



# BANK OF FINLAND ANNUAL REPORT 2019



## Release notes

### Bank of Finland

**Street address**  
Snellmaninaukio, Helsinki

**Postal address**  
PO Box 160, FI-00101 Helsinki

**Email**  
[info@bof.fi](mailto:info@bof.fi)  
[forename.surname@bof.fi](mailto:forename.surname@bof.fi)

**Telephone**  
national 09 1831  
international +358 9 1831

**SWIFT**  
SPFB FI HH

**Fax**  
+358 9 174 872

### Regional office

**Vantaa**  
Turvalaaksontie 1, Vantaa,  
PO Box 160,  
FI-00101 Helsinki,  
Telephone +358 9 1831

### Web sites

**Bank of Finland**  
[suomenpankki.fi](https://suomenpankki.fi)

**Annual Report site**  
[annualreport.suomenpankki.fi](https://annualreport.suomenpankki.fi)

**Bank of Finland Bulletin site**  
[bofbulletin.fi](https://bofbulletin.fi)

**Rahamuseo**  
[rahamuseo.fi](https://rahamuseo.fi)

**Bofit**  
[bofit.fi](https://bofit.fi)

**The art site**  
[kansakunnanomaisuutta.fi/en](https://kansakunnanomaisuutta.fi/en)

Drafted in accordance with Section 19 of the Act on the Bank of Finland.

The figures in the Annual Report are based on data available in February 2020.

ISSN 1456-5773 (web publication)

Helsinki 2020

# Table of contents

<b>ANNUAL REPORT</b>	<b>4</b>
MONETARY POLICY	5
FINANCIAL STABILITY	35
MONEY AND PAYMENTS	54
FINANCIAL ASSET MANAGEMENT	70
INFLUENCE AND COOPERATION	80
SOCIAL RESPONSIBILITY	102
<b>ACTIVITIES AND STRATEGY</b>	<b>135</b>
BANK OF FINLAND IN A NUTSHELL	137
THE BANK OF FINLAND FOSTERS ECONOMIC STABILITY	138
DIVISION OF RESPONSIBILITIES BETWEEN MEMBERS OF THE BOARD	141
BANK OF FINLAND OBJECTIVES AND RESULTS FRAMEWORK	144
<b>FINANCIAL STATEMENTS</b>	<b>150</b>
BALANCE SHEET	151
PROFIT AND LOSS ACCOUNT	154
THE BOARD'S PROPOSAL ON THE DISTRIBUTION OF PROFIT	156
ACCOUNTING CONVENTIONS	157
NOTES ON THE BALANCE SHEET	166
NOTES ON THE PROFIT AND LOSS ACCOUNT	195
APPENDICES TO THE FINANCIAL STATEMENTS	208
NOTES ON RISK MANAGEMENT	210
AUDITOR'S REPORT	217
STATEMENT REGARDING THE AUDIT	219
<b>ORGANISATION</b>	<b>222</b>





# Annual Report

20.3.2020

The Bank of Finland is Finland's monetary authority and national central bank. It is also a member of the Eurosystem.

The Eurosystem is responsible for the monetary policy and other central banking activities of countries in the euro area and administers the use of the world's second largest currency, the euro. The primary objective of the Eurosystem and the Bank of Finland is price stability.

The main objective of the Eurosystem's monetary policy is to maintain stable prices in the euro area. Price stability is defined as an annual rate of increase in consumer prices below, but close to 2% over the medium term. Here, the value of money is held more or less unchanged and strong purchasing power is preserved.

The Bank of Finland safeguards financial stability. It assesses risks to the financial system, participates in macroprudential policy and compiles financial statistics.

The Bank of Finland is responsible for the availability and issuance of cash in Finland. In addition to domestic cash supply, the Bank of Finland's duties include tasks related to the development and security of payment systems.

The objective of the Bank of Finland's financial asset management is to meet the liquidity, security and return requirements placed on the central bank while taking into account the risks and social responsibility aspects inherent in investment activities.

The Bank of Finland's influence is based on expertise and research. The Bank takes a position on domestic and global economic issues as an independent institution.

The Bank of Finland's sustainability programme focuses on the promotion of sustainable growth, exercise of influence via information and management of climate risks.





## Monetary Policy

8	The European Central Bank's monetary policy and its preparation in 2019
16	Implementation of monetary policy in the euro area and Finland
27	Money market reference rates revised
32	Resumption of net purchases under asset purchase programme

# Monetary Policy

20.3.2020

The main objective of the Eurosystem's monetary policy is to maintain stable prices in the euro area. Price stability is defined as an annual rate of increase in consumer prices below, but close to 2% over the medium term. Here, the value of money is held more or less unchanged and strong purchasing power is preserved.

The Eurosystem is composed of the national central banks in the euro area and the European Central Bank (ECB). As a member of the Eurosystem, the Bank of Finland participates in the preparation, decision-making and implementation of the euro area's single monetary policy. Bank of Finland Governor **Olli Rehn** is a member of the Eurosystem's highest decision-making body, the ECB Governing Council.

Price stability is the foundation for sustainable economic growth. When inflation, i.e. the annual rate of growth in consumer prices, remains below, but close to 2% over the medium term, the value of money is held more or less unchanged and strong purchasing power is preserved.

The Eurosystem maintains price stability by controlling its key interest rates, which determine the costs banks face when borrowing money from or making deposits with the central bank, and by using so-called non-standard monetary policy measures.

## The Governing Council eased its monetary policy in a number of ways in 2019

In 2019 inflation remained muted in the euro area and inflation expectations remained low.

The Governing Council responded to the weak economic situation by easing its monetary policy several times, using a variety of measures. Accommodative monetary policy ensures that financing conditions will remain favourable for all sectors of the economy.

In 2019, the Governing Council lowered the ECB's deposit facility rate to -0.5%, changed its forward guidance, launched a third series of targeted longer-term refinancing operations, adopted a two-tier system for reserve remuneration and restarted its net purchases under the asset purchases programme (at a monthly pace of EUR 20 billion). Net purchases were initially ended in December 2018.

In December ECB President Christine Lagarde announced that the ECB would conduct a strategy review of its monetary policy framework. The review aims to ensure that the ECB has the best possible basis for fulfilling its mandate and serving the best interests of all euro area citizens.

## **Monetary policy will remain accommodative in the coming years**

In 2019, the ECB's monetary policy for the euro area remained accommodative to growth. The accommodative monetary policy contributes to maintaining very favourable bank lending conditions and supports access to financing across all economic sectors. The object of this monetary policy is to support the convergence of inflation to a level below, but close to, 2% over the medium term.

At the end of 2019, euro area growth was continuing at a muted pace and inflation remained low. However, the Eurosystem staff projections published in December were still forecasting that inflation would accelerate closer to the objective in the coming years.

The Governing Council stressed that a high degree of monetary accommodation will continue to be needed for an extended period of time.

## **Money market reference rates revised in 2019**

Reference (or benchmark) rates are publicly accessible interest rates that serve, among other things, as a basis for loans, derivatives and other financial contracts. Eonia and Euribor are the most commonly used reference rates in the EU and were both revised in 2019.

The European Central Bank began to publish €STR, a new overnight benchmark rate, alongside the Eonia from the beginning of October. The Euribor, in turn, had its calculation methodology revised. The revised Euribor was fully adopted in the fourth quarter of 2019.

The Bank of Finland participated closely in the policy preparation work for €STR in 2019, and is involved in the benchmark's continuous quality management.





## The European Central Bank's monetary policy and its preparation in 2019

20.3.2020

Price stability is the main objective of monetary policy in the euro area. The Governing Council of the European Central Bank has interpreted this as meaning 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 European Union as long as the objective of price stability is not jeopardised.

The Bank of Finland's principle mission is price stability. This objective is stipulated in the Act on the Bank of Finland, which refers to the definition of price stability denoted in the Maastricht Treaty. The Bank of Finland and the Eurosystem as a whole also have other objectives, but price stability is always foremost.

The Governor of the Bank of Finland is a member of the Governing Council of the European Central Bank (ECB), which decides the monetary policy of the euro area. Experts from the Bank of Finland contribute to the preparation of monetary policy decisions and carry out other background work. They also participate in the preparation of economic analyses and monetary policy decisions by sitting on the Eurosystem's Monetary Policy Committee and Market Operations Committee.

## **In 2019, the ECB responded to the deteriorating economic outlook with decisive monetary policy action**

In 2019, economic sentiment was weakened by the persistence of uncertainties. Most significant were the trade dispute between the United States and China and the divorce process and ensuing delay of the United Kingdom's withdrawal from the European Union. These factors were strongly reflected in euro area growth, which was very modest.

These external demand disturbances, as well as certain country and sector-specific factors, were still considered to be temporary at the end of 2018. Yet by early 2019 it had become clear that growth prospects had weakened, particularly for the year in question. Inflation also remained muted in the euro area, with inflation expectations low as well.

The Governing Council of the ECB responded to the deteriorating economic outlook by easing its monetary policy several times in 2019. The Governing Council emphasised the need for monetary policy to remain highly accommodative for a prolonged period to support core inflation (which excludes energy and food prices) and headline inflation developments over the medium term.

The Governing Council closely monitors inflation developments and the impact of its monetary policy measures on the economy. Its monetary accommodation helps ensure that financing conditions in the euro area remain favourable. The Governing Council emphasised at each of its monetary policy meetings, and in other contexts, that it stands ready to adjust all of its instruments, as appropriate, to ensure that inflation moves towards the inflation aim in a sustained manner.

At the end of 2019 the presidency of the ECB changed hands, as **Mario Draghi's** eight-year term ended. His successor **Christine Lagarde** took up her duties as President of the European Central Bank on 11 November 2019. Upon assuming office, President Lagarde announced that the ECB would begin a review of its monetary policy framework. A similar review had last been carried out in 2003.

## **Monetary policy remained unchanged in early 2019**

At its first monetary policy meeting of the year, on 29 January, the ECB Governing Council announced that economic activity had been weaker than expected on account of softer external demand and certain country and sector-specific factors. Growth momentum had already begun to slow during the latter half of 2018.

Risks surrounding the euro area growth outlook had increased on account of persistent and significant uncertainties relating to geopolitical factors, the threat of protectionism, vulnerabilities in emerging markets and financial market volatility. The Governing Council noted, however, that favourable financing conditions, strong labour market developments and rising wage growth would continue to support euro area growth and the gradual build-up of inflationary pressures.

The Governing Council for these reasons decided not to alter its monetary policy stance. It held the key ECB interest rates unchanged, with the interest rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility at 0.00%, 0.25% and -0.40%, respectively.

The Governing Council announced that it expected the key ECB interest rates to remain at their present levels at least through the summer of 2019, and in any case for as long as necessary to ensure the continued sustained convergence of inflation to levels that are below, but close to, 2% over the medium term.

As for its non-standard policy measures, the Governing Council confirmed that it would continue reinvesting, in full, the principal payments from maturing securities purchased under the asset purchase programme. It added that these reinvestments would continue for an extended period of time past the date when it starts raising the key ECB interest rates, and in any case for as long as necessary to maintain favourable liquidity conditions and an ample degree of monetary accommodation.

## **In spring the economic outlook deteriorates, monetary policy eased slightly**

Over the course of the spring, earlier signs of a slowing pace of growth in the euro area were confirmed, especially for 2019. Economic activity remained weak particularly in the manufacturing sector, reflecting softer external demand as well as some country and sector-specific factors.

There were signs that some of these idiosyncratic factors dampening growth were beginning to fade, but their effects were proving more persistent than anticipated. Core inflation remained muted as well, and the Governing Council noted that the weaker growth dynamics would slow the convergence of inflation towards the inflation aim.

The March 2019 ECB staff macroeconomic projections foresaw euro area real GDP increasing by 1.1% in 2019, 1.6% in 2020 and 1.5% in 2021. Compared with the Eurosystem staff projections published in December 2018, the forecast for growth had been revised down substantially for 2019, and slightly for 2020. Inflation as measured by the Harmonised Index of Consumer Prices ([HICP](#)) was foreseen at 1.2% in 2019, 1.5% in 2020 and 1.6% in 2021. Compared with the December 2018 projections, the forecast for HICP inflation was revised down across the entire projection horizon.



At its monetary policy meeting in March, the ECB Governing Council decided to launch a new series of quarterly targeted longer-term refinancing operations (TLTRO III) starting in September 2019 and ending in March 2021. The precise terms of the new operations were published later, in connection with the Governing Council's meeting in June. The TLTRO III operations aim to preserve favourable bank lending conditions and the smooth transmission of monetary policy.

In addition, the Governing Council stated that the Eurosystem's lending operations would continue to be conducted as [fixed rate tender procedures](#) with full allotment. This procedure will continue for as long as necessary, and at least until the end of the reserve maintenance period starting in March 2021.

The Governing Council also adjusted its forward guidance to reflect that it now expected the key ECB interest rates to remain at their present levels at least through the end of 2019, and in any case for as long as necessary to ensure the continued sustained convergence of inflation to levels below, but close to, 2% over the medium term.

At its meeting in April, the Governing Council announced that as part of its regular economic analysis it would begin to evaluate whether the potential adverse effects of negative interest rates on the economy ought to be mitigated, in order to preserve the favourable impact of negative interest rates on bank intermediation.

## **In summer, the Governing Council changed its forward guidance on interest rates and prepared for new monetary policy measures**

In the late spring and summer, euro area growth turned out to be slightly better than anticipated in the early part of the year. Incoming economic data and survey information still pointed to somewhat weaker growth in the second and third quarters of 2019. This was primarily due to the ongoing weakness of international trade, which was still suffering from persistent global uncertainties and negatively affecting the euro area manufacturing sector in particular.

Core inflation remained muted. Cost pressures were not being passed on to prices as quickly as forecast, although labour costs continued to strengthen and broaden on account of high levels of capacity utilisation and tightening labour markets. Measures of inflation expectations suggested that expectations had lowered.

The June 2019 Eurosystem staff macroeconomic projections for the euro area forecast real GDP growth at 1.2% in 2019, 1.4% in 2020 and 1.4% in 2021. Similarly, annual HICP inflation was forecast at 1.3% in 2019, 1.4% in 2020 and 1.6% in 2021.

Based on these data and projections, the Governing Council decided to hold the key ECB interest rates unchanged at its June meeting. In its forward guidance, the Governing Council stated that it now expected the key ECB interest rates to remain at their present levels at least through the first half of 2020, and in any case for as long as necessary to ensure the continued sustained convergence of inflation to levels that are below, but close to, 2% over the medium term.

At its meeting in July, the Governing Council adjusted its forward guidance slightly, stating that it expected the key ECB interest rates to remain at their present or lower levels at least through the first half of 2020.

In addition, the Governing Council announced that it had asked the Eurosystem Committees to investigate additional measures to secure its monetary policy objective. Such measures include, for example, reinforcing forward guidance on policy rates, mitigating the adverse effects of negative interest rates by adopting a tiered system for reserve remuneration, and investigating options for the size and composition of potential new net asset purchases.

## **In autumn, a new monetary policy package was launched to support inflation developments**

At its meeting in September, the ECB Governing Council noted that inflation had continued to fall short of its aim, euro area activity remained weak and downside risks to growth had failed to subside. Moreover, underlying price pressures remained muted and measures of inflation expectations persisted at low levels.

This assessment was also reflected in the September 2019 ECB staff macroeconomic projections for the euro area. Annual real GDP growth was forecast at 1.1% in 2019, 1.2% in 2020 and 1.4% in 2021. Similarly, annual HICP inflation was projected at 1.2% in 2019, 1.0% in 2020 and 1.5% in 2021.

In response to the subdued and deteriorating outlook for growth and inflation, the ECB Governing Council further increased its monetary accommodation.

The Governing Council lowered the interest rate on the ECB's deposit facility by 10 basis points, to -0.50%. The Governing Council also adopted a threshold-based forward guidance, stating that it now expects the key ECB interest rates to remain at their present or lower levels until the inflation outlook has robustly converged to a level sufficiently close to, but below, 2% within the projection horizon, and such convergence has been consistently reflected in underlying inflation dynamics. Compared with the Governing Council's earlier forward guidance, interest rate rises are now tied to inflation developments instead of an anticipated timeframe.

Regarding [the asset purchase programme](#), the Governing Council decided to restart net asset purchases at a monthly pace of EUR 20 billion as from 1 November 2019. The Governing Council announced that purchases would continue for as long as necessary to reinforce the accommodative impact of its interest rate policy, and that they would end shortly before it began raising the key ECB interest rates. Principal payments from maturing securities purchased under the asset purchase programme will continue to be reinvested in full.

The modalities of the new series of quarterly targeted longer-term refinancing operations (TLTRO III) were relaxed to sustain favourable bank lending conditions, ensure the smooth transmission of monetary policy and further support the accommodative effects of monetary policy.

The Governing Council also announced that in order to support the bank-based transmission of monetary policy, a two-tier system for reserve remuneration would be introduced, in which part of banks' holdings of excess liquidity would be exempted from the negative deposit facility rate.

The Governing Council noted that this package of monetary policy decisions would provide a substantial monetary stimulus. These measures were implemented to ensure that financial conditions remain very favourable and continue to support euro area growth, the ongoing build-up of domestic price pressures and, thus, the sustained convergence of inflation to the medium-term inflation aim.

## Monetary policy held unchanged for the rest of the year

Towards the end of 2019 the outlook for the economy remained broadly unchanged. Euro area growth continued to be muted and inflation remained low. Despite the slowdown in growth, economic data and survey information suggested that euro area growth seemed to be stabilising somewhat.

The December 2019 Eurosystem staff macroeconomic projections for the euro area foresaw annual real GDP growth of 1.2% in 2019, 1.1% in 2020 and 1.4% in both 2021 and 2022. Annual HICP inflation was projected at 1.2% in 2019, 1.1% in 2020, 1.4% in 2021 and 1.6% in 2022.

At its monetary policy meetings in October and December, the Governing Council held its policy stance unchanged. The Governing Council noted that euro area growth would continue to be supported by favourable financing conditions, further employment gains and rising wages, the mildly expansionary euro area fiscal stance and the ongoing — albeit somewhat slower — growth in global activity. Together with the ECB's monetary policy measures, these favourable developments were projected to lead to an increase in inflation over the medium term.



At the Governing Council's meeting in December, President Lagarde announced that the ECB would begin a strategy review of its monetary policy framework, as 16 years had passed since the last review. The strategy review aims to ensure that the ECB has the best possible basis for fulfilling its mandate and acting in the best interests of EU citizens. The ECB will examine its monetary policy strategy thoroughly, analytically and with an open mind. It will consider the views of different experts and reflect on the changes to the monetary-policy operating environment observed in recent years.

President Lagarde announced that the work would begin in early 2020, with the aim of completing the review by the end of the year. Over the course of 2019, the Bank of Finland actively voiced the need for a strategy review.

## **Economic growth needs other policy areas to complement monetary accommodation**

In sum, the ECB's monetary policy remained highly accommodative in 2019. This has been to ensure that financing conditions remain favourable for all sectors of the economy. Easier borrowing conditions for firms and households facilitate consumer spending and business investment, lending support to growth in the euro area and the build-up of domestic price pressures. This, in turn, contributes to a robust convergence of inflation to the ECB's medium-term aim.

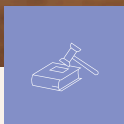
The growth of loans to firms and households remained solid throughout the year, benefiting from the pass-through effect of the ECB's monetary accommodation on bank lending rates. The ECB's accommodative monetary policy stance contributes to maintaining very favourable bank lending conditions and will continue to support access to financing across all economic sectors.

Raising the economy's growth potential and supporting aggregate demand will also require contributions from policy areas other than monetary policy. The ECB Governing Council has consistently and publicly called for more decisive action towards implementing the structural policies outlined in the European Commission's country-specific recommendations.

Fiscal policies also play a critical role in the foundations for growth. The ECB Governing Council has emphasised repeatedly that governments with fiscal space should be ready to act in an effective and timely manner. In countries where public debt is high, governments need to pursue prudent policies and meet structural balance targets, which will create the conditions for automatic stabilisers to operate freely. All countries should intensify their efforts to achieve a more growth-friendly composition of their public finances.

The Governing Council stresses that the transparent and consistent implementation of the European Union's fiscal and economic governance framework, both over time and across countries, remains essential for bolstering the resilience of the euro area economy. Improving the functioning of Economic and Monetary Union remains a priority.

The Governing Council welcomes the ongoing work and urges further specific and decisive steps to complete the Banking Union and the Capital Markets Union.



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

20.3.2020

The Bank of Finland is responsible for [implementing the Eurosystem's monetary policy](#) in Finland. In 2019, several measures were adopted to ease the stance of the Eurosystem's monetary policy. The European Central Bank lowered the deposit facility rate by 10 basis points, adjusted its forward guidance on interest rates, launched a third series of targeted longer-term refinancing operations, adopted a two-tiered deposit facility rate and recommenced net purchases under the asset purchase programme.

Implementing monetary policy means putting into action the monetary policy decisions taken by the ECB Governing Council. The Eurosystem uses two types of instruments to implement its monetary policy, standard and non-standard measures. Open market operations conducted as collateralised tender procedures, standing facilities, and a minimum reserve system comprise the Eurosystem's standard monetary policy measures. These measures are primarily used to steer short-term interest rates.

Since the financial crisis, non-standard measures have also played a key role in monetary policy. These measures include the expanded asset purchase programme, targeted longer-term refinancing operations, forward guidance and a two-tier deposit facility rate.



