparation. The Bank of Finland has also explored with the other Nordic central banks the possibilities for

harmonising the criteria for the collection of granular credit data.

In 2015, production also began of a number of more extensive statistics, agreed on earlier. The new ECB Regulations on MFI balance sheet and interest rate statistics entered into force and reporting to the ECB commenced. Collection of annual payments statistics according to the new requirements also commenced, and the statistics were published on the national and ECB levels. For the statistical reporting of insurance corporations, a new data compilation framework was established and preparations made for the commencement of production in 2016. The ECB's Register of Institutions and Affiliates Database (RIAD) was further developed and use of the database extended in cooperation with banking supervision and the market operation functions of the national central banks.

Cooperation and the division of tasks between the ESCB and the European Statistical System (ESS) was discussed extensively in their cooperation fora. Cooperation between the Bank of Finland and Statistics Finland is well established and smooth in all areas of statistics.

## International activities

The Bank of Finland participates in the work and decision-making of the European System of Central Banks (ESCB). Moreover, the Bank has a statutory responsibility for Finland's contacts with the International Monetary Fund (IMF) and is a shareholder of the Bank for International Settlements (BIS). In addition, the Bank of Finland operates diversely in many Nordic, European and other international fora.

### **The European System of Central Banks (ESCB)**

The Eurosystem's highest decision-making body is the Governing Council of the European Central Bank (ECB), which comprises the members of the Executive Board of the ECB and the governors of the national central banks of the 19 euro area

countries. On 1 January 2015, a new system of rotating voting rights in the ECB Governing Council came into force as a result of Lithuania's accession to the euro area as its 19th member.

Bank of Finland Governor Erkki Liikanen is a member of the Governing Council, and his personal alternate member is Deputy Governor Pentti Hakkarainen. Governor Liikanen is also a member of the ECB's General Council, which includes the President and Vice-President of the ECB and the governors of all the national central banks of the 28 EU Member States.

The Governing Council of the ECB generally convenes twice a month in Frankfurt. In January 2015, the ECB moved to a new six-week cycle for monetary policy meetings. In the other meetings, the focus of the discussions was on other tasks and responsibilities of the ECB and the Eurosystem. Of the monetary policy meetings, two were held outside Frankfurt. In March, the meeting was held in Cyprus and in October, in Malta. The Governing Council also held teleconferences and made decisions using a written decision-making procedure.

Board members and experts from the Bank of Finland participated in the work of the European System of Central Banks at all stages of preparation. The Bank of Finland also had at least one representative on each of the committees and was represented in most of the working groups operating under the various committees. Governor Liikanen is Chairman of the ECB's Audit Committee, whose task is to improve ECB and Eurosystem governance and control. In 2015, Deputy Governor of the Bank of Finland, Pentti Hakkarainen was first the chair of the Committee on Controlling and subsequently the chair of the Budget Committee. Deputy Governor Hakkarainen also chaired the ad-hoc Forum on Supervisory Fees, which examined the costs and fees of banking supervision. In 2015, a total of 17 Bank of Finland employees were seconded to the ECB on fixed-term contracts of varying length.

The Bank of Finland, together with the Financial Supervisory Authority, participates closely in the activities of the Single Supervisory Mechanism (SSM) on many levels. The ECB's Governing Council takes the supervisory decisions on euro area banks, based on proposals drafted by the Supervisory Board. The Financial Supervisory Authority participates in the work of the Supervisory Board as the competent authority, and the Bank of Finland has a representative on the Board. The Governing Council and the Supervisory Board held four joint meetings in 2015, where they discussed macroprudential issues. Several ESCB committees convened in SSM composition, together with national supervisors, to discuss banking supervision.

#### **International Monetary Fund**

Bank of Finland Governor Erkki Liikanen is Finland's representative on the highest governing body of the International Monetary Fund (IMF), the Board of Governors. His alternate member is Deputy Governor Pentti Hakkarainen. In 2015, the Board of Governors held its Annual Meeting in Lima (Peru) in October.

The IMF's advisory International Monetary and Financial Committee (IMFC) met in April in Washington, DC, and in October in Lima. Both meetings discussed the state of and outlook for the global economy, as well as financial stability and the policy actions needed. Several presentations also discussed the delay in governance reform at the IMF, the long-term importance of structural reform, and changes in the structure of China's economic growth.

The day-to-day operations of the IMF are the responsibility of an Executive Board of 24 Directors representing the 188 member countries, and the Managing Director Christine Lagarde, who also serves as Chair of the Executive Board. The Nordic-Baltic constituency has a common representative on the Board. In the year under review, coordination of the constituency was led by Norway, with participation from the Bank of

Finland and Finland's Ministry of Finance. The constituency's common views on matters discussed by the IMF Board are coordinated on a case-by-case basis.

The Nordic-Baltic Monetary and Financial Committee (NBMFC) met in Finland and Estonia before the spring and autumn IMFC meetings in order to prepare the constituency's policy positions. The Bank of Finland was represented on the NBMFC by Deputy Governor Pentti Hakkarainen.

Due to the large volume of loans provided by the IMF to its members, the Fund was in 2015 compelled to strengthen its base funding from the quotas with the help of its New Arrangements to Borrow (NAB) facility. Additional funding acquired via this facility plays a key role in view of the delay in completion of the governance reform at the IMF. Finland participated in the NAB facility and is also committed to bilateral credit arrangements with the IMF, but this arrangement has not been activated so far.

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

The Governor of the Bank of Finland took part in the regular Governors' meetings of the Bank for International Settlements. Generally, the discussions covered topical issues relating to the global economy and the financial markets, including the effects of lower oil prices and changes in exchange rates on the global economy and monetary policy.

The Bank of Finland was also represented at the Annual General Meeting of the BIS in late June.

#### **Nordic cooperation**

The Nordic central banks cooperated closely throughout 2015. Central bank Governors and experts met in Norway at a meeting of the governors of the Nordic central banks and discussed the prolonged slow economic growth, demographic changes and public finances, as well as the low level of interest rates and high debt levels.

The Nordic and Baltic central banks and supervisors also held the biannual cooperation forum (Nordic-Baltic Macro-

prudential Forum) in Stockholm in April and November. The forum discussed financial stability issues. As usual, Bank of Finland experts also had their annual meeting with experts from the other Nordic central banks.

#### **Cooperation within the European Union**

The European Systemic Risk Board (ESRB) is part of the European System of Financial Supervision (ESFS). The ESRB is responsible for macroprudential oversight of the financial markets. The decisions of the ESRB are taken by the General Board. Governor Liikanen is a member of the General Board with voting rights.

The key responsibility of the European Union's Economic and Financial Committee (EFC) is to prepare the meetings of the ECOFIN Council of economic and finance ministers of the EU Member States. The Bank of Finland was represented on the EFC by Deputy Governor Pentti Hakkarainen. He participated in the meetings when the Committee convened in its extended composition and in the role of the Financial Stability Table.

The Bank of Finland also participates in cooperation via the EU's Economic Policy Committee (EPC), which prepares the EU's economic policy guidelines and structural policy issues. Statistical issues are discussed in the Committee on Monetary, Financial and Balance of Payments Statistics (CMFB) and the European Statistical Forum. The Bank of Finland is also involved in the work of the Organisation for Economic Cooperation and Development (OECD) and represented on the Board of Supervisors of the European Banking Authority (EBA).

#### **Other international cooperation**

The Bank of Finland continued its training cooperation with the Central Bank of the Russian Federation (Bank of Russia) in 2015, including one training session at the Bank of Finland and one at the Bank of Russia. The lecturers at these training sessions also included experts from the Financial Supervisory Authority.

Box 7.

## Bank of Finland representatives at the ECB, EU and other international bodies in 2015

<b>Bank of Finland representatives on the Governing Council of the ECB</b>		
Erkki Liikanen, member Pentti Hakkarainen, alternate	Tuomas Välimäki, accompanying person Mika Pösö, accompanying person	Jouni Timonen, accompanying person
<b>Bank of Finland representatives on ESCB committees</b>		
<b>International Relations Committee</b> Olli-Pekka Lehmussaari Mervi Toivanen (until 1 Aug 2015) Kristiina Karjanlahti (from 1 Aug 2015)	<b>Monetary Policy Committee</b> Tuomas Välimäki Jarmo Kontulainen Samu Kurri	<b>Statistics Committee</b> Laura Vajanne Harri Kuussaari
<b>Accounting and Monetary Income Committee</b> Tuula Colliander (until 12 Feb 2015) Anne Forsback (from 12 Feb 2015)	<b>Financial Stability Committee</b> Jouni Timonen	<b>Committee on Controlling</b> Pentti Hakkarainen, chair (until 6 Oct 2015) Tuula Colliander Marko Ala-Pönttiö
<b>Legal Committee</b> Maritta Nieminen Eija Brusila	<b>Risk Management Committee</b> Antti Nurminen Katri Järvinen (until 1 Sep 2015) Jorma Jokisalo (from 1 Sep 2015)	<b>External Communications Committee</b> Jenni Hellström Iina Lario
<b>Payment and Settlement Systems Committee</b> Kirsi Ripatti Heli Snellman	<b>Banknote Committee</b> Päivi Heikkinen Kari Takala	<b>Budget Committee</b> Pentti Hakkarainen, chair (from 6 Oct 2015) Veli-Matti Lumiala
<b>Market Operations Committee</b> Harri Lahdenperä Marjaana Hohti	<b>Internal Auditors Committee</b> Pertti Ukkonen Helena Rantanen	<b>Eurosystem IT Steering Committee</b> Seppo Honkapohja
<b>Organisational Development Committee</b> Mika Pösö Jarno Talvitie	<b>Information Technology Committee</b> Petteri Vuolasto	<b>Human Resources Conference</b> Antti Vuorinen Eija Lepola
<b>Bank of Finland representatives on EU committees and the Supervisory Board of the Single Supervisory Mechanism</b>		
<b>General Board of the European Systemic Risk Board (ESRB)</b> Erkki Liikanen	<b>Economic and Financial Committee</b> Pentti Hakkarainen Olli-Pekka Lehmussaari, deputy member (until 24 Aug 2015) Mika Pösö, deputy member (from 24 Aug 2015)	<b>Supervisory Board of the Single Supervisory Mechanism (SSM)</b> Kimmo Virolainen
<b>Advisory Technical Committee of the ESRB</b> Jouni Timonen	<b>European Banking Authority's Board of Supervisors</b> Kimmo Virolainen	<b>Committee on Monetary, Financial and Balance of Payments Statistics</b> Laura Vajanne
<b>Economic Policy Committee</b> Lauri Kajanoja		<b>European Statistical Forum</b> Laura Vajanne
<b>Bank of Finland representatives at the Bank for International Settlements (BIS), the International Monetary Fund (IMF) and the Organisation for Economic Cooperation and Development (OECD)</b>		
<b>BIS meetings of central bank governors</b> Erkki Liikanen	<b>IMF Board of Governors</b> Erkki Liikanen Pentti Hakkarainen, alternate	<b>OECD Economic Policy Committee</b> Ilkka Korhonen Samu Kurri
		<b>OECD Financial Markets Committee</b> Jyrki Haajanen

## Communications

Using effective and targeted communication, the Bank of Finland aims to keep the Finnish public well informed of the role and activities of the central bank as the national monetary authority and a member of the Eurosystem. Some key areas of focus are monetary policy, financial stability and payment instruments.

In 2015, the Bank of Finland's external communications focused on explaining, in particular, quantitative easing as part of the ECB's monetary policy, the importance of the single currency for Finland, the difficult economic situation, and competitiveness problems. In addition to these themes, during the course of the year Board members and managers, as well as experts at the Bank, also dealt in their speeches, writings and interviews with payment trends, the challenges of immigration, as well as economic developments in Greece and China which have caused uncertainty in the euro area and in the world economy.

The media plays an important role in communicating the ECB's decisions to the domestic audience. In December 2015, Finnish financial journalists were provided the opportunity to get an in-depth view of monetary policy and the activities of central banks as the Bank of Finland arranged a visit for them to the European Central Bank in Frankfurt am Main.

In 2015, a new website was launched for the most important publication of the Bank of Finland's external communications, Euro & talous, and its English version, the Bank of Finland Bulletin. At the same time, the printing of the publication was discontinued. During the course of the year, the website released five substantial publications, in connection with each of which the Bank held a press conference. Between these publications, the Bank of Finland Bulletin website released several additional analyses and blog articles.

### **The changing media environment has reshaped communication**

From a situation in which public discussion was controlled by the mass media, we have

entered an era in which there are much fewer media gatekeepers. On the Internet, everyone can search for information from sources of their own choice. Consumers of media have the opportunity to participate in discussions they find topical and to create discussions of their own.

The changes in the media environment have also been taken into account at the Bank of Finland. The Bank has increased direct communication through social media channels. Bank of Finland experts explain and actively discuss in Twitter and in the blogs released on the Bank of Finland Bulletin website themes within the scope of their responsibilities. Digitalisation and its impacts are examined in more detail in a separate article (see page 52).

### **A new face for a reliable, competent and renewable central bank**

The Bank of Finland introduced a new visual image and logo in 2015. The revamp took into account the requirements of modern communication, and in particular the increasing importance of online communication. The new face presents the Bank of Finland as a reliable central bank that keeps its expertise and skills to the forefront.

The modernised visual logo and the new colours as well as the typography were introduced at the end of March. The logo is simpler but still traditional. The name of the Bank in the official languages (Finnish and Swedish) borders the heraldic lion, which illustrates the Bank of Finland's role as the national monetary authority of Finland. The Bank's role as a member of the Eurosystem is illustrated by the word 'Eurosystem', which is integrated into the logo.

### **Contacts with various stakeholder groups**

During the course of the year, the Bank of Finland arranged a number of conferences and public events. In June, the Bank hosted, together with the European Central Bank, the conference 'Getting the balance right: innovation, trust and regulation in retail payments'. Another major stakeholder event

was the Sijoitus Invest 2015 event, which took place in November. Bank of Finland experts gave presentations on the Bank's activities and the monetary policy of the ECB as well as the Chinese and Russian economies.

In 2015, the Bank of Finland Museum, which is the Bank's visitor centre, received more visitors than ever. Some 14,000 visitors familiarised themselves with the tasks of the Bank and the Eurosystem. The Museum hosted several public events during the year, for example a series of seminars on digitalisation, and discussion sessions on former Governors of the Bank: Sakari Tuomioja, Rainer von Fieandt, Klaus Waris, Ahti Karjalainen and Mauno Koivisto.

The Museum launched two seasonal exhibitions. In April, there was an

exhibition on the history of Finnish government borrowing entitled 'Our common debt – Finnish government borrowing 1859–2015', arranged in cooperation with the State Treasury. The 150 years of Statistics Finland was showcased in the exhibition 'Portrait of a nation – 150 years of statistics on Finland', launched in September and set up in cooperation with Statistics Finland.

The Museum also hosted in April the final for the Generation Euro Students' Award competition for teams of secondary school students. This was won by the team from Helsingin Suomalainen Yhteiskoulu (SYK), an independent coeducational school in Helsinki.

*Economist Riikka Nuutilainen holding the fort at the Bank of Finland desk during the Sijoitus – Invest 2015 fair in the Old Harbour (Wanha Satama) in November.*



*Photo: Peter Mickelsson.*

Box 8.

## Digitalisation – a force for change at the Bank of Finland

Digitalisation, in other words the development and increasingly widespread use of information and communication technologies, is transforming the economy and society in many ways. Digitalisation involves a variety of expectations, hopes and concerns relating to e.g. improvements in productivity, the competitiveness of the economy, labour market developments, growing income disparities and fiscal sustainability.

As part of its strategy work in 2015, the Bank of Finland conducted a study on the effects and potential of digitalisation. Working groups examined the issue from three perspectives: the economy, financial sector and the activities of the Bank itself.

On the level of the economy, the interesting question is whether digitalisation is a catalyst for productivity growth and changes in the same way as the steam engine and electricity once were. The working group also analysed the nature of digital goods as well as the effect of digitalisation on labour markets and structures.

In the financial sector, digitalisation developments have been reflected in online services provided to customers, and processes based on information systems. The FinTech field – which is experiencing strong growth, particularly in the Nordic countries – is expected to also have an effect on the structures of the financial sector.

In the work of the Bank of Finland and the Financial Supervisory Authority themselves, information systems play an important role. By further developing competence and procedures, the aim is to improve efficiency and effectiveness and to increase the fluidity of working processes.

### Lively discussion on digitalisation

Digitalisation was one of the themes discussed at public events held at the Bank of Finland Museum in autumn 2015. A three-part seminar series, headed by Bank

of Finland experts, discussed extensively the effects of digitalisation on economic growth, payments and the operating processes of organisations.

In the first of the three seminars chaired by Governor Erkki Liikanen, Matti Pohjola, Professor of Economics (Aalto University, School of Business) and Anni Ronkainen, Chief Digital Officer (Kesko) discussed digitalisation and economic growth. The seminar dealt with topics including the current media environment, the blurring of borders between sectors, the industrial Internet, the loss of routine work, and the importance of creativity. According to the panellists, the simplest information technology-based improvements in productivity have already been made, but the largest effects still remain to be seen.

In the second seminar, Mikael Jungner, Managing Partner (Kreab) and Mirjami Laitinen, former Director General of the Finnish Tax Administration discussed the potential of digitalisation in developing the operating processes of organisations. The discussion covered the following topics: the challenges of digital identification, dismantling of hierarchies, development of competence, cultural and structural changes required by digitalisation, and the role of the public sector in creating infrastructures. According to Jungner, the world will never again change at such a slow pace as today. The event was hosted by Veli-Matti Lumiala, Head of the Bank of Finland's Administration Department.

The third part of the seminar series focused on the ways that digitalisation is changing payments. Jussi Mekkonen, Executive Vice President (Nordea) and Pekka Puustinen, Development Director (Ilmarinen) discussed the importance of customer experience, personal identification, the slow pace of changes related to payments, new business opportunities,

Facebook payments and blockchain technology. Jussi Miekkonen called for payment innovations and start-ups. The event was chaired by Päivi Heikkinen, Head of the Bank of Finland's Cash Department.

The three seminars were attended at the museum and watched online by a total of some 500 viewers. The videos released on the events have since achieved more than 800 views. During the events, questions from the public were also compiled via Twitter and, overall, the events sparked lively discussion on Twitter.

*Governor Erkki Liikanen moderating a discussion on the topic 'Digitalisation and economic growth' at the Bank of Finland Museum in October. The invited guests were Professor Matti Pohjola of the Aalto University School of Economics and Chief Digital Officer Anni Ronkainen from Kesko.*

#### **Digitalisation as a force for communication**

The Bank of Finland has gradually transferred all its publications into electronic form. The Bank of Finland Bulletin, which is released five times a year, entered the digital era in March 2015, when the Bank of Finland launched its Bofbulletin.fi website.

The new website presents topics of current interest to members of the general public interested in the economy. The topics are examined and presented by the Bank and its experts in a clear and attractive form. At the same time, the blogs by experts, released previously on the Suomenpankki.fi website, were transferred to the Bofbulletin.fi website so that all the topical contents can be found on the same site. The purpose of the new website is to ensure the ease of the reading experience and sharing content from mobile devices.

The Bank of Finland is also utilising social media more actively in its digital communication. The dissemination of messages to an increasingly large audience is furthered on Twitter by Bank of Finland officials, including the Governor. In the production of content, attention has been devoted to the media coverage of the pictures and videos, as well as to the visualisation of the messages by means of infographics.



*Photo: Peter Mickelsson.*

# Management and personnel

## Strategy

Among the main themes of strategy work in 2015 were assessment of the effects of digitalisation from the viewpoint of the economy and the financial system and the use of digitalisation in the Bank of Finland's activities. The aim is to update the Bank's activities, adapting them to an increasingly digital environment, and to improve the effectiveness and productivity of expert work.

At the spring strategy seminar, the Bank's Board members considered, in addition to digitalisation, the Bank of Finland's role in reforming the Finnish economy and, in particular, as

- a promoter of efficient and reliable payment methods
- a macroprudential policy-maker
- an economic policy adviser and
- an investor of the central bank's financial assets.

Moreover, the Bank of Finland continued the upgrading of macroprudential analysis and policy tools in order to enable, whenever necessary, a more precise allocation and limitation of measures to relevant financial system risks.

In the strategy work, consideration was also given to EU integration and, in consequence, to trends in Economic and Monetary Union and the construction of Banking and Capital Markets Union,

among other things. The Bank of Finland was strongly involved in examining the expenditures related to single banking supervision in the euro area. This work will continue in 2016. The objective is to accomplish a more consistent framework for bank supervision fees throughout the area.

As a monetary authority, the Bank of Finland made an active contribution to general and economic policy discussions by presenting viewpoints based on research and statistical data. Implementation of forward-looking, interactive and well-targeted communication policies was continued. During the year, prompted by Finland's weak economic performance, a number of questions surfaced in the media, inter alia, on the benefits and drawbacks of the euro, the sustainability of the Greek banking system, monetary policy tools in an environment of exceptionally low interest rates, as well as Finland's competitiveness and the economic situation in Russia. Topics debated in the course of the year addressed the effects of fiscal policy, the significance of population ageing for economic activity and monetary policy and the impact of immigration on the Finnish economy.

The Bank of Finland's vision, values, mission and concrete strategic guidelines were kept unchanged in 2015 (Box 8). According to the strategy, the Bank of Finland's influence is based on expertise, reliability and high-quality research.

Box 9.

## Bank of Finland's mission, vision, strategy and values

### Mission

The Bank of Finland works towards economic stability. Price stability, secure payment systems and reliable financial systems are prerequisites for sustainable growth, employment and the wellbeing of Finnish society.

### Vision

The Bank of Finland is known as a forward-looking and effective central bank and as a constructive and influential member of the Eurosystem.

The vision underlines the Bank of Finland's objective of being a forward-looking authority, whose activities and statements are constructive in promoting the long-term robustness and stability of the Finnish economy. The Bank itself aims to operate in the spirit of its own statements fostering effectiveness.

A constructive role within the Eurosystem requires the Bank of Finland to be actively involved in developing solutions to common problems, while being influential imposes high expectations on the competence and communication skills of the Bank's personnel.

### Summary of the strategy

The Bank of Finland's influence is based on expertise, reliability and research.

We ensure the availability of competitive central bank services in Finland.

We participate in maintaining the service level of the financial markets and related infrastructure.

We maintain such capital adequacy and liquidity as is required by our operations, and we honour our financial accountability to Finnish society.

Our working processes are of high quality, technically advanced and environmentally sustainable.

We build our expertise and professional competitiveness with an eye to the future, while simultaneously caring for the long-term wellbeing of our staff.

### Values

#### *Competence – Appreciation – Responsibility*

The values reflect our attitude towards our own work, our colleagues and the rest of the society. Common values drive the staff's day-to-day activities and underpin the organisation's working culture. The entire organisation was involved in defining the Bank's values.

#### *Competence*

Our work builds on excellence and professional ethics. We keep our knowledge and skills at the forefront.

#### *Appreciation*

We strive towards common objectives with mutual respect. We encourage open discussion and fresh ideas.

#### *Responsibility*

We act responsibly and we are independent. We are a reliable and cooperative partner.

## Management system

The Bank of Finland's mission, vision, strategy and values (Box 9, page 55) provide a guide for the Bank's activities. The division of responsibilities between Board members and the definitions of the areas of responsibility for each department also constitute an important element of the management system. Other key corporate governance tools include the objectives and results framework, action planning, staffing and budgetary ceilings and the overall assessment of risks.

Achievement of the objectives set is assessed biannually at the Bank of Finland. Performance appraisal discussions with the employees twice a year are an essential element of the Bank's management system. Key posts within the Bank of Finland, and particularly those exercising management responsibilities, are filled on a fixed-term basis. The purpose of this is to ensure the accumulation of broad-based competence and the updating of staff practices and procedures.

### Division of responsibilities between Board members

In 2015, the division of responsibilities at the Board was as follows:

- Governor Erkki Liikanen was responsible for monetary policy preparation, domestic economic policy, financial market issues and external communications. He was a member of the Governing Council and General Council of the ECB, and of the European Systemic Risk Board.
- Deputy Governor Pentti Hakkarainen bore responsibility for monetary policy implementation, investment activities, administration, legal and international affairs and macroprudential policy. He was also Chairman of the Board of the Financial Supervisory Authority.
- Member of the Board Seppo Honkapohja was responsible for

scientific research, currency supply, market operations and payments, personnel and the risk control of investment activities and monetary policy.

### Departments and core processes

The Bank of Finland's activities are organised across six departments and the Internal Audit unit, which is independent of the departments. The heads of department report to the Board member responsible for the respective area.

Process management helps bring the strategy closer to the operations. This serves to remove barriers to cooperation and lays emphasis on a working culture based on cooperation. Process management promotes a customer-oriented approach to operations, operational efficiency and effectiveness and maintains a motivating work environment.

The Bank of Finland's core processes are 1) monetary policy preparation, 2) monetary policy implementation, 3) influence on domestic economic policy and 4) stability policy.

### Objectives and results framework

The objectives and results framework steers the Bank of Finland's activities. It is also helpful in providing stakeholders with information on how the Bank has set its objectives and evaluates its performance. In addition to general indicators, each department and core process are provided with indicators to guide their activities (objectives and results framework for 2015–2017, p. 58).

### Action planning

Action planning at department and core process level is conducted with a three-year timeline. The objectives are further developed into agreements on objectives and outcomes, signed by the heads of department and Board members each year. The agreements outline the objectives and

relevant indicators with target values and describe major projects for the individual departments. The Bank of Finland's budget, and the personnel and training scheme as well as evaluation of operational risk management are drawn up as part of action planning.

### Personnel and budget frameworks

Resource deployment in the departments is guided by personnel and operating costs frameworks, which are updated annually in connection with action planning. The framework system enables medium-term resource planning at departmental level. The procedure is of help in achieving the

Bank's strategic objective of being one of the most efficient EU central banks.

### Risk management

Risk management is part of the Bank of Finland's governance framework and is also linked with action planning and the departments' objectives and results reporting. The Bank's risks are divided into strategic, financial 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 member of staff is responsible for the management of risks falling within their own job remit.

*Bank of Finland summer trainees in 2015:  
Aleksi Paavola (left), Henni Tabvanainen and Otto Jääskeläinen.*



*Photo: Mikko Honkajauri.*

## Bank of Finland objectives and results framework 2015–2017

	Strategic guideline	Indicator	Objective	Situation		
				12/2013	12/2014	12/2015
I Influence and service capacity	1. The Bank of Finland's influence is built on high-level expertise and research that combines both macroeconomic and financial market perspectives.	ECB Governing Council members' evaluation of the Bank of Finland's influence	> 4	New indicator	New indicator	4.1
		Quality-weighted publication index for research	> 32	52	26	26
	2. The Bank of Finland participates in preserving the service level of the financial markets and related infrastructure and offers competitive central bank services to its customers	Quality of central bank services from service users' perspective	> 95% of respondents satisfied	95%	98%	94%
		Consumer satisfaction survey on the quality and availability of cash	> 4	4.3	4.1	4.1
	3. Public confidence in the Bank of Finland and awareness of the Bank's and the Eurosystem's activities are promoted through effective, well-targeted communication.	Results of the Omnibus survey carried out by the market research company Taloustutkimus	Upper quartile of the benchmark group	3/12	3/12	3/12
		Visits (clicks) on the Bank's website	Rising trend	1.7 million	1.8 million	2.2 million
II Efficient use of resources and capital adequacy	4. The Bank of Finland's financial assets are invested in a secure and productive manner in accordance with international commitments and crisis management requirements.	Proportion of highly safe and liquid investments of financial assets	High	High	High	High
		Return on financial assets exceeding the central bank rate on investment currencies (5-year average)	> 0; 5-year moving average	1.73%	1.5%	1.15%
	5. The aim is to enable stable profit distribution to the State without jeopardising the Bank's capital adequacy.	Reserve fund + provisions relative to balance sheet risks	Provisions are increased with the aim of ensuring a sufficiently strong balance sheet under all circumstances.	EUR 4,924 million*	EUR 5,208 million	EUR 5,375 million
		Distributed earnings	Stable profit distribution	EUR 180 million	EUR 137,5 million	EUR 98.0 million
	6. The Bank of Finland is one of the most efficient central banks in the EU.	Total annual full-time-equivalent jobs for permanent and fixed-term staff	2013: 410 annual full-time equivalent 2014: 402 annual full-time equivalent 2015: 383 annual full-time equivalent	394	384	375
		Total departmental operating expenses	Budget, 2013: EUR 55 million 2014: EUR 57 million 2015: EUR 56 million	EUR 52.3 million	EUR 52.8 million	EUR 52.1 million

\* Indicator revised; reserve fund also taken into account since 2013.

	Strategic guideline	Indicator	Objective	Situation		
				12/2013	12/2014	12/2015
III Efficiency of internal processes	7. The quality of the Bank of Finland's analytic and operational processes is actively enhanced.	Average of fulfilled criteria as set out in department-specific agreements on objectives and outcomes	93% satisfied	93%	75%	78%
	8. The Bank of Finland's ICT solutions enable top-quality, influential work by our experts.	Feedback on IT equipment and services	93% satisfied	91%	88%	93%
		Number of serious disruptions	Objective 0	0	1	0
		IT innovations that have increased productivity from the departments' perspective, survey result	> 3	3.6	3.2	3.8
9. The activities of the Bank of Finland are environmentally sustainable	Total emissions / operating expenses (energy use)	Falling trend	77.5 kg CO <sub>2</sub> emissions/energy use	71.5 kg CO <sub>2</sub> emissions/energy use	67.5 kg CO <sub>2</sub> emissions/energy use	
	Waste kg / operating expenses	Falling trend	Volume of waste 2.00 kg / EUR 1,000 operating costs	Volume of waste 2.03 kg / EUR 1,000 operating costs	Volume of waste 2.25 kg / EUR 1,000 operating costs	
IV Building the future	10. The Bank of Finland raises the expertise and professional competence of its staff.	Annual implementation of personal development plans	Over 80% of plans turn out well	86%	89%	90%
		Education level index	> 5.8	6.0	6.0	6.0
	11. The Bank of Finland cares for the long-term wellbeing of its staff.	Proportion of the minority gender relative to the total number of supervisory staff	Rising trend	31%	33%	30%
		Sick leave absences	Below 3.5%	2.6%	2.9%	3.0%
		Employee satisfaction index exceeds external benchmark group result	> 3.5	3.6	–	3.7
	Leadership index exceeds external benchmark group result	> 3.7	3.9	3.8	4.0	

## Personnel

The Bank of Finland's objective is to be one of the most efficient EU central banks. In 2015, the headcount declined by 9 people from the previous year. At the end of 2015, the Bank had 378 employees. Of this total, 76% held expert positions.

The Bank of Finland invests in the wellbeing of its personnel, systematic development of qualifications and good management and leadership skills. The emphasis of management work is on motivation, creation of a good working atmosphere and results achievement.

Networking both domestically and globally constitutes an important part of many staff members' work. A total of about 80 Bank employees participate regularly in ESCB committees and working groups.

Job satisfaction is monitored by a staff survey conducted every other year and the quality of management is subject to annual monitoring using a leadership index survey.

On a scale of 1 to 5, the 2015 employee satisfaction index survey result was 3.7 (Finnish average 3.5) and the leadership index survey result 4.0 (3.7). The overall picture of wellbeing at work was

supplemented by a health survey, which provided follow-up data on the staff's occupational health and development of resources. The aggregate outcome of the survey was much better than the level in extensive comparative Finnish data.

Development of working practices was continued, among other approaches, with the Smart Working programme, aimed at streamlining workflows by making effective use of electronic processes.

An idea bank was created to encourage employee initiatives. This provides the personnel with a new channel for initiating reforms and developing the Bank's operations, working methods and cooperation. All initiatives made via the idea bank were entered in an innovation contest, in which the best idea was rewarded at the end of the year.

The Bank's pay settlement was in line with Finland's general pact for employment and growth.

The Bank of Finland has supported youth employment by annually offering summer jobs to about 50 students. The Bank of Finland is one of the public sector's most attractive employers. In 2015, academic business professionals considered the Bank of Finland the ideal public-sector employer in Finland (Universum).

Table 5.

**Human resource management highlights<sup>1</sup>**

	2014	2015
<b>Staff size</b>		
Head count 31.12.	387	378
Man years	410	402
Turnover rate for those leaving the Bank's service	10%	8%
Turnover rate for those entering the Bank's service	7%	8%
Internal mobility	13%	14%
Number of newly retired employees	16	15
Average effective retirement age	61.6 v	60.9 v
<b>Staff structure</b>		
Average staff age	46.2 v	46.3 v
Proportion of experts and superiors	75%	77%
Proportion of women	47%	45%
<b>Salaries and bonuses</b>		
Salaries in relation to market salaries at the Bank of Finland <sup>2</sup>	100%	99%
Negotiated increases	20 e	16 e
Bonuses as a proportion of payroll	–	–
Average pay for women / average pay for men	99%	99%
<b>Competence</b>		
Training costs / payroll	3.4%	3.3%
Training days / man-year	4.8	5.5
Education level index <sup>3</sup>	6.0	6.0
<b>Wellness at work</b>		
Absence rate	2.9	3.0
Employee satisfaction index	–	3.7

<sup>1</sup> 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.

<sup>2</sup> The reference group in the HAY market salary survey is made up of organisations representing 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). The survey also includes FIN-FSA's staff salaries.

<sup>3</sup> Education level index is calculated from the basic level of education of staff. The index varies between 1 and 8.

## Budget and operative costs

Improving the cost-efficiency of operations is an ongoing process at the Bank of Finland. Particular attention is focused on budgetary guidance and objectives-driven human resources planning.

### Budget for the Bank of Finland

In autumn 2015, the Bank of Finland's budgets for the period 2016–2018 were drawn up and, of these, the Board ratified the budget for 2016. The budgets for 2017–2018 will be ratified at a later date. Operative costs and related objectives included in the budgets are monitored on a regular basis. The Board evaluates operations and cost-efficiency on the basis of quarterly budgetary monitoring.

In 2015, the Bank of Finland's operating expenses totalled EUR 75.6 million (EUR 82.1 million in 2014). Budgeted operating income amounted to EUR 13.7 million. The Bank's net operating expenses totalled EUR 61.8 million. For more information on the costs and the budget, see the enclosed table (Table 6).

Table 6.

#### Budget for the Bank of Finland

	Outturn 2015 EUR m	Budgeted 2016 EUR m
<b>1. Operating expenses and income</b>		
<i>EXPENSES</i>		
<i>Staff expenses</i>	32.8	33.3
<i>Staff-related expenses</i>	2.8	3.5
<i>Other expenses</i>	22.7	25.1
<i>DEPRECIATION</i>	8.5	10.0
<b>Total</b>	<b>66.8</b>	<b>71.6</b>
<i>Banknote acquisition costs</i>	4.2	8.7
<i>Banking service expenses</i>	4.6	4.9
<b>Total operating expenses</b>	<b>75.6</b>	<b>85.2</b>
<i>INCOME</i>		
<i>Banking service income</i>	1.6	1.7
<i>Real estate</i>	5.5	5.1
<i>Other income</i>	2.1	1.5
<i>Services to FIN-FSA</i>	4.5	4.8
<b>Total income</b>	<b>13.7</b>	<b>13.1</b>
<b>Net</b>	<b>61.8</b>	<b>72.1</b>
<b>2. Investment</b>		
<i>Real estate investment</i>	4.4	5.4
<i>Head office premises</i>	0.7	1.2
<i>Vantaa premises</i>	3.0	4.1
<i>Other premises</i>	0.7	0.1
<i>IT equipment and software</i>	5.1	4.8
<i>Cash handling machines</i>	0.2	1.6
<i>Security equipment</i>	1.1	2.1
<i>Other</i>	0.2	0.0
<b>Total investment</b>	<b>11.0</b>	<b>13.9</b>

Due to rounding, totals/sub-totals may not add up.

Table 7.

**Budget for the Bank of Finland pension fund**

	<i>Outturn 2015 EUR m</i>	<i>Budgeted 2016 EUR m</i>
<b>1. Operating expenses and income</b>		
<i>EXPENSES</i>		
<i>Staff expenses</i>	0.1	0.2
<i>Pension fund activities expenses</i>	0.5	0.8
<i>Pension fund real estate expenses</i>	0.5	0.5
<i>DEPRECIATION</i>	0.9	0.9
<i>PENSIONS</i>		
<i>Pensions paid</i>	26.5	27.6
<b>Total expenses</b>	<b>28.5</b>	<b>30.0</b>
<i>INCOME</i>		
<i>Employment pension contributions</i>	10.2	10.7
<i>Internal rents</i>	1.6	1.6
<b>Total income</b>	<b>11.8</b>	<b>12.3</b>
<b>Net</b>	<b>16.7</b>	<b>17.7</b>

*Due to rounding, totals/sub-totals may not add up.*

## Pension fund budget

The pension fund's operating expenses for 2015 totalled EUR 28.5 million (EUR 28.3 in 2014). Pensions paid (EUR 26.5 million) constituted the largest cost item. Operating income amounted to EUR 11.8 million (Table 7). Pension fund expenses are estimated to increase slightly during the coming budgetary period. Pension fund activities are presented in the fund's own annual report.

## Budget for the Financial Supervisory Authority

The Board of the Bank of Finland ratifies the budget drawn up for the Financial Supervisory Authority (FIN-FSA). In 2015, FIN-FSA's operating expenses totalled EUR 26.0 million (EUR 26.2 million in 2014). Total income amounted to EUR 26.0 million, of which supervision and processing fees accounted for EUR 23.1 million, while the Bank of Finland's contribution to funding was EUR 1.3 million. The surplus for the financial year was EUR 2.8 million. The surplus will be taken into account in the following accounting period when setting supervision and processing fees (Table 8). FIN-FSA's operations are presented in its own annual report.

Table 8.

### Budget for the Financial Supervisory Authority

	<i>Outturn 2015 EUR m</i>	<i>Budgeted 2016 EUR m</i>
<b>1. Operating expenses and income</b>		
<i>EXPENSES</i>		
<i>Staff expenses</i>	16.6	17.0
<i>Staff-related expenses</i>	0.9	1.2
<i>Other expenses</i>	3.3	3.8
<i>DEPRECIATION</i>	0.8	0.7
<i>SERVICES FROM THE BANK OF FINLAND</i>	4.5	4.8
<b>Total operating expenses</b>	<b>26.0</b>	<b>27.4</b>
<i>FUNDING OF OPERATIONS</i>		
<i>Supervision fees</i>	20.8	22.5
<i>Processing fees</i>	2.3	1.5
<i>Bank of Finland contribution to funding</i>	1.3	1.4
<i>Surplus/deficit transferred from previous year</i>	4.4	2.0
<b>Total income</b>	<b>26.0</b>	<b>27.4</b>
<i>Surplus transferred to next year</i>	2.8	2.0

*Due to rounding, totals/sub-totals may not add up.*

## Environment

The Bank of Finland ensured that it met its environmental responsibilities in 2015 by improving the efficient use of materials, monitoring the environmental impact of its operations and putting new, more durable banknotes into circulation.

Regular publications were no longer published in printed form following the move to exclusively online publication. The most prominent example of this is the new Bank of Finland Bulletin website.

European central banks shared information on environmentally friendly operating methods by comparing qualitative environmental practices. The Bank of Finland monitors the environmental impact of its operations using two environmental performance indicators that are proportionate to operating expenses. In 2015, for every thousand euro of operating expenses, the Bank generated 2.25 kg of waste and 67.49 kg of CO<sub>2</sub> emissions. The equivalent volumes in 2014 were 2.03 kg of waste and 71.5 kg of CO<sub>2</sub> emissions.

During the year, a little under 240 million banknotes were returned for sorting, slightly less than in the previous year. Of these, a total of 45 million notes were destroyed in the sorting process. The average banknote replacement rate was about 19%, a slightly lower figure than a year earlier. Banknotes were destroyed to a lesser degree mainly because most worn-out EUR 5 notes of the old series had already been withdrawn from circulation. The notes of the new series are more resistant to wear and tear, thanks to their protective coating against soiling (Chart 1).

The better durability of the new banknote series is reflected in the unfit rates for new series EUR 5 banknotes, which – after a circulation period of well over 2 years – are distinctly lower than those for old series banknotes (Chart 2). The exchange of the old series of EUR 10 notes for a new series, which commenced in September 2014, is also largely complete, and the unfit rates for EUR 10 notes are beginning to fall.

Notes in bad condition and old series notes due for withdrawal are destroyed by

Table 9.

### Bank of Finland's environmental impact

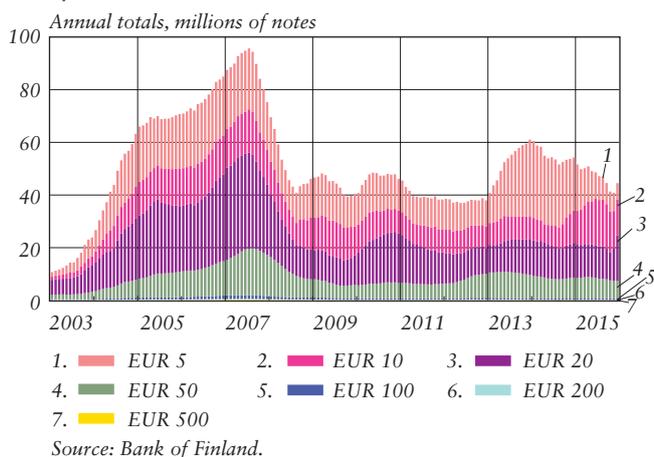
	Volume		
	2013	2014	2015
Electrical energy consumption (MWh)	9,471	8,784	8,436
Heating energy consumption (MWh)	10,482	9,150	8,349
Waste (tonnes)	162	164	188
Consumption of office and publication paper (tonnes)	53	41	28
CO <sub>2</sub> emission from business travel (tonnes)	1,930	1,889	1,958
CO <sub>2</sub> emission balance (tonnes)	6,289	5,793	5,636

Source: Bank of Finland.

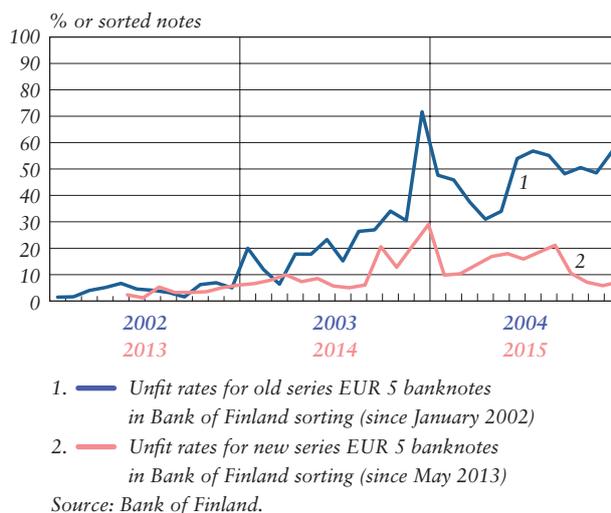
shredding in the sorting machines and burnt for energy recovery. High firing temperatures provide an effective way of disposing of hazardous gasses and environmentally dangerous materials, such as heavy metals from banknote holograms.

Exchange of the most frequently used banknote, EUR 20, for a new series began at the end of November 2015. Although the new EUR 20 note does not have a coating similar to that of new series EUR 5 and EUR 10 notes, its durability in circulation is better than that of notes of the old series. However, over the short term, unfit rates will rise due to the withdrawal of old series banknotes from circulation upon their return to the central banks.

**Chart 16.**  
Euro banknotes destroyed at the Bank of Finland, by denomination



**Chart 17.**  
Unfit rates for old and new series EUR 5 banknotes, %



## Total risk exposure

*The Bank of Finland incurs risks arising from its financial asset management, monetary policy implementation and other activities.*

*The risks are managed and prepared for by risk buffers. Operational risks are identified, as far as possible, in connection with action planning and managed in daily work on a decentralised basis.*

### Financial assets

The Bank of Finland has approximately EUR 16.9 billion worth of financial assets, consisting of foreign reserves, holdings of gold and assets denominated in euro. The financial assets are exposed to exchange rate risk, interest rate risks, credit risks and, to a limited extent, equity risks.