## Interest rate policy relaxed further; deposit facility rate at lowest level on record

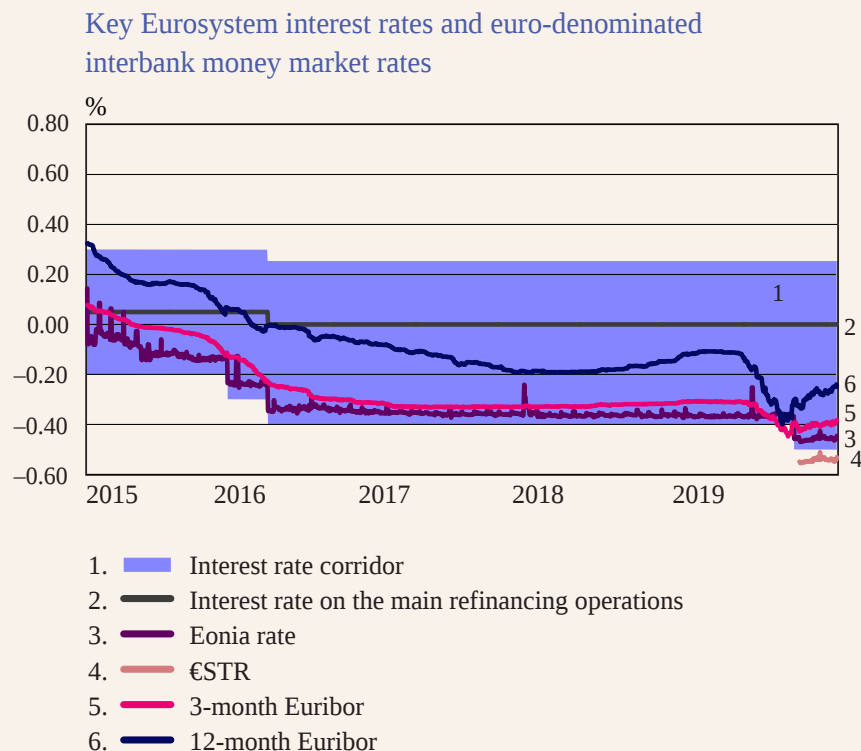
In September 2019, the Governing Council of the European Central Bank (ECB) decided on a comprehensive package of monetary policy stimulus measures. Regarding its [standard instruments](#), the Governing Council decided to lower the interest rate on the ECB deposit facility by 10 basis points, to -0.5%. This was the first time the Governing Council had decided to change the key ECB interest rates since 2016. The interest rate on the Eurosystem's deposit facility is now at its lowest level on record.

The Governing Council has emphasised that the key ECB interest rates, including the deposit facility rate, may be lowered further, as appropriate. In 2019, the interest rate on the main refinancing operations and the rate on the marginal lending facility each remained unchanged, at 0.00% and 0.25%, respectively.

The Governing Council's decision to lower the deposit facility rate passed through effectively to short-term money market rates. Because of the abundance of excess liquidity in the Eurosystem, short-term money market rates closely tracked the interest rate on the ECB's deposit facility.

The Eonia and €STR benchmark interest rates fluctuated in a narrow range, averaging -0.46% and -0.54%, respectively after the deposit facility rate was lowered. The lower deposit facility rate was also reflected in the Euribor rates, with the 3-month and 12-month Euribors averaging -0.40% and -0.28%, respectively, at the end of 2019 (Chart 1).

Chart 1.



Sources: European Central Bank, European Money Market Institute and Bank of Finland.

## Non-standard measures also deployed to further ease monetary policy

The [stimulus measures](#) announced in September largely comprised non-standard measures of monetary policy. Regarding these instruments, the Governing Council decided to restart net purchases under the asset purchase programme as from November, adopt a two-tier system for reserve remuneration and adjust its forward guidance on interest rates.

In addition, the Governing Council decided to ease the modalities of the new series of targeted longer-term refinancing operations (TLTRO III) announced in March. The maturity of the operations was extended from two years to three, their interest rate was lowered by ten basis points, and an early repayment option was added beginning no sooner than two years after settlement.

## **Third series of targeted longer-term refinancing operations**

TLTRO III began in September 2019 and will comprise a total of seven quarterly refinancing operations. The last operation will be conducted in March 2021. Under these operations, monetary policy counterparties to the Eurosystem's national central banks may apply for 3-year loans against eligible collateral. These loans will thus mature at quarterly intervals beginning from September 2022 and ending in March 2024.

In principle, the interest rate for each operation is based on the average rate applied to the Eurosystem's main refinancing operations (MROs) over the life of the respective TLTRO. However, the rate applied to TLTRO III operations will be lower for counterparties whose net lending has exceeded their benchmark net lending, and can be as low as the average interest rate on the deposit facility prevailing over the life of the respective operation.

The first two TLTRO III operations were conducted in September and December of 2019. In the September operation, a total of 28 Eurosystem counterparty banks or banking groups received loans, while the December operation saw 122 participants. A total of EUR 3.4 billion was sought from the September operation, while the volume for the operation in December stood at EUR 97.7 billion. Some of the Bank of Finland's monetary policy counterparties participated in the December operation.

## **Outstanding amount of longer-term refinancing contracted slightly**

In 2019, early repayments of TLTRO II loans came to EUR 208.1 billion across the entire Eurosystem. Consequently, the outstanding amount of TLTRO II funds fell to EUR 510.8 billion. Together, the outstanding amount of TLTRO II and III loans declined from EUR 718.8 billion to 611.9 billion during 2019.

Outstanding TLTRO II funds will begin to mature as of June 2020, with the last operation maturing in March 2021.

## **Demand for regular refinancing operations still muted**

Regarding its standard monetary policy measures, the Eurosystem continued to conduct its main refinancing operations (MROs) and 3-month longer-term refinancing operations as fixed-rate tender procedures with full allotment.

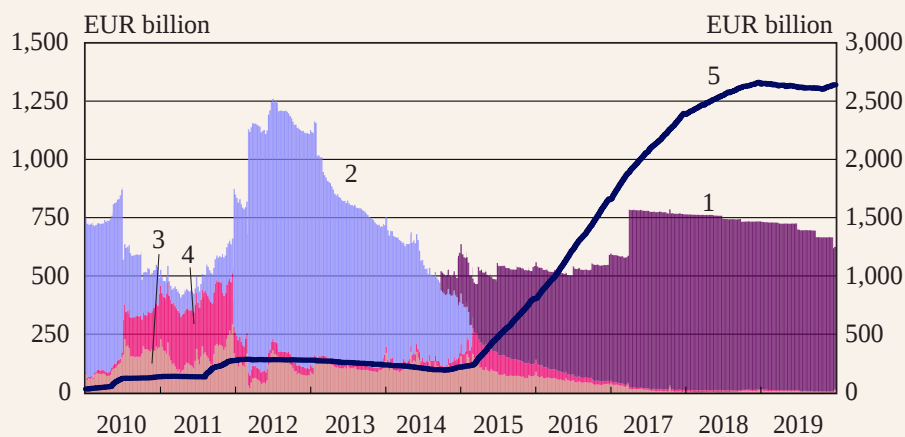
Outstanding 1-week MRO volumes stood at about EUR 4.4 billion, on average, in 2019, up from an average of about EUR 3.6 billion in 2018. By contrast, 3-month longer-term refinancing operations, which are conducted each month, declined on the previous year. These operations provided new liquidity of about EUR 3.4 billion, on average, in 2019, compared with some EUR 6.3 billion in 2018.

In sum, the outstanding amount of the Eurosystem's regular refinancing operations declined to some EUR 7.8 billion in 2019, compared with about EUR 9.9 billion in 2018. As in 2018, only a small number of counterparties participated in these operations.

The Eurosystem continued to conduct 1-week dollar-denominated refinancing operations in 2019, with their liquidity ranging from nil to about USD 3.7 billion and averaging USD 0.3 billion per operation (Chart 2).

Chart 2.

### The Eurosystem's liquidity-providing operations (tender operations and asset purchase programmes)



1. Targeted longer-term refinancing operations (27–48 months)
2. Supplementary longer-term refinancing operations (1–36 months)
3. Longer-term refinancing operations (3 months)
4. Main refinancing operations (1 week)
5. Securities held for monetary policy purposes (right-hand scale)

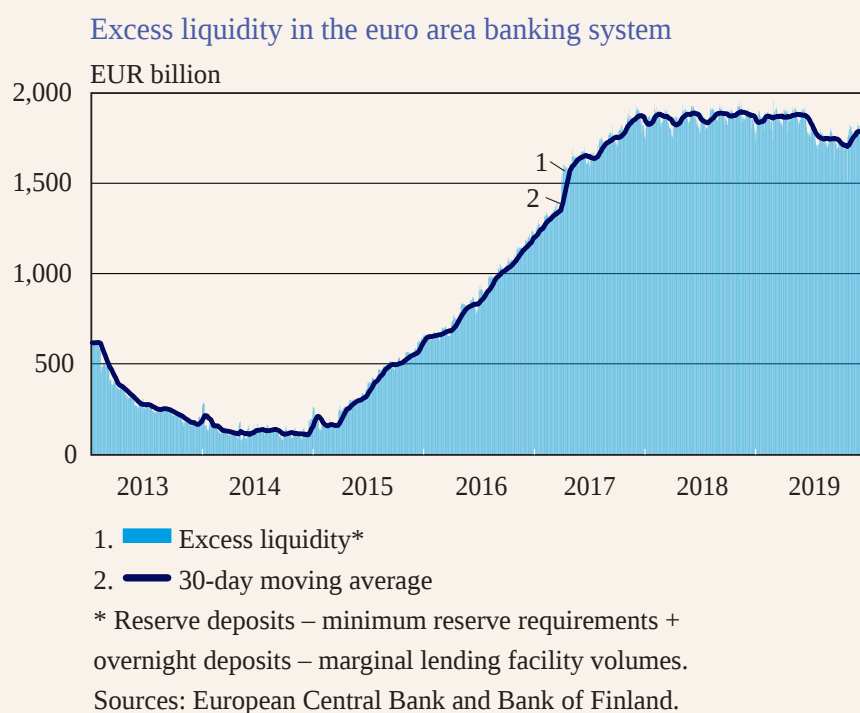
Sources: European Central Bank and Bank of Finland.

## Excess liquidity still abundant

[Excess liquidity](#) refers to deposits made by banks to their central bank current account in excess of the minimum reserve requirement. In 2019 the volume of excess liquidity in the euro area banking system declined by about EUR 74.3 billion, down to EUR 1,785.9 billion. Among other factors, this was due the contraction of outstanding TLTRO loans. However, despite being slightly lower than in 2018, the overall volume of excess liquidity remained abundant.

The abundance of excess liquidity in the banking system explains why regular refinancing operations have seen such little demand. Because of the liquidity surplus, few counterparties need to turn to regular refinancing operations for finance (Chart 3).

Chart 3.



## Eurosystem adopts two-tier system for reserve remuneration

As from 30 October 2019 the Eurosystem introduced a two-tier system for reserve remuneration. Under the new arrangement, banks' current account holdings that exceed the minimum reserve requirement (i.e. excess reserves) are divided into two tiers.



The first, or exempt tier, is in volume terms six times a bank's minimum reserve requirement. The exempt tier is remunerated at an annual rate of 0%. Reserves that exceed this threshold fall into the non-exempt tier, which will continue to be subject to the ECB's deposit facility rate for as long as it is negative. The two-tier system does not apply to overnight deposits held with the Eurosystem's deposit facility. The ECB Governing Council has announced that it may change the details of the system as needed.

The aim of the system is to support the bank-based transmission of monetary policy by lowering the costs to banks from negative interest rates. Because the interest rate on the deposit facility is negative, banks have to pay for holding excess reserves and overnight deposits with the Eurosystem.

The minimum reserve requirements of euro area banks amounted to about EUR 134.1 billion and EUR 134.5 billion in the seventh and eighth maintenance periods of 2019, respectively. Minimum reserves were remunerated at the MRO interest rate, at 0% in 2019. The newly introduced exempt tiers stood at about EUR 804.6 billion and EUR 807 billion in the seventh and eighth maintenance periods, respectively. Banks made almost full use of their exempt tiers.

## **Strict eligibility criteria for monetary policy counterparties**

The Bank of Finland's circle of monetary policy counterparties remained unchanged in 2019. At the end of the year, the Bank of Finland had a total of 16 counterparties, comprising both Finnish credit institutions and branches of Nordic banks operating in Finland.

Strict eligibility criteria are applied to counterparties to the Eurosystem's monetary policy operations. These credit institutions must be financially sound and are subject to a minimum reserve requirement and financial supervision.

Monetary policy counterparties have the right to seek funding against eligible collateral by participating in the Eurosystem's liquidity operations. Counterparties may also apply for overnight liquidity against eligible collateral through the marginal lending facility, which has to be settled the following business day. In addition, intraday credit to guarantee smooth payment flows may be sought against collateral.

The Eurosystem has specified eligibility criteria for assets that can be put up as collateral towards central bank funding. These criteria are outlined in the ECB's guidelines and are the same for the entire euro area. The Bank of Finland has supplemented these guidelines with additional domestic requirements for its own counterparties. The Bank of Finland last updated its provisions and guidelines in August 2019.

## Collateral deposited with the Eurosystem declined slightly

In 2019, the volume of collateral deposited with the Eurosystem contracted only slightly compared with 2018 (Chart 4). Eurosystem national central banks held a total average of EUR 1,562 billion in collateral in 2019, compared with an average of EUR 1,594 billion in 2018.

Similarly, there was little change in the distribution of collateral by asset class, with only covered bank bonds increasing relative to 2018. Together with credit claims, covered bank bonds were in fact the largest asset class put up in 2019, with each comprising 24% of all delivered collateral. Credit claims are loans that banks have issued to their clients and are categorised as non-marketable assets in the collateral framework. The third largest asset class put up as collateral were asset-backed securities, at 23%.

Chart 4.



Source: European Central Bank.

## Liquidity position of Bank of Finland counterparties remained solid

In 2019, the Bank of Finland's counterparties deposited EUR 17.2 billion in collateral with the central bank, on average, compared with EUR 19.6 billion in 2018.

The Bank of Finland counterparties continue to favour covered bank bonds as collateral, comprising on average 38% of all collateral put up in 2019 (Chart 5). The second and third largest asset classes were credit claims and securities issued by central and regional government, at 29% and 18%, respectively.

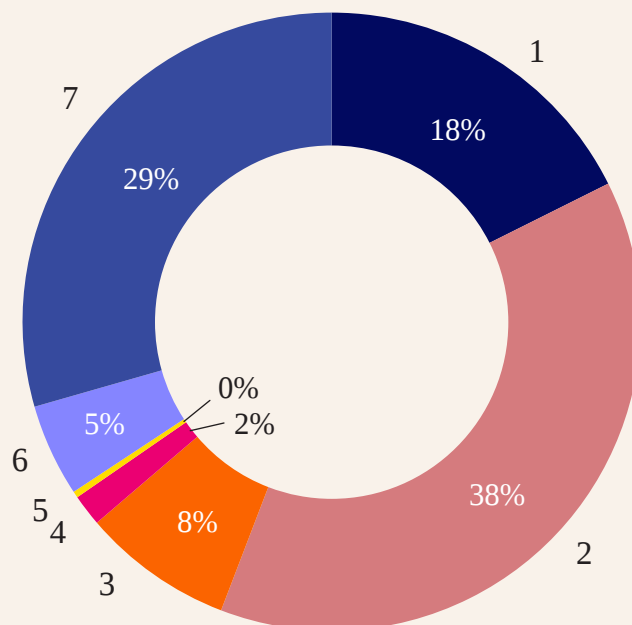
The volume of funding sought by Bank of Finland counterparties through the Eurosystem's refinancing operations almost halved in 2019. Consequently, the average volume of excess collateral delivered by counterparties reached 41% in 2019, up from 27% in 2018.

Voluntary early repayments of TLTRO II continued in 2019. Bank of Finland counterparties paid back EUR 6.1 billion worth of these loans in 2019. In contrast, new funding sought from TLTRO III operations stood at EUR 2.1 billion.

At the end of 2019, Bank of Finland counterparties held EUR 4.6 billion in targeted longer-term refinancing loans (TLTRO II and III volumes). In 2018, the equivalent figure was EUR 8.6 billion. In addition to this, counterparties made use of intraday credit.

Chart 5.

### Collateral put forward to the Bank of Finland (average shares in 2019)



1.  Securities issued by central and regional government
2.  Covered bank loans
3.  Uncovered bank loans
4.  Corporate bonds
5.  Asset-backed securities
6.  Other marketable assets
7.  Non-marketable credit claims

Source: Bank of Finland.

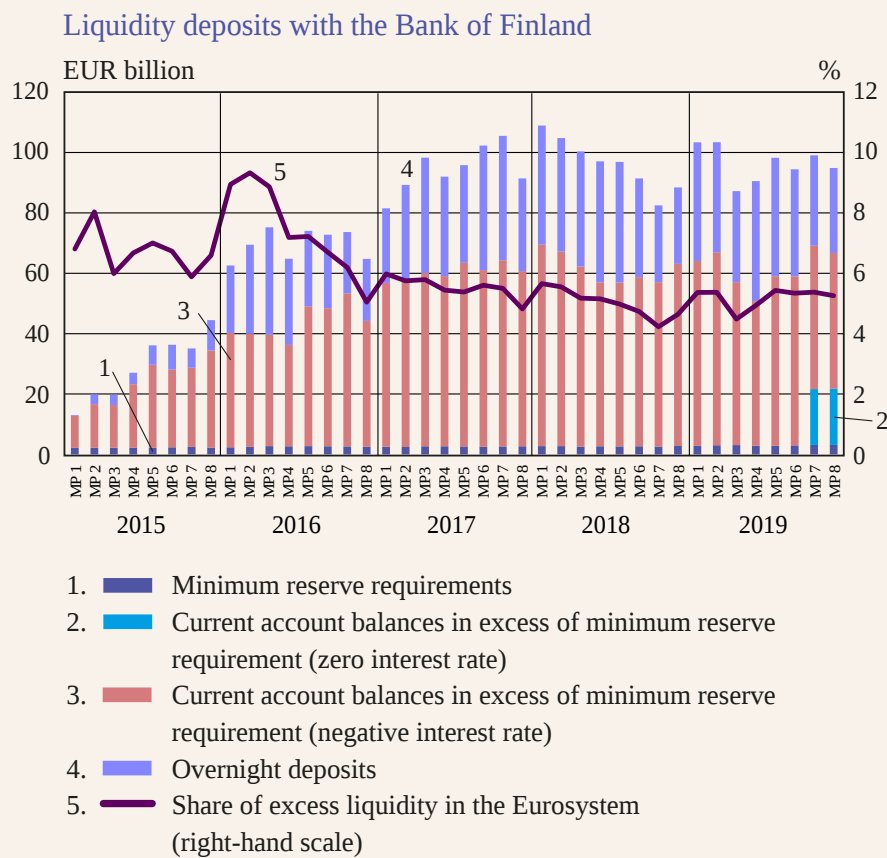
## Volume of central bank deposits remained unchanged

As in previous years, Bank of Finland counterparties held a substantial amount of deposits with the Bank of Finland, averaging EUR 96.4 billion (Chart 6).

Excess liquidity, i.e. banks' deposits with the Bank of Finland in excess of their minimum reserves, remained unchanged in 2019, at about EUR 93.4 billion on average. Similarly, the Bank of Finland's share of excess central bank deposits within the Eurosystem as a whole remained unchanged in 2019, at about 5% on average.

Finnish banks made almost full use of their exempt tiers under the [new two-tier system for reserve remuneration](#). Overnight deposits contracted by 21% in volume. During the last maintenance period of 2019, EUR 21.9 billion of deposits were remunerated at 0% and EUR 73.0 billion at a negative interest rate.

Chart 6.



Sources: European Central Bank and Bank of Finland.





## Money market reference rates revised

20.3.2020

The Eonia and Euribor money market reference rates were revised in 2019. The European Central Bank's new overnight benchmark the €STR joined the Eonia as from October 2019. At the same time, the Eonia was fixed to the €STR. The Euribor rates, in turn, had their specification reformulated. The new methodology was fully implemented during the fourth quarter of 2019.

Reference (or benchmark) rates are publicly accessible interest rates that serve, among other things, as a basis for loans, derivatives and other financial contracts. They generally reflect the price of borrowing on a specific market.

The reference rates most familiar to Finnish households are the Euribor rates, which are used, among other things, to determine the prices of housing loans. Together with the Eonia, the Euribor rates are the most widely used reference rates across the EU. Both the Eonia and the Euribor rates were revised in 2019.

### New benchmark rate €STR joins Eonia

The European Central Bank (ECB) published its new overnight benchmark rate the [€STR](#) (euro short-term rate) for the very first time on 2 October 2019.

The €STR was introduced alongside the European Money Market Institute's (EMMI) Eonia rate as a measure of the average overnight interest rate in the euro area. At the same time, the Eonia was set to a fixed spread of 8.5 basis points over the €STR until its discontinuation on 3 January 2022.

This revision is a consequence of 2016's [Benchmark Regulation](#), which imposed additional requirements on reference rates. The almost 2.5-year transition period from the Eonia to the €STR is meant to ensure that the replacement of the overnight reference rate on the money markets will proceed smoothly.

## **The €STR as a measure of overnight interest rates**

The €STR measures the average interest rate that banks must pay for unsecured overnight euro-denominated credit on wholesale markets.

The €STR is an important benchmark rate especially for the functioning of derivatives markets. It also yields information on the pass-through of monetary policy to the money market.

The €STR is based on the ECB's statutory money market statistical reporting (MMSR) dataset, where 50 large European banks must submit reports of their daily money market transactions. The €STR is calculated on the basis of unsecured overnight loans taken out by the reporting banks that are at least EUR 1 million by volume. The rate is calculated as a volume-weighted mean of the middle 50% of the volume-weighted distribution of rates, rounded to the third decimal.

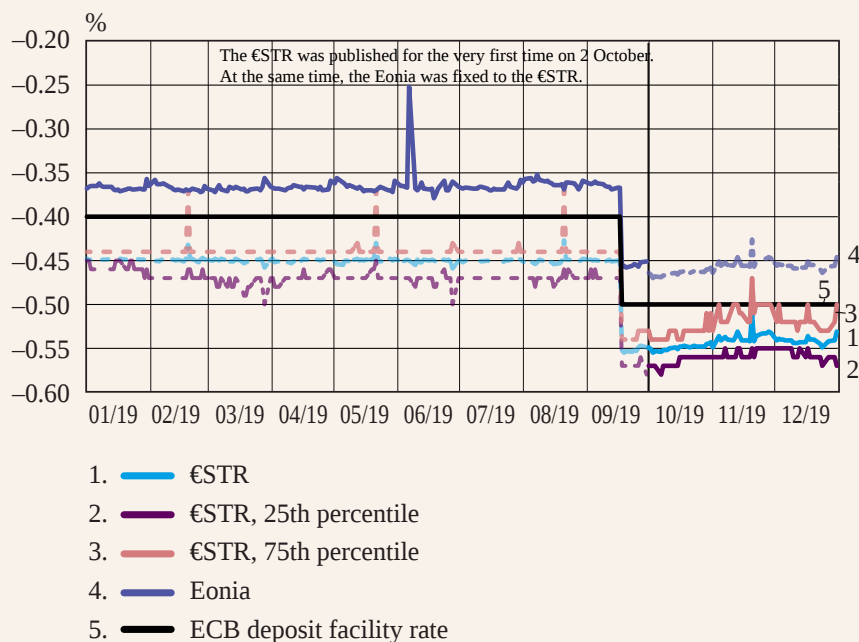
The ECB publishes the €STR every operating day of the [TARGET2 payment system](#) at 08.00 Central European Time. The published rate always reflects the previous business day's money market rates.

## **With the abundance of excess liquidity, the €STR is below the ECB's deposit facility rate**

With the prevailing excess liquidity in the banking system, the €STR held steady below the ECB's deposit facility rate. Since its initial publication on 2 October, the €STR averaged -0.54% in 2019. The spread between the €STR and the ECB deposit facility was about -0.04 percentage points, or -4 basis points. By contrast, the Eonia averaged about 3 basis points higher the ECB's deposit facility rate in 2019, before it was fixed to the €STR from the beginning of October (Chart 7).

Chart 7.

### The €STR and the Eonia in 2019



The pre-€STR, the unofficial predecessor to the €STR, was calculated and published retroactively for the period 15 March 2017 – 30 September 2019.

Sources: European Central Bank and European Money Market Institute.

The spread between the €STR and the Eonia is due to a difference in methodology. The computation of the €STR also includes loans received by banks from non-bank financial institutions. Only banks have access to the Eurosystem's deposit facility. Other financial institutions, in turn, must deposit their funds with the banks. Because of the abundance of excess liquidity in the banking system, the banks do not have to compete for these funds to fulfil their minimum reserve requirements and may instead charge financial participants for these deposits by remunerating them below the ECB's deposit facility rate.

## Bank of Finland involved in €STR quality control

The Eurosystem monitors the accuracy of the data used to calculate the €STR, so that the benchmark rate would reflect the prevailing level of overnight interest rates as accurately as possible. The Bank of Finland contributes to the quality management process by monitoring the data submitted by Finnish reporting agents. In 2019, Nordea was the only MMSR reporting agent out of all the Finnish banks.

In addition to quality control, the Bank of Finland participated closely in the Eurosystem's policy preparation working groups for the reference rates.

## Euribor calculation methodology revised

Similar to the €STR, the Euribor reference rates measure the average cost of unsecured euro-denominated overnight loans on the wholesale markets. The Euribor rates, which are familiar to Finnish households from housing loans, are also vital to the functioning of derivatives markets.

In addition to the Eonia, the European Money Market Institute (EMMI) also administrates the Euribor rates. EMMI publishes the Euribor for maturities ranging from one week to one year every TARGET2 business day at 11:00 Central European Time.

Before their revision, the Euribor rates did not meet the standards of 2016's [Benchmark Regulation](#), as they were based solely on expert evaluations by panel banks and not on actual market transactions. In response, EMMI devised a [new methodology](#) for calculating its Euribor quotations. It gained the approval of Belgium's Financial Services and Markets Authority (FSMA) at the beginning of July.

The revision uses a hybrid methodology in which a panel bank's quotation for each Euribor rate is based primarily on settled loans. If the amount of settled loans is insufficient, the quotation is also based on earlier transactions or on loans with a different maturity to the Euribor in question. Only in the failure of the above will the quotation be based on other relevant market data or the expert judgement of panel banks.

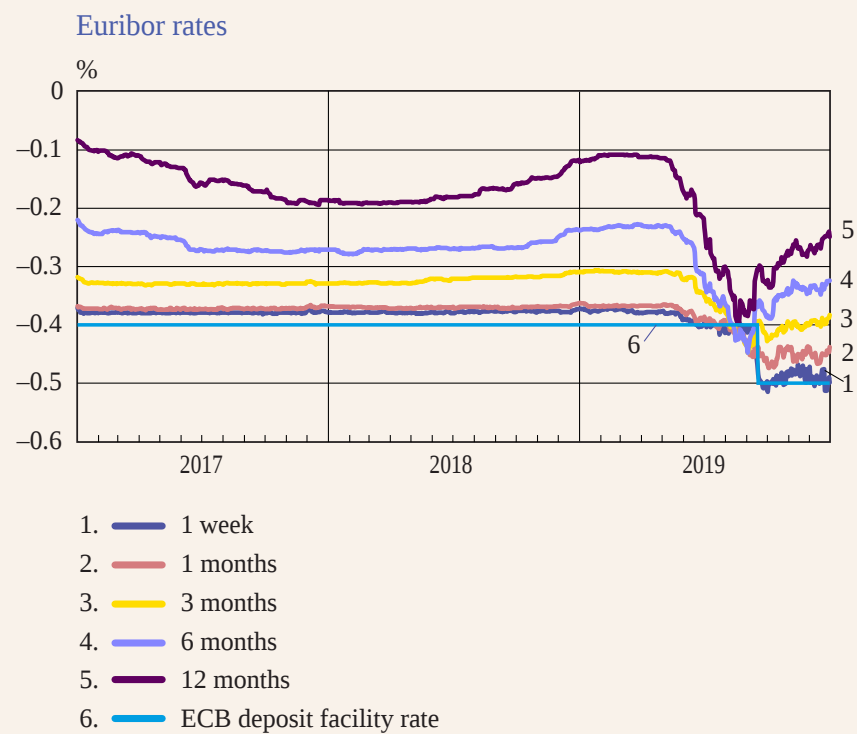
Once the banks' quotations have been received, the middle 70% are used to calculate the Euribor by taking the arithmetical mean of the quotations and rounding to the third decimal.

## New methodology adopted in full during last quarter of 2019

Panel banks began adopting the new calculation methodology in the second quarter of 2019. In November EMMI [announced](#) that it had completed the transition phase.

The daily volatility of the Euribor rates seems to have increased around the time that the new methodology was adopted. However, some of this volatility is likely due to shifting expectations concerning the key ECB interest rates at end of 2019 (Chart 8).

Chart 8.



Sources: European Central Bank and European Money Market Institute.





## Recommencement of net purchases under asset purchase programme

20.3.2020

Net purchases under the Eurosystem's asset purchase programme ended in January 2019 but were recommenced in November. The Bank of Finland participates in implementing the ECB's public sector, corporate sector and asset-backed securities purchase programmes. The Bank of Finland's holdings of securities purchased under these monetary policy operations increased to EUR 46 billion.

[The Eurosystem's asset purchase programme](#) (APP) consists of the public sector purchase programme and three private sector purchase programmes. The latter comprise the asset-backed securities purchase programme, the covered bond purchase programme and the corporate sector purchase programme. [The asset purchase programme is an example of a non-standard monetary policy measure.](#)

### The Eurosystem increased its holdings under the asset purchase programme

The ECB Governing Council ended its net purchases under the asset purchase programme at the end of 2018. In the following months, from January to October 2019, the Eurosystem only reinvested principal payments from maturing securities.

At its monetary policy meeting in September, the Governing Council decided to recommence net purchases at a monthly pace of EUR 20 billion as from November 2019, as well as to continue to reinvest principal payments from maturing securities.

The Governing Council expects these net purchases to run for as long as necessary to reinforce the accommodative impact of its policy rates, and to end shortly before it starts raising the key policy interest rates.

The Governing Council intends to continue reinvesting, in full, the principal payments from maturing securities purchased under the APP for an extended period past the date when it starts raising the key policy rates, and in any case for as long as necessary to maintain favourable liquidity conditions and an ample degree of monetary accommodation.

The Eurosystem's holdings of securities acquired under the asset purchase programme increased from EUR 2,570 billion to EUR 2,580 billion in 2019. The public sector purchase programme accounted for EUR 2,103 billion and the corporate sector purchase programme for EUR 477 billion of these purchases, respectively. [Time series data on the asset purchase programme are available on the ECB website.](#)

## **Bank of Finland involved in implementation of corporate sector purchase programme**

The Bank of Finland has acquired assets under all of the individual purchase programmes except for the asset-backed securities programme. In 2019, [the Bank of Finland's holdings of assets purchased under the APP](#) increased from EUR 45.6 billion to EUR 46 billion.

Under the public sector purchase programme, the Bank of Finland purchased Finnish government bonds and bonds issued by Finnvera and Municipality Finance. In 2019, the Bank of Finland did not purchase bonds issued by European supranational institutions. At the end of the year, the Bank of Finland's balance sheet included EUR 29.3 billion in government bonds and government-related bonds, which includes EUR 0.6 billion of assets purchased under the Securities Markets Programme (SMP). In addition, the Bank's balance sheet contains EUR 3 billion in bonds issued by European supranational institutions.

Under the corporate sector purchase programme, the Bank of Finland acts as one of six national central banks tasked with carrying out purchases on behalf of the entire Eurosystem. The Eurosystem has decided that the Bank of Finland is responsible for purchasing Finnish corporate bonds but also bonds issued by Irish, Austrian, Latvian, Lithuanian and Estonian firms. These securities were purchased from Finnish and international banks that are eligible securities trading [counterparties to the Bank of Finland](#).

The Bank of Finland concentrated its purchases under the covered bond purchase programme on the Finnish bond market. Purchases under the private sector purchase programme stood at EUR 13.7 billion at the end of 2019, comprising EUR 7.4 billion in covered bonds and EUR 6.3 billion in corporate bonds.

## Securities lending slowed on previous year

The Eurosystem has made securities purchased under the APP available for lending, as appropriate. [Securities lending](#) helps maintain the liquidity of the euro area's bond markets. Securities are made available for lending in a decentralised manner.

The Bank of Finland's holdings are available for lending against securities collateral through its securities depository, Euroclear Bank. In addition, the Bank of Finland engaged in bilateral securities lending against cash collateral with assets purchased under the public sector purchase programme. In 2019, securities lending declined from previous years' levels, as the liquidity of the secured segment of the euro area interbank market has largely satisfied the demand for loans.



## Financial stability

- 38 Financial stability risks must be identified in good time
- 45 Bank of Finland participated in the preparation of tools that support financial stability
- 50 The Bank of Finland produced new statistical data and timely analyses

# Financial stability

20.3.2020

The Bank of Finland safeguards financial stability. It assesses risks to the financial system, participates in macroprudential policy and compiles financial statistics.

## The Bank of Finland assesses threats to financial stability

The Bank of Finland participates in maintaining the reliability and efficiency of the Finnish financial system. It identifies and assesses risks that, if materialised, could endanger the stability of the financial system as a whole. The objective is to maintain efficiency in financial intermediation and thereby support sustainable growth, employment and well-being over the long term.

Identified sources of potential risk to the Finnish financial system are high household indebtedness and structural vulnerabilities in the banking sector. The Finnish banking sector is large and concentrated; individual credit institutions are therefore systemically important for the financial system and the economy as a whole. Its banks are also vulnerable to similar kinds of risks related to lending, investment and funding.

## Risks are mitigated by macroprudential policy measures

Financial stability risks can be mitigated by using macroprudential policy measures to address potential issues in good time. In Finland, decisions on macroprudential measures are taken by the Finnish Financial Supervisory Authority (FIN-FSA) Board. The purpose is to strengthen credit institutions' and households' financial buffers against risks. The Bank of Finland takes an active role in macroprudential policy preparation, impact assessments and the development of macroprudential tools.

The Bank of Finland works in close collaboration with other financial stability authorities and institutions, both domestically and internationally. This cooperation supports the development of financial system regulation, supervision and crisis management. In Europe, key initiatives in this area include the development of the Banking Union and the Capital Markets Union.



## The Bank of Finland produces and develops statistics

The Bank of Finland is responsible for key financial market statistics. Reliable statistics afford a detailed and up-to-date overview of the operation of the financial system. The Bank of Finland services its own information needs and others' by actively developing the collection and compilation of statistics.

Key areas of development in Finland include the compilation of statistics on entities that provide consumer credit, as well as on certain other financial intermediaries, and the deployment of new distribution channels for statistics, as part of the open data services provided by the Bank of Finland and the FIN-FSA. The common analytical credit database (AnaCredit) is a major European development project.



## Financial stability risks must be identified in good time

20.3.2020

The Bank of Finland assesses risks and vulnerabilities that could threaten the stability of the financial system. In 2019, the Bank focused most especially on household indebtedness, the real-estate market, the structure of the credit institution sector, climate change and digitalisation.

The Bank of Finland publishes regular analyses of vulnerabilities in the Finnish financial system, as well as on domestic and international risks to financial stability, in its [financial stability assessment](#).

In 2019 the Bank of Finland focused its attention on household and corporate debt, measures for preventing the excessive build-up of household debt, residential and commercial property markets, financial sector digitalisation, and the profitability of the European banking sector.

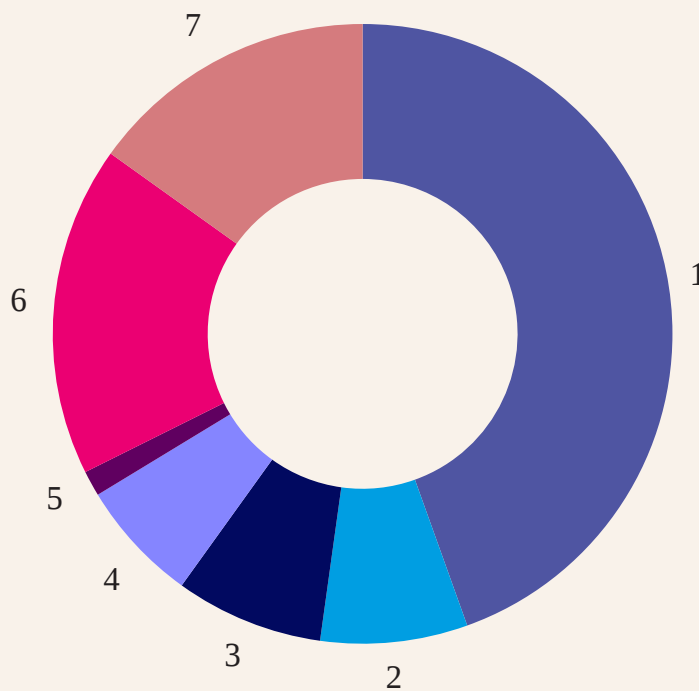
### The Bank of Finland analysed the risks of indebtedness and the real estate market in Finland

Financial stability risks in Finland are tightly connected with the country's property market. Data compiled by the Bank of Finland and Statistics Finland show that some two thirds of loans granted by Finnish credit institutions to households and non-financial corporations are used for the purchase, repair, maintenance or construction of residential or commercial real estate.

Real estate-linked loans include households' loans for house purchase (e.g. mortgages), housing company loans held by shareholding households, other loans granted to housing corporations, and loans held by real estate and construction sector companies (Chart 9).

Chart 9.

### Some two-thirds of loan volumes linked to real estate market



1. Households' housing loans
2. Households' housing company loans\*
3. Other housing corporation loans
4. Other real estate company loans
5. Construction company loans
6. Other corporate loans
7. Other household loans

Finnish MFIs' loans to households and non-financial corporations at the end of 2019.

\* Data refers to September 2019.

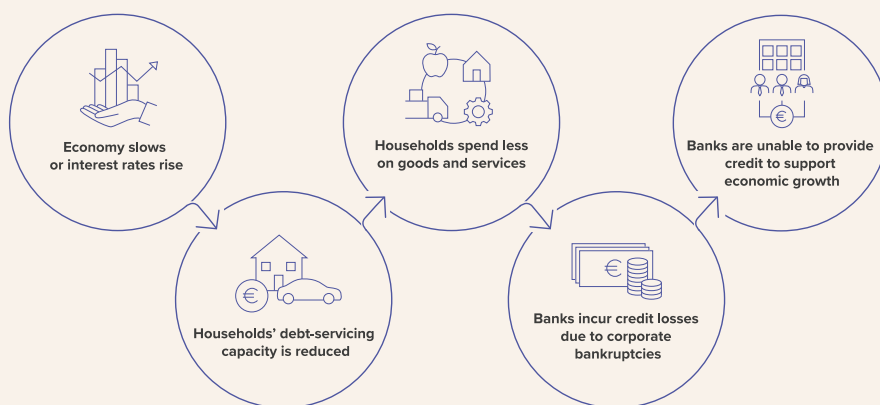
Sources: Bank of Finland and Statistics Finland.

Finnish household indebtedness has reached a level of concern. Household debt has grown unambiguously faster over the long term than income available for consumption, savings and debt-servicing.

Housing loans and housing company loans have grown and their maturities lengthened. Consumer credit has increased in volume, and there is a growing variety of domestic and foreign consumer loans available.

The Bank of Finland stressed in 2019 that high levels of household debt interfere with the economy's ability to adjust to severe disruptions. If households see their debt-servicing costs rise or incomes decline, they often cut back on their consumption first, so that they may continue to service their debts and accumulate savings for even rainier days still. A significant decline in consumption during a downturn would have far-reaching consequences for the economy (Chart 10).

Chart 10.



Source: Bank of Finland.

## The Bank of Finland assesses vulnerabilities in the credit institution sector and international risks

The Bank of Finland analysed risks related to lending and the structure of the credit institution sector in two [macroprudential reports \(in Finnish\)](#), which it published in collaboration with the FIN-FSA in 2019. These and other macroprudential assessments by the Bank of Finland provide support to the FIN-FSA Board on decisions on the deployment of macroprudential tools.

Indicators published in the macroprudential reports and the Bank of Finland's [chart gallery](#) show that the structural vulnerability of the Finnish credit institution sector is higher than that of the other EU credit institution sectors on average. In addition, several indicators point to an increase in vulnerability.

The structural risks identified by the Bank of Finland are large exposures in residential and commercial real estate loans; dependence on market-based funding; the large size, degree of concentration, and interconnectedness of the credit institution sector; the significant role of credit institutions as providers of finance to the private sector; and indebtedness levels in the largest customer groups, i.e. households and non-financial corporations (Table 1). Dependence on market-based funding is due to the structural funding gap, i.e. the fact that the volume of lending is considerably larger than deposit funding.

**Table 1.**

**Structural indicators – comparison of Finnish findings with the median for EU Member States and the average of Finnish findings**

Indicator	EU comparison	Finnish history
1. Housing loans granted to domestic households as proportion of total loans granted by the credit institution sector to the private sector	Higher	Higher
2. Credit institution's claims on construction and real estate companies as a proportion of credit institutions' total assets	Higher	Higher
3. Credit institutions' domestic government bond assets relative to credit institutions' total assets	Not higher	Not higher
4. Domestic credit institutions' interbank deposits as a proportion of the total liabilities of the credit institution sector	Not higher	Not higher
5. Funding deficit of the credit institution sector in various countries	Higher	Higher
6. Combined balance sheet total of foreign banks' subsidiaries and branches relative to gross domestic product in various countries	Higher	Not higher
7. Balance sheet of the credit institution sector relative to nominal gross domestic product	Higher	Not higher
8. Combined balance sheet of the five largest credit institutions relative to the aggregate balance sheet of the entire credit institution sector	Higher	Not higher
9. Loans granted by domestic credit institutions to households and non-financial corporations as a proportion of households' and non-financial corporations' total liabilities	Higher	Higher
10. Household sector's liabilities relative to households' disposable income	Higher	Higher
11. Non-financial corporations' indebtedness relative to gross domestic product	Higher	Higher

Sources: European Central Bank and Bank of Finland calculations.

## The Bank of Finland analyses risks in the global financial system

The Bank of Finland regularly analyses risks to the global financial system that could have an impact on Finland, either through the real economy or the financial markets. In 2019, this analysis focused on the markets for housing and corporate finance in the United States, potential problems related to the sustainability of general government and private sector debt in the euro area, and the weak profitability of European banks.

The analysis of international risks also focused on Nordic banks and their interconnectedness. Large Nordic banks share similar risks related to liquidity and funding, and they have each granted a large volume of loans for house purchase. Possible disruptions could spread across countries not only via banks but also multilateral trade.

In 2019, the Bank of Finland participated in a joint banking crisis simulation exercise concerning large cross-border banking groups. The exercise was conducted by Nordic and Baltic financial stability authorities, and involved national or competent authorities from European countries. The exercise followed a hypothetical crisis scenario involving fictitious financial institutions, and it tested the cooperation and crisis management capabilities of central banks, financial supervisors, ministries of finance and resolution authorities.