The largest fluctuations in the value of the financial assets are caused by exchange rate risk. The Bank of Finland diversifies its exchange rate risk by investing in the pound sterling and the Japanese yen as well as the US dollar. Gold price risk is assessed separately, as the revaluation account for gold enables the coverage of significant declines in valuations. In the 'Notes on risk management' section in the Financial statements (p. 106), risks related to gold are included in the overall assessment.

The bulk of the Bank's financial assets are invested in short-term fixed-rate bonds with an average maturity at the end of 2015 of 1.7 years. The interest rate risk sensitivity of the euro-denominated assets portfolio was reduced in 2015. The credit risk attached to the financial assets is managed by rating requirements and limits. The aim of investments made on international stock markets is to diversify the risks relating to the financial assets.

### Monetary policy operations

The Eurosystem's monetary policy operations are implemented on a decentralised basis. For the most part, the risks and returns of monetary policy operations are

shared jointly, with each country's share determined by its capital key.

Refinancing operations are conducted with financially sound counterparties and against adequate collateral. The risks involved in these operations are managed by haircuts and daily valuations applied to collateral assets. Refinancing operations in 2015 declined by about 11% compared with 2014, with their year-end volume totalling approximately EUR 559 billion (Table 10). Of this, main refinancing operations accounted for around EUR 89 billion and longer-term refinancing operations around EUR 470 billion. Targeted longer-term refinancing operations (TLTROs) correspond, in terms of credit risk, to standard refinancing operations, but the applicable interest rate is fixed.

Covered bond purchase programmes (CBPPs) enable purchases of bank bonds that are mostly mortgage-backed and government-guaranteed. The size of already terminated purchase programmes (CBPP1 and CBPP2) at the end of the year was about EUR 30 billion, i.e. approximately 27% down on the volume at the beginning of the year.

Purchases under the Securities Markets Programme (SMP) included Spanish, Irish, Italian, Greek and Portuguese government bonds. Securities matured under this purchase programme, which was terminated in autumn 2012, reduced its size further by approximately 15%. The Bank of Finland's SMP shares according to the capital key were, in terms of book value, as follows, country by country: Spain EUR 469 million, Ireland EUR 167 million, Italy EUR 1,104

Table 10.

Volumes of monetary policy operations at the end of 2015

EUR million	Eurosystem	Bank of Finland's calculated contribution*
Refinancing operations	558,989	9,978
Covered Bond Purchase Programme	173,646	3,100
Securities Markets Programme	122,952	2,195
Asset-Backed Securities Purchase Programme	15,322	273
Public Sector Purchase Programme	491,215	8,768

\* Calculated as a percentage (1.785%) of total Eurosystem (incl. ECB) operations.

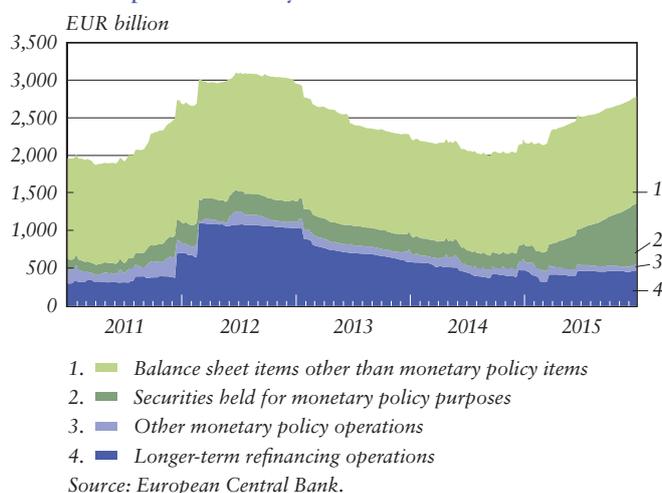
Sources: European Central Bank and Bank of Finland.

million, Greece EUR 240 million and Portugal 215 million.

The expanded asset purchase programme (EAPP) includes the third covered bond purchase programme (CBPP3) and the asset-backed securities purchase programme (ABSPP), both launched in autumn 2014, and the public sector purchase programme (PSPP), commenced in March 2015. Under the EAPP, the Eurosystem conducts combined monthly purchases of bonds to a value of about EUR 60 billion until at least March 2017.

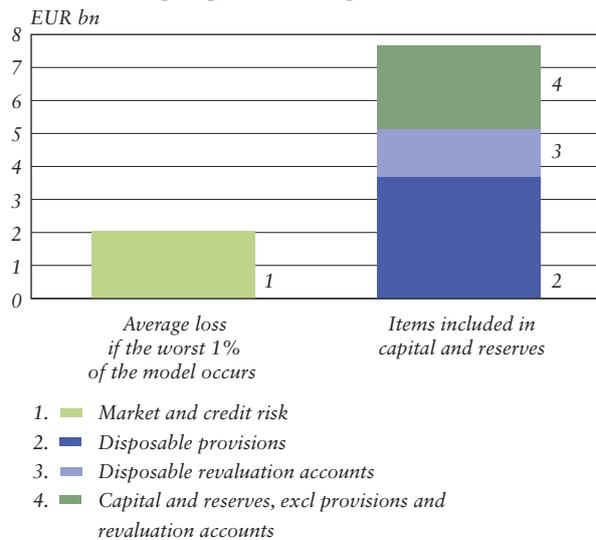
Under the PSPP, the national central banks carry out 80% of purchases at their own risk. This share includes government and government-related debt. The Bank of Finland's PSPP purchases mainly comprise Finnish government bonds. Of the purchases under this programme, 12% are subject to a regime of loss sharing and include bonds issued by European institutions. The ECB's share of the programme is 8%. The size of the PSPP at the end of 2015 was EUR 491 billion. The Bank of Finland's balance sheet included around EUR 7.3 billion in Finnish government bonds and government-related bonds purchased under this programme.

Chart 18. Developments in Eurosystem balance sheet items



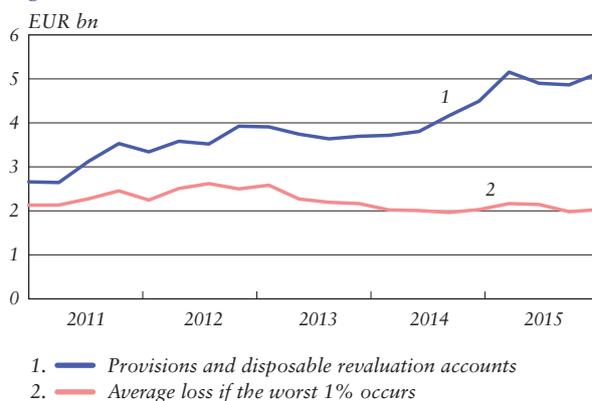
The total volume of Eurosystem monetary policy operations increased by about EUR 515 billion during the course of 2015. The volume of refinancing operations declined by around EUR 71 billion, but the volume of monetary policy purchase programmes grew by roughly EUR 586 billion (Chart 18).

**Chart 19.**  
Bank of Finland's total risk exposure, capital and reserves excl. gold price risk and gold revaluation accounts



Source: Bank of Finland.

**Chart 20.**  
Development of risks and risk buffers excl. gold and gold revaluation account



Source: Bank of Finland.

## Total risk exposure on the balance sheet

The Bank of Finland's total risk exposure is measured using well-established methods. Market and credit risks to the balance sheet are measured by models based on the Value-at-Risk method, with particular emphasis on the worst percentage of the model outcomes. As statistical models fail to provide a full picture of the risks involved, the risk assessment is supplemented with scenario analyses and stress tests to estimate the losses that could be incurred under possible, but improbable scenarios.

Total risks to the financial assets and monetary policy operations, in annual terms, amounted to EUR 2.0 billion at the end of 2015 (excl. gold price risk, Chart 19). The change in the risk level compared with the previous year was small – market risk increased and credit risk decreased. The increase in market risk reflected appreciation in the value of the financial assets. As the revaluation account for gold covers more than half the value of the gold, its risk is calculated separately. The gold price risk was EUR 0.7 billion, while the revaluation account for gold was EUR 1.1 billion.

At the end of 2015, the Bank of Finland's capital and reserves totalled EUR 9.0 billion. Of this, the primary capital and reserve fund accounted for EUR 2.5 billion, provisions (excl. pension provision) for EUR 3.7 billion and revaluation accounts for EUR 2.8 billion. The Bank's risk buffers strengthened in 2015 (Chart 20).

Implementation of monetary policy and safeguarding the stability and functioning of the financial system are core central bank tasks, which may entail losses. Preparation for risks means ensuring balance sheet strength by accumulating provisions and capital resources and by reducing risks to financial assets, wherever needed. The Bank of Finland's capital adequacy is sufficient to cover the risks arising from the performance of its tasks.



*Photo: Peter Mickelsson.*

# **Financial statements**

## Balance sheet

<i>EUR million</i>	<i>31 Dec 2015</i>	<i>31 Dec 2014</i>
<b>ASSETS</b>		
1 <i>Gold and gold receivables</i>	1,534	1,557
2 <i>Claims on non-euro area residents denominated in foreign currency</i>	7,483	7,020
<i>Receivables from the International Monetary Fund</i>	1,890	1,913
<i>Balances with banks and security investments, external loans and other external assets</i>	5,592	5,106
3 <i>Claims on euro area residents denominated in foreign currency</i>	417	360
4 <i>Claims on non-euro area residents denominated in euro</i>	1,443	1,044
5 <i>Lending to euro area credit institutions related to monetary policy operations denominated in euro</i>	690	722
<i>Main refinancing operations</i>	–	15
<i>Longer-term refinancing operations</i>	690	707
6 <i>Other claims on euro area credit institutions denominated in euro</i>	0	36
7 <i>Securities of euro area residents denominated in euro</i>	19,662	11,316
<i>Securities held for monetary policy purposes</i>	12,074	3,568
<i>Other securities</i>	7,588	7,748
8 <i>Intra-Eurosystem claims</i>	25,096	24,584
<i>Participating interest in ECB</i>	144	144
<i>Claims equivalent to the transfer of foreign reserves</i>	728	728
<i>Net claims related to the allocation of euro banknotes within the Eurosystem</i>	4,103	3,962
<i>Other claims within the Eurosystem (net)</i>	20,121	19,749
9 <i>Other assets</i>	1,088	1,082
<i>Coins of euro area</i>	32	29
<i>Tangible and intangible fixed assets</i>	138	143
<i>Other current assets</i>	657	698
<i>Other</i>	261	213
<b>Total assets</b>	<b>57,414</b>	<b>47,722</b>

Totals/sub-totals may not add up due to rounding.

<i>EUR million</i>	<i>31 Dec 2015</i>	<i>31 Dec 2014</i>
<b>LIABILITIES</b>		
1 <i>Banknotes in circulation</i>	17,790	16,793
2 <i>Liabilities to euro area credit institutions related to monetary policy operations denominated in euro</i>	27,559	20,308
<i>Current accounts (covering the minimum reserve system)</i>	25,889	20,233
<i>Deposit facility</i>	1,670	75
<i>Fixed-term deposits (liquidity-absorbing fine-tuning operations)</i>	–	–
3 <i>Liabilities to other euro area residents denominated in euro</i>	79	2
4 <i>Liabilities to non-euro area residents denominated in euro</i>	676	2
5 <i>Liabilities to euro area residents denominated in foreign currency</i>	–	–
6 <i>Liabilities to non-euro area residents denominated in foreign currency</i>	46	58
7 <i>Counterpart of special drawing rights allocated by the IMF</i>	1,514	1,418
8 <i>Intra-Eurosystem liabilities</i>	–	–
9 <i>Other liabilities</i>	12	22
10 <i>Revaluation accounts</i>	2,762	2,304
11 <i>Provisions</i>	4,317	4,163
12 <i>Capital and reserves</i>	2,514	2,501
<i>Primary capital</i>	841	841
<i>Reserve fund</i>	1,673	1,660
13 <i>Profit for the financial year</i>	146	150
<i>Total liabilities</i>	<i>57,414</i>	<i>47,722</i>

## Profit and loss account

EUR million	1 Jan–31 Dec 2015	1 Jan–31 Dec 2014
1 Interest income	313	329
2 Interest expenses	–3	–12
3 NET INTEREST INCOME	310	317
4 Foreign exchange rate differences	26	16
5 Securities price differences	47	38
Valuation losses related to currencies and securities	–19	–4
6 Change in foreign exchange rate and price difference provision	–54	–50
NET RESULT OF FINANCIAL OPERATIONS, WRITE-DOWNS AND RISK PROVISIONS	310	317
7 Income and expenses on fees and commissions	–1	–0
8 Net result of pooling of monetary income	–38	1
9 Share in ECB profit	3	1
10 Other central banking income	18	18
CENTRAL BANKING PROFIT	291	337
11 Other income	31	31
Operating expenses	–76	–43
12 Staff costs	–49	–50
13 Pension fund contribution	17	57
14 Administrative expenses	–30	–30
15 Depreciation of fixed assets	–9	–8
16 Banknote procurement costs	–4	–11
17 Other expenses	–0	–0
OPERATING PROFIT	246	325
Profit for the pension fund	–	–
18 Income of the pension fund	52	87
19 Expenses of the pension fund	–52	–87
20 Changes in provisions	–100	–175
21 PROFIT FOR THE FINANCIAL YEAR	146	150

## The Board's proposal on the distribution of profit

The Board proposes to the Parliamentary Supervisory Council that EUR 48,103,443.39 of the profit of EUR 146,103,443.39 be transferred to the reserve fund in accordance with section 21, subsection 2 of the Act on the Bank of Finland and that the remaining EUR 98,000,000.00 be made available for the needs of the State.

Helsinki, 16 February 2016

THE BOARD OF THE BANK OF FINLAND

Erkki Liikanen, Chairman

Pentti Hakkarainen

Seppo Honkapohja

./ . Mika Pösö

# 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 income 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.

## 2. 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 revaluation accounts. Unrealised losses are taken to the profit and loss account if they exceed previous corresponding unrealised revaluation gains registered in the revaluation accounts. Unrealised losses taken to the profit and loss account are not reversed against any future unrealised gains in subsequent years. 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 cost method. Foreign exchange rates used in the financial statements are presented in the table below.

<i>Currency</i>	<i>2015</i>	<i>2014</i>
<i>US dollar</i>	1.0887	1.2141
<i>Japanese yen</i>	131.0700	145.2300
<i>Australian dollar</i>	1.4897	1.4829
<i>Norwegian krone</i>	9.6030	9.0420
<i>Danish krone</i>	7.4626	7.4453
<i>Swedish krona</i>	9.1895	9.3930
<i>Swiss franc</i>	1.0835	1.2024
<i>Pound sterling</i>	0.73395	0.7789
<i>Canadian dollar</i>	1.5116	1.4063
<i>Special Drawing Rights (SDR)</i>	0.7857	0.8386
<i>Gold</i>	973.2250	987.7690

## 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 recorded in revaluation accounts. Unrealised losses are taken to the profit and loss account if they exceed previous corresponding unrealised revaluation gains registered in the revaluation accounts. Unrealised losses taken to the profit and loss account are not reversed against any future unrealised gains in subsequent years. Both euro-denominated 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 inward deposits on the assets side of the balance sheet. Repurchase agreements, or repos, are recorded as collateralised outward 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.

#### *Securities held for monetary policy purposes*

Securities currently held for monetary policy purposes are accounted for at amortised cost subject to impairment, regardless of the holding intention.

#### *Securities other than those held for monetary policy purposes*

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. In 2015, mid-market prices on 31 December 2015 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**

Intra-Eurosystem balances result from cross-border payments in the EU that are settled in central bank money in euro. These transactions are for the most part initiated by private entities. They are primarily settled in TARGET2 – the Trans-European Automated Real-time Gross settlement Express Transfer system. These transactions give rise to bilateral balances in the TARGET2 accounts of EU central banks. These bilateral balances are then assigned to the ECB on a daily basis, leaving each national central bank (NCB) with a single net bilateral position vis-à-vis the ECB only.

Intra-Eurosystem balances of the Bank of Finland vis-à-vis the ECB arising from TARGET2, as well as other intra-Eurosystem balances denominated in euro (eg interim profit distributions to NCBs, monetary income results), are presented on the balance sheet of the Bank of Finland as a single net asset or liability position and disclosed under 'Other claims within the Eurosystem (net)'. Intra-ESCB balances versus non-euro area NCBs not arising from TARGET2 are disclosed either under 'Claims on non-euro area residents denominated in euro' or 'Liabilities to non-euro area residents denominated in euro'.

Intra-Eurosystem balances arising from the Bank of Finland's participating interest in the ECB are reported under 'Participating interest in ECB'.

Intra-Eurosystem balances arising from the allocation of euro banknotes within the Eurosystem are included as a single net asset under 'Net claims related to the allocation of euro banknotes within the Eurosystem' (see 'Banknotes in circulation' in the notes on accounting conventions).

Intra-Eurosystem balances arising from the transfer of foreign reserve assets to the ECB by NCBs joining the Eurosystem are denominated in euro and reported under 'Claims equivalent to the transfer of foreign reserves'.

#### **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 from the second 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 19 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.<sup>2</sup> 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,<sup>3</sup> 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 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

There were no changes in accounting conventions in the financial year 2015.

## 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 ESCB 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 a) the securities markets programme (SMP), b) the

<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.

<sup>2</sup> 'Banknote allocation key' means the percentages that result from taking into account the ECB's share in the total euro banknote issue and applying the subscribed capital key to the NCBs' share in that total.

<sup>3</sup> ECB decision on the allocation of monetary income of the national central banks of Member States whose currency is the euro (ECB/2010/23).

<sup>4</sup> ECB decision of 6 November 2005 on the issue of euro banknotes (ECB/2005/11).

asset-backed securities purchase programme (ABSPP), c) the third covered bond purchase programme (CBPP3) and 4) the public sector asset purchase programme (PSPP) shall be due in full to the NCBs in the same financial year it accrues. Unless otherwise decided by the Governing Council, the ECB distributes 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 securities in the above mentioned programmes 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 securities acquired in the purchase programmes 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.

<i>Key for subscription of the ECB's capital from 1 January 2015</i>		
	<i>ESCB, capital key, %</i>	<i>Eurosystem, capital key, %</i>
<i>Nationale Bank van België/Banque Nationale de Belgique</i>	2.4778	3.52003
<i>Deutsche Bundesbank</i>	17.9974	25.56743
<i>Eesti Pank</i>	0.1928	0.27390
<i>Banc Ceannais na hÉireann/Central Bank of Ireland</i>	1.1607	1.64892
<i>Bank of Greece</i>	2.0332	2.88842
<i>Banco de España</i>	8.8409	12.55961
<i>Banque de France</i>	14.1793	20.14334
<i>Banca d'Italia</i>	12.3108	17.48904
<i>Central Bank of Cyprus</i>	0.1513	0.21494
<i>Latvijas Banka</i>	0.2821	0.40076
<i>Lietuvos bankas</i>	0.4132	0.58700
<i>Banque centrale du Luxembourg</i>	0.2030	0.28839
<i>Bank Ċentrali ta' Malta/ Central Bank of Malta</i>	0.0648	0.09206
<i>De Nederlandsche Bank</i>	4.0035	5.68748
<i>Oesterreichische Nationalbank</i>	1.9631	2.78883
<i>Banco de Portugal</i>	1.7434	2.47672
<i>Banka Slovenije</i>	0.3455	0.49083
<i>Národná banka Slovenska</i>	0.7725	1.09743
<i>Suomen Pankki – Finlands Bank</i>	1.2564	1.78487
<b><i>Subtotal Eurosystem</i></b>	<b>70.3916</b>	<b>100.0000</b>
<i>Българска народна банка (Bulgarian National Bank)</i>	0.8590	
<i>Česká národní banka</i>	1.6075	
<i>Danmarks Nationalbank</i>	1.4873	
<i>Hrvatska narodna banka</i>	0.6023	
<i>Magyar Nemzeti Bank</i>	1.3798	
<i>Narodowy Bank Polski</i>	5.1230	
<i>Banca Națională a României</i>	2.6024	
<i>Sveriges riksbank</i>	2.2729	
<i>Bank of England</i>	13.6743	
<b><i>Subtotal for non-euro area NCBs</i></b>	<b>29.6084</b>	
<b><i>Total</i></b>	<b>100.0000</b>	

<sup>5</sup> ECB decision of 15 December 2014 on the interim distribution of the income of the European Central Bank (ECB/2014/57), OJ L 53, 25.2.2015, p. 24.

## **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 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 the 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 the 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 commitments**

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.

# Notes on the balance sheet

## Assets

### 1. Gold and gold receivables

The Bank's holdings of gold total 1,576,487 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 – along with the other national central banks (NCBs) participating in the Eurosystem – transferred about 20% of its gold holdings to the ECB.

#### Gold

	31 Dec 2015	31 Dec 2014
Holdings (troy ounces, million)	1.6	1.6
Price: EUR per troy ounce	973.2	987.8
Market price (EUR m)	1 534.3	1 557.2
Change in market value (EUR m)	-22.9	183.7

### 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).

#### 2.1 Receivables from the IMF

##### Breakdown of receivables from the IMF denominated in foreign currency

	31 Dec 2015		31 Dec 2014	
	EUR m	SDR m	EUR m	SDR m
Reserve tranche in the IMF	181.8	142.8	274.0	229.8
SDRs	1 429.8	1 123.4	1 342.8	1 126.1
Other receivables from the IMF	278.7	219.0	296.6	248.7
<b>Total</b>	<b>1 890.3</b>	<b>1 485.2</b>	<b>1 913.4</b>	<b>1 604.7</b>

##### EUR/SDR exchange rate in financial years 2014 and 2015

	2015	2014
End-March	0.7794	0.8923
End-June	0.7954	0.8833
End-September	0.7986	0.8490
End-December	0.7857	0.8386

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 1,429.8 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 1,890.3 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.

## 2.2 Other claims on non-euro area residents denominated in foreign currency

This item includes balances with banks and security investments, as well as external loans and other external assets, denominated in foreign currency.