## The Bank of Finland participated in the debate on climate change and new technologies

Bank of Finland experts wrote several [articles](#) and [blogs](#) in 2019 on topical issues in the area of financial stability. The key themes were climate change, artificial intelligence (AI), big data, means for predicting and preventing financial crises, and access to finance by SMEs in Finland.

The Bank of Finland organised three international conferences in 2019 that focused on topical issues in financial stability.

In October, the Bank of Finland and the Ministry of Finance co-organised the conference *Greener Finance for Sustainable Future*. The conference discussed proposals for sustainable finance as well as climate and environmental issues involving the financial markets. Climate change poses a risk for financial stability not only because of the potential for direct financial losses but also because of the transition risks caused by changes in business models.

In December, the Bank of Finland organised the conference [\*Data Driven Financial Stability: Opportunities and Challenges in Big Data\*](#). The conference addressed, among other topics, the ways in which artificial intelligence (AI) and big data are changing financial markets. Digitalisation can improve efficiency, but innovations may also expose markets to new vulnerabilities.



The Bank of Finland also organised, in cooperation with the European Systemic Risk Board and RiskLab Finland, the *Systemic Risk Analytics* conference, for the fifth time already. The conference focused on methods designed for analysing threats to financial stability.



## Bank of Finland participated in the preparation of tools that support financial stability

20.3.2020

*In 2019, the Bank of Finland supported financial stability by preparing macroprudential decisions and developing new tools that improve financial stability.*

Macroprudential instruments are designed to reduce the likelihood of financial crises and mitigate their impact on the financial system and the macroeconomy.

### Macroprudential instruments not tightened in 2019

Finnish authorities did not deem it necessary to tighten their existing macroprudential instruments in 2019, based on the macroprudential analyses conducted over the year. However, the [systemic risk buffers](#) imposed in the summer of 2018 did not enter into force until 2019.

In Finland, all decisions on the deployment of macroprudential tools are taken by the Finnish Financial Supervisory Authority (FIN-FSA) Board. The Bank of Finland participates in the preparation of these decisions. The Bank of Finland also participates in macroprudential decision-making and cooperation in the euro area and in the European Union.

The countercyclical buffer requirement for credit institutions mitigates systemic risk stemming from the credit cycle. The FIN-FSA Board decides on the activation of the countercyclical buffer on a quarterly basis. The Bank of Finland participates in the preparation of the analysis underpinning these decisions.

Early warning indicators and an overall assessment do not point to an overheating of the credit cycle or other reasons for tightening the countercyclical buffer requirement. The FIN-FSA Board therefore left the requirement unchanged, at 0%, in 2019.

## **There are structural risks in the Finnish financial system**

The systemic risk buffer is an additional capital requirement that can be imposed on credit institutions on the basis of structural risks in the financial system. In Finland, these risks are especially the high level of household indebtedness, the credit institution sector's high degree of concentration and role in financial intermediation, and the interlinkage between the Finnish financial system and the financial systems of the other Nordic countries.

The FIN-FSA Board decided in June to extend the period of application of the credit institution-specific systemic risk buffer requirements imposed in 2018.

In spring 2018, the maximum loan-to-collateral (LTC) ratio was lowered to 85% for residential mortgage loans other than first-home loans. This was due to the high level of household indebtedness. The revised LTC requirement entered into force in July 2018.

Indebtedness rose throughout the 2010s and is now record high. The decision on the application of the lower LTC ratio must be reviewed on a quarterly basis. In 2019, the period of application was extended in each quarter.

In June 2019, the FIN-FSA Board decided to retain the minimum level of 15% for the average risk weight on residential mortgages for [credit institutions using the Internal Ratings Based Approach](#). Studies show that risk weights on residential mortgage loans applied by credit institutions in their internal models are relatively low and do not adequately address all the second-round effects stemming from the residential mortgage loans and amplifying the shocks to the economy.

Bank of Finland experts participated in the preparation of all the macroprudential decisions. Moreover, the Board of the Bank of Finland delivered opinions on proposals by the Director General of the FIN-FSA on macroprudential decisions.

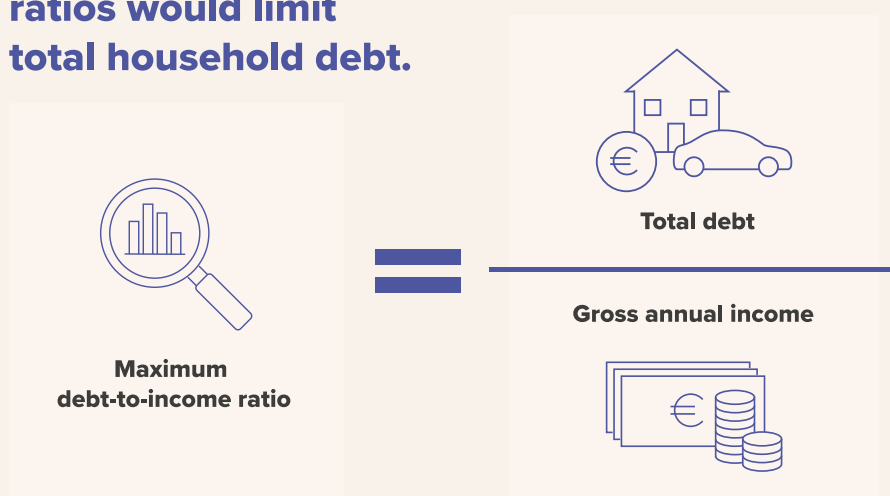
## **The Bank of Finland participated in the Ministry of Finance working group on indebtedness**

The Ministry of Finance appointed a working group in autumn 2018 tasked with assessing measures to combat the excessive accumulation of debt by households. The Bank of Finland took an active role in this work. In October 2019, the working group completed its task and published a [report](#) (in Finnish) on its findings.

The working group proposed that a maximum debt-to-income (DTI) ratio be added to the macroprudential instruments available to Finnish authorities. The DTI ratio would limit the total amount of household debt relative to annual income. Thus, the calculation of the maximum DTI ratio would include not only housing loans but also consumer credit and student loans. The working group proposed that the maximum DTI ratio be set to 450%, i.e. total debt could be 4.5 times a household's gross annual income (Chart 11).

Chart 11.

## Capping debt-to-income ratios would limit total household debt.



Source: Bank of Finland.

To curb overall indebtedness, the working group also considered it important to restrict the lengthening of loan maturities. The working group proposed a maximum maturity for housing loans, which would be 25 years at the date of loan origination.

In recent years there has been a disconcerting rise in housing company loans. The working group therefore proposed a limit on the maximum amount of credit issued to housing companies for new-build construction, i.e. a maximum credit share. It would be set at 60% of the unencumbered price of the flats to be sold.

The working group also proposed that the frequently used interest-only periods be prohibited for five years from the completion of the dwelling. As housing loans, housing company loans would be subject to a maximum maturity requirement of 25 years.

## **The Bank of Finland considered the working group proposals useful**

The Bank of Finland issued an [opinion](#) (in Finnish) on the working group's report. The Bank shared the working group's assessment that the toolkit for curbing excessive growth in credit and indebtedness should be extended. The Bank of Finland also considered the tools proposed by the working group as appropriate for this purpose.

The structure of household debt has changed and the importance of lending by non-banks has increased. The proposed tools should therefore be applied to both credit institutions and other lenders. The tools should be applied not only on housing loans but also housing company loans and consumer credit.

In its opinion, the Bank of Finland also cautioned that tighter credit standards may weaken households' ability to smooth consumption over time.

On the other hand, the proposed measures would also strengthen the resilience of households and lenders, mitigate systemic risks related to excessive indebtedness and could decrease the likelihood and severity of financial crises.

The proposed tools have an impact on both households and the macroeconomy. It is therefore important to extend and develop the assessment of their appropriateness and impact.

## **European Systemic Risk Board issued Finland a recommendation to prevent vulnerabilities in the residential real estate sector**

In September 2019, the European Systemic Risk Board (ESRB) issued Finland a [recommendation](#) on the activation of borrower-based macroprudential measures. The activation of new measures would be necessary for preventing medium-term vulnerabilities in the residential real estate sector.

The Bank of Finland shares the ESRB's views that vulnerabilities in the housing market must be reduced. The Bank of Finland takes the view that activation of the tools proposed by the Ministry of Finance working group on indebtedness would fulfil most of the recommendations issued by the ESRB.

## **The Bank of Finland participates in the development of Capital Markets Union**

The development of a single market for capital in the EU started in 2015 already, but with the election of the new European Commission, the development work entered a new gear. In its own assessments in 2019, the Bank of Finland identified three areas of development in the Capital Markets Union that demand further progress.

The areas identified are: activation of retail investors, development of markets for green bonds, and creating a safe asset. This would weaken the ‘vicious circle’ (also known as the ‘doom loop’) between banks and sovereigns. In addition, the Bank of Finland takes the view that, in future, it would be important to set clear priorities for the development work, instead of seeking to promote all the initiatives all at once.



## The Bank of Finland produced new statistical data and timely analyses

20.3.2020

The Bank of Finland is responsible for producing key financial market statistics. Reliable statistics and up-to-date analyses are indispensable for identifying challenges in a changing operating environment and forming a detailed picture of the operation of the financial markets and the economy.

Compiling statistics is one of the statutory tasks of the Bank of Finland. Statistical data can meet the information needs of its users by describing all important social phenomena and adapting to changes in circumstances. The Bank of Finland services users' information needs by actively developing the collection and compilation of statistics.

### More comprehensive data from financial institutions

Lending by financial institutions outside the credit institutions sector is growing rapidly. Such 'other' financial institution offer an alternative to traditional channels of funding. Consequently, the Board of the Bank of Finland decided in March 2019 to extend the collection of data in the financial sector.

In future, the Bank of Finland will collect more extensive data on financial intermediation by entities other than credit institutions (i.e. other financial intermediaries, OFIs). The scope of the extended statistical data collection will cover finance companies and entities providing consumer credit, among others.

The new data collection reflects international and national statistical requirements and deepens the analysis of financial stability and monetary policy.



The new statistics provide a better picture of household and corporate sector indebtedness and a deeper insight on changes in channels of funding.

## Rapid rise of ‘other financial intermediaries’ demands new data

The Bank of Finland has the statutory right to obtain any and all data necessary for carrying out its statutory tasks from credit and financial institutions and other financial market participants.

Work to extend the Bank’s data collection was started by determining the reporting frequency and coverage of data collection on the basis of the size of the companies reporting. Cooperation with the reporting entities was started in 2019.

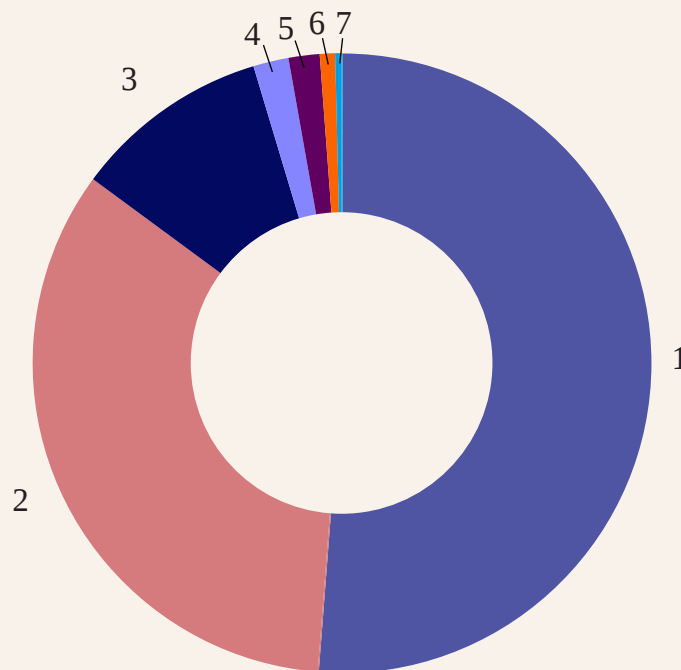
Bank of Finland experts surveyed the existing data and other information sources on the subject and published two blog posts, on [instant lenders](#) (in Finnish) and [hidden debt](#) (in Finnish), and [an analysis article](#) (in Finnish), all of which are available in Finnish. The studies demonstrate that sources of finance have become increasingly diverse, although credit institutions are still by far the most important financial intermediaries for households and non-financial corporations.

The assets of OFIs totalled EUR 9.9 billion at the end of 2018 (excluding OFIs under public ownership). The assets of the credit institutions sector were 63-fold, totalling EUR 625 billion.

The proportion of funding delivered by OFIs has, however, increased in recent years. The assets of instant lenders, in particular, are growing strongly. Due to ownerships structures, increasingly large OFIs are becoming interconnected with the credit institutions sector (Chart 12).

Chart 12.

Other financial intermediaries: total assets  
EUR 9.9 billion at the end of 2018



1. Vehicle finance companies
2. Banking group finance companies
3. Small loan companies and the other consumer credit lenders
4. Corporate finance companies
5. Factoring companies
6. Leasing companies
7. Pawn brokers

Source: Bank of Finland.

## The Bank of Finland published open data and new data visualisations

Increasingly granular data are needed to support decision-making in society. The Bank of Finland published new statistical data on, for example, household borrowing through its [open data](#) service in April 2019.

The data published contain information on credit institutions' loans to households, non-profit institutions serving households, non-financial corporations and housing corporations. The new data include average loan maturities and annual growth rates of deposits. The data can also be browsed using the Bank's [visualisation tool, dashboard](#), developed in 2018.

The Bank of Finland published a new [visualisation](#) (in Finnish) on investment and private equity funds in summer 2019. At the same time, the Bank of Finland merged data on savings and investments into one statistical publication. The Bank now offers users of statistical data a more extensive [statistical release](#) on a quarterly basis.

## The Bank of Finland is an active developer of central bank statistics in Europe

The Eurosystem's largest ongoing statistics project, AnaCredit, entered the data collection phase. AnaCredit is a common granular analytical credit database for the entire euro area. The ECB compiled data from the national central banks of the Member States of the monetary union and launched a discussion on the requirements of a common quality assurance framework.

The central banks of the Member States of the monetary union will agree, within the joint quality assurance framework, on procedures for ensuring the quality of reported data. The Bank of Finland's work in 2019 focused on ensuring the quality of data and providing instructions to reporting entities.

The rapid transition in payment systems and instruments is reflected in statistical requirements. Mobile payment is gaining in popularity, and the Bank of Finland addressed user needs by updating its reporting requirements.

The Bank of Finland participated in the preparation of European legislation, i.e. in the definition of new requirements for payment statistics. A survey of user needs and a cost-benefit analysis were completed in 2019.



## Money and payments

- 57 Global big tech companies are entering the financial sector
- 59 New payment methods: opportunities and risks
- 61 Banknotes and cash supply
- 68 Bank of Finland contributes to development of payment and settlement systems and collateral management services

# Money and payments

20.3.2020

The Bank of Finland is responsible for the availability and issuance of cash in Finland. In addition to domestic cash supply, the Bank of Finland's duties include tasks related to the development and security of payment systems.

Reliability and security of the financial system are prerequisites for the functioning of the economy. The Bank of Finland provides payment system and collateral management services for its counterparties and participates in the development of these services.

The changing operating environment for payments and cross-country differences in payment practices create challenges for the development of uniform euro area systems and practices.

The Bank of Finland is participating in the transition in the payments landscape through its role in oversight, by maintaining the reliability and efficiency of payment and settlement systems in Finland.

## **Platform economy extending to the financial sector – new risks to financial stability**

Big tech companies – for example Google, Amazon, Facebook, Apple, Microsoft, Alibaba and Tencent – which operate by the principles of the platform economy have now begun to branch out into financial services and payments.

The big tech companies exert influence in the financial sector also by providing cloud services to banks and other traditional entities.

This trend is still of minor importance to the financial sector, but due to their size, these entities have to be taken seriously from the outset, as they have the potential to change the structure of the financial sector and, at the same time, create risks to financial stability.

## **Contactless payment reduced cash payments, instant payment increasingly popular**

The financial sector must be able to provide critical payment services also in the event of temporary disruptions in normal payments traffic. Digitalisation increases the importance of contingency measures for addressing cyber threats.

In 2019, the Bank of Finland's Payments Council examined the current situation of instant payments and the challenges of introducing them in Finland. Instant payments enable the transfer of funds between accounts in a couple of seconds, around the clock.

Contactless payment has reduced the volume of cash payments in Finland. The availability of cash services at bank branches continued to decrease in 2019, but the availability of cashback services and local circulation of cash at nearly 3,000 retail stores increased in euro terms.



## Global big tech companies are entering the financial sector

20.3.2020

The major technology, or ‘big tech’ companies that apply business models of the platform economy are planning to enter the financial sector. These companies have differing approaches, but it is clear that in the near future they will change the competitive situation in the sector.

The competitive edge of the big tech companies may include their ability to operate globally, their extensive customer base, strong brands and their ability to use data compiled from various services. In addition, their excellence in technological development may translate into cost-efficiency, improved security or an enhanced customer experience.

### Platform economy business models may change the structure of the financial sector

The term ‘platform economy’ refers to online and digital technology business models in which various entities engage in exchange or provision of services permitted by the platform.

Both commercial entities and voluntary communities provide platforms for a variety of purposes. A feature typical to these platforms is that the entities provide products and services that complement each other, with common rules and a uniform customer experience.

As the business models of the platform economy may change the structure of the financial sector, the Bank of Finland, too, studied these models in 2019.



Big tech companies – in particular Google, Amazon, Facebook, Apple, Microsoft, Alibaba and Tencent – operate by the principles of the platform economy. Many of them are expanding their operations into financial services and payments. The best examples are the payment services developed by Facebook and the corporate credit provided by Amazon to its suppliers operating on its platform.

## **Payment transaction data attracts interest**

In the past ten years, the big tech companies have become the largest companies in the world in terms of market value. Their goals to extend business to financial services can be divided roughly into two categories. On one hand, the aim is to develop new lines of business, on the other, to improve the cost-efficiency of payment transactions in their core business.

The aggregate annual turnover of the big tech companies amounts to hundreds of billions of dollars. Hence, even small improvements in the management of payment transactions are a sufficient incentive for developing new payment solutions. However, many big tech companies seem to have even more ambitious goals, for example extending their activities into new business areas.

An important incentive for this is the possibility to collect financial services data, particularly data created in payment transactions. The strength of the big tech companies lies in the utilisation of data collected via digital services and platforms. This data enables the provision of tailored services or contents. Thus, collecting data from payment transactions and other potential financial services would be well suited to the business models of the big tech companies.

## **Cloud services play a significant role in the influence of big tech companies**

Big tech companies exert influence in the financial sector also by providing cloud services to banks and other traditional entities. ‘Cloud services’ is a broad concept covering a range of IT services in which customers can manage, store and process data online.

Traditional financial sector entities may transition to cloud services either by transferring their entire infrastructure to the cloud, or by transferring it piecemeal, function by function. New financial sector companies, in turn, are already using cloud services extensively. The financial services provided by the big tech companies are also based on cloud services.

Despite the still minor importance of the big tech companies in the financial sector, they have to be taken seriously from the outset, due to their large size. Big tech companies have a large potential to change the structure of the financial sector and at the same time to possibly create risks to financial stability. Moreover, within the financial sector, the use of cloud services provided by the big tech companies is spreading to increasingly critical areas of business.



## New payment methods: opportunities and risks

20.3.2020

The changing operating environment for payments and differences in national practices are a challenge for the development of uniform euro area systems and practices. Such systems and practices are essential for the interbank transfer of payments.

The Bank of Finland participates in the transition in the payments landscape through its role in oversight, by maintaining the reliability and efficiency of payment and settlement systems in Finland.

### Payments Council promotes the introduction of instant payments

The Bank of Finland's [Payments Council](#) is a cooperative body that brings together associations representing the users and providers of payment services, the largest banks and the authorities in charge of payment services.

In 2019, the Payments Council published an e-booklet *Payments going real-time in Finland - instant payments*, which examines the current situation regarding instant payments and the challenges of introducing them in Finland. The Payment Council also monitored closely the impact of the new Payment Services Directive (PSD2) and developments in the availability of cash services in Finland.

The work of the Payments Council was presented to the general public in the 13th [Payments Forum](#) (in Finnish), organised in May. The key topics of the Forum were real-time payments and the security of payments.

## It is important to prepare for system disruptions

Payments are one of the critical basic functions of society. It is vital to safeguard the operation of payment and settlement systems critical to society also during periods of serious disruption.

The financial sector must be able to provide critical payment services also in the event of temporary disruptions to normal payments traffic. Digitalisation increases the importance of contingency measures for addressing cyber threats.

In 2019, the Bank of Finland participated, in close cooperation with the other financial sector entities, in the planning of contingency measures for payment and settlement systems in Finland.

## Oversight safeguards the operation of systems

The Bank of Finland is responsible for the [oversight](#) of payment and settlement systems critical to the Finnish financial markets.

Payment system oversight is conducted primarily in cooperation with the Eurosystem. The Bank of Finland also continued to participate via international cooperation in the oversight of central counterparties (CCPs).

The [payment and settlement system simulator](#) developed by the Bank of Finland is used by the Eurosystem and several other countries. The software is used as an oversight tool for assessing and monitoring the efficient functioning of payment and settlement systems and related risks and ideas for improvement.

In 2019, the Bank of Finland participated, together with other authorities, in the granting of a new authorisation, as referred to in the Central Securities Depositories Regulation (CSDR), to Euroclear Finland, a central securities depository operating in Finland.

During the year, the Bank of Finland also organised its 17th international [seminar](#) for experts in the field of analysis and simulation of payment and settlement systems. The 2019 seminar focused on stress testing and development of systems, liquidity analysis and identification of critical counterparties.



## Banknotes and cash supply

20.3.2020

The Bank of Finland is responsible for the issuance and wholesale distribution of cash in Finland, ensuring the availability of cash and the possibility to use it in retail payments.

The Bank of Finland monitors and contributes actively to the development of various payment methods in the Eurosystem and ensures their security in Finland.

### Cash distribution channels have continued to perform reasonably

The distribution network for cash has remained good relative to the demand. The number of ATMs increased in 2019 by 145, and at the end of the year stood at 1,751. The results of the Bank of Finland's consumer survey in October 2019 showed that two-thirds of respondents were satisfied with the coverage of the ATM network (Charts 13 and 14).

Banks are, however, continuing to decrease the availability of cash services at bank branches. The availability of cashback services and local circulation of cash at nearly 3,000 retail stores has increased in euro terms and has compensated for the shrinkage of other cash distribution channels. Nevertheless, according to customer feedback, problems with the availability of cash are increasingly being witnessed in rural areas.

Chart 13.

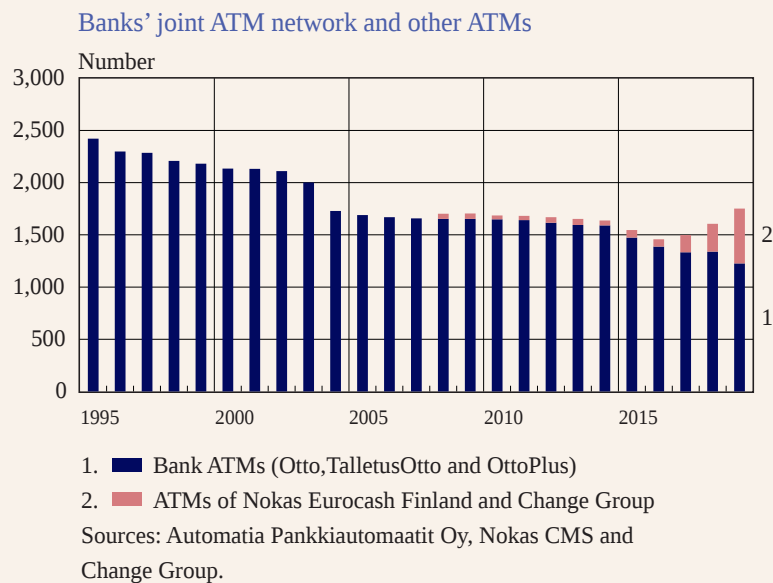
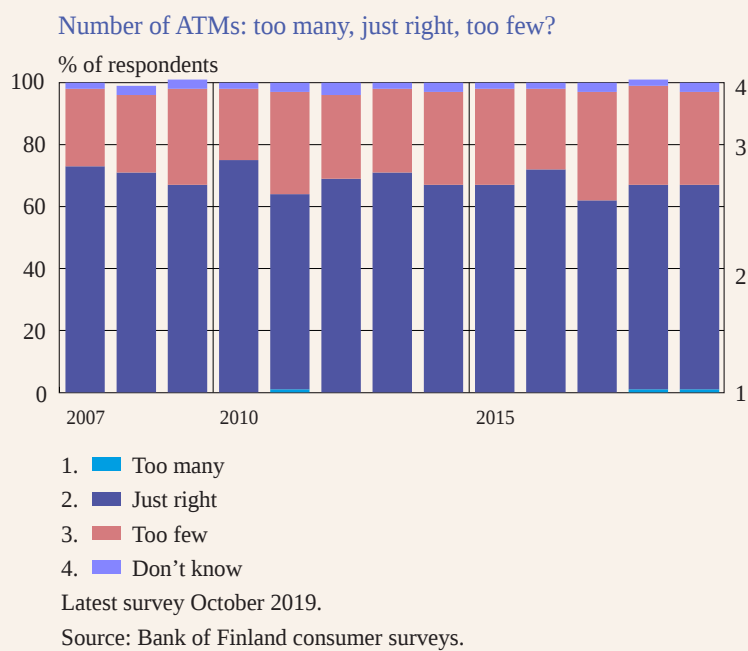


Chart 14.



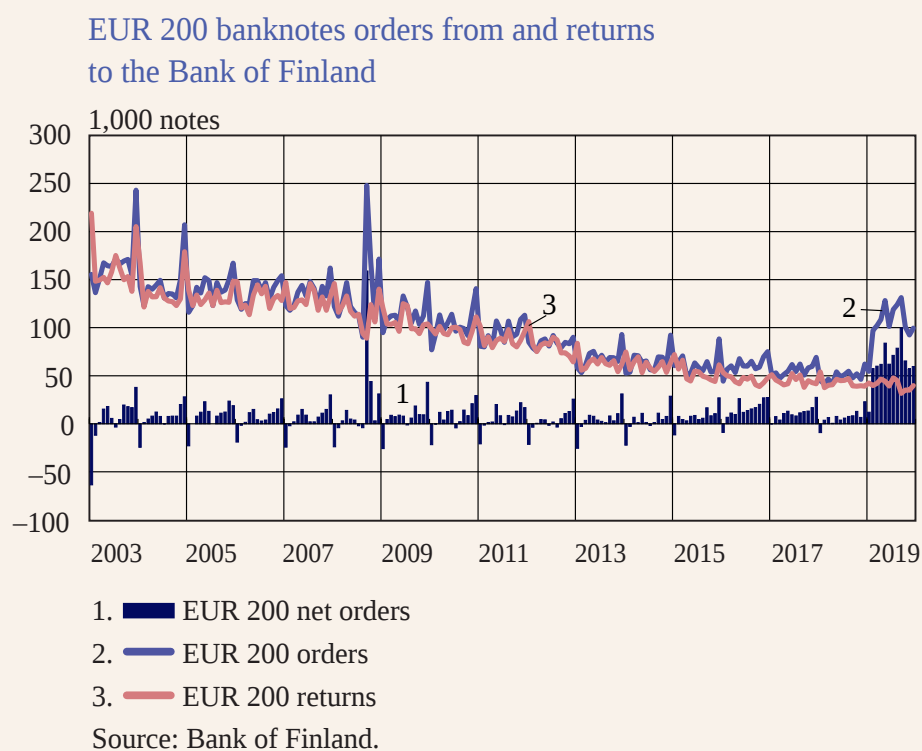
## Issuance of EUR 500 banknotes discontinued in early 2019

The Bank of Finland discontinued the issuance of EUR 500 banknotes in February 2019, in line with the majority of other euro area central banks. The Austrian and German central banks were granted exemption to continue issuance of EUR 500 banknotes until May 2019. The demand for EUR 500 banknotes has been compensated mainly by orders of EUR 200 banknotes (Chart 15). Since issuance was stopped, the return frequency of the EUR 500 banknotes has decreased slightly.

The steady flow of returns indicates that EUR 500 banknotes have been used not only for cash savings but also for larger cash payments. In 2019, EUR 500 banknotes were returned to the Bank of Finland to a net value of over EUR 200 million.

Orders and returns of EUR 100 banknotes have remained largely unchanged, and the denomination is still returned, in net, to the Bank of Finland via cash payments by foreign tourists in Finland.

Chart 15.

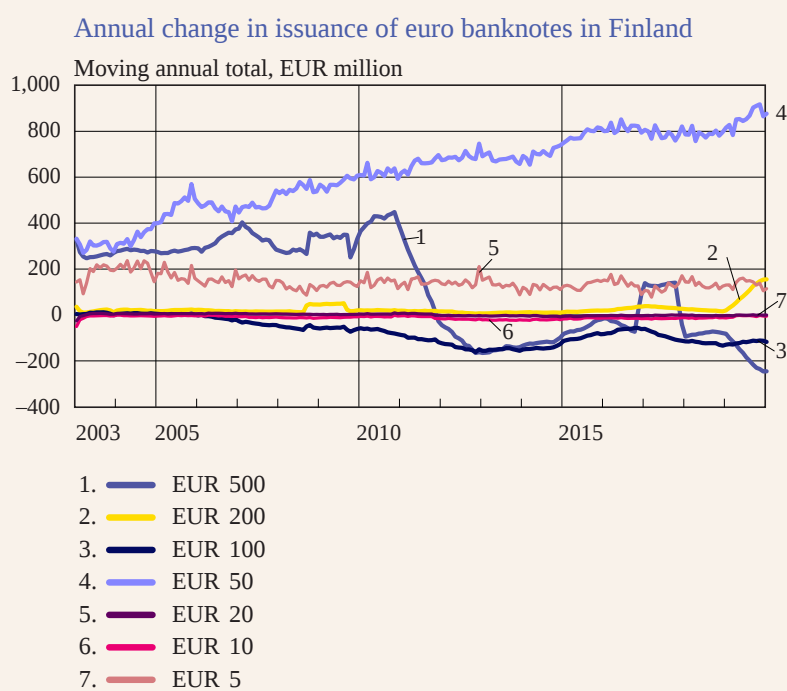


## Contactless payment has reduced volume of cash payments in Finland

Issuance of EUR 50 banknotes, which account for a major share of Finnish consumers' cash withdrawals, reached record levels in 2019. Annual growth in the issuance of this denomination totalled EUR 850 million (Chart 16). The EUR 50 banknote is a common ATM denomination and is often taken abroad by tourists.

Annual growth in the issuance of EUR 20 banknotes has also remained steady, at some EUR 100 million. Issuance of EUR 5 and EUR 10 banknotes, which are used as change, has remained unchanged. Rapid contactless payment has, however, replaced smaller cash payments.

Chart 16.



Source: Bank of Finland.

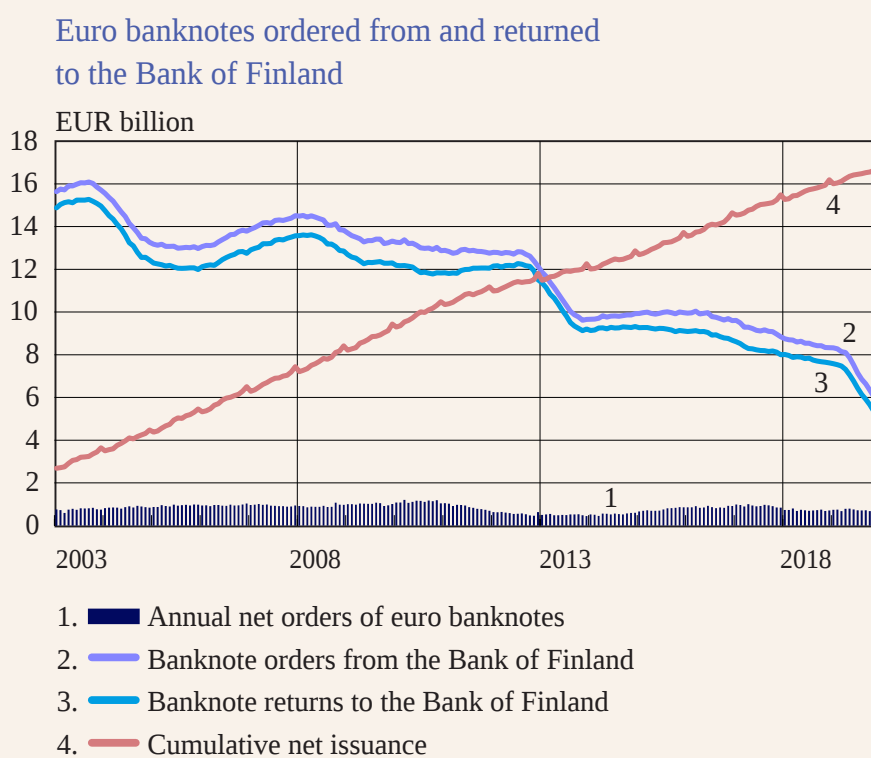


## Closure of Oulu regional office reduced banknote orders and returns

The Bank of Finland's regional office in Oulu was closed down in March 2019. This has been reflected as a decrease in the volume of banknote orders and returns. A similar decline in orders and returns was witnessed after 2012, following the closure of the Tampere and Kuopio offices (Chart 17).

The checking for authenticity and condition which ended with the closure of the regional office in Oulu has been replaced by sorting and overnight custody storage at the premises of cash supply companies. The increase in banknote storage has been reflected as a slight growth in banknote sorting and circulation by private companies.

Chart 17.



Source: Bank of Finland.

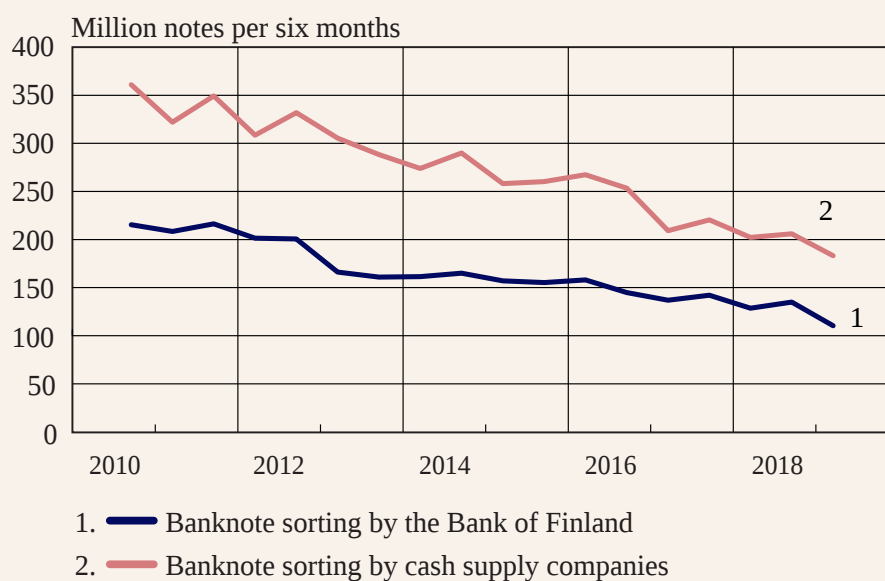
## Banknote sorting decreasing, local circulation increasing

Banknote sorting by both the Bank of Finland and cash supply companies has decreased, due to the decline in the use of cash as a domestic payment instrument (Chart 18). The share of the private sector in the total volume of banknote sorting has remained at approximately 60% in Finland. In sorting by private companies, the share of banknote recirculation has, however, increased over the years, to some 80%.

Local recirculation of banknotes increased in 2019, due to the introduction in March of the custodial system Notes Held to Order (NHTO). In the NHTO custodial system, the parties involved in cash supply can place banknotes into custody in cash distribution centres overnight without interest charges. This procedure is similar to the returning of cash to the Bank of Finland, but without the transportation costs.

Chart 18.

### Banknote sorting by the Bank of Finland and cash supply companies



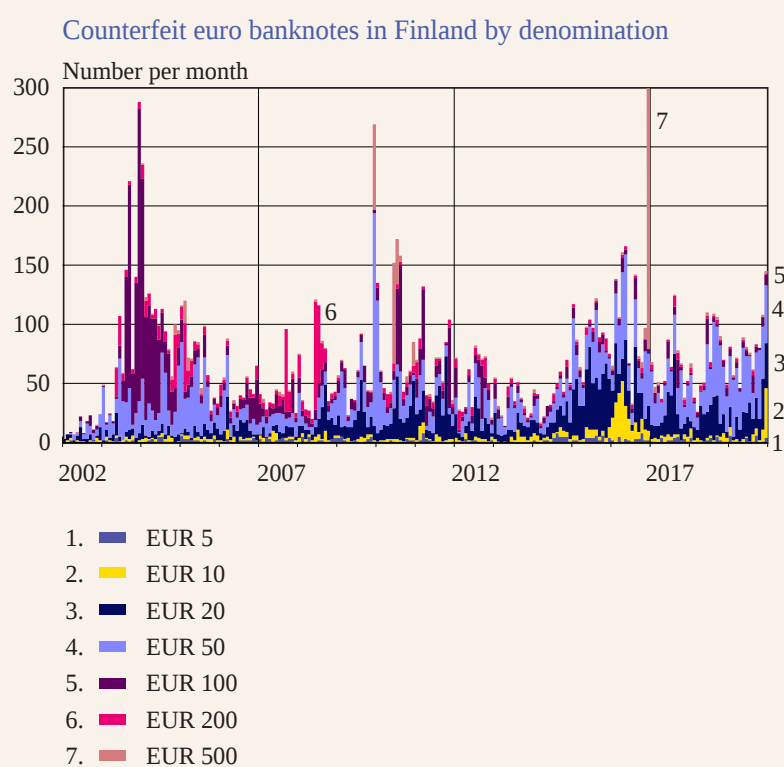
Source: Bank of Finland.

## Counterfeit euro cash in Finland

The number of counterfeit euro banknotes detected in circulation in Finland remained virtually unchanged in 2019. In total, 980 counterfeit banknotes and 952 counterfeit coins were found (Chart 19). Of the different denominations of banknotes in circulation, the EUR 50 was the most frequently discovered counterfeit note.

The number of counterfeits detected in circulation is still low compared with other euro area countries, as retailers often check the authenticity of euro banknotes very carefully.

Chart 19.



December 2016 total 1,055 notes.

Source: National Bureau of Investigation.



## Bank of Finland contributes to development of payment and settlement systems and collateral management services

20.3.2020

The Bank of Finland provides payment system and collateral management services for its counterparties and participates in the development of these services.

The Bank of Finland provides payment system services through its TARGET2 component [TARGET2-Suomen Pankki](#), in which a total of 24 financial institutions operating in Finland and the other Nordic countries held an account at the end of 2019.

### Number of transactions settled via TARGET2-Suomen Pankki increased, but value decreased

The average daily number of payments settled via the TARGET2-Suomen Pankki system was 2,060, with an average aggregate value of EUR 45 billion per day. The daily number of transactions increased by 24%, while the value of transactions decreased by 6%.

Finland's share of the payments settled via TARGET2 was 0.60% in terms of transaction numbers and 2.27% in terms of aggregate value. In addition to TARGET2 services, the Bank of Finland provides banks with dedicated cash accounts in TARGET2-Securities for securities settlement purposes.

## The Bank of Finland participates actively in the update of systems

In addition to standard production activities, systems are updated and developed on an ongoing basis. The Bank of Finland participated actively in 2019 in the central bank testing of the new version of TARGET2 and coordinated testing with its TARGET2 participants.

In addition to payment system services, the Bank of Finland, via its BoF-CMS-Cola system, manages the [collateral](#) for central bank credit operations. A significant update was introduced into the system in 2019 when the management of credit claims pledged as collateral by the Bank of Finland counterparties was connected to the system.

## TARGET2 and TARGET2-Securities to consolidate in 2021

The Bank of Finland participates in the Eurosystem's market infrastructure projects and supports its counterparties in the migration to the new services.

The project to consolidate TARGET2 and TARGET2-Securities progressed according to plan in 2019. The market participants are stepping up their preparations for introduction of the new system, in cooperation with the central banks.

In the project, the current TARGET2 will be replaced with a new real-time gross settlement (RTGS) system. The project also involves an update of rules and practices applied in the system. The new system will be launched towards the end of 2021.

## Development of the Eurosystem Collateral Management System progressing on schedule

Development of the new Eurosystem Collateral Management System (ECMS) progressed on schedule in 2019. The system's launch is planned for 2022.

The purpose of the project is to move to a unified system in the management of assets used as collateral in Eurosystem credit operations.

In addition to central banks, their counterparties for monetary policy operations and central securities depositories located in the euro area and participating in TARGET2-Securities will also migrate to the new system.



## Financial asset management

72 Management of financial assets

# Financial asset management

20.3.2020

The objective of the Bank of Finland's financial asset management is to meet the liquidity, security and return requirements placed on the central bank while taking into account the risks and social responsibility aspects inherent in investment activities.

In managing its financial assets, the Bank of Finland secures the value of the assets and its ability to support the liquidity of the banking system, whenever necessary. The limits set for investment risk ensure prudent management of the Bank's financial assets. The Bank of Finland's capital adequacy is sufficient to cover the risks arising from the performance of its tasks.

## **The Bank of Finland's financial assets comprise diverse investments**

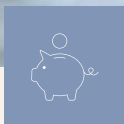
In 2019, the Bank of Finland's financial assets amounted to around EUR 11 billion. They comprised direct foreign currency-denominated and euro-denominated fixed-income investments, investments in equity and real estate, gold holdings and items denominated in IMF Special Drawing Rights (SDRs).

The Bank of Finland's fixed-income portfolios are managed in accordance with the investment policy decided by the Bank of Finland Board each year.

In addition to its fixed income investments, the Bank of Finland manages a long-term investment portfolio which has lower liquidity requirements and a higher expected return than its other portfolios.

The Bank of Finland's financial assets yielded an overall return of 9.3%, or EUR 971 million in 2019.





## Management of financial assets

20.3.2020

The Bank of Finland has financial assets as matching entries to its balance sheet assets and liabilities. These assets are managed and invested in accordance with central bank objectives, taking into account the risks and social responsibility aspects inherent in investment activities.

The objective of the Bank of Finland's financial asset management is to meet the liquidity, security and return requirements placed on the central bank in respect of the assets managed. In pursuing these requirements, the Bank takes into account [the risks](#) and social responsibility aspects of its investment activities.

In managing its financial assets, the Bank of Finland secures the value of the assets and its ability to support the liquidity of the banking system whenever necessary. The limits set for investment risk ensure prudent management of the Bank's financial assets. [The Bank of Finland's capital adequacy is sufficient to cover the risks arising from the performance of its tasks.](#)

### Volume of financial assets

The Board of the Bank of Finland takes decisions on the amount of the Bank's financial assets in accordance with the [Agreement on Net Financial Assets \(ANFA\)](#) between the Eurosystem central banks.

ANFA sets rules for such holdings of national central banks as are related to the discharge of their national tasks. The volume of the Bank of Finland's financial assets is determined by its central bank tasks and investment policy considerations.