### Breakdown of claims on non-euro area residents denominated in foreign currency

	31 Dec 2015 EUR m	31 Dec 2014 EUR m	Change EUR m
Deposits	92.8	287.5	-194.7
Coupon papers	4,830.2	4,682.8	147.4
Discount papers	628.0	111.7	516.4
Other	41.3	24.5	16.7
<b>Total</b>	<b>5,592.2</b>	<b>5,106.5</b>	<b>485.8</b>

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

Currency	31 Dec 2015		31 Dec 2014	
	EUR m	%	EUR m	%
Pound sterling	777.2	14.2	607.7	12.7
US dollar	4,161.0	76.2	3,772.1	78.7
Japanese yen	520.0	9.5	414.7	8.6
<b>Total</b>	<b>5,458.2</b>	<b>100.0</b>	<b>4 794.5</b>	<b>100.0</b>

### Remaining maturity of securities of non-euro area residents denominated in foreign currency

Maturity	31 Dec 2015		31 Dec 2014	
	EUR m	%	EUR m	%
Up to 1 year	1,391.0	25.5	1,089.6	22.7
Over 1 year	4,067.2	74.5	3,704.9	77.3
<b>Total</b>	<b>5,458.2</b>	<b>100.0</b>	<b>4,794.5</b>	<b>100.0</b>

### 3. 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 2015 EUR m	31 Dec 2014 EUR m	Change EUR m
Deposits	–	–	–
Coupon papers	441.0	383.5	57.5
Discount papers	–	–	–
Other	–23.7	–23.4	–0.4
<b>Total</b>	<b>417.2</b>	<b>360.1</b>	<b>57.1</b>

#### *Currency breakdown of securities of euro area residents denominated in foreign currency*

Currency	31 Dec 2015		31 Dec 2014	
	EUR m	%	EUR m	%
Pound sterling	127.8	29.0	108.0	28.2
US dollar	313.1	71.0	275.5	71.8
<b>Total</b>	<b>441.0</b>	<b>100.0</b>	<b>383.5</b>	<b>100.0</b>

#### *Remaining maturity of securities of euro area residents denominated in foreign currency*

Maturity	31 Dec 2015		31 Dec 2014	
	EUR m	%	EUR m	%
Up to 1 year	228.8	51.9	106.7	27.8
Over 1 year	212.1	48.1	276.8	72.2
<b>Total</b>	<b>441.0</b>	<b>100.0</b>	<b>383.5</b>	<b>100.0</b>

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

This item includes balances with non-euro area banks denominated in euro; coupon bonds and discount papers issued outside the euro area; and other euro-denominated receivables.

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

	31 Dec 2015 EUR m	31 Dec 2014 EUR m	Change EUR m
Deposits	144.9	40.8	104.1
Coupon papers	1,298.1	1,003.4	294.7
Discount papers	–	–	–
Other	0.2	0.0	0.1
<b>Total</b>	<b>1,443.2</b>	<b>1,044.2</b>	<b>398.9</b>

*Remaining maturity of securities of non-euro area residents denominated in euro*

<i>Maturity</i>	<i>31 Dec 2015</i>		<i>31 Dec 2014</i>	
	<i>EUR m</i>	<i>%</i>	<i>EUR m</i>	<i>%</i>
<i>Up to 1 year</i>	566.3	43.6	119.3	11.9
<i>Over 1 year</i>	731.8	56.4	884.1	88.1
<i>Total</i>	1,298.1	100.0	1,003.4	100.0

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

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

The Eurosystem's total claims on monetary policy operations amount to EUR 558,989.1 million, of which the Bank of Finland holds EUR 690.3 million on its balance sheet. In accordance with Article 32.4 of the ESCB 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. Losses can only materialise if both the counterparty fails and the recovery of funds received from the resolution of the collateral provided by the counterparty is not sufficient. It should be noted that for specific collateral which can be accepted by NCBs at their own discretion, risk sharing has been excluded by the Governing Council of the ECB.

**5.1 Main refinancing operations**

Main refinancing operations are liquidity providing reverse transactions which are executed with a weekly frequency and a maturity of one week. Main refinancing operations are normally carried out by means of standard tenders. Since October 2008, these operations have been conducted as fixed rate tender procedures. Main refinancing operations play a key role in achieving the aims of steering interest rate, managing market liquidity and signalling the monetary policy stance.

**5.2 Longer-term refinancing operations**

These operations aim to provide counterparties with additional longer-term refinancing. In 2015 operations were conducted with maturities equal to the reserve maintenance period and with maturities of 3–48 months. The operations were conducted at fixed rate with allotment of the total amount bid.

**5.3 Fine-tuning reverse operations**

Fine-tuning reverse operations aim to regulate the market liquidity situation and steer interest rates, particularly to smooth the effects on interest rates caused by unexpected market fluctuations. Owing to their nature, they are executed on an ad-hoc basis.

**5.4 Structural reverse operations**

The Eurosystem conducts structural reverse operations as standard tenders whenever it wishes to adjust its liquidity position vis-à-vis the financial sector.

**5.5 Marginal lending facility**

Counterparties may use the marginal lending facility to obtain overnight liquidity from NCBs against eligible assets.

### 5.6 Credits related to margin calls

This item refers to cash paid to counterparties in those instances where the market value of the collateral exceeds an established trigger point implying an excess of collateral with respect to outstanding monetary policy operations.

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

	31 Dec 2015 EUR m	31 Dec 2014 EUR m	Change EUR m
Main refinancing operations	–	15.0	–15.0
Longer-term refinancing operations	690.3	707.0	–16.7
Fine-tuning reverse operations	–	–	–
Structural reverse operations	–	–	–
Marginal lending facility	–	–	–
Credits related to margin calls	–	–	–
<b>Total</b>	<b>690.3</b>	<b>722.0</b>	<b>–31.7</b>

### 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 0.2 million in the financial year 2015, compared with EUR 36.7 million in the previous year.

### 7. Securities of euro area residents denominated in euro

In order to report securities held for monetary policy purposes 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 consists of securities acquired by the Bank of Finland within the scope of three covered bond purchase programmes (CBPP1–3) and the securities markets programme (SMP) as well as through the public sector asset purchase programme (PSPP).

##### *First covered bond purchase programme*

The NCBs and the ECB purchased euro area covered bonds denominated in euro under the programme. The purchases were fully implemented by the end of June 2010.

##### *Second covered bond purchase programme*

The NCBs and the ECB purchased euro area covered bonds denominated in euro under the programme in order to facilitate funding of financial and non-financial corporations and encourage credit institutions to lend money. The programme was completed by the end of October 2012.

##### *Securities markets programme*

Under the securities markets programme (SMP) established in May 2010 the NCBs and the ECB purchased euro area public and private debt securities in order to address the malfunctioning of certain segments of the euro area debt securities markets and to restore the proper functioning of the monetary policy transmission mechanism. The Governing Council decided to terminate the purchase programme in September 2012.

### *Third covered bond purchase programme and asset-backed securities purchase programme*

On 2 October 2014 the Governing Council announced the operational details of the third covered bond purchase programme (CBPP3) and the asset-backed securities purchase programme (ABSPP). The aim of these programmes is to facilitate credit provision to euro area economy, generate positive spillovers to other markets and, as a result, ease the ECB's monetary policy stance.

Under the two programmes, the ECB and the NCBs may purchase, in both the primary and secondary markets, euro-denominated covered bonds issued in the euro area and senior and guaranteed mezzanine tranches of asset-backed securities that are denominated in euro and issued by entities that are resident in the euro area.

### *Public sector asset purchase programme*

On 22 January 2015 the Governing Council decided that asset purchases should be expanded to include a secondary market public sector asset purchase programme (PSPP). This programme aims to further ease monetary and financial conditions, including those relevant to borrowing conditions of euro area and non-financial corporations and households, thereby supporting aggregate consumption and investment spending in the euro area and ultimately contributing to a return of inflation rates to levels below but close to 2% over the medium term. Under this programme the ECB and the NCBs may purchase, in the secondary market, euro-denominated securities issued by euro area central governments, agencies and European institutions.

The combined monthly purchases of CBPP3, ABSPP and PSPP are intended to amount to EUR 60 billion and are expected to be carried out until at least March 2017.

Securities purchased under all six programmes are valued on an amortised cost basis subject to impairment (see "Securities" in the notes on accounting policies). Annual impairment tests are conducted on the basis of the estimated recoverable amounts as at the year-end.

The market values of these securities, which are not recorded in the balance sheet nor in the profit and loss account, are shown below for comparison.

### *Securities held for monetary policy purposes*

	31 Dec 2015		31 Dec 2014		Change	
	EUR m		EUR m		EUR m	
	Balance sheet value	Market value	Balance sheet value	Market value	Balance sheet value	Market value
<i>First covered bond purchase programme</i>	74.2	75.8	253.9	259.0	-179.7	-183.2
<i>Second covered bond purchase programme</i>	185.8	196.2	264.1	278.1	-78.3	-82.0
<i>Third covered bond purchase programme</i>	2,537.9	2,534.5	685.0	692.2	1,852.9	1,842.3
<i>Securities markets programme</i>	1,972.8	2,203.0	2,365.4	2,621.5	-392.6	-418.5
<i>Public sector asset purchase programme</i>	7,303.5	7,270.3	-	-	7,303.5	7,270.3
<i>Asset-backed securities purchase programme</i>	-	-	-	-	-	-
<b>Total</b>	<b>12,074.1</b>	<b>12,279.7</b>	<b>3,568.5</b>	<b>3,850.8</b>	<b>8,505.7</b>	<b>8,428.8</b>

The Governing Council on a regular basis assesses the financial risks associated with securities held under the purchase programmes.

The total Eurosystem NCBs' holdings of SMP securities amounts to EUR 114,080.0 million, of which the Bank of Finland holds EUR 1,972.8 million on its balance sheet.

The total Eurosystem NCBs' holdings of CBPP3 securities amounts to EUR 131,882.8 million, of which the Bank of Finland holds EUR 2,537.9 million on its balance sheet. In accordance with Article 32.4 of the ESCB Statute, any risks in holdings of SMP and CBPP3 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.

As a result of impairment tests of monetary policy securities conducted as at 31 December 2015, the Governing Council determined that all cash flows associated with the securities will be received as expected.

## 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 2015 EUR m	31 Dec 2014 EUR m	Change EUR m
<i>Coupon papers</i>	6,128.1	7,505.7	-1,377.7
<i>Discount papers</i>	1,328.1	231.9	1,096.2
<i>Equity funds</i>	132.2	10.1	122.1
<b>Total</b>	<b>7,588.3</b>	<b>7,747.7</b>	<b>-159.4</b>

### *Remaining maturity of other securities of euro area residents denominated in euro*

<i>Maturity</i>	31 Dec 2015		31 Dec 2014	
	EUR m	%	EUR m	%
<i>Up to 1 year</i>	3,291.2	44.1	2,050.6	26.5
<i>Over 1 year</i>	4,164.9	55.9	5,686.9	73.5
<b>Total</b>	<b>7,456.1</b>	<b>100.0</b>	<b>7,737.5</b>	<b>100.0</b>

## 8. Intra-Eurosystem claims

### 8.1 Participating interest in ECB

Pursuant to Article 28 of the ESCB Statute, the NCBs are the sole subscribers to the capital of the ECB. Subscriptions depend on shares which are fixed in accordance with Article 29.3 of the ESCB Statute and which are subject to adjustment every five years.

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 whenever new members join the EU. The Bank of Finland's percentage share in the ECB's capital has been 1.2564% since 1 January 2015.

### 8.2 Claims equivalent to the transfer of foreign reserves

Item 'Claims equivalent to the transfer of foreign reserves' includes the share of foreign reserve assets, EUR 728.1 million (EUR 728.1 million in 2014), transferred by the Bank of Finland to the ECB when Finland joined the Eurosystem. These claims are denominated in euro at a value

fixed at the time of their transfer. 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.

### *8.3 Net claims related to the allocation of euro banknotes within the Eurosystem*

The 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 figure. 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 the 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'.<sup>6</sup>

The balance sheet item totalled EUR 4,102.8 million in 2015 (EUR 3,962.3 million in 2014). The increase in comparison to 2014 was due to the increase in banknotes put into circulation by the Bank of Finland (6.7%), as well as the increase in banknotes in circulation in the Eurosystem as a whole (5.9%). The remuneration of these claims is calculated at the latest available marginal rate for the Eurosystem's main refinancing operations.

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<sup>6</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 'Net claims/liabilities related to the allocation of euro banknotes within the Eurosystem'.

## Subscribed and paid-up capital of NCBs:

	<i>Subscribed capital as from 31 Dec 2015</i>	<i>Paid-up capital as from 31 Dec 2015</i>
<i>Nationale Bank van België/ Banque Nationale de Belgique</i>	268,222,025	268,222,025
<i>Deutsche Bundesbank</i>	1,948,208,997	1,948,208,997
<i>Eesti Pank</i>	20,870,614	20,870,614
<i>Banc Ceannais na hÉireann/ Central Bank of Ireland</i>	125,645,857	125,645,857
<i>Bank of Greece</i>	220,094,044	220,094,044
<i>Banco de España</i>	957,028,050	957,028,050
<i>Banque de France</i>	1,534,899,402	1,534,899,402
<i>Banca d'Italia</i>	1,332,644,970	1,332,644,970
<i>Central Bank of Cyprus</i>	16,378,236	16,378,236
<i>Latvijas Banka</i>	30,537,345	30,537,345
<i>Lietuvos bankas</i>	44,728,929	44,728,929
<i>Banque centrale du Luxembourg</i>	21,974,764	21,974,764
<i>Bank Ċentrali ta' Malta/ Central Bank of Malta</i>	7,014,605	7,014,605
<i>De Nederlandsche Bank</i>	433,379,158	433,379,158
<i>Oesterreichische Nationalbank</i>	212,505,714	212,505,714
<i>Banco de Portugal</i>	188,723,173	188,723,173
<i>Banka Slovenije</i>	37,400,399	37,400,399
<i>Národná banka Slovenska</i>	83,623,180	83,623,180
<i>Suomen Pankki – Finlands Bank</i>	136,005,389	136,005,389
<b><i>Subtotal for euro area NCBs*</i></b>	<b>7,619,884,851</b>	<b>7,619,84,851</b>
<i>Българска народна банка (Bulgarian National Bank)</i>	92,986,811	3,487,005
<i>Česká národní banka</i>	174,011,989	6,525,450
<i>Danmarks Nationalbank</i>	161,000,330	6,037,512
<i>Hrvatska narodna banka</i>	65,199,018	2,444,963
<i>Magyar Nemzeti Bank</i>	149,363,448	5,601,129
<i>Narodowy Bank Polski</i>	554,565,112	20,796,192
<i>Banca Națională a României</i>	281,709,984	10,564,124
<i>Sveriges riksbank</i>	246,041,586	9,226,559
<i>Bank of England</i>	1,480,243,942	55,509,148
<b><i>Subtotal for non-euro area NCBs*</i></b>	<b>3,249,851,147</b>	<b>120,192,083</b>
<b><i>Total*</i></b>	<b>10,825,007,070</b>	<b>7,740,076,934</b>

\*Due to rounding, totals and subtotals may not correspond to the sum of all figures.

#### 8.4 Other claims within the Eurosystem (net) or liability item Other liabilities within the Eurosystem (net)

##### Other claims/liabilities within the Eurosystem (net)

	31 Dec 2015 EUR m	31 Dec 2014 EUR m	Change EUR m
<i>Due to/from ECB in respect of TARGET2 (including balances held with Eurosystem banks through correspondent accounts)</i>	20,144.3	19,732.5	411.8
<i>Net result of pooling of monetary income</i>	-38.2	1.3	-39.5
<i>Due from ECB in respect of the ECB's interim profit distribution</i>	14.5	15.1	-0.6
<i>Other claims/liabilities within the Eurosystem (net)</i>	-	-	-
<b>Total</b>	<b>20,120.6</b>	<b>19,748.9</b>	<b>371.7</b>

The balance of EUR 20,120.6 million as at 31 December 2015 consisted of three components: 1) the position of the Bank of Finland vis-à-vis the ECB in respect of the transfers issued and received through TARGET2 by the ESCB national central banks, including the ECB, plus the balances held with Eurosystem central banks through correspondent accounts; 2) the position vis-à-vis the ECB in respect of the pooling and allocation of monetary income within the Eurosystem pending settlement; 3) the Bank of Finland's position vis-à-vis the ECB in respect of any amounts receivable or refundable, basically in respect of the seigniorage income relating to euro banknotes issued by the ECB and of the securities acquired by the ECB under the securities markets programme.

The year-end net transfers via TARGET2 had a credit balance of EUR 20,144.3 million. The remuneration of this position is calculated daily at the marginal interest rate of Eurosystem main refinancing operations.

The position vis-à-vis the ECB in respect of the annual pooling and allocation of monetary income within the Eurosystem national central banks showed a negative balance of EUR -38.2 million at year-end (see 'Net result of pooling of monetary income' in the notes on the profit and loss account).

With respect to 2015, the Governing Council decided to distribute EUR 812 million from the ECB's income derived from banknotes in circulation and the ECB's income earned on securities purchased under the securities markets programme, the asset-backed securities purchase programme, the third covered bond purchase programme, and the public sector asset purchase programme (see 'Interim profit distribution' under accounting conventions). The Bank's share amounted to EUR 14.5 million.

#### 9. 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*

<i>Book value</i>	<i>31 Dec 2015 EUR m</i>	<i>31 Dec 2014 EUR m</i>	<i>Change EUR m</i>
<i>Land</i>	8.5	8.5	–
<i>Buildings</i>	107.2	112.9	–5.7
<i>Machinery and equipment</i>	8.6	8.0	0.6
<i>Art and numismatic collection</i>	0.5	0.5	0.0
<b><i>Total</i></b>	<b>124.9</b>	<b>129.9</b>	<b>–5.0</b>

*Intangible fixed assets*

<i>Book value</i>	<i>31 Dec 2015 EUR m</i>	<i>31 Dec 2014 EUR m</i>	<i>Change EUR m</i>
<i>IT systems</i>	13.3	13.2	0.1
<b><i>Total</i></b>	<b>13.3</b>	<b>13.2</b>	<b>0.1</b>

*Other holdings and sundry assets*

	<i>31 Dec 2015 EUR m</i>	<i>31 Dec 2014 EUR m</i>	<i>Change EUR m</i>
<i>Coins of euro area</i>	31.8	28.8	3.0
<i>Shares and other equity</i>	24.9	24.9	–
<i>Pension fund's investments</i>	631.8	673.0	–41.2
<i>Accruals</i>	258.5	205.4	53.1
<i>Other sundry assets</i>	2.9	7.1	–4.2
<b><i>Total</i></b>	<b>949.9</b>	<b>939.2</b>	<b>10.7</b>

## 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 2015 the total value of euro banknotes in circulation increased by 5.9%. According to the allocation key, the Bank of Finland had euro banknotes in circulation worth EUR 17,789.9 million at the end of the year, compared with EUR 16,793.2 million at the end of 2014. The value of the euro banknotes actually issued by the Bank of Finland in 2015 increased by 6.7% from EUR 12,830.9 million to EUR 13,687.1 million. As this was less than the allocated amount, the difference of EUR 4,102.8 million (EUR 3,962.3 million in 2014) is shown under asset sub-item 'Net claim related to the allocation of euro banknotes within the Eurosystem'.

<i>Banknotes in circulation</i>	<i>31 Dec 2015</i> <i>EUR m</i>	<i>31 Dec 2014</i> <i>EUR m</i>
EUR 5	89.8	93.1
EUR 10	-40.4	-26.8
EUR 20	2,810.3	2,665.1
EUR 50	8,454.9	7,641.3
EUR 100	-689.1	-605.2
EUR 200	426.5	407.5
EUR 500	2,635.2	2,655.9
<i>Total</i>	<i>13,687.1</i>	<i>12,830.9</i>
<i>ECB issue</i>	<i>-1,547.0</i>	<i>-1,460.1</i>
<i>CSM figure</i>	<i>5,649.8</i>	<i>5,422.3</i>
<i>Banknotes in circulation in accordance with the ECB's capital key</i>	<i>17,789.9</i>	<i>16,793.2</i>

### 2. 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, the deposit facility and fixed-term deposits. The item results from the Bank of Finland's 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.

#### 2.1 Current accounts (covering the minimum reserve system)

Current accounts contain the credit balances of the transaction accounts of credit institutions that are required to hold minimum reserves. Banks' minimum reserve balances have since 1 January 1999 been remunerated at the prevailing marginal interest rate for the Eurosystem's main refinancing operations. From June 2014, either a zero interest rate or the deposit facility rate, whichever is lower, has been applied to banks' excess reserve balances.

#### 2.2 Deposit facility

The deposit facility refers to overnight deposits placed by banks that access the Eurosystem's liquidity absorbing standing facility at the pre-specified rate.

### 2.3 Fixed-term deposits

Fixed-term deposits are fine-tuning liquidity absorbing operations that take the form of deposits.

### 2.4 Fine-tuning reverse operations

Fine-tuning reverse operations are used to offset high liquidity imbalances.

### 2.5 Deposits related to margin calls

This item refers to deposits made by counterparties in those instances where the market value of the collateral pledged falls short of an established trigger point.

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

	31 Dec 2015 EUR m	31 Dec 2014 EUR m	Change EUR m
<i>Current accounts (covering the minimum reserve system)</i>	25,888.6	20,232.6	5,656.0
<i>Deposit facility</i>	1,670.0	75.0	1,595.0
<i>Fixed-term deposits</i>	–	–	–
<i>Fine-tuning reverse operations</i>	–	–	–
<i>Deposits related to margin calls</i>	–	–	–
<b>Total</b>	<b>27,558.6</b>	<b>20,307.6</b>	<b>7,251.0</b>

### 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.

### 5. Liabilities to euro area residents denominated in foreign currency

The Bank of Finland had no liabilities to euro area residents denominated in foreign currency as of 31 December 2015.

### 6. 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.

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

This item is the counteritem of SDRs (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 smaller at the end of 2015 than their counteritem on the liabilities side of the balance sheet. 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 1,514.0 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 2015, the Bank of Finland had no intra-Eurosystem liabilities.

## 9. Other liabilities

<i>Other liabilities</i>	<i>31 Dec 2015 EUR m</i>	<i>31 Dec 2014 EUR m</i>	<i>Change EUR m</i>
<i>Accruals</i>	13.6	14.7	-1.1
<i>Accounts payable</i>	-	0.2	-0.2
<i>Other</i>	-2.0	7.0	-9.0
<b><i>Total</i></b>	<b>11.6</b>	<b>22.0</b>	<b>-10.3</b>

## 10. Revaluation accounts

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

<i>Revaluation accounts</i>	<i>31 Dec 2015 EUR m</i>	<i>31 Dec 2014 EUR m</i>	<i>Change EUR m</i>
<i>Gold</i>	1,145.3	1,168.2	-22.9
<i>Foreign currencies:</i>			
<i>USD</i>	1,081.9	622.3	459.6
<i>GBP</i>	188.3	137.0	51.3
<i>JPY</i>	83.3	38.2	45.1
<i>SDR</i>	2.4	2.8	-0.4
<i>Other currencies</i>	0.2	0.2	-0.1
<i>Securities</i>	76.6	145.0	-68.2
<i>Equity funds</i>	1.3	0.1	1.2
<i>Other revaluations</i>	182.6	190.1	-7.6
<b><i>Total</i></b>	<b>2,762.0</b>	<b>2,303.9</b>	<b>458.0</b>

## 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 2015 these provisions totalled EUR 4,317 million. Provisions consist of a general provision, provision against real value loss, pension liability provision 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 of Finland's pension liabilities total EUR 576.1 million: 106.8% of this amount is covered by the pension provision, ie EUR 615.3 million. The change in pension provision consists of a reduction of EUR -0.4 million in the revaluation account in 2015.

<i>Provisions (EUR m)</i>	<i>Total provisions 31 Dec 2013</i>	<i>Changes in provisions 2014</i>	<i>Total provisions 31 Dec 2014</i>	<i>Changes in provisions 2015</i>	<i>Total provisions 31 Dec 2015</i>
<i>Foreign exchange rate and price difference provision</i>	678	50	728	54	782
<i>General provision</i>	1,545	50	1,595	50	1,645
<i>Provision against real value loss</i>	1,100	125	1,225	50	1,275
<i>Pension provision</i>	616	-0	616	-0	615
<b><i>Total</i></b>	<b>3,939</b>	<b>224</b>	<b>4,163</b>	<b>154</b>	<b>4,317</b>

## 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. Insofar as the reserve fund is insufficient to cover the loss, the uncovered part may be left temporarily uncovered. Any profits in subsequent years shall first be used to cover such uncovered losses.

<i>Capital and reserves (EUR m)</i>	<i>31 Dec 2015</i>	<i>31 Dec 2014</i>	<i>Change</i>
<i>Primary capital</i>	840.9	840.9	-
<i>Reserve fund</i>	1,672.9	1,660.3	12.7
<b><i>Total</i></b>	<b>2,513.9</b>	<b>2,501.2</b>	<b>12.7</b>

## 13. Profit for the financial year

The profit for the financial year 2015 totalled EUR 146.1 million.

<i>Profit for the financial year (EUR m)</i>	<i>2015</i>	<i>2014</i>
<i>Transferred for the needs of the State</i>	98.0	137.5
<i>Bank of Finland's share of profit (transferred to reserve fund)</i>	48.1	12.7
<b><i>Total</i></b>	<b>146.1</b>	<b>150.2</b>

## Notes on the profit and loss account

### 1. Interest income

Interest income from and outside the euro area totalled EUR 313.2 million. Of this, EUR 60.2 million consisted of foreign currency-denominated interest income and EUR 253.0 million of euro-denominated interest income.

Interest income on ESCB items totalled EUR 14.6 million. Of this, EUR 0.3 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 2.0 million, is entered on a net basis. Interest income on TARGET2 balances totalled EUR 12.2 million.

The interest rate on overnight deposits was negative throughout the year, which means that interest has been charged on central bank deposits. This so-called negative interest accrues on both overnight deposits and minimum reserve deposits in excess of the minimum reserve requirements.

	2015			2014		
	Euro-denominated	Foreign currency-denominated	Total	Euro-denominated	Foreign currency-denominated	Total
<i>Interest income received outside the euro area (EUR m)</i>						
Gold investments	–	–	–	–	0.4	0.4
Non-euro area coupon bonds	9.6	51.2	60.8	13.4	43.4	56.7
Non-euro area discount papers	–	0.2	0.2	0.0	0.1	0.1
Non-euro area deposits	0.2	1.4	1.6	0.3	0.6	0.9
Other	–	1.0	1.0	–	1.4	1.4
<b>Total</b>	<b>9.8</b>	<b>53.8</b>	<b>63.6</b>	<b>13.6</b>	<b>45.9</b>	<b>59.5</b>

	2015			2014		
	Euro-denominated	Foreign currency-denominated	Total	Euro-denominated	Foreign currency-denominated	Total
<i>Interest income received from the euro area (EUR m)</i>						
Euro area coupon bonds	35.0	4.9	39.9	59.4	5.0	64.4
Euro area discount papers	–1.0	0.0	–1	1.4	–	1.4
Euro area deposits	0.0	0.1	0.1	0.0	0.2	0.2
Dividends on euro-denominated investments	1.0	–	1.0	–	–	–
ESCB items	14.6	–	14.6	34.6	–	34.6
Monetary policy items	140.3	–	140.3	158.9	–	158.9
Interest income from negative interest rates	53.1	–	53.1	9.5	–	9.5
Other	0.3	1.4	1.7	–0.1	0.1	0.0
<b>Total</b>	<b>243.2</b>	<b>6.4</b>	<b>249.6</b>	<b>263.8</b>	<b>5.2</b>	<b>269.0</b>

	2015			2014		
	Euro-denominated	Foreign currency-denominated	Total	Euro-denominated	Foreign currency-denominated	Total
<i>Total interest income (EUR m)</i>						
Interest income received outside the euro area	9.8	53.8	63.6	13.6	45.9	59.5
Interest income received from the euro area	243.2	6.4	249.6	263.8	5.2	269.0
<b>Total</b>	<b>253.0</b>	<b>60.2</b>	<b>313.2</b>	<b>277.4</b>	<b>51.1</b>	<b>328.6</b>

## 2. Interest expenses

	2015			2014		
	Euro-denominated	Foreign currency-denominated	Total	Euro-denominated	Foreign currency-denominated	Total
<i>Interest expenses paid outside the euro area (EUR m)</i>						
Non-euro area deposits	-0.2	-0.3	-0.5	-0.1	-0.2	-0.3
Other	-	-0.8	-0.8	-	-1.2	-1.2
<b>Total</b>	<b>-0.2</b>	<b>-1.1</b>	<b>-1.3</b>	<b>-0.1</b>	<b>-1.3</b>	<b>-1.4</b>

	2015			2014		
	Euro-denominated	Foreign currency-denominated	Total	Euro-denominated	Foreign currency-denominated	Total
<i>Interest expenses paid in the euro area (EUR m)</i>						
ESCB items	-	-	-	0.0	-	0.0
Monetary policy items	-1.1	-	-1.1	-9.7	-	-9.7
Other	-0.1	-0.6	-0.7	-0.0	-0.3	-0.3
<b>Total</b>	<b>-1.2</b>	<b>-0.6</b>	<b>-1.8</b>	<b>-9.8</b>	<b>-0.3</b>	<b>-10.0</b>

	2015			2014		
	Euro-denominated	Foreign currency-denominated	Total	Euro-denominated	Foreign currency-denominated	Total
<i>Total interest expenses (EUR m)</i>						
Interest expense paid outside the euro area	-0.2	-1.1	-1.3	-0.1	-1.3	-1.4
Interest expense paid in the euro area	-1.2	-0.6	-1.8	-9.8	-0.2	-10.0
<b>Total</b>	<b>-1.4</b>	<b>-1.7</b>	<b>-3.1</b>	<b>-9.9</b>	<b>-1.6</b>	<b>-11.5</b>

## 3. Net interest income

	31 Dec 2015 EUR m	31 Dec 2014 EUR m
<i>Net interest income</i>		
<i>Interest income</i>		
Financial assets	105.2	125.7
Monetary policy items	140.3	158.9
Negative interest on monetary policy items	53.1	9.5
ESCB claims	14.6	34.6
<b>Total</b>	<b>313.2</b>	<b>328.7</b>
<i>Interest expenses</i>		
Financial assets	-2.0	-1.7
Monetary policy items	-1.1	-9.7
ESCB liabilities	-	0.0
<b>Total</b>	<b>-3.1</b>	<b>-11.5</b>
<b>NET INTEREST INCOME</b>	<b>310.0</b>	<b>317.2</b>

#### 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 2015 gains related to foreign exchange rate movements amounted to EUR 25.9 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 2015 the realised gains related to securities price movements totalled EUR 28.1 million.

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

Realised net gains arising from foreign exchange rate and price differences, EUR 54.0 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 liabilities.

#### 7. Income and expenses on fees and commissions

The item includes fees and commissions related to investment activities.

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

<i>Monetary income</i>	<i>31 Dec 2015 EUR m</i>	<i>31 Dec 2014 EUR m</i>
<i>Net monetary income pooled by the Bank of Finland</i>	198.3	189.3
<i>Net monetary income allocated to the Bank of Finland</i>	160.3	178.6
<i>Net monetary income according to the capital allocation key</i>	-38.0	-10.7
<i>Corrections to monetary income reallocation of previous years</i>	-0.2	12.1

The amount of each Eurosystem NCB's monetary income is determined by measuring the actual annual income that derives from the earmarkable assets held against its liability base. The liability base consists mainly of the following items: banknotes in circulation; liabilities to euro area credit institutions related to monetary policy operations denominated in euro; intra-Eurosystem liabilities of the NCBs arising from the issuance of ECB debt certificates; net intra-Eurosystem liabilities resulting from TARGET2 transactions; 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.

The earmarkable assets mainly consist of the following items: lending to euro area credit institutions related to monetary policy operations denominated in euro; securities held for monetary policy purposes; intra-Eurosystem claims equivalent to the transfer of foreign reserve assets to the ECB; net intra-Eurosystem claims resulting from TARGET2 transactions; net intra-Eurosystem claims related to the allocation of euro banknotes within the Eurosystem; a limited amount of each NCB's gold holdings in proportion to each NCB's capital key share.

Gold is considered to generate no income. Securities held for monetary policy purposes under Decision ECB/2009/16 of 2 July 2009 on the implementation of the covered bond purchase programme, under Decision ECB/2011/17 of 3 November 2011 on the implementation of the second covered bond purchase programme, and under Decision ECB/2015/10 of 4 March 2015 on a secondary markets public sector asset purchase programme are considered to generate income at the latest available marginal rate for the Eurosystem's main refinancing

operations. Where the value of an NCB's earmarkable assets exceeds or falls short of the value of its liability base, the difference shall be offset by applying to the value of the difference the latest available marginal rate for the Eurosystem's main refinancing operations.

The monetary income pooled by the Eurosystem is to be allocated among the NCBs according to ECB's subscribed capital key. The difference between the monetary income pooled by the Bank of Finland amounting to EUR 198.3 million and reallocated to the Bank of Finland amounting to EUR 160.3 million is the net result arising from the calculation of monetary income.

### 9. Share in ECB profit

The ECB distributed EUR 148 million profit for the financial year 2014, of which the Bank of Finland's share recorded for the financial year 2015 totalled EUR 2.7 million.

### 10. Other central banking income

This item includes the Bank of Finland's share in income on euro banknotes distributed in 2015 by the ECB in the form of an interim distribution of profit and income on the security portfolio related to the securities market programme (the SMP portfolio), on the third covered bond purchase programme (CBPP3), on the asset-backed securities purchase programme (ABSPP), and on the public sector asset purchase programme (PSPP), EUR 14.5 million. The item also includes dividend income on shares in the Bank for International Settlements (BIS), EUR 3.0 million.

### 11. Other income

This item consists of the Financial Supervisory Authority's supervision and processing fees, EUR 24.7 million, income from real estate, EUR 4.5 million, as well as commissions and fees.

### 12. Staff costs

<i>Staff costs</i>	<i>31 Dec 2015 EUR m</i>	<i>31 Dec 2014 EUR m</i>
<i>Salaries and fees</i>	39.3	40.0
<i>Employer's payments to the pension fund</i>	7.5	7.7
<i>Other staff-related costs</i>	2.5	2.7
<b><i>Total</i></b>	<b>49.4</b>	<b>50.4</b>

<i>Average staff size</i>	<i>2015 Number of staff</i>	<i>2014 Number of staff</i>
<i>Bank of Finland</i>	379	389
<i>Financial Supervisory Authority</i>	189	193
<b><i>Total</i></b>	<b>568</b>	<b>582</b>

<i>Basic salaries paid to the members of the Board</i>	<i>2015 EUR</i>
<i>Erkki Liikanen</i>	260,571
<i>Pentti Hakkarainen</i>	235,184
<i>Seppo Honkapohja</i>	191,780
<b><i>Total</i></b>	<b>687,535</b>

Fringe benefits (meal benefit, company-paid telephone and company car) paid to the members of the Board totalled EUR 42,607.

As of 2005, pension benefits of the members of the Board are determined according to the Bank of Finland's Pension Rule, without special terms and under the same terms and conditions as confirmed in the Rule for other personnel. As applicable, the Bank of Finland's Pension Rule is in line with the State Employees' Pension Scheme. A former board member may be paid compensation for income loss if the person may not, because of qualifying period provisions, accept employment from elsewhere or if the pension from the Bank of Finland is less than the compensation for income loss. Full compensation for income loss amounts to 60% of salary and is paid for one year, adjusted with the pension paid by the Bank, so that the sum of full compensation and pension do not exceed 60% of salary.

### 13. Pension fund contribution repayment

In 2015 the Bank's pension fund refunded pension fund contributions of EUR 16.5 million to the Bank.

### 14. Administrative expenses

<i>Administrative expenses</i>	<i>31 Dec 2015</i> <i>EUR m</i>	<i>31 Dec 2014</i> <i>EUR m</i>
<i>Supplies and purchases</i>	0.7	0.6
<i>Machinery and equipment</i>	3.4	2.9
<i>Real estate</i>	8.8	9.3
<i>Staff-related expenses</i>	3.7	3.8
<i>Purchase of services</i>	11.1	11.8
<i>Other</i>	1.7	2.1
<b><i>Total</i></b>	<b>29.5</b>	<b>30.5</b>

This item includes rents, meetings and interest group-related 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

<i>Depreciation of tangible fixed assets</i>	<i>31 Dec 2015</i> <i>EUR m</i>	<i>31 Dec 2014</i> <i>EUR m</i>
<i>Land</i>	–	–
<i>Buildings</i>	2.5	2.5
<i>Machinery and equipment</i>	2.5	2.5
<i>Art and numismatic collection</i>	–	–
<b><i>Total</i></b>	<b>5.1</b>	<b>5.0</b>

<i>Depreciation of intangible fixed assets</i>	<i>31 Dec 2015</i> <i>EUR m</i>	<i>31 Dec 2014</i> <i>EUR m</i>
<i>IT systems</i>	4.2	2.9
<b><i>Total</i></b>	<b>4.2</b>	<b>2.9</b>

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

### 16. Banknote procurement costs

Purchases of banknotes amounted to EUR 4.2 million.

## 17. Other expenses

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

## 18. Income of the pension fund

This item includes income from the Bank of Finland pension fund's investment activities, EUR 34.9 million. The item also includes the Bank of Finland's and Financial Supervisory Authority's employer contributions as well as employees' share of premium income, EUR 10.2 million.

## 19. Expenses of the pension fund

This item includes expenses due to the Bank of Finland pension fund's investment activities, EUR 0.5 million, pensions paid, EUR 27.0 million, management costs and depreciations of fixed assets managed by the pension fund.

## 20. Changes in provisions

This item includes the increase of the provision against real value loss, EUR 50 million, and the increase of the general provision, EUR 50 million. All provisions have been specified in the notes on the balance sheet under liabilities.

## 21. Profit for the financial year

The profit for the financial year 2015 totalled EUR 146.1 million. The Board proposes to the Parliamentary Supervisory Council that EUR 98 million of the profit be made available for the needs of the State.

## Off-balance sheet commitments

This item contains the Bank of Finland's derivative contracts. The bulk of derivative contracts have been made for hedging against exchange rate risk.

<i>Derivative contracts</i>	<i>31 Dec 2015</i>	<i>31 Dec 2014</i>
	<i>EUR m</i>	<i>EUR m</i>
<i>Nominal value of FX futures contracts</i>		
<i>Purchase agreements</i>	245.6	–
<i>Sales agreements</i>	–273.4	–
<i>Market value of FX-swap contracts</i>	3.3	7.9
<i>Market value of IRS contracts</i>	–	–
<i>Market value of FX forward contracts</i>	0.0	–
<i>Total</i>	<i>–24.5</i>	<i>7.9</i>

## Appendices to the financial statements

EUR million	31 Dec 2015	31 Dec 2014
<i>Shares and other interests, nominal value</i>		
Bank for International Settlements (BIS) <sup>1</sup>	22.4 (1.96%)	22.4 (1.96%)
Shares in housing companies	2.5	2.5
Other shares and interests	0.0	0.0
<b>Total</b>	<b>24.9</b>	<b>24.9</b>
Bank of Finland's liability share in the APK fund	0.3	0.3
<i>Liability arising from pension commitments</i>		
Bank of Finland's pension liability <sup>2</sup>	576.1	581.2
– of which covered by reserves	615.3	615.7
<i>Customer service office</i>		
Deposits	24.5	24.9
Loans	3.4	3.8

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

<sup>2</sup> Pension liability for 2015 includes indexation of pensions and paid-up policies entering into force on 1 January 2016.

### The Bank of Finland's real estate

Building	Address	Year of completion	Volume m <sup>3</sup> (approx.)
Helsinki	Rauhankatu 16	1883/1961/2006	52,100
	Rauhankatu 19	1954/1981	40,500
	Snellmaninkatu 6 <sup>1</sup>	1857/1892/2001	24,600
	Snellmaninkatu 2 <sup>1</sup>	1901/2003	3,400
	Ramsinniementie 34	1920/1983/1998	4,800
Oulu	Kajaaninkatu 8	1973	17,200
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.

## 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)	2015	2014	2013	2012	2011
<b>Assets</b>					
<i>Gold and gold receivables</i>	1,534	1,557	1,373	1,988	1,918
<i>Claims on non-euro area residents denominated in foreign currency</i>	7,483	7,020	6,585	6,171	5,886
<i>Receivables from the International Monetary Fund</i>	1,890	1,913	1,955	2,097	1,967
<i>Balances with banks and security investments, external loans and other external assets</i>	5,592	5,106	4,630	4,074	3,919
<i>Claims on euro area residents denominated in foreign currency</i>	417	360	297	404	628
<i>Claims on non-euro area residents denominated in euro</i>	1,443	1,044	1,347	1,970	1,946
<i>Lending to euro area credit institutions related to monetary policy operations denominated in euro</i>	690	722	2,475	3,681	2,311
<i>Main refinancing operations</i>	–	15	–	–	10
<i>Longer-term refinancing operations</i>	690	707	2,475	3,681	2,301
<i>Other claims on euro area credit institutions denominated in euro</i>	0	37	0	0	40
<i>Securities of euro area residents denominated in euro</i>	19,662	11,316	10,063	11,471	13,889
<i>Securities held for monetary policy purposes</i>	12,096	3,568	3,717	4,555	4,637
<i>Other securities</i>	7,588	7,748	6,346	6,915	9,253
<i>Intra-Eurosystem claims</i>	25,096	24,584	26,539	74,382	70,271
<i>Participating interest in ECB</i>	144	144	141	141	120
<i>Claims equivalent to the transfer of foreign reserves</i>	728	728	722	722	722
<i>Net claims related to the allocation of euro banknotes within the Eurosystem</i>	4,103	3,962	3,522	3,248	3,485
<i>Other claims within the Eurosystem (net)</i>	20,121	19,749	22,154	70,270	65,944
<i>Other assets</i>	1,088	1,082	1,052	1,115	1,171
<i>Coins of euro area</i>	32	29	23	27	25
<i>Tangible and intangible fixed assets</i>	138	143	149	155	165
<i>Other current assets</i>	657	698	641	607	569
<i>Other</i>	261	213	238	326	413
<b>Total assets</b>	<b>57,414</b>	<b>47,722</b>	<b>49,731</b>	<b>101,182</b>	<b>98,061</b>

BALANCE SHEET (EUR m)	2015	2014	2013	2012	2011
<i>Liabilities</i>					
<i>Banknotes in circulation</i>	17,790	16,793	15,753	15,044	14,649
<i>Liabilities to euro area credit institutions related to monetary policy operations denominated in euro</i>	27,559	20,308	23,803	73,799	71,697
<i>Current accounts (covering the minimum reserve system)</i>	25,889	20,233	14,303	31,698	1,657
<i>Deposit facility</i>	1,670	75	–	37,101	52,540
<i>Fixed-term deposits (liquidity-absorbing fine-tuning operations)</i>	–	–	9,500	5,000	17,500
<i>Liabilities to other euro area residents denominated in euro</i>	79	2	55	801	836
<i>Liabilities to non-euro area residents denominated in euro</i>	676	2	527	1,004	782
<i>Liabilities to euro area residents denominated in foreign currency</i>	–	–	0	0	0
<i>Liabilities to non-euro area residents denominated in foreign currency</i>	46	58	66	139	153
<i>Counterpart of special drawing rights allocated by the IMF</i>	1,514	1,418	1,330	1,387	1,412
<i>Intra-Eurosystem liabilities</i>	–	–	–	–	–
<i>Other liabilities</i>	12	22	21	24	178
<i>Revaluation accounts</i>	2,762	2,304	1,556	2,609	2,806
<i>Provisions</i>	4,317	4,163	3,939	3,708	3,032
<i>Capital and reserves</i>	2,514	2,501	2,442	2,332	2,262
<i>Primary capital</i>	841	841	841	841	841
<i>Reserve fund</i>	1,673	1,660	1,601	1,491	1,421
<i>Profit for the financial year</i>	146	150	239	337	254
<i>Total liabilities</i>	57,414	47,722	49,731	101,182	98,061

<b>PROFIT AND LOSS ACCOUNT (EUR m)</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>
<i>Interest income</i>	313	329	565	1,110	763
<i>Interest expenses</i>	-3	-12	-23	-113	-170
<b>Net interest income</b>	<b>310</b>	<b>317</b>	<b>542</b>	<b>998</b>	<b>592</b>
<i>Foreign exchange rate differences</i>	26	16	-6	14	5
<i>Securities price differences</i>	28	34	37	218	4
<i>Change in foreign exchange rate and price difference provision</i>	-54	-50	-31	-232	-9
<b>Net result of financial operations, write-downs and risk provisions</b>	<b>310</b>	<b>317</b>	<b>542</b>	<b>998</b>	<b>592</b>
<i>Income and expenses on fees and commissions</i>	-1	-0	-1	-1	-0
<i>Net result of pooling of monetary income</i>	-38	1	-111	-343	-75
<i>Share in ECB profit</i>	3	1	8	1	3
<i>Provisions in respect of counterparty risk in monetary policy operations</i>	-	-	6	11	22
<i>Other central banking income</i>	18	18	28	133	15
<b>Central banking profit</b>	<b>291</b>	<b>337</b>	<b>472</b>	<b>800</b>	<b>557</b>
<b>Other income</b>	<b>31</b>	<b>31</b>	<b>33</b>	<b>47</b>	<b>35</b>
<b>Operating expenses</b>	<b>-76</b>	<b>-43</b>	<b>-94</b>	<b>-91</b>	<b>-125</b>
<i>Staff costs</i>	-49	-50	-52	-52	-51
<i>Pension fund contribution</i>	17	57	-	-	-32
<i>Administrative expenses</i>	-30	-30	-29	-29	-29
<i>Depreciation of fixed assets</i>	-9	-8	-8	-8	-8
<i>Banknote procurement costs</i>	-4	-11	-5	-3	-4
<i>Other expenses</i>	-0	-0	-0	-1	-1
<b>Operating profit</b>	<b>246</b>	<b>325</b>	<b>411</b>	<b>754</b>	<b>467</b>
<i>Profit for the pension fund</i>	-	-	34	47	19
<b>Changes in provisions</b>	<b>-100</b>	<b>-175</b>	<b>-206</b>	<b>-464</b>	<b>-232</b>
<b>Profit for the financial year</b>	<b>146</b>	<b>150</b>	<b>239</b>	<b>337</b>	<b>254</b>

Totals/sub-totals may not add up due to rounding.