In 2019, the Bank of Finland reduced its volume of financial assets in two stages by a total of EUR 1.5 billion for investment policy reasons. However, because of currency and equity appreciations the value of the Bank's financial assets only declined by EUR 500 million during the year.

The Bank of Finland Board takes a decision every three years on the volume of the Bank's foreign reserves by setting target levels for its fixed-income investments denominated in US dollars, Pounds sterling and Japanese yen. In 2019, new targets for these reserves were set at USD 5 billion, GBP 650 million and JPY 95 billion, respectively. In the spring of 2019, the amount of foreign reserves was adjusted to meet these targets.

## Composition of financial assets

At the end of 2019, the Bank of Finland's financial assets amounted to around EUR 11 billion (Table 2). These assets comprised direct investments in foreign and euro-denominated fixed income, investments in equity and real estate, and gold holdings and items denominated in IMF Special Drawing Rights (SDRs).

The foreign currency-denominated fixed-income investments consist of US dollars (USD), Pounds sterling (GBP) and Japanese yen (JPY). These, together with the items denominated in SDR rights, make up the Bank's foreign reserves.

**Table 2. The Bank of Finland's financial assets, EUR million.**

**Table 2.**

The Bank of Finland's financial assets, EUR million	31 Dec 2019	31 Dec 2018
Gold	2,135	1,767
Foreign reserves	6,694	5,941
SDR	494	460
US dollar-denominated fixed-income	4,641	4,270
Sterling-denominated fixed-income	777	729
Yen-denominated fixed-income	782	482
Euro-denominated fixed-income	1,017	2,900
Equity investments	1,082	727
Real estate investments	127	106
<b>Total</b>	<b>11,055</b>	<b>11,553</b>

Source: Bank of Finland.

## Fixed-income asset investment policy

The Bank of Finland's fixed-income portfolios are managed in accordance with the investment policy decided by the Bank of Finland Board each year. It sets a strategic allocation for these investments and determines an appropriate level of interest rate risk for each currency.

The investment policy sets out a strategic market-based index that serves as a benchmark for the Bank's investment activities. The fixed-income investments carried out by Bank of Finland portfolio managers are direct investments.

Investments may deviate from the strategic index within a pre-set range as long as they remain within the investment policy's risk limits. This range is necessary as certain assets featured in the index may not be available for purchase on the market. Furthermore, the investment portfolios are allowed to target additional returns while remaining within the constraints of the risk limits.

## Fixed-income markets in 2019

The global economy's deteriorating outlook was reflected in fixed-income markets in 2019. The largest uncertainty factors were the trade war between the United States and, for the most part, China as well as the United Kingdom's withdrawal process from the European Union.

In the United States, yields on Treasury bills declined from 2.6% early in the year to 1.5% by the end of the year. In Europe, yields on French short-term sovereign bonds remained at about -0.5%, but longer-maturity yields such as those on German 10-year sovereign bonds fell from 0.25% to -0.20%. The European Central Bank's decision in September to restart net asset purchases as from November 2019 pushed down yields even further into negative territory.

In May 2019, the US Federal Reserve lowered its main interest rate in response to escalating trade war tensions and the deteriorating economic outlook. Further interest rate cuts in September and October eventually lowered the interest rate corridor by 0.75 percentage points from the beginning of the year, to 1.50–1.75% at year-end. In September, the ECB Governing Council also lowered the interest rate on the ECB's deposit facility by 0.10 percentage points, to -0.5%. The Bank of England (0.75%) and Bank of Japan (-0.10%) held their respective policy rates unchanged in 2019.

## Fixed-income investments

The Bank of Finland's fixed-income portfolios comprise sovereign bonds and central bank deposits (61%), supranational or government-related bonds (21%), covered bonds issued by credit institutions (9%), corporate bonds (8%) and cash instruments (1%).

In volume terms, 68% of these investments were in bonds rated AAA- or AA+, and the lowest credit rating was BBB+ (0.7%). Serving as a measure of interest rate risk, the average duration of the fixed-income portfolios at the end of 2019 was 2.05 years.

The lowering of central bank interest rates yielded capital gains on fixed-income investments. Consequently, these investments generated positive returns in 2019 in spite of the low and partly negative interest rate environment. By far the most interest income was generated on the largest portfolio item, dollar-denominated bonds. These had the highest coupon rate at the beginning of the year, and they also earned capital gains as a result of the interest rate cuts.

The total return on the fixed-income portfolios amounted to EUR 210.7 million in 2019. By denomination, the return on US dollar investments stood at EUR 202.8 million, euro-denominated at EUR -2.1 million, sterling-denominated at EUR 10.6 million and yen-denominated at EUR -0.5 million.

The depreciation of the euro resulted in a positive revaluation of the foreign reserves. The foreign-currency denominated fixed-income portfolios appreciated by a total of EUR 141.6 million. The change in US dollar-denominated assets was EUR 81.7 million, sterling-denominated, EUR 21.7 million and yen-denominated, EUR 23.1 million.

[Exchange rate risk is the most significant risk in euro terms related to the Bank of Finland's fixed-income investment portfolios.](#) The volume of the Bank's foreign reserves has been dimensioned to a level required by central bank tasks. Valuation changes in the foreign reserves reflect the open currency position, which supports the successful discharge of central bank tasks.

## Long-term investment activities

In addition to its fixed income investments, the Bank of Finland manages a long-term investment portfolio, which has lower liquidity requirements and a higher expected return than its other portfolios. This portfolio has been devised so that the Bank's own financial assets may be invested in asset classes with a better return than traditional central bank fixed-income investments.

In 2019 these long-term investment activities consisted of equity and real-estate investments, handled indirectly through mutual funds.

The Bank of Finland has diversified its equities portfolio in a cost-effective manner by investing in a passive advanced economies index fund. Its real-estate investments, in turn, are diversified across a number of European funds. Each of the funds owns real estate in desirable locations, which makes the properties easy to rent and ensures a steady return.

Equity and real-estate markets performed favourably in 2019 despite the risks posed by the trade war and Brexit. The return on the Bank of Finland's equity investments amounted to EUR 227 million in 2019, and on real-estate investments, EUR 12 million.

## Financial asset returns and risks

The Bank of Finland's financial assets yielded an overall return of 9.3% or EUR 971 million in 2019 (Table 3). The Bank's fixed income returns are regularly checked against strategic benchmark indices that are based on the completion of central bank tasks. In 2019, the Bank of Finland's fixed income investments yielded 0.14%, or EUR 10 million of additional returns compared with these benchmarks.

**Table 3. Return on the Bank of Finland's own financial assets in 2019 and 2018**

**Table 3.**

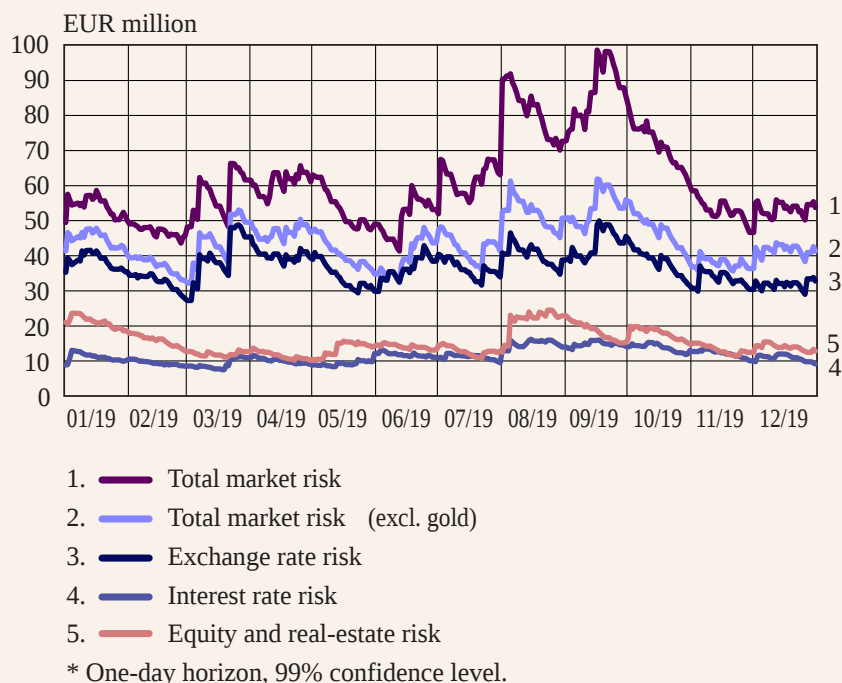
Return on the Bank of Finland's own financial assets in 2019 and 2018	2019		2018	
	%	EUR m	%	EUR m
Fixed-income investments	2.9	211	0.8	56
Currency revaluation	1.9	142	3	215
Equity	29	227	-5.3	-43
Real estate	11	12	-0.2	-3
Excluding gold and SDR	7.3	592	3.0	225
Gold	21	368	3.8	62
SDR	2.4	11	3.0	11
<b>Total</b>	<b>9.3</b>	<b>971</b>	<b>3.1</b>	<b>297</b>

Source: Bank of Finland.

The total market risk related to financial assets (Value-at-Risk 99%, 1 day) varied between EUR 41 million and EUR 99 million in 2019 (Chart 20).

Chart 20.

### VaR figures for market risk in Bank of Finland's financial assets in 2019\*



Source: Bank of Finland.

## Share of the European Central Bank's foreign reserves

The European Central Bank (ECB) has foreign reserves of its own. Management of the foreign reserves of the ECB has been distributed among the Eurosystem national central banks according to [their respective capital keys](#). The Bank of Finland manages part of the ECB's foreign reserves together with the Estonian central bank, Eesti Pank.

In the management of the ECB's foreign reserves, 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 monetary policy operations.

The main objective of the Eurosystem's monetary policy is price stability, nor does the Eurosystem have an [exchange rate objective](#).

The value of Finland's and Estonia's pooled US dollar-denominated portfolio of the ECB's foreign reserves at the end of 2019 stood at EUR 1,124 million.



[For additional information on the management of the ECB's foreign reserves, see the ECB's Annual Report.](#)



## Influence and cooperation

83	The Bank of Finland and domestic economic policy in 2019
86	Finland's economic boom over – slower growth ahead
90	Research at the Bank of Finland in 2019
94	The Bank of Finland and international cooperation
98	Diverse communications promote financial literacy

# Influence and cooperation

20.3.2020

The Bank of Finland's influence is based on expertise and research. The Bank takes a position on domestic and global economic issues as an independent institution.

The objectives of the Bank of Finland's statements relating to economic policy are price stability, balanced economic growth and financial stability.

In recent years, climate change mitigation has become a key issue.

## Finland's public finances have improved but remain in deficit

In 2019, the Bank of Finland emphasised the importance of fiscal space and balanced cost developments.

The Finnish economy is still going through a period of transition in which it has to adjust to structural realignments stemming from an ageing population and the shocks to the economy suffered since 2007.

Finland's public finances are in a better condition than five years ago, but remain in deficit. The long-term outlook for the public finances would be eased if a higher proportion than now of the working-age population were in work and labour productivity were to increase. The downward trend in the level of educational attainment among young adults is exceptional in international comparison and concerning from a Finnish perspective.

## Despite the slower pace, conditions are favourable for continued economic growth in Finland

In 2019, the Bank of Finland published two extensive macroeconomic forecasts for the Finnish economy. These suggested that Finland's economic boom was subsiding and growth was losing momentum. Nevertheless, the conditions for continued growth are favourable. Domestic demand will be the main driver of economic growth in Finland in the immediate years ahead.

As monetary policy measures affect inflation with a time lag, forecasts are pivotal in monetary policy preparation and implementation.

The Bank of Finland draws up its forecasts for the Finnish economy using the [Aino model](#) as its main forecasting tool. The Aino model simulates the Finnish economy.

## **The Bank of Finland is a respected international partner**

The Bank of Finland is an influential international actor. The Bank is responsible for Finland's relations with the International Monetary Fund (IMF) and is a member of the EU's Economic and Financial Committee (EFC).

As in previous years, in 2019, the Bank of Finland maintained close contacts with other Nordic countries and, for example, the Baltic central banks. Training cooperation with the Bank of Russia continued.

In 2019, the Bank of Finland's research articles were extensively published in international journals.



## The Bank of Finland and domestic economic policy in 2019

20.3.2020

In 2019, the Bank of Finland emphasised the importance of fiscal space and balanced cost developments.

In 2019, the Bank of Finland analysed developments in both the domestic and the global economy and participated in economic policy discourse in Finland. Bank of Finland analyses were widely presented on the Bank's website. Representatives of the Bank were consulted on several occasions by Parliament and also presented their assessments in other domestic fora, including the media and seminars.

### Identification of problems and assessment of the effects of alternatives for action

The Bank of Finland's statements relating to domestic economic policy are based on the objectives set for the Bank by law and in the EU Treaty and also on its independent status. The primary objective is price stability, while secondary objectives include balanced economic growth and the stability of the financial system. The sustainability of the public finances and stable evolution of domestic costs are key to the attainment of the Bank's objectives.

The Bank's statements are based on expert knowledge and relate mainly to the identification of problems and assessment of the potential effects of the alternatives for action. In the area of economic policy, setting the ultimate goals and decision-making is the task of elected representatives.

In 2019, the Bank of Finland pointed out that the Finnish economy is still going through a period of transition in which it has to adjust to two major structural realignments.

One of the major changes concerns the ageing population. The other comprises the shocks to the economy suffered since 2007, from which the Finnish economy has not yet fully recovered. These shocks were problems in the electronics and the forest industries, Russia's financial difficulties and the rise in the level of costs compared with Finland's trading partners.

Governments and social partners have in recent years agreed several important solutions to address the problems created by the above-mentioned major changes. However, there is still a need for further significant adjustments.

## **Finland's public finances need strengthening**

Finland's public finances are in a better condition than five years ago, which partly reflects the past fiscal consolidation measures. However, despite these measures and the favourable economic situation, the public finances remain in deficit. The general government deficit and gross debt are projected to increase. This is partly due to fiscal policy, which is forecast to become more expansionary.

In December 2019, the Bank of Finland revised downward its assessment of the long-term sustainability of Finland's public finances. According to the new estimate, the fiscal sustainability gap is 4.7% relative to GDP.

The sustainability gap is largely explained by the ageing population, as pension expenditure and expenditure related to both health care and long-term care are increasing. On the other hand, the downward revision of the sustainability gap estimate in 2019 largely reflected an upward revision to the general government deficit forecast for the immediate years ahead.

The Bank of Finland highlighted the need to strengthen the public finances in view of the sustainability gap and the fact that the cyclical situation is not weak.

## **Developments in employment are of great importance**

The long-term outlook for the public finances would be eased if a higher proportion than now of the working-age population were in work. The aim of raising the employment rate to 75% over the next few years is therefore well-justified. Beyond this, it would make sense to aim even higher, to reach a good Nordic level. For example, Sweden's employment rate is around 78%.

The prerequisites for higher employment should be improved by a variety of measures all pulling in the same direction. When selecting these measures, it is important to draw on the knowledge provided by research and international experience.



## **Finland's cost-competitiveness should be further improved**

Finland's cost-competitiveness has improved markedly since 2015, after having weakened for several years prior to that. From the viewpoint of the conditions for employment and output growth, it would be wise to facilitate a further slight improvement in cost-competitiveness.

The possibility of a sustainable rise in costs and prices in Finland is limited by the fact that euro area developments in this area are still sluggish compared with previous decades and the objectives of the central bank.

In 2019, the Bank of Finland stressed the importance of coordination in wage formation in Finland. Agreements in the various sectors also have an impact on costs in other sectors. Export industries that compete directly with foreign production buy production inputs extensively from the domestic market, from sectors such as wholesale trade, transport, storage, management services, data processing and marketing.

## **The prerequisites for higher productivity**

Labour productivity growth has been weak in Finland over the past 10 years. There is no single decisively effective method to improve the situation. Developments in labour productivity are affected by a large range of different factors, including many aspects of economic policy.

When seeking to improve the prospects for productivity growth, key factors are innovation policy and the broader corporate operating environment in relation to the prospects for development and growth.

The education system is also relevant to facilitating labour productivity growth, particularly in the longer term. One of the important features of the education system is the general level of education it produces.

In Finland, the general educational level of the population was on the rise for several decades, but this trend has been reversed during the past 10–15 years. Among young adult cohorts the level of educational attainment has turned downwards, which is exceptional in international comparison and concerning from a Finnish perspective.





## Finland's economic boom over – slower growth ahead

20.3.2020

In 2019, the Bank of Finland published two extensive macroeconomic forecasts for the Finnish economy. The forecasts suggested that Finland's economic boom was subsiding and growth was losing momentum.

The global economic outlook continued to weaken during 2019 and the heightened uncertainty was increasingly holding back Finland's economic growth.

### Monetary policy preparation necessitates economic forecasts

Monetary policy measures often affect inflation and other macroeconomic phenomena with a time lag. For this reason, monetary policy decision-makers need an informed view of how decisions taken now would affect the economic situation in months' or even years' time. Therefore, the preparation of euro area monetary policy and analysis of the related effects necessitate independent, analytical assessment of economic developments in the immediate years ahead.

The Bank of Finland's Monetary Policy and Research department is responsible for the domestic economic forecast in cooperation with the ECB and the Eurosystem.

The Bank of Finland prepares forecasts primarily to support preparation of the single monetary policy and related decision-making. For this reason, the macroeconomic forecast for the Finnish economy is produced as part of the Eurosystem's macroeconomic projections. The macroeconomic forecast is also closely linked to the forecast for the public finances and the short-term inflation forecast.

## **Boom subsides and Finland's economic growth loses momentum**

In its forecasts prepared in 2019, the Bank of Finland assessed that the boom was subsiding and economic growth was losing momentum. The most significant factors putting a brake on Finland's economic growth were global uncertainties and slower growth in Finland's main export markets.

In June 2019, the Bank of Finland forecast that economic growth would slow to 1.6% in 2019. In 2020, GDP growth would be 1.5%, and in 2021 it would slow further, to 1.3%. Uncertainties in the global economy were expected to reduce investment, which would weaken global demand for Finnish exports.

The Bank assessed that the conditions for economic growth were still favourable, as monetary policy was conducive to growth in the euro area and positive employment developments had improved consumers' purchasing power.

In December 2019, the Bank of Finland revised down its forecast for growth in response to a further weakening of the outlook for the euro area and other main export markets. Business and household confidence also declined further towards the end of the year. The Finnish economy was forecast to grow by 1.3% in 2019. In 2020, growth was expected to slow further, to 0.9%.

However, the Bank expected that the economic slowdown in Finland's main trading partners would be a temporary phenomenon. The gradual recovery in both the euro area and the global economy would exert a pull on the Finnish economy, too. According to the December forecast, economic growth would pick up to 1.1% in 2021 and 1.3% in 2022.

## **Domestic demand to drive growth in immediate years ahead**

Despite the pick-up in the export markets, domestic demand will be the main driver of Finland's economic growth in the immediate years ahead. The impact of net exports on economic growth, in turn, will remain modest on average.

Household purchasing power will be strengthened by the still good employment situation and higher earnings. Although private investment will begin to support growth at the end of the forecast period, overall it will remain subdued. Housing construction will decline and growth in corporate fixed investment will remain sluggish. On the other hand, public demand will support growth in the next few years.

Inflation is forecast to remain subdued. Slower economic growth and the expansionary fiscal policy will deepen the general government deficit and add to public debt.

## Conditions favourable for continued growth

Even though the boom is subsiding and economic growth is slowing, the conditions for continued growth remain favourable. Monetary policy is accommodative and fiscal policy has been adjusted in an increasingly expansionary direction.

The Bank of Finland forecasts published in 2019 are surrounded by heightened uncertainty stemming from the global economy. Export market growth may remain slower than expected. On the other hand, domestic factors, such as investments and private consumption, may develop more favourably than anticipated.

## Models an integral part of forecasting and economic analysis

The Bank of Finland has a long tradition of using models of the national economy in the preparation of forecasts and assessment of different policy options. The Bank draws up its forecasts for the Finnish economy using the [Aino model](#) as its main forecasting tool.

Aino is a stochastic general equilibrium model that simulates the Finnish economy. It is built on economic theory and is estimated based on Finland's national accounts data. The model consists of a group of mathematical equations that are implemented in a computer code. The equations illustrate interdependencies between the key Finnish economic variables.

The project established in 2017 to upgrade Aino continued in 2019. The purpose of the project is to better incorporate Finnish housing markets and banks' housing loans to households into the model. The continuous development of models is a key part of forecasting work at the Bank of Finland.

In preparing its forecasts and monitoring economic developments, the Bank also drew heavily on short-term indicator models used in [nowcasting short-term GDP developments](#).

## Bank of Finland forecasts draw media attention

[The Bank of Finland Bulletin website](#) is the Bank's main channel for publishing forecasts and other topical articles related to the Finnish economy.

In support of the forecast, the Bank of Finland regularly publishes a report on recent developments in the Finnish economy. In addition, in 2019, the Bank published topical articles supporting forecasting and economic monitoring. The articles concerned, for example, the public finances, housing markets, investments, labour markets, productivity developments and households.

In addition to the forecasts, during 2019, the Bank of Finland actively provided information on the Finnish economy to different media, including social media. There was a great interest in the Bank's forecasts. During the year, the forecasts were widely discussed in both the national media and social media.

The several presentations on the Finnish economy given to the various domestic and foreign stakeholders in 2019 were also important in sharing information on the economy and increasing the Bank of Finland's media visibility.



## Research at the Bank of Finland in 2019

20.3.2020

In 2019, the Bank of Finland made preparations for the ECB's strategy review, which was set to be launched in 2020. Research conducted at the Bank contributes significantly to preparation for the review. During the year, the Bank's research findings were published in many recognised academic journals. The Bank also hosted several international meetings of researchers.