# Notes on risk management

## **Risk management and control of investment of financial assets**

Investment activities are exposed to risks that risk management seeks to identify, measure and limit. In managing these risks, the Bank of Finland uses widely employed risk management methods, market and credit risk models as well as sensitivity analyses.

Risk management of investment activities by the Bank of Finland has been entrusted jointly to the Administration Department's Risk Control and Financial Accounting and the Banking Operations Department. Risk control of investment activities and reporting on risks and returns are the responsibility of the Administration Department's Risk Control and Financial Accounting.

Risks to investment activities are reported daily to the staff involved in operational investment activities and monthly to the Bank of Finland Board. Reports on developments in investment returns are produced at monthly intervals. Returns are considered quarterly in the Markets Committee, chaired by the Board member responsible for investment activities. The Board considers the risks and returns more extensively twice a year. Cases of non-compliance with the limits imposed are reported immediately. An extensive report on total financial risks is submitted to the Board at quarterly intervals.

The Bank of Finland also has a Risk Committee whose mandate is to conduct independent assessments and control of investment risks and the related risk management. It does not make decisions on investment activities and risk management, but may submit matters to the Board for information or decision, as necessary. The Risk Committee is chaired by the Board member responsible for risk control and convenes in two compositions. One discusses financial risks and the other, operational risks.

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

Decisions on investment of financial assets and related risk management are taken by the Bank of Finland Board, the Markets Committee and, in the case of operational matters, also by the Investment Group and the Risk Group.

The Board is responsible for decisions on investment activities objectives, investment policy and risk management principles. Such decisions relate, among other things, to the size of the Bank's own financial assets and foreign reserves, currency distribution of foreign reserves, the size and composition of the liquidity portfolio, the strategic allocation of the investment portfolio by investment category, the leeway permitted in investment activities by investment category and the level of interest rate and credit risks. The Board also decides on maximum credit risk limits.

Within the limits imposed by the Board, the Markets Committee makes detailed decisions on the investment of the Bank's financial assets and risk management. Such decisions include the criteria for counterparties and issuers and more specific credit risk limits. The chair of the Markets Committee, who is also responsible for decision-making on the Committee, is the Board member responsible for the Bank of Finland's own investments.

The emphasis of work in the Investment Group and the Risk Group is on the preparation of matters to be considered by higher decision-making bodies. In addition, the Investment Group acts as an internal decision-maker within the Banking Operations Department and as coordinator of matters common to the investment and risk control functions. The Head of Banking Operations chairs the Investment Group and makes decisions therein. The Head of Risk Control and Financial Accounting in the Administration Department chairs the Risk Group and makes decisions therein.

### The Bank of Finland's estimated total risk, including gold

The Bank of Finland's total risks are discussed in the section 'Total risk exposure' (p. 67–69). The figures presented there exclude gold, owing to its large revaluation account. When all risks – including gold – are added together, the Bank of Finland's total risk exposure is estimated at about EUR 2.4 billion annually.

### Risk measures and breakdowns

Table 1.

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

<i>Credit rating</i>	<i>31 Dec 2015 EUR m</i>	<i>31 Dec 2014 EUR m</i>
AAA	6,444	4,677
AA+	3,930	4,759
AA	2,630	2,803
AA–	159	631
A+	1,000	400
A	156	329
A–	160	149
BBB+	134	85
BBB	10	188
BBB–	0	24
Below BBB–	0	16
No credit rating	200	96
<b>Total</b>	<b>14,822</b>	<b>14,156</b>

<sup>1</sup> Covered bonds have been classified according to their own credit rating and not the credit rating of their issuer. The Bank of Japan and the Federal Reserve are dealt with according to the credit rating of the respective government.  
Due to rounding, the totals may not add up.

Source: Bank of Finland.

Table 2.

Breakdown of debt securities in the Bank of Finland's financial assets,  
by home country of issuer (according to debt security's market value)

<i>Country or region</i>	<i>31 Dec 2015 EUR m</i>	<i>31 Dec 2014 EUR m</i>
<b><i>Euro area</i></b>	<b>7,264</b>	<b>7,568</b>
<i>Germany</i>	2,699	1,969
<i>France</i>	2,112	2,264
<i>Netherlands</i>	991	1,400
<i>Finland</i>	656	796
<i>Belgium</i>	404	505
<i>Austria</i>	327	464
<i>Ireland</i>	38	41
<i>Spain</i>	22	82
<i>Luxembourg</i>	15	7
<i>Italy</i>	0	24
<i>Portugal</i>	0	16
<b><i>Europe excl. euro area</i></b>	<b>2,038</b>	<b>1,718</b>
<i>United Kingdom</i>	952	617
<i>Sweden</i>	525	621
<i>Norway</i>	367	287
<i>Denmark</i>	170	189
<i>Switzerland</i>	25	5
<b><i>America</i></b>	<b>3,475</b>	<b>3,082</b>
<i>United States</i>	3,146	2,814
<i>Canada</i>	329	268
<b><i>Asia and Oceania</i></b>	<b>891</b>	<b>687</b>
<i>Japan</i>	601	482
<i>Australia</i>	243	153
<i>Singapore</i>	47	52
<b><i>International institutions</i></b>	<b>1,107</b>	<b>1,051</b>
<b><i>Total</i></b>	<b>14,775</b>	<b>14,107</b>

*Due to rounding, totals and subtotals may not correspond to the sum of all figures.  
Source: Bank of Finland.*

Table 3.

**Sensitivity of the Bank of Finland's financial assets to exchange rate and interest rate changes**

<i>EUR m</i>	2015	2014
<i>Change in the value of Bank of Finland's financial assets after appreciation of the euro exchange rate by 15% relative to foreign reserve currencies and gold as at 31 Dec</i>	-1,012	-941
<i>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</i>	-247	-279

Source: Bank of Finland.

Table 4.

**VaR and ES figures for the Bank of Finland's financial assets****VaR figures for market risk (one-day horizon, 99% confidence level)**

<i>EUR m</i>	2015			
	<i>Average</i>	<i>Highest</i>	<i>Lowest</i>	<i>31 Dec</i>
<i>Interest rate risk</i>	11	16	8	12
<i>Exchange rate risk</i>	93	122	54	81
<i>Total market risk (excl. gold)</i>	95	122	52	87
<i>Total market risk (incl. gold)</i>	119	160	73	101
<i>Equity risk</i>	2	5	0	4

<i>EUR m</i>	2014			
	<i>Average</i>	<i>Highest</i>	<i>Lowest</i>	<i>31 Dec</i>
<i>Interest rate risk</i>	9	12	6	9
<i>Exchange rate risk</i>	37	67	23	56
<i>Total market risk (excl. gold)</i>	38	63	25	52
<i>Total market risk (incl. gold)</i>	53	88	33	80
<i>Equity risk<sup>1</sup></i>	0	0	0	0

**ES figures for credit risk<sup>2</sup>  
(one-year horizon, 99% confidence level)**

<i>EUR m</i>	2015			
	<i>Average</i>	<i>Highest</i>	<i>Lowest</i>	<i>31 Dec</i>
<i>Credit risk</i>	47	58	39	47

<i>EUR m</i>	2014			
	<i>Average</i>	<i>Highest</i>	<i>Lowest</i>	<i>31 Dec</i>
<i>Credit risk</i>	48	59	37	54

<sup>1</sup> Equity investments began in November 2014.<sup>2</sup> The figures exclude debt securities issued by states in domestic currency and debt securities issued by the Bank for International Settlements (BIS).

Source: Bank of Finland.

### Definitions and concepts

- **Market risk** means the risk that the net value of assets will decline due to changes in market prices. Market price changes refer to changes in, for example, interest rates, exchange rates, the price of gold or stock prices, which are referred to as interest rate risk, exchange rate risk, gold price risk or equity risk, respectively.
- **Credit risk** means the risk of financial losses arising from changes in the creditworthiness of a counterparty to a financial transaction or a securities issuer or from default by a counterparty or issuer.
- **Liquidity risk** means the risk that assets cannot be made available when the need arises, or their conversion into cash would cause additional costs.
- **Operational risk** refers to the risk of extra costs or losses resulting from inadequate or failed internal processes, personnel, systems or external events.
- **Liquidity portfolio** refers to that part of the Bank of Finland's assets used to ensure the Bank's ability to offer liquidity for unexpected policy needs under all circumstances. The liquidity portfolio is denominated in foreign currency.
- **Investment portfolio** refers to that part of the Bank of Finland's assets used to secure the value of financial assets and the Bank's ongoing ability to meet its central bank commitments. The Bank of Finland's investment portfolio includes both foreign-currency-denominated and euro-denominated assets.
- **Foreign reserves** consist of unhedged foreign-currency investments and claims. These include the liquidity portfolio, the foreign-currency investment portfolio and net receivables from the IMF.
- **Cash** refers to covered and uncovered short-term bank deposits.
- **Modified duration** is a measure of interest rate risk, indicating how much the value of a fixed-income investment or investments changes in response to a small change in interest rates. For example, if the modified duration is 2 and interest rates rise by 1%, the value of the fixed-income investments falls by 2%.
- **VaR figure** at a certain confidence level means a loss in excess of which a loss occurs with a probability corresponding to the confidence level in question, over a target horizon. For example, if VaR 99% on a one-day horizon is EUR 3 million, this means there is a 1% probability the current day's result will be worse than a loss of EUR 3 million (and a 99% probability the result will be better).
- **Expected Shortfall (ES)** at a certain confidence level indicates the size of the expected loss in the event that the loss exceeds the VaR-level loss for that confidence level. For example, with an ES of 99%, this is an average loss of 1% on risk realisations.

## 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 2015 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, 3 March 2016

Sanna Lauslahti

Esko Kiviranta

Antti Rinne

Markku Koskela  
Authorised Public Accountant

Tom Sandell  
Authorised Public Accountant,  
JHTT (Public Administration  
Accountant)

## Statement regarding the audit as defined in 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 2015 as defined in 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.

### 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, 23 February 2016  
PricewaterhouseCoopers Oy Ab  
Authorised Public Accounting Firm

Juha Tuomala  
Authorised Public Accountant

# Appendices

## Monetary policy measures of the Eurosystem in 2015

- January–December** In accordance with the decisions of the Governing Council of the ECB, main refinancing operations and longer-term regular and non-standard refinancing operations continued to be conducted as fixed rate tender procedures with full allotment. In the three-month longer-term refinancing operations, the rate applied was fixed at the average of the rates in the main refinancing operations, over the life of the respective operation.
- Equally, in accordance with the decisions of the Governing Council, publication of the regular accounts of the Governing Council’s monetary policy meetings was commenced. Regular accounts will be published four weeks after the relevant monetary policy meeting.
- January** On 16 January, the Governing Council of the ECB conducted an annual review of acceptable non-regulated markets for assets eligible as collateral for Eurosystem monetary policy operations, as well as of issuers classified as agencies in haircut category II. First North Bond Market Finland was added to the list of non-regulated markets accepted by the Eurosystem for collateral eligibility assessment.
- On 22 January, the Governing Council decided to launch an expanded asset purchase programme (EAPP). Following this decision, the Eurosystem started to purchase on the secondary markets, from March onwards, euro-denominated investment-grade securities issued by euro area governments and state agencies and supranational European institutions. The EAPP also encompasses the existing purchase programmes for asset-backed securities and covered bonds. The combined monthly purchases of public and private sector securities will amount to EUR 60 billion. The purchases are intended to be carried out until at least end-September 2016 and will in any case be conducted until the Governing Council sees a sustained adjustment in the path of inflation which is consistent with the aim of achieving inflation rates below, but close to, 2% over the medium term.
- At the same meeting, the Governing Council decided to modify the interest rate applicable to six future targeted longer-term refinancing operations (TLTROs). Accordingly, the interest rate applicable to future TLTROs will be equal to the rate on the Eurosystem’s main refinancing operations (MROs) prevailing at the time when each TLTRO is conducted, thereby eliminating the 10 basis point spread over the MRO rate which was applied in the first two TLTROs.
- February** On 4 February, the ECB announced that marketable debt instruments issued or guaranteed by the Hellenic Republic would no longer be eligible in Eurosystem credit operations from 11 February onwards. The decision was based on the fact that a successful conclusion of the review of the EU/IMF programme for the Hellenic Republic was not possible. Successful conclusion of the programme review had been the condition for the suspension of minimum requirements for credit quality thresholds in respect of the debt securities in question.
- The Eurosystem’s new Guideline ECB/2014/60 on implementation of the Eurosystem monetary policy framework was published on 20 February. The Guideline took effect on 1 May 2015.
- March** On 5 March, the ECB published a list of international and supranational institutions and agencies whose securities are eligible for purchase under the public sector purchase programme.
- In accordance with the announcement issued in January, the Eurosystem started purchases of public sector securities on the secondary markets on 9 March.
- On 18 March, the Governing Council decided that the Eurosystem can purchase guaranteed mezzanine tranches of asset-backed securities under the asset-backed securities purchase programme, provided that those mezzanine tranches are subject to a guarantee complying with the criteria for guarantees in the Eurosystem collateral framework. The decision took effect in September.

<b>April</b>	<p>On 15 April, the Governing Council approved amendments to the list of agencies located in the euro area issuing securities that are eligible for purchase under the public sector purchase programme. Finnvera was accepted onto the list.</p> <p>On 27 April, the Governing Council adopted Decision ECB/2015/21 identifying the credit institutions that are subject to comprehensive assessment in 2015. The decision is available on the ECB website.</p>
<b>June</b>	<p>On 25 June 2016, the Governing Council of the ECB decided to reduce the tolerance levels for legacy IT systems and for legacy assets in the context of loan-level data requirements for asset-backed securities, following an adaptation period of one year.</p> <p>At the same time, the Governing Council approved technical aspects of relevance to the conduct of the targeted longer-term refinancing operations, in particular those relating to the impact of data revisions on the calculation of the initial and additional allowance.</p>
<b>July</b>	<p>On 2 July, the Governing Council approved amendments to the list of agencies located in the euro area issuing securities that are eligible for purchases under the public sector purchase programme. [Finland's] Unemployment Insurance Fund was accepted to the list.</p>
<b>August</b>	<p>On 31 August, the ECB issued Guideline ECB/2015/27 amending Guideline ECB/2014/60 on the implementation of the Eurosystem monetary policy framework. The key amendments in the new Guideline pertained to information taken into account in eligibility assessment of counterparties and non-marketable debt instruments backed by eligible credit claims (DECCs). The Guideline took effect on 2 November.</p>
<b>September</b>	<p>On 3 September, the Governing Council of the ECB decided to increase the public sector purchase programme's issue share limit, following a review after the first six months of the programme. The issue share limit was increased from the initial limit of 25% to 33%, subject to a case-by-case verification that this would not create a situation whereby the Eurosystem would have blocking minority power, in which case the issue share limit would remain at 25%. The decision took effect on 10 November.</p>
<b>November</b>	<p>On 20 October, the ECB adopted Guideline ECB/2015/34 amending Guideline ECB/2014/60 on the implementation of the Eurosystem monetary policy framework, and a new separate Guideline ECB/2015/35 concerning valuation haircuts applied to collateral. The key changes concerned additional haircuts applied to covered bonds accepted for their own use as collateral by banks. Both Guidelines took effect on 25 January 2016.</p>
<b>December</b>	<p>On 3 December, the Governing Council decided on a number of monetary policy measures:</p> <p>First, the interest rate on the deposit facility was lowered by 10 basis points to -0.30%, with effect from 9 December.</p> <p>The expanded asset purchase programme (APP) was extended. The monthly purchases of EUR 60 billion under the APP are intended to run until the end of March 2017, or beyond, if necessary.</p> <p>It was also decided that the principal payments on the securities purchased under the APP will be reinvested as they mature, for as long as necessary.</p> <p>In the public sector purchase programme, euro-denominated marketable debt instruments issued by regional and local governments located in the euro area were included in the list of assets that are eligible for regular purchases by the respective national central banks.</p> <p>The main refinancing operations and three-month longer-term refinancing operations will continue to be conducted as fixed rate tender procedures with full allotment for as long as necessary, and at least until the end of the last reserve maintenance period of 2017.</p>

## Key measures affecting the financial markets in 2015

### Measures by the European System of Central Banks

- January**
- On 16 January, the Governing Council of the ECB approved the mission statement of the Single Supervisory Mechanism, as well as the revised versions of the Eurosystem mission statement, the strategic intents and the organisational principles.
- On 21 January, the Governing Council adopted a technical amendment to Decision ECB/2015/1 amending Decision ECB/2004/3 on public access to European Central Bank documents in order to take the ECB's supervisory responsibilities into account.
- On 28 January, the Governing Council issued Recommendation ECB/2015/2 on banks' dividend distribution policies. The recommendation aims to strengthen the reliability and stability of the euro area banking system.
- February**
- On 4 February, the Governing Council adopted Decision ECB/2015/4 on the conditions under which credit institutions under the ECB's direct supervision are permitted to include interim or year-end profits in Common Equity Tier 1 (CET 1) capital pursuant to Article 26(2)(a) and (b) of Regulation (EU) No 575/2013.
- On 12 February, the Governing Council adopted Decision ECB/2015/8 amending Decision ECB/2004/2 adopting the Rules of Procedure of the European Central Bank. The amendments concern the non-objection procedure. This procedure is set out in Article 26(8) of Council Regulation (EU) No 1024/2013 of 15 October 2013 conferring specific tasks on the European Central Bank concerning policies relating to the prudential supervision of credit institutions.
- On 18 February, the Governing Council approved the public account of its monetary policy meeting of 21 and 22 January 2015. The aim of the public accounts is to enhance the transparency of the Governing Council's monetary policy deliberations. Public accounts will, as a rule, be published four weeks after the relevant monetary policy meeting.
- On 23 February, the Governing Council approved the guide prepared by the Payment and Settlement Systems Committee (PSSC) for the assessment of card payment schemes (CPSs) against the oversight standards developed by the Eurosystem. The standards were published in 2008. The assessment guide is intended both for the CPS governance authorities for ensuring compliance, and for the overseers conducting the oversight of both national and international CPSs based on the Eurosystem oversight standards for CPSs. The assessment guide incorporates the 'Recommendations for the security of internet payments' that were approved by the Governing Council in January 2013 and the 'Assessment guide for the security of internet payments' of February 2014.
- March**
- On 12 March, the Governing Council adopted Guideline ECB/2015/11 laying down the principles of a Eurosystem Ethics Framework and repealing Guideline ECB/2002/6 on minimum standards for the European Central Bank and national central banks when conducting monetary policy operations, foreign exchange operations with the ECB's foreign reserves and managing the ECB's foreign reserve assets. The Governing Council also adopted Guideline ECB/2015/12 laying down the principles of an Ethics Framework for the Single Supervisory Mechanism. These legal acts lay down ethical standards, compliance with which safeguards the credibility and reputation of the ECB and the Eurosystem as a whole, as well as public confidence in the integrity and impartiality of the members of the bodies and staff members of the ECB in the performance of its monetary policy and supervisory tasks.

	<p>On 25 March, the Governing Council approved the list of the first wave of reporting agents classified as such under Article 2(2) of Regulation ECB/2014/48 concerning statistics on the money markets, which entered into force on 1 January 2015.</p> <p>On 27 March, the Governing Council approved the direct link from Euroclear Bank to Euroclear Finland as eligible for use in Eurosystem credit operations.</p> <p>On 27 March, the Governing Council adopted decision ECB/2015/16 on public access to European Central Bank documents in the possession of the national competent authorities, which establishes a framework for such requests and complements the regime for public access to ECB documents laid down in Decision ECB/2004/3.</p>
<b>April</b>	<p>On 2 April, the Governing Council adopted Guideline ECB/2015/15 amending Guideline ECB/2012/27 on a Trans-European Automated Real-Time Gross settlement Express Transfer system (TARGET2).</p> <p>On 30 April, the Governing Council approved the direct link from Clearstream Banking Frankfurt's platform CASCADE (CBF-CASCADE) to Clearstream Banking Luxembourg (CBL) and the relayed link from CBF-CASCADE via CBL Euroclear Finland as eligible for use in Eurosystem credit operations.</p>
<b>May</b>	<p>On 12 May, the Governing Council made amendments to decisions on significance in respect of 23 credit institutions. The purpose of these amendments is to reflect changes in the group structure of the significant institutions (SIs) in question, and to make necessary corrections. Adjustments were also made to the list of less significant institutions (LSIs).</p>
<b>August</b>	<p>On 19 August, the Governing Council of the ECB approved the publication in each ECB Economic Bulletin of end-of-month individual TARGET balances of the euro area national central banks and the ECB starting from 21 September 2015. The data will be released with a one-month time lag, starting with data from reference date May 2008. In addition, from 30 October 2015 onwards, monthly averages of the individual TARGET balances of the euro area national central banks and the ECB will be published with data back to January 2001.</p>
<b>September</b>	<p>On 2 September, the Governing Council approved the ECB response to the European Commission's public consultation on the review of the European Market Infrastructure Regulation (Regulation (EU) No 648/2012 on OTC derivatives, central counterparties and trade repositories).</p> <p>On 10 September, the Governing Council approved amendments to the Eurosystem oversight policy framework and to the Standards for the use of central counterparties (CCPs) in Eurosystem foreign reserve management operations. The amendments reflect the ruling of 4 March 2015 of the General Court of the European Union, which annulled the Eurosystem location policy for CCPs.</p> <p>On 23 September, the Governing Council adopted a decision to comply with EBA Guidelines in relation to the significant institutions under its supervision. The Governing Council adopted proposals from the Supervisory Board to comply with the EBA Guidelines on triggers for use of early intervention measures pursuant to Article 27(4) of Directive 2014/59/EU (EBA/GL/2015/03) and on the interpretation of the different circumstances when an institution shall be considered as failing or likely to fail under Article 32(6) of Directive 2014/59/EU (EBA/GL/2015/07). The ECB notified the EBA that it was in compliance with the Guidelines as per the date of the notification.</p>
<b>October</b>	<p>On 31 October, the Governing Council published the results of the comprehensive assessment for the four significant Greek banks it supervises. The comprehensive assessment was conducted in line with the decision by the European Summit on 12 July 2015 and the Memorandum of Understanding between the Hellenic Republic, the Bank of Greece and the European Commission, acting on behalf of the European Stability Mechanism, signed on 19 August 2015.</p>

- November** On 2 November, the Governing Council approved the Eurosystem reply to the European Commission's public consultation on the possible impact of the Capital Requirements Regulation (CRR) and Capital Requirements Directive (CRD IV) on bank financing of the economy.
- On 14 November, the ECB published the results of the comprehensive assessment that it conducted for nine banks between March and November 2015.
- On 18 November, the Governing Council approved in principle a draft ECB Regulation on the collection of granular credit and credit risk data ('Anacredit'). A final decision on the adoption of the draft Regulation will be reached only after the Governing Council has been informed of the estimates related to the relevant IT project, and of the merits and costs procedure to be used to define the reporting requirements as reflected in the draft Regulation. The Governing Council has, in the meantime, agreed to publish the draft Regulation and the annexes thereto on the ECB website in order to increase transparency vis-a-vis the markets and to facilitate planning on the markets.
- December** On 20 November, the Governing Council adopted Decision ECB/2015/38 on the procedure to exclude staff members from the presumption of having a material impact on a supervised credit institution's risk profile. The decision entered into force on 2 December 2015.

## EU regulatory projects and their implementation in Finland

- May** The Regulation of the European Parliament and of the Council on interchange fees for card-based payment transactions was adopted on 29 April. The Regulation is designed to encourage competition in card payments. The key objective is to determine maximum levels of interchange fees for card payments in the EU between the cardholder's bank and the merchant's bank. The cap is 0.2% for debit card transactions and 0.3% for credit card transactions. The new interchange fee limits entered into force on 9 December 2015. The Regulation also aims to open up national card markets by removing other practices restrictive to competition. In Finland, the Government has submitted a Bill to Parliament with a proposal for the necessary regulatory changes that are intended to enter into force on 1 February 2016.
- December** The revised Payment Services Directive (PSD2) of the European Parliament and of the Council was adopted on 25 November. The new Directive specifies certain parts of the current PSD and widens its scope. It specifies the authorisation requirements for payment institutions and provides payment institutions the possibility to access banking systems. PSD2 also improves consumer protection. Member States are obliged to adopt and introduce new measures required by the Directive by no later than January 2018.

## Main opinions issued by the Bank of Finland in 2015

Opinions concerning legislation on and development of the financial markets

<i>Opinion</i>	<i>Subject</i>	<i>Date</i>
<b>To the Commerce Committee of the Finnish Parliament</b>	Additional funding arrangements for the Single Resolution Fund (E 34/2015 vp)	16 Sep
	U communication of the Government to Parliament concerning the proposal of the European Commission for a Regulation of the European Parliament and of the Council amending the Regulation on prudential requirements for credit institutions and investment firms (securitisation) (U 20/2015 vp)	27 Nov
	Commission proposals for the establishment of a European deposit insurance scheme (EDIS) and on steps towards completing Economic and Monetary Union (E 79/2015 vp)	9 Oct
<b>To the Financial Supervisory Authority</b>	Regulations and guidelines on the public insider register of market participants, employee pension insurance companies and management companies	9 Jan
	Regulations and guidelines on calculation of the loan-to-value ratio	22 May
	FIN-FSA Director General's decision proposition to the Board on macroprudential policy (FIVA 2/05.03/2015)	11 Feb
	FIN-FSA Director General's decision proposition to the Board on macroprudential policy (FIVA 5/05.03/2015)	19 May
	FIN-FSA standard on customer due diligence – prevention of money laundering and terrorist financing	14 Aug
	FIN-FSA Director General's decision proposition to the Board on macroprudential policy (FIVA 8/05.03/2015)	25 Aug
	Calculation and reporting of the capital adequacy of a financial and insurance conglomerate	12 Oct
	Regulations and guidelines for entities operating in the insurance market concerning the submission of supervisory documents to the Financial Supervisory Authority	30 Oct
	Regulations and guidelines for entities operating in the insurance market concerning the submission of electronic supervisory information to the Financial Supervisory Authority	30 Oct
	FIN-FSA Director General's decision proposition to the Board on macroprudential policy (FIVA 8/05.03/2015)	5 Nov
<b>To the Finnish Competition and Consumer Authority</b>	Obstacles to and legislative development needs relating to digital business	4 Jun

<i>Opinion</i>	<i>Subject</i>	<i>Date</i>
<b>To the Ministry of Finance</b>	Implementation of amendments to the Transparency Directive	11 Mar
	Government Bill to Parliament for an Act amending chapter 8 of the Act on the resolution of credit institutions and investment firms	20 Apr
	Ministry of Finance Decree on deposit banks' responsibility to provide information on the deposit guarantee	22 May
	Government Bill for Acts amending the Payments Institutions Act, the Payments Services Act and the Act on the Financial Supervisory Authority as regards the EU Regulation on interchange fees for card-based payment transactions	20 Aug
	Confirmation of the sum total of contributions to the Investors' Compensation Fund in 2015	25 Sep
	Government Bill to Parliament for an Act on the book-entry system and securities settlement and for certain related Acts	21 Oct
	Government Bill to Parliament for an Act amending the Mutual Funds Act and for an Act amending the Act on the Financial Supervisory Authority	1 Dec
<b>To the Ministry of Justice</b>	Consumer credit relating to residential property	31 Dec
<b>To the Ministry of Social Affairs and Health</b>	Draft Government Bill for an Act amending the Insurance Companies Act and certain related Acts	31 Jul

## Bank of Finland publications in 2015

### Periodical publications

*Euro & talous* Five issues (in Finnish) were published online at [www.eurojatalous.fi](http://www.eurojatalous.fi).

*Bank of Finland Bulletin* Five issues were published online at [www.bofbulletin.fi](http://www.bofbulletin.fi).

*Research Newsletter* Two issues of the online research bulletin (in Finnish and English).

### Annual report

Published separately in Finnish, Swedish and English.

### Research publications

*Scientific monographs* E:49 *Juha V. A. Itkonen* Essays on the economics of climate change and networks. Dissertation.

E:50 *Tatu Laine* (ed.) Quantitative analysis of financial market infrastructures: further perspectives on financial stability.

*Discussion Papers* 30 online studies and reports in the areas of macroeconomics and financial markets were published in English.

### Studies and reports

4 online studies and reports were published in the *BoF Online series* (in Finnish or English).

### Statistical publications

*Monetary Financial Institutions – Annual Review*, published online in March (in Finnish and English).

*Investment funds – Annual Review*, published online in March (in Finnish and English).

*International Reserves and Foreign Currency Liquidity*, a monthly publication (in English).

### Studies published by the Institute for Economies in Transition

#### Research publications

33 online studies were published in the *BOFIT Discussion Papers* series (in English).

11 online reports were published in the *BOFIT Policy Brief* series (in Finnish or 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 Kiina-ennuste*, a bi-annual online publication (in Finnish).  
*BOFIT Forecast for China*, a bi-annual online publication (in English).

**Orders and subscriptions** Brochures can be ordered on the Bank of Finland website at [www.bof.fi](http://www.bof.fi) > Publications > Order and subscribe to printed publications.

A comprehensive list of publications is available on the Bank of Finland website at [www.bof.fi](http://www.bof.fi) > Publications.



# 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

– nil

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Table 1.

## Monthly balance sheet of the Bank of Finland, EUR m

ASSETS		Jan	Feb	Mar
1	Gold and gold receivables	1,557	1,557	1,557
2	Claims on non-euro area residents denominated in foreign currency	7,091	7,051	6,906
2.1	Receivables from the IMF	1,913	1,844	1,781
2.2	Balances with banks and security investments, external loans and other external assets	5,177	5,206	5,126
3	Claims on euro area residents denominated in foreign currency	428	321	370
4	Claims on non-euro area residents denominated in euro	1,107	1,262	1,271
4.1	Balances with banks, security investments and loans	1,107	1,262	1,271
4.2	Claims arising from the credit facility under ERM II	–	–	–
5	Lending to euro area credit institutions related to monetary policy operations denominated in euro	627	527	670
5.1	Main refinancing operations	–	–	–
5.2	Longer-term refinancing operations	627	527	670
5.3	Fine-tuning reverse operations	–	–	–
5.4	Structural reverse operations	–	–	–
5.5	Marginal lending facility	–	–	–
5.6	Credits related to margin calls	–	–	–
6	Other claims on euro area credit institutions denominated in euro	68	0	0
7	Securities of euro area residents denominated in euro	11,373	11,192	11,974
7.1	Securities held for monetary policy purposes	3,641	3,591	4,311
7.2	Other securities	7,732	7,601	7,663
8	General government debt denominated in euro	–	–	–
9	Intra-Eurosystem claims	17,206	18,319	24,422
9.1	Participating interest in ECB	144	144	144
9.2	Claims equivalent to the transfer of foreign reserves	728	728	728
9.3	Claims related to the issuance of ECB debt certificates	–	–	–
9.4	Claims related to TARGET and correspondent accounts (net)	12,500	13,622	19,725
9.5	Other intra-Eurosystem claims (net)	3,834	3,825	3,825
10	Other assets	1,088	1,058	1,028
<b>Total assets</b>		<b>40,546</b>	<b>41,287</b>	<b>48,200</b>

Totals/sub-totals may not add up due to rounding.  
Source: Bank of Finland.

<i>Apr</i>	<i>May</i>	<i>Jun</i>	<i>Jul</i>	<i>Aug</i>	<i>Sep</i>	<i>Oct</i>	<i>Nov</i>	<i>Dec</i>
1,739	1,739	1,739	1,651	1,651	1,651	1,580	1,580	1,534
7,666	7,613	7,835	7,442	7,469	7,631	7,613	7,384	7,483
1,929	1,929	1,921	1,895	1,909	1,869	1,861	1,861	1,890
5,737	5,684	5,914	5,547	5,560	5,762	5,752	5,522	5,592
426	401	390	323	319	282	284	412	417
1,272	1,168	988	1,048	874	967	881	1,082	1,443
1,272	1,168	988	1,048	874	967	881	1,082	1,443
-	-	-	-	-	-	-	-	-
670	670	690	690	690	690	690	706	690
-	-	-	-	-	-	-	-	-
670	670	690	690	690	690	690	690	690
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	15	-
-	-	-	-	-	-	-	-	-
1	17	140	0	104	0	166	142	0
12,679	13,859	14,577	15,581	16,338	17,303	18,183	19,217	19,662
5,088	6,154	6,755	7,735	8,384	9,260	10,198	11,404	12,074
7,592	7,705	7,822	7,845	7,954	8,044	7,985	7,812	7,588
-	-	-	-	-	-	-	-	-
22,672	20,345	27,296	33,256	43,699	34,601	35,713	31,710	25,096
144	144	144	144	144	144	144	144	144
728	728	728	728	728	728	728	728	728
-	-	-	-	-	-	-	-	-
17,903	15,509	22,460	28,240	38,683	29,640	30,878	26,875	20,144
3,896	3,964	3,964	4,144	4,144	4,089	3,963	3,963	4,079
1,037	1,035	1,026	1,016	1,031	957	1,002	1,029	1,088
48,163	46,848	54,681	61,007	72,177	64,083	66,114	63,261	57,414

Table 1.  
(cont.)

<b>LIABILITIES</b>		<b>Jan</b>	<b>Feb</b>	<b>Mar</b>
1	<i>Banknotes in circulation</i>	16,483	16,531	16,587
2	<i>Liabilities to euro area credit institutions related to monetary policy operations denominated in euro</i>	13,201	13,981	20,821
2.1	<i>Current accounts (covering the minimum reserve system)</i>	13,201	13,433	16,815
2.2	<i>Deposit facility</i>	–	548	4,006
2.3	<i>Fixed-term deposits</i>	–	–	–
2.4	<i>Fine-tuning reverse operations</i>	–	–	–
2.5	<i>Deposits related to margin calls</i>	–	–	–
3	<i>Other liabilities to euro area credit institutions denominated in euro</i>	–	–	–
4	<i>Liabilities to other euro area residents denominated in euro</i>	24	24	24
4.1	<i>General government</i>	–	–	–
4.2	<i>Other liabilities</i>	24	24	24
5	<i>Liabilities to non-euro area residents denominated in euro</i>	66	2	80
6	<i>Liabilities to euro area residents denominated in foreign currency</i>	94	–3	–3
7	<i>Liabilities to non-euro area residents denominated in foreign currency</i>	93	99	39
7.1	<i>Deposits, balances and other liabilities</i>	93	99	39
7.2	<i>Liabilities arising from the credit facility under ERM II</i>	–	–	–
8	<i>Counterpart of special drawing rights allocated by the IMF</i>	1,418	1,418	1,418
9	<i>Intra-Eurosystem liabilities</i>	–	–	–
9.1	<i>Liabilities related to promissory notes backing the issuance of ECB debt certificates</i>	–	–	–
9.2	<i>Liabilities related to TARGET and correspondent accounts (net)</i>	–	–	–
9.3	<i>Other intra-Eurosystem liabilities (net)</i>	–	–	–
10	<i>Other liabilities</i>	422	493	490
11	<i>Revaluation accounts</i>	2,304	2,304	2,304
12	<i>Capital and reserves</i>	6,440	6,440	6,440
12.1	<i>Primary capital</i>	841	841	841
12.2	<i>Reserve fund</i>	1,660	1,660	1,660
12.3	<i>Pension provisions</i>	616	616	616
12.4	<i>Other provisions</i>	3,323	3,323	3,323
<b>Total liabilities</b>		<b>40,546</b>	<b>41,287</b>	<b>48,200</b>

Totals/sub-totals may not add up due to rounding.  
Source: Bank of Finland.

<i>Apr</i>	<i>May</i>	<i>Jun</i>	<i>Jul</i>	<i>Aug</i>	<i>Sep</i>	<i>Oct</i>	<i>Nov</i>	<i>Dec</i>
16,724	16,943	17,037	17,354	17,357	17,337	17,303	17,364	17,790
19,700	18,176	25,313	31,820	43,008	34,596	36,881	34,007	27,559
16,770	14,896	23,238	29,884	31,150	29,741	31,670	27,787	25,889
2,930	3,279	2,075	1,936	11,858	4,855	5,211	6,220	1,670
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
15	41	66	78	72	63	63	63	79
-	26	61	61	61	61	61	61	74
15	15	5	17	11	2	2	2	5
2	175	494	565	513	704	544	570	676
59	1	1	-	-	-	-	-	-
19	-1	222	-2	7	166	183	79	46
19	-1	222	-2	7	166	183	79	46
-	-	-	-	-	-	-	-	-
1,526	1,526	1,526	1,495	1,495	1,495	1,489	1,489	1,514
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
293	162	199	214	241	239	275	314	158
3,147	3,147	3,147	2,804	2,804	2,804	2,698	2,698	2,762
6,677	6,677	6,677	6,677	6,677	6,677	6,677	6,677	6,831
841	841	841	841	841	841	841	841	841
1,673	1,673	1,673	1,673	1,673	1,673	1,673	1,673	1,673
616	616	616	616	616	616	616	616	615
3,548	3,548	3,548	3,548	3,548	3,548	3,548	3,548	3,702
48,163	46,848	54,681	61,007	72,177	64,083	66,114	63,261	57,414

Table 2.

## Key interest rates of the Eurosystem

<i>Fixed rate tenders</i> <i>Interest rate on main refinancing operations</i>			<i>Variable rate tenders</i> <i>Minimum bid rate</i>		
<i>Decision date</i>	<i>Effective</i>	<i>%</i>	<i>Decision date</i>	<i>Effective</i>	<i>%</i>
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 Oct 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
8 Oct 2008	15 Oct 2008	3.75	6 Mar 2003	7 Mar 2003	2.50
6 Nov 2008	12 Nov 2008	3.25	5 Jun 2003	6 Jun 2003	2.00
4 Dec 2008	10 Dec 2008	2.50	1 Dec 2005	6 Dec 2005	2.25
15 Jan 2009	21 Jan 2009	2.00	2 Mar 2006	8 Mar 2006	2.50
5 Mar 2009	11 Mar 2009	1.50	8 Jun 2006	15 Jun 2006	2.75
2 Apr 2009	8 Apr 2009	1.25	3 Aug 2006	9 Aug 2006	3.00
7 May 2009	13 May 2009	1.00	5 Oct 2006	11 Nov 2006	3.25
7 Apr 2011	13 Apr 2011	1.25	7 Dec 2006	13 Dec 2006	3.50
7 Jul 2011	13 Jul 2011	1.50	8 Mar 2007	14 Mar 2007	3.75
3 Nov 2011	9 Nov 2011	1.25	7 Jun 2007	13 Jun 2007	4.00
8 Dec 2011	14 Dec 2011	1.00	3 Jul 2008	9 Jul 2008	4.25
5 Jul 2012	11 Jul 2012	0.75			
2 May 2013	8 May 2013	0.50			
7 Nov 2013	13 Nov 2013	0.25			
5 Jun 2014	11 Jun 2014	0.15			
4 Sep 2014	10 Sep 2014	0.05			

*Standing facilities*

		<i>Interest rate on deposit facility</i>	<i>Interest rate on marginal lending facility</i>
<i>Decision date</i>	<i>Effective</i>	<i>%</i>	<i>%</i>
22 Dec 1998	1 Jan 1999	2.00	4.50
22 Dec 1998	4 Jan 1999	2.75	3.25
21 Jan 1999	22 Jan 1999	2.00	4.50
8 Apr 1999	9 Apr 1999	1.50	3.50
4 Nov 1999	5 Nov 1999	2.00	4.00
3 Feb 2000	4 Feb 2000	2.25	4.25
16 Mar 2000	17 Mar 2000	2.50	4.50
27 Apr 2000	28 Apr 2000	2.75	4.75
8 Jun 2000	9 Jun 2000	3.25	5.25
31 Aug 2000	1 Sep 2000	3.50	5.50
5 Oct 2000	6 Oct 2000	3.75	5.75

Standing facilities

		Interest rate on deposit facility	Interest rate on marginal lending facility
Decision date	Effective	%	%
10 May 2001	11 May 2001	3.50	5.50
30 Aug 2001	31 Aug 2001	3.25	5.25
17 Sep 2001	18 Sep 2001	2.75	4.75
8 Nov 2001	9 Nov 2001	2.25	4.25
5 Dec 2002	6 Dec 2002	1.75	3.75
6 Mar 2003	7 Mar 2003	1.50	3.50
5 Jun 2003	6 Jun 2003	1.00	3.00
1 Dec 2005	6 Dec 2005	1.25	3.25
2 Mar 2006	8 Mar 2006	1.50	3.50
8 Jun 2006	15 Jun 2006	1.75	3.75
3 Aug 2006	9 Aug 2006	2.00	4.00
5 Oct 2006	11 Oct 2006	2.25	4.25
7 Dec 2006	13 Dec 2006	2.50	4.50
8 Mar 2007	14 Mar 2007	2.75	4.75
7 Jun 2007	13 Jun 2007	3.00	5.00
3 Jul 2008	9 Jul 2008	3.25	5.25
8 Oct 2008	8 Oct 2008	2.75	4.75
8 Oct 2008	9 Oct 2008	3.25	4.25
6 Nov 2008	12 Nov 2008	2.75	3.75
4 Dec 2008	10 Dec 2008	2.00	3.00
15 Jan 2009	21 Jan 2009	1.00	3.00
5 Mar 2009	11 Mar 2009	0.50	2.50
2 Apr 2009	8 Apr 2009	0.25	2.25
7 May 2009	13 May 2009	0.25	1.75
7 Apr 2011	13 Apr 2011	0.50	2.00
7 Jul 2011	13 Jul 2011	0.75	2.25
3 Nov 2011	9 Nov 2011	0.50	2.00
8 Dec 2011	14 Dec 2011	0.25	1.75
5 Jul 2012	11 Jul 2012	0.00	1.50
2 May 2013	8 May 2013	0.00	1.00
7 Nov 2013	13 Nov 2013	0.00	0.75
5 Jun 2014	11 Jun 2014	-0.10	0.40
4 Sep 2014	10 Sep 2014	-0.20	0.30
3 Dec 2015	9 Dec 2015	-0.30	0.30

\* In times of a negative interest rate on the deposit facility, the deposit rate has also been applied to deposits in excess of the minimum reserves, and extensively to other deposits as well.  
Source: European Central Bank.