The Bank of Finland's key research areas are monetary policy, macroprudential policy, the macro economy, the financial system and its regulation, and emerging economies.

The Bank of Finland's Monetary Policy and Research department prepared for the ECB's strategy review to be launched in 2020 by organising research seminars for the Board and by making an extensive use of monetary policy models. The Bank has already conducted research on the ECB's definition of price stability and the symmetry of monetary policy reactions. In 2019, the theme also featured prominently in the ECB's own communications.

The Bank of Finland Institute for Economies in Transition (BOFIT) continued its analysis of, for example, China's economic slowdown and the increasing risks to the country's financial system. In addition, the effects of the trade war were studied from various perspectives.

## Bank of Finland's research articles in international journals

One of the key objectives of the Bank of Finland's research activities is to have the Bank's research articles published in recognised academic journals that apply the peer review method. In 2019, the Bank's research contributions were published in a number of academic journals of high international quality. Below is a sample of the research published.

**Gene Ambrocio's** research article 'Rational Exuberance Booms' was published in the *Review of Economic Dynamics*. The article examines the mechanisms that lead to overheating of the economy.

**Zuzana Fungáčová** was one of the authors of the research article 'Persistent and transient inefficiency: Explaining the low efficiency of Chinese big banks'. The article states that the cost efficiency of large Chinese state-owned banks is persistently low. Inefficiency is therefore due to structural factors. The article was published in *China Economic Review*.

**Eeva Kerola's** research article 'In Search of Fluctuations: Another Look at China's Incredibly Stable GDP Growth Rates' was published in *Comparative Economic Studies*. The article finds that China's official real GDP figures exaggerate the country's economic growth at least from 2012 onwards.

**Juha Kilponen** participated in a study entitled 'Comparing Fiscal Consolidation Multipliers across Models in Europe', which was published in the *International Journal of Central Banking*.

**Maritta Paloviita** was one of the authors in the study 'Cognitive Abilities and Inflation Expectations', which was published in *AEA Papers and Proceedings*.

**Markus Sihvonen** examined in his article 'Market selection with idiosyncratic uncertainty' how irrational and atypical investors affect the bond markets. The article was published in the *Journal of Economic Theory*.

**Seppo Honkapohja's** article 'Price level targeting with evolving credibility' was published in the *Journal of Monetary Economics*. Honkapohja wrote the article together with **Kaushik Mitra** (University of Birmingham) at the time when he was a member of the Board of the Bank of Finland.

**Laura Solanko** and **Zuzana Fungáčová** were among the authors of the research article 'Banking in the Transition Countries of Central, Southern, and Eastern Europe and the Former Soviet Union'. The article was published in the prestigious *Oxford Handbook of Banking*.



## The Bank of Finland published 50 discussion papers in 2019

[BOFIT](#) and the [Bank of Finland's Research unit](#) each published 25 discussion papers.

Many of the Bank's new research projects relate to monetary policy strategies at the zero lower bound and therefore to the ECB's strategy review to be launched in 2020. The Bank also conducted a [survey on banks' capital requirements](#) among the leading researchers in this area. Many of the new research projects of BOFIT were related to major structural changes in the Chinese economy, for example in the banking sector.

The [BOF Economics Review](#) is a publication series under which the Bank has published analyses, reports and small-scale studies since 2017. BOFIT has its own research-related publication series, the [BOFIT Policy Brief](#).

## Presentation of the Bank of Finland's research outside the Bank

The Bank of Finland's research findings were presented in 2019 in the Eurosystem working groups on modelling and forecasting and the research network, the meeting of the Heads of Research, the International Relations Committee, the Research Task Force of the Basel Committee and several other events in Finland and abroad.

In 2019, researchers from the Bank of Finland published four blog posts in [VoxEU](#). In addition to the Finnish media, the Bank's research works were also discussed in *Bloomberg News*, the *Moscow Times* and *Handelsblatt*.

## Domestic and international meetings

Each year, the Bank of Finland organises meetings of economics researchers on topical policy issues. In 2019, the Bank organised or participated in the organisation of the following such meetings:

In March, the Bank organised a workshop entitled 'Workshop on Empirical Macroeconomics' in Saariselkä. The keynote speakers were the Research unit's research fellow **Fabio Canova**, **Óscar Jordà** (Federal Reserve Bank of San Francisco) and **Barbara Rossi** (University of Pompeu Fabra).

In spring, the Bank organised a seminar on the monetary economy and financial market institutions in honour of Doctor **Juha Tarkka** on the occasion of his retirement.



In April, BOFIT co-organised with the University of Strasbourg and the Ifo Institute for Economic Research a workshop on the relationship between banking systems and institutions ('Workshop on Banking and Institutions'). The workshop was held in Munich and the keynote speaker was Professor **Hans Degryse** (KU Leuven).

In July, under the leadership of Governor **Olli Rehn**, the Bank of Finland organised a monetary policy seminar entitled 'Monetary policy and future of EMU'. Speakers at the seminar included Philip Lane, Chief Economist of the ECB; **Richard Clarida**, Vice Chairman of the Federal Reserve; and **Yi Gang**, Governor of the People's Bank of China.

In August, the Bank co-organised with Fordham University and the City University of Hong Kong an international conference on China's economic developments. The conference focused on the integration of the Chinese economy into the global economy.

In September, the Bank of Finland organised two events. Governor Rehn hosted a seminar entitled 'Technological upheaval and labour markets'. Speakers at the seminar included Professor **Laura Tyson** and Professor **John Zysman**, both from the University of Berkeley, and Doctor **Terhi Maczulskij** from the Research Institute of the Finnish Economy, ETLA. The other September event was a conference entitled 'Post-crisis policy challenges and implications for macro modelling', which was co-organised with SUERF (the European Money and Finance Forum). The keynote speakers were **Frank Schorfheide** (University of Pennsylvania) and Doctor **Stijn Claessens** (the Bank for International Settlements, BIS).

In October, the Bank co-organised with CEPR (Centre for Economic Policy Research) a conference entitled 'Monetary Economics and Reality'. The keynote speaker was Professor **Andrei Shleifer** from Harvard University.

In 2019, the Bank of Finland also hosted a meeting of the Economic Policy Panel. The Panel meets twice a year in the country holding the EU presidency.

In 2019, the Bank of Finland also organised dozens of other shorter work seminars at which the Bank's own and visiting researchers presented their research topics.



## The Bank of Finland and international cooperation

20.3.2020

International cooperation is an important part of the Bank of Finland's work (Chart 21). The Bank participates in the work of international and European institutions and committees and cooperates closely with the national central banks of other countries.

Chart 21.

**The Eurosystem and  
the European System  
of Central Banks**

**EU institutions  
and committees**



**International  
organisations**

**Nordic  
central banks**

**The Bank of Finland  
is a respected international  
influencer and partner.**

Source: Bank of Finland.

See [Bank of Finland representatives at the ECB, EU and other international bodies \(pdf\)](#).

## The Bank of Finland is responsible for Finland's relations with the International Monetary Fund

The International Monetary Fund (IMF) is an organisation of 189 member countries working to foster international cooperation, open and rules-based foreign trade, sustainable economic growth and financial stability. The Bank of Finland is responsible for Finland's relations with the IMF.

The Governor of the Bank of Finland, **Olli Rehn**, is Finland's representative on the highest governing body of the IMF, the Board of Governors.

The Bank of Finland also influences the activities of the IMF via the Nordic-Baltic constituency, which has a joint representative on the Executive Board of the IMF. In 2019, **Mika Pösö**, Head of the General Secretariat of the Bank of Finland, was selected for the post for 2020–2022. Policy positions in matters discussed by the Executive Board are prepared among the countries of the constituency. In participating in this preparation, the Bank of Finland and the Finnish Ministry of Finance work in collaboration.

The activities of the constituency are guided by the Nordic-Baltic Monetary and Financial Committee (NBMFC). The Deputy Governor of the Bank of Finland, **Marja Nykänen**, is a member of the Committee.

## IMF meetings are important fora for international cooperation

In 2019, the Bank of Finland participated in the IMF's spring and annual meetings, which are among the most important fora for international cooperation. The International Monetary and Financial Committee (IMFC) also convened in connection with these meetings. The Committee discussed the global economic outlook, international financial stability and current economic policy challenges. In the Annual Meetings held in autumn 2019, the Nordic and Baltic countries were represented in the IMFC by Finland's Minister of Finance, **Mika Lintilä**.

In 2019, the discussions at the IMF meetings were characterised in particular by the slower growth of the global economy and concerns about the state and future of international cooperation. **Kristalina Georgieva**, who took up her post as the new Managing Director of the IMF in autumn 2019, highlighted in her contributions the need to ensure multilateralism, improve the sustainability of the global economy, tackle inequality and prepare for climate change.

## **Bank of Finland participation in the work of EU institutions and committees**

The Bank of Finland is a member of the EU's Economic and Financial Committee (EFC). The EFC has been set up to promote economic policy coordination among EU Member States and participate in the preparatory work for the EU's Economic and Financial Affairs Council (ECOFIN).

In 2019, the EFC convened eight times in its full composition, i.e. with national central banks. In its meetings, the EFC discussed, among other things, the condition of the European financial system, development of the Banking and Capital Markets Union, prevention of money laundering, sustainable investment and financial market innovations. The EFC also prepared joint policy views for international meetings and discussed topical international issues, such as needs related to the reform of the global financial architecture.

In 2019, the Bank of Finland participated in the work of many EU committees and institutions promoting the stability of the banking and financial system. An important example of these is the European Systemic Risk Board (ESRB). The Governor of the Bank of Finland is a member of the General Board of the ESRB. Issues discussed by the ESRB in 2019 included the risks to financial stability in the EU, macroprudential policy in Member States, cybersecurity in the financial system and the development of monitoring of the commercial real estate market.

In 2019, the Bank of Finland co-organised with the ESRB and RiskLab Finland, for the fifth time, a conference focusing on systemic risk analytics.

## **The Bank for International Settlements promotes central bank cooperation and dialogue**

The Governor of the Bank of Finland participates in the regular meetings of the Governors of the member central banks of the Bank for International Settlements (BIS). These meetings discuss developments and current issues relating to the global economy and the financial markets, and matters of interest to central banks.

In 2019, the specific themes of discussion included capital flows and financial cycles, the availability of financial services, digitalisation of the financial markets and non-standard monetary policy.

In summer 2019, Governor Rehn participated in the BIS Annual Conference, which this year focused on the digital economy and financial innovation. Governor Rehn chaired the session dealing with the real effects of financial innovation.

## **Bank of Finland cooperation with other Nordic central banks**

The Bank of Finland maintains close contacts with the central banks of the other Nordic countries. Nordic central bank Governors convene annually to discuss current central bank issues and other relevant matters.

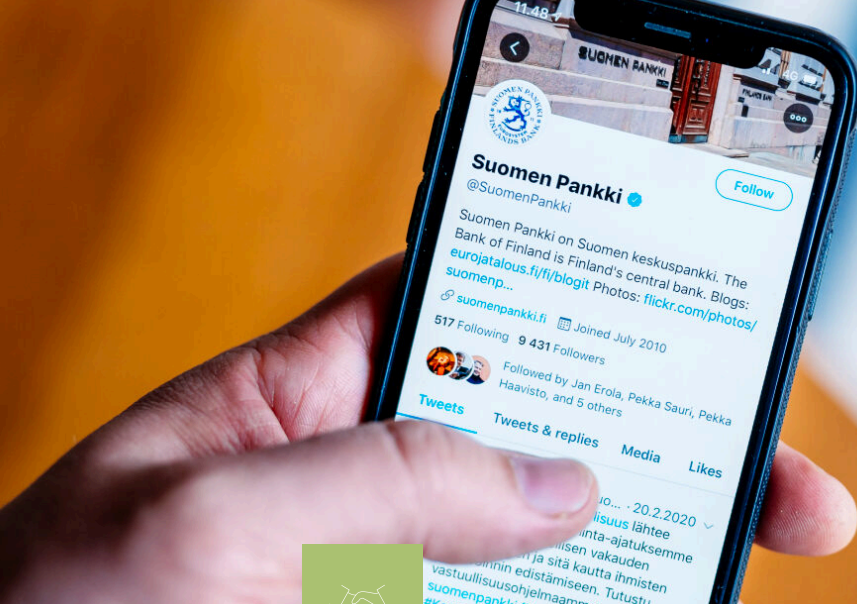
In 2019, the governors met in Uppsala, Sweden and discussed topics such as the housing market and issues relating to the payment system and money laundering.

As in previous years, cooperation between Nordic central bank experts was promoted in 2019, too. There were a variety of events covering a wide array of different departmental activities.

## **Training cooperation with the Bank of Russia continues**

The Bank of Finland has long been engaged in training cooperation with the Central Bank of the Russian Federation (Bank of Russia). This cooperation has taken the form of, for example, training sessions for Bank of Russia personnel at the Bank of Finland and, in some cases, lectures given by Bank of Finland experts in Russia.

In 2019, the Bank of Finland organised two training sessions with the Bank of Russia at the Bank of Finland. The training topics were human resources management, strategic planning and project management.



## Diverse communications promote financial literacy

20.3.2020

In 2019, the Bank of Finland communicated and influenced on a variety of online platforms as well as by meeting stakeholders at meetings and events. Social media are becoming increasingly important for the Bank's communication activities. The promotion of financial literacy is a key objective of the Bank's communications.

In 2019, the Bank of Finland was active in social media and developed its websites to meet modern-day requirements.

The Bank of Finland published five online issues of the journal *Euro & talous* in 2019 in connection with their dedicated press events. Publication of the English-language edition of the journal – Bank of Finland Bulletin – followed shortly afterwards. As a new communication product, the Bank introduced an accessible summary to the journal to attract new readers. Since the *Euro & talous* press briefings are livestreamed, they can be followed regardless of location.

In October 2019, the Eurosystem began to publish data on a new overnight reference rate, [the euro short-term rate €STR](#). As €STR involved an important reform of a financial market reference rate, euro area central banks, together with the ECB, organised both joint and national information campaigns on the matter.

The Bank of Finland's annual report experienced an overhaul and the first [online annual report](#) was published in April 2019. The renewed annual report provides readers with an easier and more visual reading experience. The different content sections of the online annual report can be easily found and shared. The Bank of Finland's annual report website won the [Oma Media 2019 competition](#) ('Own Media 2019', in Finnish) of the Finnish Association of Communication Professionals, Procom.

The Bank of Finland staff members were active bloggers. In 2019, staff members wrote a total of 66 blog posts related to the journal Euro & talous. These were shared on [Twitter](#), [Instagram](#), [Facebook](#) and [LinkedIn](#). A significant number of readers found the blogs via social media channels.

## Experts are visible in social media

Experts from the Bank of Finland are encouraged to communicate in their professional role in social media, especially on Twitter. More than 90 staff members are using Twitter in this capacity. Staff members' social media engagement was supported in 2019 by various training and information events.

The social media visibility of the work done by the Bank's experts is being developed further, for example on LinkedIn. All in all, the use of the Bank of Finland's social media channels is promoted to better serve both experts and citizens.

## The importance of financial literacy highlighted in many fora

The importance of financial literacy is emphasised in the Bank of Finland's activities. In 2019, the Bank participated in the discussion on financial literacy in the media and in various events with stakeholders.

In April, the Bank launched a new website, [Learn economy](#), which contains information on central bank activities, tests and games related to financial literacy and current news.

Financial literacy was also reflected in 2019 in the Bank of Finland's events and the Bank's interaction with stakeholders. In July, the Bank of Finland organised in cooperation with Finance Finland and the Finnish Foundation for Share Promotion a discussion at the SuomiAreena event under the heading 'Taloulosaaminen kansalaistaidoksi – Ei kaikkea kantapään kautta' ('Making financial literacy a civic skill – Let's not learn everything the hard way').

The Generation Euro Students' Award, a monetary policy competition open to secondary school students, was launched for the eighth time. The winner of the Finnish final and the award trip to the ECB in Frankfurt was taken by the team from Helsingin Suomalainen Yhteiskoulu (Helsinki). The other participants in the finals, which were held at the Bank of Finland Museum on 2 April 2019, came from Ålands Lyceum (Mariehamn) and Lahden yhteiskoulun lukio (Lahti).

Educational sessions for teachers were held again across the country. In 2019, training days were held in Helsinki, Jyväskylä and Tampere and as a remote event in Oulu.



## Board members visited regions across the country

Each year, the members of the Bank of Finland Board visit Finnish regions to get to know the various regional centres. During these visits, Board members also present and discuss topical economic issues.

During regional visits, Board members meet local entrepreneurs, students, authorities and the media. In 2019, Board members visited Tampere, Mikkeli, Rovaniemi, Vantaa, Pori, Kuhmo and Kajaani.

## The Bank of Finland Museum achieves visitor record and exhibits banknote counterfeiting

The Bank of Finland Museum broke its all-time visitor record in 2019. Over 15,300 visitors attended exhibitions and events held at the Museum during the year.

In summer, the Museum opened an exhibition of banknote counterfeiting, which presents the history of counterfeit banknotes in Finland. The exhibition runs until the end of May 2020.

The Bank of Finland Museum had a lively year and hosted many public events and lectures. For example, the general public could get information on the outlook for the Finnish and the global economies and hear about responsible investment. In addition, among the books presented in the Museum's Talouskirja nyt discussion series were Governor **Olli Rehn's** book *Walking the highwire – Rebalancing the European Economy in Crisis* and *Olin joukon nuorin* ('I was the youngest') by his predecessor, **Erkki Liikanen**.



Chart 22.

**Over 1.5 million persons made use of the Bank of Finland's information supply.**



Source: Bank of Finland.



## Social responsibility

105	The Bank of Finland's new sustainability programme promotes the objectives of sustainable development
108	Bank of Finland's budget and operating expenses
114	Meaningful work in a positive atmosphere
117	Responsible investment
120	Bank of Finland's management of financial risks
127	Management of climate risks
130	Managing the Bank's environmental impact
132	Environmental impact of cash supply

# Social responsibility

20.3.2020

The Bank of Finland's sustainability programme focuses on the promotion of sustainable growth, exercise of influence via information and management of climate risks.

In autumn 2019, the Bank of Finland assessed its activities in terms of their social, economic and environmental impacts. The assessment resulted in the creation of a sustainability programme for the Bank. This focuses on the promotion of sustainable growth, exercise of influence via information and management of climate risks. The Bank's sustainability work is presented on a dedicated [website](#) launched in December 2019.

## Climate change and financial stability risks call for active engagement

Climate change creates two types of financial stability risks. Extreme weather events cause financial losses, while exit from carbon-intensive business models entails transition risks.

Changes in the economy and markets are reflected in financial stability. For this reason, climate change is a topic closely linked to the activities of central banks.

The Bank of Finland actively raises awareness and promotes dialogue on climate risks and green finance. Green – or sustainable – finance plays a fundamental role in the achievement of energy and climate targets.

## Sustainability pervades all of the Bank of Finland's core functions

The Bank of Finland conducts monetary policy and ensures the functioning and stability of the financial system. The Bank manages its financial assets in accordance with central bank objectives, taking into account responsibility aspects. The performance of the Bank's tasks involves financial risks, and the Bank prepares for these risks by ensuring the strength of its balance sheet.

In December 2019, the Bank of Finland signed the United Nations Principles for Responsible Investment (PRI). This commitment strengthens the existing practices in responsible investment at the Bank.

The Bank of Finland caters for staff wellbeing

The Bank of Finland is committed to fostering an equal and diverse workplace community. The Bank seeks to offer all employees equal opportunities for career advancement.

The Bank of Finland is a participant in the nationwide 'Responsible employer' campaign, aimed at developing working life.



## The Bank of Finland's new sustainability programme promotes the objectives of sustainable development

20.3.2020

The Bank of Finland plays a role in building a future that is more ecologically sustainable. The Bank's sustainability programme focuses on promoting sustainable growth, exercising influence via information and managing climate risks.

At the end of 2019, the Bank of Finland introduced a sustainability programme. This focuses on the promoting sustainable growth, exercising influence via information and managing climate risks.

The foundations of the Bank of Finland's sustainability lie in its core activities. The primary objective of the central bank is to maintain price stability. Another task is to contribute to ensuring the reliability of the financial system, and also security and inclusion in the context of payment systems.

The Bank of Finland also plays a role in building a society that is socially and ecologically sustainable, and therefore promotes the objectives of sustainable development (Chart 23).

### Sustainability programme's key themes

All the three key themes in the Bank of Finland's sustainability programme have clear objectives.

### *Sustainable growth and wellbeing*

- We maintain price stability.
- We ensure financial stability.
- We promote secure and inclusive payment systems.
- We support the EU's economic policies and objective of sustainable development.

### *Influential information and cooperation*

- We provide facts and research data for economic policy decision-making.
- We participate actively in social discourse and provide balanced information.
- We are a member of the academic community.
- We promote financial literacy in Finland.

### *Management of climate risks*

- We invest responsibly.
- We operate in an efficient, economical and environmentally sustainable manner.
- We recognise climate risks in the monitoring of financial stability.
- We reduce the environmental impact of cash and currency supply.

Chart 23.

## The Bank of Finland fosters economic stability.



Source: Bank of Finland.

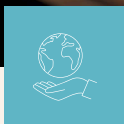
## Indicators and practices support implementation of the sustainability programme

The Bank of Finland's activities are guided with a view to sustainability, and the impacts of activities are assessed based on our sustainability objectives. Key sustainability indicators in the field of environmental responsibility include total emissions relative to operating expenses and commitment to the UN Principles for Responsible Investment.