Table 3.

## Reserve base of euro area credit institutions subject to reserve requirements, EUR bn

Reserve base as of:	Total	Liabilities to which a 1% 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
<b>2014</b>						
Nov	18,218.6	10,267.4	532.8	2,278.1	1,346.8	3,793.4
<b>2015</b>						
Jan	18,616.9	10,544.1	559.3	2,292.4	1,393.3	3,827.8
Feb	18,687.6	10,518.0	561.8	2,308.1	1,472.1	3,827.6
Mar	..	..	..	..	..	..
Apr	18,759.4	10,718.0	557.0	2,260.0	1,409.1	3,815.4
May	18,771.7	10,783.3	536.8	2,247.1	1,394.0	3,810.5
Jun	..	..	..	..	..	..
Jul	18,595.2	10,860.6	507.9	2,233.8	1,269.3	3,723.6
Aug	18,599.4	10,845.0	506.4	2,221.3	1,285.7	3,741.0
Sep	..	..	..	..	..	..
Oct	18,554.2	10,872.1	501.7	2,189.0	1,276.7	3,714.7
Nov	18,630.7	10,925.6	505.6	2,181.1	1,269.6	3,748.7

Source: European Central Bank.

## Reserve base of Finnish credit institutions subject to reserve requirements, EUR m

Reserve base as of:	Total	Liabilities to which a 1% 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
<b>2014</b>						
Nov	361,310	202,782	16,027	16,415	52,396	73,690
<b>2015</b>						
Jan	375,940	212,093	13,869	16,734	56,873	76,371
Feb	371,299	213,264	12,176	16,827	53,541	75,491
Mar	..	..	..	..	..	..
Apr	367,342	212,773	10,683	17,213	46,832	79,841
May	372,001	214,165	8,920	17,082	50,908	80,926
Jun	..	..	..	..	..	..
Jul	375,859	229,437	8,457	16,473	41,185	80,306
Aug	396,186	246,459	8,060	15,968	45,870	79,829
Sep	..	..	..	..	..	..
Oct	377,219	218,574	8,562	16,780	50,942	82,360
Nov	387,462	229,986	8,197	16,953	48,736	83,589

Source: Bank of Finland.

Table 4.

Reserve maintenance of euro area credit institutions subject to reserve requirements, EUR bn<sup>1</sup>

Maintenance period ending in	Required reserves	Actual reserves	Excess reserves	Deficiencies	Interest rate on minimum reserves, %
	1	2	3	4	5
<b>2014</b>					
Dec	106.5	185.4	79.0	0.0	0.05
<b>2015</b>					
Jan	106.3	236.3	130.1	0.0	0.05
Feb	..	..	..	..	..
Mar	107.5	225.3	117.8	0.0	0.05
Apr	110.6	261.8	151.3	0.0	0.05
May	..	..	..	..	..
Jun	110.3	303.4	193.1	0.0	0.05
Jul	112.3	381.4	269.1	0.0	0.05
Aug	..	..	..	..	..
Sep	112.7	428.4	315.7	0.0	0.05
Oct	113.2	465.3	352.1	0.0	0.05
Nov	..	..	..	..	..
Dec	113.1	493.8	380.8	0.0	0.05
<b>2016</b>					
Jan	113.3	557.1	443.8	0.0	0.05

<sup>1</sup> The Governing Council of the European Central Bank decided in July 2014 that the frequency of monetary policy meetings would change to a six-week cycle, from January 2015. Accordingly, reserve maintenance periods will also be extended to six weeks, from the current periods of about four weeks, to match the new schedule. This means that, in the future, there will be eight maintenance periods a year, instead of the previous twelve. 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
<b>2014</b>					
Dec	2,194.6	11,010.4	8,815.9	0.0	0.05
<b>2015</b>					
Jan	2,132.7	17,461.9	15,329.3	0.0	0.05
Feb	..	..	..	..	..
Mar	2,160.9	12,805.1	10,644.2	0.0	0.05
Apr	2,232.4	16,656.2	14,423.9	0.0	0.05
May	..	..	..	..	..
Jun	2,227.1	16,381.4	14,154.2	0.0	0.05
Jul	2,207.6	23,246.7	21,039.2	0.0	0.05
Aug	..	..	..	..	..
Sep	2,203.8	29,681.9	27,478.1	0.0	0.05
Oct	2,352.3	28,106.2	25,753.9	0.0	0.05
Nov	..	..	..	..	..
Dec	2,518.8	28,702.3	26,183.5	0.0	0.05
<b>2016</b>					
Jan	2,245.1	34,455.7	32,210.6	0.0	0.05

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 aggregate M3			Liabilities of Finnish monetary financial institutions included in euro area M3 <sup>2</sup>		
	Stock <sup>4</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>3</sup> , %	3-month mov avg of 12-month change <sup>3</sup> , %
	1	2	3	4	5	6
2011	9,500.0	1.7	1.7	143.6	6.0	6.5
2012	9,786.0	3.5	3.6	140.3	0.5	1.1
2013	9,838.1	1.0	1.2	145.2	4.1	3.8
2014	10,324.3	3.8	3.6	147.9	1.3	0.9
2015	10,839.8	4.7	4.9	156.8	5.0	5.6
2015						
Jan	10,406.8	3.9	3.9	147.2	0.0	0.7
Feb	10,437.7	4.1	4.2	148.2	0.7	0.3
Mar	10,487.4	4.7	4.7	151.5	0.3	0.9
Apr	10,547.1	5.4	5.0	149.5	1.8	1.4
May	10,559.3	5.0	5.1	150.9	2.0	3.4
Jun	10,583.2	4.9	5.1	156.3	6.4	4.5
Jul	10,665.5	5.2	5.0	154.7	5.1	5.0
Aug	10,661.9	4.9	5.0	152.3	3.6	4.9
Sep	10,696.2	4.9	5.0	155.4	6.1	5.5
Oct	10,777.5	5.2	5.1	155.9	6.9	5.3
Nov	10,851.3	5.0	5.0	151.0	3.0	5.0
Dec	10,839.8	4.7	4.9	156.8	5.0	5.6

<sup>1</sup> Excl. negotiable instruments held by central governments and non-euro area residents.

<sup>2</sup> Excl. notes and coins held by the public.

<sup>3</sup> Calculated from monthly differences in stocks adjusted for reclassifications, other revaluations, exchange rate variations and any other change which do not arise from transactions.

<sup>4</sup> Seasonally and calendar effect adjusted.

Sources: European Central Bank and Bank of Finland.

Table 6.

## Key market interest rates

	Eonia rate	Euribor rates (actual/360)						Yields on Finnish government bonds	
		1-month	2-month	3-month	6-month	9-month	12-month	5-year	10-year
	1	2	3	4	5	6	7	8	9
2011	0.87	1.178	1.260	1.393	1.638	1.826	2.009	2.083	2.997
2012	0.23	0.325	0.431	0.571	0.824	0.973	1.108	0.875	1.886
2013	0.09	0.130	0.177	0.221	0.337	0.441	0.536	0.815	1.863
2014	0.10	0.131	0.170	0.209	0.308	0.391	0.475	0.506	1.436
2015	-0.11	-0.072	-0.043	-0.020	0.053	0.103	0.167	0.100	0.725
2015									
Jan	-0.05	0.005	0.032	0.063	0.152	0.224	0.298	0.112	0.619
Feb	-0.04	0.000	0.021	0.048	0.126	0.185	0.255	0.038	0.476
Mar	-0.05	-0.010	0.010	0.027	0.097	0.146	0.212	0.013	0.386
Apr	-0.07	-0.028	-0.010	0.006	0.074	0.123	0.182	-0.031	0.268
May	-0.10	-0.049	-0.028	-0.010	0.057	0.105	0.166	0.193	0.714
Jun	-0.12	-0.063	-0.036	-0.014	0.049	0.100	0.163	0.305	1.007
Jul	-0.12	-0.071	-0.040	-0.019	0.049	0.100	0.167	0.227	0.950
Aug	-0.12	-0.088	-0.053	-0.028	0.044	0.095	0.161	0.141	0.822
Sep	-0.14	-0.105	-0.064	-0.037	0.035	0.086	0.154	0.155	0.952
Oct	-0.14	-0.116	-0.077	-0.054	0.020	0.064	0.128	0.043	0.813
Nov	-0.13	-0.140	-0.105	-0.088	-0.015	0.024	0.079	-0.010	0.806
Dec	-0.20	-0.190	-0.153	-0.127	-0.040	0.004	0.059	-0.003	0.855

Sources: European Central Bank, Reuters and Bloomberg.

Table 7.

Nominal competitiveness indicators for Finland and effective exchange rate of the euro calculated by the ECB

	Narrow indicator <sup>1</sup>	Narrow euro area indicator <sup>1</sup>	Broad indicator <sup>1</sup>	Effective exchange rate of the euro, narrow group of countries <sup>1</sup>
January–March 1999 = 100				
	1	2	3	4
2011	105.7	102.1	105.8	111.1
2012	100.3	99.8	103.0	105.2
2013	103.7	101.3	105.2	110.9
2014	105.7	102.2	107.6	110.0
2015	100.4	99.8	105.6	99.1
2015				
Jan	102.6	100.8	107.1	102.0
Feb	101.4	100.3	106.3	100.2
Mar	98.8	99.1	104.1	97.5
Apr	98.4	98.9	103.0	96.7
May	99.5	99.4	103.9	98.5
Jun	100.2	99.7	104.9	99.3
Jul	100.0	99.7	104.7	98.2
Aug	101.6	100.4	106.9	99.8
Sep	101.8	100.5	107.5	100.6
Oct	101.4	100.3	107.0	100.3
Nov	99.4	99.4	105.5	97.3
Dec	100.1	99.7	106.7	98.7

<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
2011	2.7	3.3
2012	2.5	3.2
2013	1.4	2.2
2014	0.4	1.2
2015	0.0	-0.2
2015		
Jan	-0.6	-0.2
Feb	-0.3	-0.1
Mar	-0.1	0.0
Apr	0.0	-0.1
May	0.3	0.1
Jun	0.2	0.1
Jul	0.2	-0.1
Aug	0.1	-0.2
Sep	-0.1	-0.7
Oct	0.1	-0.3
Nov	0.1	-0.2
Dec	0.2	-0.3

Sources: Eurostat and Statistics Finland.

Table 9.

## Key euro exchange rates, currency value of one euro

	<i>US dollar</i>			<i>Japanese yen</i>		
	<i>Low</i>	<i>Average</i>	<i>High</i>	<i>Low</i>	<i>Average</i>	<i>High</i>
	1	2	3	4	5	6
2011	1.2889	1.3920	1.4882	100.20	110.96	122.80
2012	1.2089	1.2848	1.3454	94.63	102.49	113.87
2013	1.2768	1.3281	1.3814	113.93	129.66	145.02
2014	1.2141	1.3285	1.3953	134.95	140.31	149.03
2015	1.0552	1.1095	1.2043	126.52	134.31	145.21
2015						
Jan	1.1198	1.1621	1.2043	132.12	137.47	145.21
Feb	1.1240	1.1350	1.1447	133.06	134.69	135.72
Mar	1.0557	1.0838	1.1227	127.96	130.41	134.47
Apr	1.0552	1.0779	1.1215	126.52	128.94	133.26
May	1.0863	1.1150	1.1419	133.39	134.75	136.33
Jun	1.0944	1.1213	1.1404	135.79	138.74	140.47
Jul	1.0852	1.0996	1.1185	133.88	135.68	136.88
Aug	1.0883	1.1139	1.1506	135.23	137.12	138.70
Sep	1.1138	1.1221	1.1419	132.82	134.85	136.76
Oct	1.0930	1.1235	1.1439	132.30	134.84	136.65
Nov	1.0579	1.0736	1.1032	129.75	131.60	133.08
Dec	1.0600	1.0877	1.0990	130.57	132.36	134.08
	<i>Pound sterling</i>			<i>Swedish krona</i>		
	<i>Low</i>	<i>Average</i>	<i>High</i>	<i>Low</i>	<i>Average</i>	<i>High</i>
	7	8	9	10	11	12
2011	0.83155	0.86788	0.9050	8.7090	9.0298	9.3127
2012	0.77835	0.81087	0.8482	8.2077	8.7041	9.1356
2013	0.81075	0.84926	0.8789	8.2931	8.6515	9.0604
2014	0.77730	0.80612	0.8383	8.7661	9.0985	9.6234
2015	0.69630	0.72584	0.7842	9.1141	9.3535	9.6557
2015						
Jan	0.74660	0.76680	0.78420	9.2895	9.4167	9.5410
Feb	0.72780	0.74051	0.75395	9.3672	9.4901	9.6298
Mar	0.70355	0.72358	0.73710	9.1141	9.2449	9.3436
Apr	0.71290	0.72116	0.73160	9.2541	9.3254	9.3816
May	0.70700	0.72124	0.74250	9.1860	9.3037	9.4273
Jun	0.70850	0.72078	0.73540	9.1780	9.2722	9.3890
Jul	0.69710	0.70685	0.72080	9.2460	9.3860	9.4766
Aug	0.69630	0.71423	0.73210	9.4282	9.5155	9.6557
Sep	0.72230	0.73129	0.73910	9.3248	9.3924	9.4968
Oct	0.71670	0.73287	0.74800	9.2560	9.3485	9.4235
Nov	0.69980	0.70658	0.71765	9.2070	9.3133	9.3935
Dec	0.70360	0.72595	0.74005	9.1567	9.2451	9.3630

Source: European Central Bank.

Table 10.

## Other euro exchange rates, currency value of one euro, average

	<i>Czech koruna</i>	<i>Danish krone</i>	<i>Hungarian forint</i>	<i>Lithuanian litas</i>	<i>Latvian lats</i>	<i>Polish zloty</i>
	1	2	3	4	5	6
2011	24.590	7.451	279.373	3.453	0.706	4.121
2012	25.149	7.444	289.249	3.453	0.697	4.185
2013	25.980	7.458	296.873	3.453	0.701	4.197
2014	27.536	7.455	308.706	3.453	..	4.184
2015	27.279	7.459	309.996	..	..	4.184
2015						
Jan	27.895	7.441	316.500	..	..	4.278
Feb	27.608	7.450	306.884	..	..	4.176
Mar	27.379	7.459	303.445	..	..	4.126
Apr	27.439	7.466	299.429	..	..	4.018
May	27.397	7.461	306.327	..	..	4.081
Jun	27.307	7.460	311.960	..	..	4.159
Jul	27.094	7.462	311.531	..	..	4.152
Aug	27.041	7.463	311.614	..	..	4.195
Sep	27.089	7.461	313.145	..	..	4.218
Oct	27.105	7.460	311.272	..	..	4.251
Nov	27.039	7.460	312.269	..	..	4.249
Dec	27.027	7.461	314.398	..	..	4.290

	<i>Swiss franc</i>	<i>Norwegian krone</i>	<i>Bulgarian lev</i>	<i>Croatian kuna</i>	<i>Romanian leu</i>	<i>Russian rouble</i>
	7	8	9	10	11	12
2011	1.233	7.793	1.956	7.439	4.239	40.885
2012	1.205	7.475	1.956	7.522	4.459	39.926
2013	1.231	7.807	1.956	7.579	4.419	42.337
2014	1.215	8.354	1.956	7.634	4.444	50.952
2015	1.068	8.950	1.956	7.614	4.445	68.072
2015						
Jan	1.094	8.932	1.956	7.688	4.487	75.046
Feb	1.062	8.619	1.956	7.711	4.433	73.074
Mar	1.061	8.643	1.956	7.647	4.434	65.140
Apr	1.038	8.506	1.956	7.590	4.415	56.742
May	1.039	8.410	1.956	7.559	4.448	56.374
Jun	1.045	8.755	1.956	7.572	4.467	61.239
Jul	1.049	8.936	1.956	7.586	4.439	63.208
Aug	1.078	9.182	1.956	7.558	4.423	73.360
Sep	1.091	9.308	1.956	7.589	4.424	74.804
Oct	1.088	9.289	1.956	7.621	4.423	70.949
Nov	1.083	9.257	1.956	7.607	4.445	69.790
Dec	1.083	9.464	1.956	7.640	4.503	76.358

Sources: European Central Bank and Bank of Finland.

Table 10.  
(cont.)

	<i>Turkish lira</i>	<i>Australian dollar</i>	<i>Canadian dollar</i>	<i>Chinese yuan renminbi</i>	<i>Hong Kong dollar</i>	<i>Indonesian rupiah</i>	<i>South Korean won</i>
	13	14	15	16	17	18	19
2011	2.338	1.348	1.376	8.996	10.836	12206.510	1541.234
2012	2.314	1.241	1.284	8.105	9.966	12045.733	1447.691
2013	2.534	1.378	1.368	8.165	10.302	13856.597	1453.903
2014	2.906	1.472	1.466	8.186	10.302	15748.918	1398.142
2015	3.025	1.478	1.419	6.973	8.601	14870.389	1256.544
2015							
Jan	2.715	1.439	1.404	7.227	9.010	14617.694	1266.191
Feb	2.796	1.457	1.420	7.096	8.802	14504.278	1250.496
Mar	2.808	1.401	1.366	6.762	8.408	14152.163	1205.916
Apr	2.874	1.394	1.331	6.686	8.355	13950.492	1170.320
May	2.949	1.412	1.357	6.916	8.644	14650.363	1220.202
Jun	3.030	1.453	1.385	6.959	8.693	14919.427	1248.794
Jul	2.971	1.484	1.412	6.827	8.524	14720.403	1260.747
Aug	3.183	1.527	1.464	7.063	8.636	15370.918	1313.482
Sep	3.383	1.590	1.488	7.146	8.697	16175.757	1329.938
Oct	3.289	1.559	1.468	7.135	8.707	15482.546	1286.058
Nov	3.085	1.501	1.425	6.840	8.321	14685.989	1239.186
Dec	3.180	1.501	1.490	7.019	8.431	15087.430	1277.560

	<i>Malaysian ringgit</i>	<i>New Zealand dollar</i>	<i>Philippine peso</i>	<i>Singapore dollar</i>	<i>Thai babt</i>	<i>South African rand</i>	<i>IMF SDRs</i>
	20	21	22	23	24	25	26
2011	4.256	1.760	60.260	1.749	42.429	10.097	0.882
2012	3.967	1.587	54.246	1.605	39.928	10.551	0.839
2013	4.186	1.621	56.427	1.662	40.830	12.833	0.874
2014	4.345	1.600	58.979	1.682	43.147	14.404	0.874
2015	4.337	1.593	50.522	1.525	38.028	14.172	0.793
2015							
Jan	4.165	1.521	51.791	1.555	38.056	13.460	0.816
Feb	4.082	1.524	50.174	1.538	36.963	13.153	0.803
Mar	3.989	1.451	48.227	1.491	35.355	13.076	0.782
Apr	3.912	1.422	47.863	1.454	35.072	12.959	0.779
May	4.019	1.511	49.741	1.488	37.408	13.351	0.795
Jun	4.195	1.605	50.508	1.509	37.818	13.796	0.798
Jul	4.182	1.654	49.814	1.497	37.760	13.697	0.787
Aug	4.530	1.700	51.536	1.557	39.465	14.382	0.794
Sep	4.829	1.771	52.456	1.588	40.426	15.306	0.798
Oct	4.782	1.679	52.070	1.573	40.092	15.158	0.799
Nov	4.633	1.637	50.537	1.518	38.432	15.174	0.778
Dec	4.661	1.613	51.337	1.532	39.162	16.321	0.785

Sources: European Central Bank and Bank of Finland.

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	Portugal	escudo	200.482	1 Jan 1999
Belgium	franc	40.3399	1 Jan 1999	Creece	drachma	340.750	1 Jan 2001
Germany	mark	1.95583	1 Jan 1999	Slovenia	tolar	239.640	1 Jan 2007
Spain	peseta	166.386	1 Jan 1999	Cyprus	pound	0.585274	1 Jan 2008
Finland	markka	5.94573	1 Jan 1999	Malta	lira	0.429300	1 Jan 2008
France	franc	6.55957	1 Jan 1999	Slovakia	koruna	30.1260	1 Jan 2009
Ireland	pound	0.787564	1 Jan 1999	Estonia	kroon	15.6466	1 Jan 2011
Italy	lira	1936.27	1 Jan 1999	Latvia	lats	0.702804	1 Jan 2014
Luxembourg	franc	40.3399	1 Jan 1999	Lithuania	litas	3.4528	1 Jan 2015
Netherlands	guilder	2.20371	1 Jan 1999				

Source: European Union.

Table 12.

## Exchange rate mechanism ERM II

Currency	Central rate EUR 1 =	Fluctuation band, %	Upper rate*	Lower rate*	Valid from
Danish krone	7.46038	± 2.25	7.62824	7.29252	4 Jan 1999

\* Intervention at the margin is, in principle, automatic and unlimited.  
Source: European Central Bank.

Table 13.

## Banknote denominations sorted at the Bank of Finland, number in millions

Euro banknotes	2010	2011	2012	2013	2014	2015
500 euro	1.9	1.8	1.8	1.4	1.2	1.0
200 euro	1.2	1.1	1.0	0.8	0.7	0.7
100 euro	6.8	6.9	6.9	5.6	5.7	5.4
50 euro	84.3	86.9	79.4	60.3	65.4	66.1
20 euro	176.3	168.2	149.0	114.6	112.1	105.3
10 euro	40.9	39.6	37.9	32.3	30.4	27.4
5 euro	48.3	47.1	46.3	37.5	33.9	31.2
<b>Total</b>	<b>359.6</b>	<b>351.6</b>	<b>322.3</b>	<b>252.5</b>	<b>249.4</b>	<b>237.1</b>

Source: Bank of Finland.

# Organisation of the Bank of Finland

15 February 2016

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Olavi Ala-Nissilä, Seppo Kääriäinen, Arto Satonen, Jutta Urpilainen,  
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The Financial Supervisory Authority, headed by Anneli Tuominen, operates in association with the Bank of Finland.