The Bank of Finland caters for the wellbeing of its staff, providing opportunities for competence development and ensuring equal treatment. The key HR sustainability indicators include the employee satisfaction index, the leadership index, the proportion of the minority gender in management posts and the absentee rate.

Implementation of the sustainability programme is guided by the joint sustainability network of the Bank of Finland and the Financial Supervisory Authority, chaired by Deputy Governor **Marja Nykänen**. The network formulates best practices for the appropriate integration of various aspects of sustainability in the Bank's day-to-day activities.





## Bank of Finland's budget and operating expenses

20.3.2020

The Bank of Finland aims to be one of the most efficient central banks in the EU. This requires determined economic governance, HR planning and investment assessment. The Bank has focused increased attention on the medium-term planning of investments. Investments are evaluated based on their costs, qualitative benefits and operative risks.

In 2019, the Bank of Finland's operating expenses totalled EUR 92.0 million (2018: EUR 91.3 million) and total income, EUR 16.8 million. The Bank of Finland also has other income that is not considered in the budget as reductions to the operating expenses and does not show in the table below.

The Bank's net operating expenses totalled EUR 75.2 million. More detailed information on expenses and the budget can be found in Table 4.

Investment expenditure totalled EUR 9.1 million. In autumn 2019, the Bank's budgets for the period 2020–2022 were drawn up and, of these, the Board ratified the budget for 2020.

Operating expenses and related objectives are monitored closely in order, among other things, to achieve the Bank's efficiency and sustainability targets. The Board evaluates implementation of the objectives on a quarterly basis.

## Pension fund

The pension fund's operating expenses for 2019 totalled EUR 30.2 million (2018: EUR 29.6 million). Pensions paid constituted the largest cost item, amounting to EUR 28.2 million. Operating income amounted to EUR 13.4 million. The pension fund also received an additional contribution of EUR 10.0 million from the Bank. For a more detailed breakdown, see Table 5.

The pension fund's operations are presented in its own annual report.

## Financial Supervisory Authority

The Board of the Bank of Finland ratifies the budget for the Financial Supervisory Authority (FIN-FSA). The Financial Supervisory Authority's operating expenses for 2019 totalled EUR 34.8 million (2018: EUR 29.9 million). Total income amounted to EUR 37.1 million, of which supervision and processing fees accounted for EUR 33.3 million, while the Bank of Finland's contribution to funding was EUR 1.7 million. The surplus for the financial year was EUR 2.3 million. The surplus will be taken into account in the following accounting period, when setting the supervisory and processing fees. Investment expenditure totalled EUR 1.1 million. For a more detailed breakdown, see Table 6.

The Financial Supervisory Authority's operations are presented in the authority's own annual report.

**Table 4.**

Bank of Finland	Outturn 2019 EUR m	Budgeted 2020 EUR m
<b>1. Operating expenses and income</b>		
EXPENSES		
Staff expenses	32.8	34.4
Staff-related expenses	2.8	3.5
Other expenses	27.3	30.5
Banking service expenses	6.6	7.4
Depreciation	8.3	7.7
<b>Total</b>	<b>77.8</b>	<b>83.5</b>
Banknote acquisition costs	5.7	6.8
Pension fund contribution	8.5	8.3
<b>Total operating expenses</b>	<b>92.0</b>	<b>98.6</b>
INCOME		
Banking service income	2.5	2.5
Real estate	7.8	6.1
Other income	0.7	0.1
Services to FIN-FSA	5.8	6.5
<b>Total income</b>	<b>16.8</b>	<b>15.2</b>
<b>Net</b>	<b>75.2</b>	<b>83.4</b>
<b>2. Investment</b>		
Real estate investment	5.2	5.1
Head office premises	1.3	1.4

**Table 4.**

<b>Bank of Finland</b>	<b>Outturn 2019 EUR m</b>	<b>Budgeted 2020 EUR m</b>
Vantaa premises	3.9	3.6
Other premises		0.0
IT-equipment and software	3.0	5.1
Cash handling machines	0.0	0.0
Security equipment	0.8	1.2
Other	0.0	0.1
<b>Total investment</b>	<b>9.1</b>	<b>11.5</b>

Due to rounding, the totals do not necessarily tally.

**Table 5.**

Pension fund	Outturn 2019 EUR m	Budgeted 2020 EUR m
<b>1. Operating expenses and income</b>		
EXPENSES		
Staff expenses	0.0	0.1
Expenses for pension fund activities	0.5	0.6
Pension fund real estate expenses	0.5	0.5
Depreciation	0.9	0.9
Pensions paid	28.2	28.2
<b>Total expenses</b>	<b>30.2</b>	<b>30.3</b>
INCOME		
Employment pension contributions	11.7	12.6
Internal rents	1.7	1.7
Pension fund contribution	10.0	10.0
<b>Total income</b>	<b>23.4</b>	<b>24.3</b>
<b>Net</b>	<b>6.8</b>	<b>6.1</b>

Due to rounding, the totals do not necessarily tally.

**Table 6.**

Financial Supervisory Authority	Outturn 2019 EUR m	Budgeted 2020 EUR m
<b>1. Operating expenses and income</b>		
EXPENSES		
Staff expenses	21.1	22.4
Staff-related expenses	1.2	1.5
Other expenses	4.2	5.9
Depreciation	0.9	1.2
Services from the Bank of Finland	5.8	6.5
Pension fund contribution	1.5	1.7
<b>Total operating expenses</b>	<b>34.8</b>	<b>39.2</b>
FUNDING OF OPERATIONS		
Supervision fees	31.5	33.6
Processing fees	1.8	1.6
Bank of Finland contribution to funding	1.7	2.0
Surplus/deficit transferred from previous year	2.1	2.0
<b>Total income</b>	<b>37.1</b>	<b>39.2</b>
Surplus transferred to next year	2.3	

Due to rounding, the totals do not necessarily tally.



## Meaningful work in a positive atmosphere

20.3.2020

Constant development of the expertise of our personnel, a positive atmosphere at work and a balance between work and leisure are important to the Bank of Finland. We participate in the national 'Responsible employer' campaign aimed at developing working life in Finland.

The Bank of Finland is a stable and responsible employer, with a staff of around 360 experts engaged in varied and challenging work of importance to society as a whole (Chart 24). Constant development of our staff's expertise, good management and a positive working atmosphere allied to a balance between work and leisure are all important at the Bank of Finland.

At the Bank of Finland, we encourage our staff to take advantage of flexible working hours regimes. These help in creating a balance between work and leisure. For example, in 2019 Bank of Finland staff took increasing advantage of opportunities for distance work.

### A happy, professional personnel

The Bank of Finland monitors staff wellbeing regularly through personnel surveys. In 2019, the job satisfaction index was 70.9. In line with our aim, this exceeded the Finnish norm for expert staff, which was 70.6.

The Bank invested in systematic development of staff competencies by, for example, carrying out a survey of skills encompassing the entire organisation, and concentrating particularly on clarifying the skills that will be needed in the future. The realisation rate for personal development plans was 80%.



[Read more on working at the Bank of Finland on our career pages.](#)

## Sustainable development

The Bank of Finland is a participant in the nationwide [Responsible employer](#) (in Finnish) campaign, aimed at developing working life, and is committed, like the other employers participating in the campaign, to offering ever better and more sustainable work experiences to all our personnel.

In addition to the personnel survey, the Bank also gathers development feedback from our personnel on our internal processes in a number of other ways. The recently adopted onboarding surveys are a new feedback and development channel aimed at new members of the Bank's staff.

Based on the development feedback, we updated the Bank's induction process by adopting a mentoring system. Each new employee is allocated a personal mentor who will provide support particularly in becoming familiar with the workplace community and getting to know their own new responsibilities.

## Equality in the workplace

The Bank of Finland is committed to developing a diverse and equal workplace community. We seek to offer all members of our personnel equal opportunities for career advancement.

We examine salary equality between the sexes relative to the skills level of the post in question. The ratio of mean salary for women to mean salary for men of an equivalent skills level was in 2019 an average of 100%.

The minority sex's share of management posts is monitored as part of the Bank's objectives and results framework. Management posts are occupied by 42% women and 58% men. Women's share of these posts has grown in recent years.

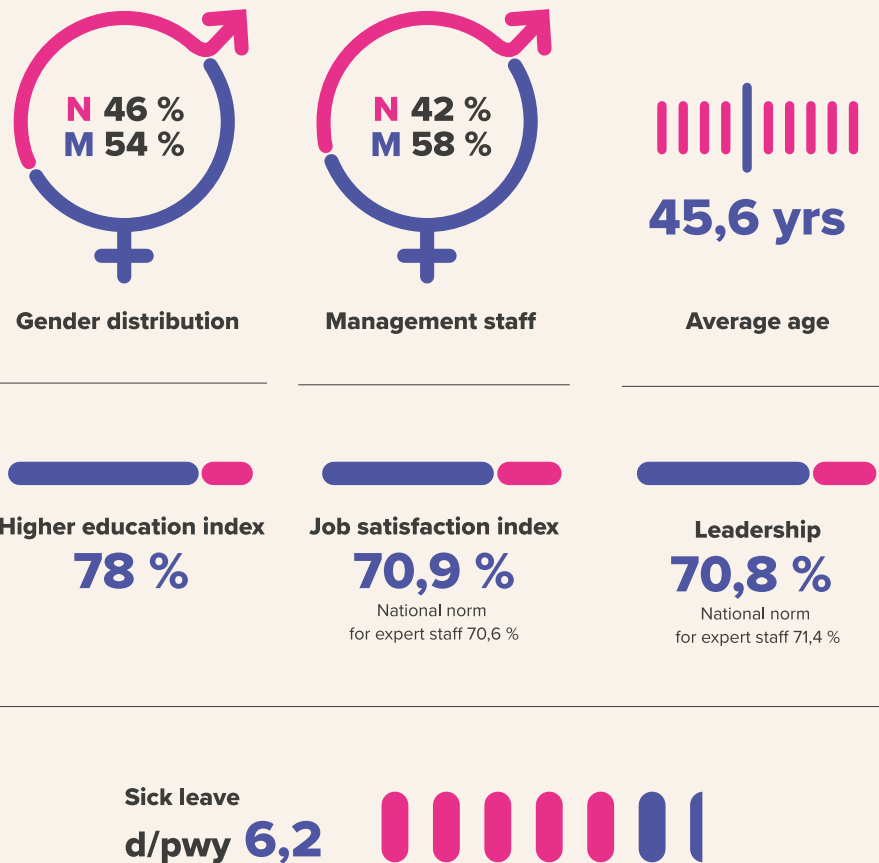
## Responsible summer jobs for young people

The Bank of Finland is one of the favourite employers for students of business studies and the most popular employer in the public sector. The employment of young people is part of the Bank's work in social responsibility. Every year, the Bank of Finland offers in the spirit of the responsible summer job campaign ([Vastuullinen kesäduuni](#), in Finnish) a summer job for around 40 students.

[Read more on summer jobs at the Bank of Finland in our summer jobs blog](#) (in Finnish).

Chart 24.

## At year-end 2019 the Bank of Finland staff totalled 359.



Source: Bank of Finland.



## Responsible investment

20.3.2020

In the investment of financial assets, the Bank of Finland takes into account the risks and responsibility aspects of investment activities, applying a variety of responsible investment approaches to the various investment categories. The Bank of Finland has signed the UN Principles for Responsible Investment (PRI).

The objective of the Bank of Finland's asset management is to meet the liquidity, security and return requirements placed on the central bank in respect of the assets managed. Through its investment activities, the Bank of Finland secures the value of its financial assets and its ability to support the liquidity of the banking system, whenever necessary.

The Bank of Finland invests and manages its financial assets in accordance with central bank objectives and taking into account the risks and responsibility aspects related to investment activities.

The Bank of Finland's responsibilities in its investment activities are based, on one hand, on the general responsibility requirements for investment activities and, on the other hand, on the objective to improve the management of various risks.

## Compliance with principles of corporate sustainability a prerequisite for investment

The majority of the Bank of Finland's financial assets consist of fixed-income investment portfolios, which are held mainly in government debt instruments and government-related debt instruments. The Bank of Finland also has direct fixed-income investments in covered bonds and corporate bonds.

The issuers of corporate bonds and covered bonds are expected to comply with international standards. The Bank of Finland therefore excludes from its investments issuers that do not comply with the principles of corporate sustainability defined in the [United Nations Global Compact](#).

The principles of corporate sustainability are derived from the Universal Declaration of Human Rights, the International Labour Organization's Declaration on Fundamental Principles and Rights at Work, the Rio Declaration on Environment and Development, and the United Nations Convention Against Corruption. In addition, the Bank of Finland does not make direct fixed-income investments in companies that manufacture weapons prohibited by international conventions.

## Fund management companies are required to commit strongly to principles of responsibility

In the planning and execution of its investment activities, the Bank of Finland utilises analyses by an external service provider on the responsibility of the investment instruments as to compliance with international standards. The Bank of Finland's internal working group on responsible investment takes the final decision, based on responsibility criteria, on those instruments in which the Bank will not invest.

The Bank of Finland's investment activities also include fixed-income investment in green, social and sustainability bonds and bonds issued by development banks.

The Bank of Finland's investments in equities and real estate are done through funds. The Bank invests only in funds that are managed by companies that are strongly and transparently committed to responsibility. In addition, the Bank of Finland expects management companies to exert influence on the companies they invest in, so that the companies take responsibility issues into account.

## **Bank of Finland signed the UN Principles for Responsible Investment**

In December 2019, the Bank of Finland signed the UN Principles for Responsible Investment (PRI).

In signing the Principles, the Bank of Finland committed to incorporating the various responsibility factors in its investment processes as well as ownership policies and practices. The Bank also committed to reporting progress in responsible investment.

Commitment to the UN Principles for Responsible Investment strengthens the principles for responsible investment at the Bank of Finland.



## Bank of Finland's management of financial risks

20.3.2020

Implementation of monetary policy and safeguarding the stability and functioning of the financial system are core central bank tasks. These tasks involve financial risks, of which exchange rate risk was in 2019 still the most significant. The Bank of Finland prepares for risks by ensuring the strength of its balance sheet. The Bank's capital adequacy is sufficient to cover the risks arising from the performance of its tasks.

### Investment activities and monetary policy implementation involve risks

At the end of 2019, the Bank of Finland's [financial assets](#) amounted to around EUR 11 billion. These consisted of gold holdings, foreign reserves, euro-denominated fixed income investments and investments in equity and real estate. The amount of foreign reserves has been set to a level required in order for the Bank of Finland to perform its central banking tasks.

The Bank of Finland reduced its euro-denominated fixed-income investments in 2019. The scaling up of investment in equity and real estate was continued in accordance with the Bank's long-term investment plan. These changes had only a minor impact on the risks to the Bank's financial assets.

A significant portion of the Bank of Finland's financial assets comprise debt securities purchased for monetary policy purposes and claims on banks resulting from monetary policy implementation. The Eurosystem's monetary policy operations are implemented on a decentralised basis, but, as a rule, the risks and returns are shared jointly. The risk relating to claims on monetary policy operations equals, as a rule, each national central bank's capital key share in the aggregate claims of the national central banks.

In 2019, the Bank of Finland's share was 1.825%. The risks relating to government debt instruments purchased under the public sector purchase programme (PSPP) are borne individually by each national central bank involved.

The volume of the Eurosystem's monetary policy operations decreased in 2019 by around EUR 128 billion, reflecting mainly the early repayment of funds borrowed in the TLTROs and the maturing of securities acquired under the securities markets programme (SMP).

Net purchases under the expanded asset purchase programme (APP) ended at the end of 2018. The purchases were recommenced at the end of 2019. The Bank of Finland's share of claims on monetary policy operations decreased by about EUR 1.5 billion. The risk level of monetary policy operations did not change significantly in 2019.



**Table 7.**

<b>Bank of Finland's assets and share of claims on monetary policy operations</b>	<b>31.12.2019 EUR billion</b>	<b>31.12.2018 EUR billion</b>
<b>Financial assets</b>	<b>11,055</b>	<b>11,553</b>
Gold	2,135	1,767
Foreign reserves	6,694	5,942
Euro-denominated fixed-income investments	1,017	3,011
Equity investments	1,082	727
Real estate investments	127	106
<b>Share of claims on monetary policy operations</b>	<b>52,741</b>	<b>54,201</b>
Refinancing operations	11,395	13,108
Targeted longer-term refinancing operations <sup>1</sup>	11,169	12,830
Other refinancing operations <sup>1</sup>	225	277
Debt instruments under the expanded asset purchase programme	40,524	39,789
Finnish government bonds and government-related bonds	28,630	28,308
Bonds of supranational institutions <sup>1</sup>	4,110	4,007
Covered bonds <sup>1</sup>	4,416	4,295
Corporate bonds <sup>1</sup>	3,368	3,178
Terminated programmes	822	1,305
Securities markets programme <sup>1</sup>	807	1,208
Covered bond purchase programme	15	97
<b>Total</b>	<b>63,796</b>	<b>65,754</b>

1) Capital key share (1.825% 31.12.2019; 1,785% 31.12.2018) in aggregate claims by national central banks.

In addition to the claims listed in Table 7, the Bank of Finland's assets included EUR 63 billion in [intra-Eurosystem claims](#). At the end of 2019, the Bank of Finland's total assets amounted to [EUR 126 billion \(pdf\)](#).

## Diversification as a risk management tool

The Bank of Finland's financial risks consist of market, credit and liquidity risks. Market risks include adverse movements in exchange rates, interest rates and stock prices.

Exchange rate risk is the source of the most significant volatility in the value of the financial assets. The Bank of Finland diversifies its exchange rate risk by investing in the US dollar, the Pound sterling and the Japanese yen. Through the Bank of Finland's receivables from the IMF, exchange rate risk is also diversified into the Chinese yuan.

In taking on interest rate and credit risks, the Bank of Finland is guided by a strategic benchmark index and a highly detailed limits framework. This way the Bank ensures that the investments are highly liquid and are adequately diversified across various asset classes, countries, maturities and issuers. The Bank's investment focus is on debt securities of high credit ratings.

In accordance with its balance sheet management framework, the Bank of Finland invests part of its own funds in a variety of instruments in the international stock and real estate markets. The investments are made in the form of indirect investments, and they diversify the other risks on the Bank's balance sheet.

In implementing monetary policy purchase programmes, central banks adhere to the common eligibility criteria for collateral and counterparties and other risk management rules pertaining to the whole Eurosystem.

## Responsible, reliable and financially sound counterparties

The Bank of Finland manages its financial assets in a [responsible manner](#). Counterparties accepted in direct fixed-income investments are limited using specific responsibility criteria. Assessments of service providers' responsibility and reliability are also essential in the Bank's indirect investment activities.

In 2019, the [Bank of Finland signed](#) the UN Principles for Responsible Investment (PRI), and in signing the Principles it commits to recognising environmental, social and corporate governance (ESG) issues in its investment practices.

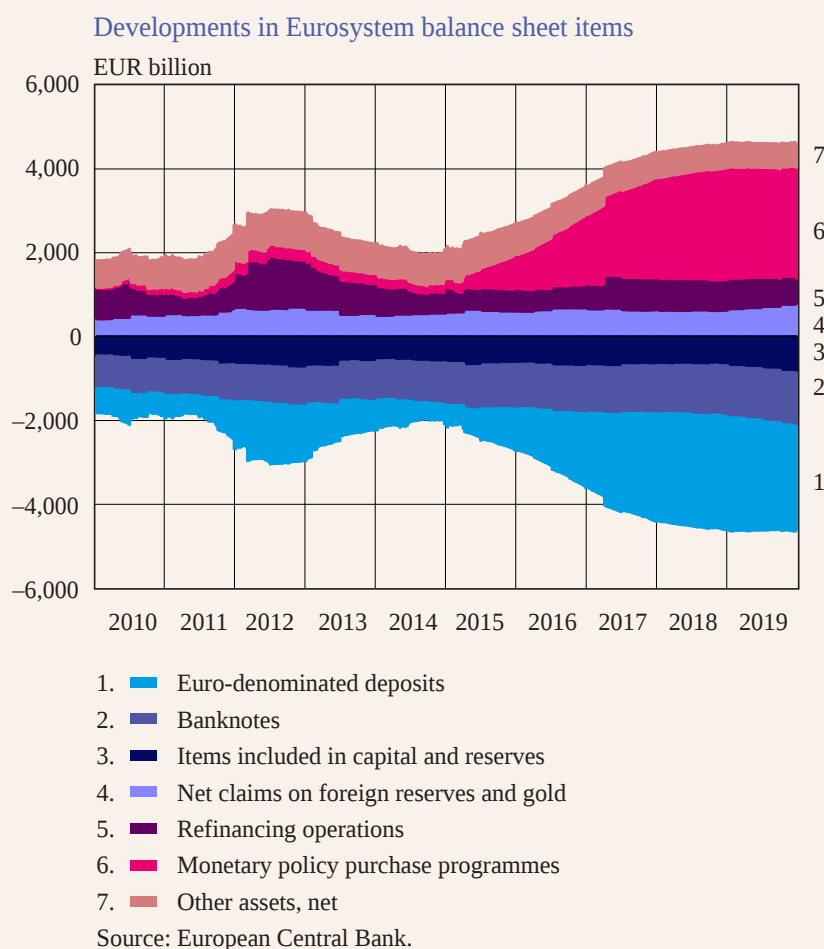
## Structural interest rate risk

The Eurosystem's non-standard monetary policy operations have created a structural interest rate risk on the Bank of Finland's balance sheet. Liquidity created via the [expanded asset purchase programme \(APP\)](#) and the [targeted longer-term refinancing operations \(TLTROs\)](#) is reflected on the liabilities side of the balance sheet as growth in central bank deposits. Chart 25 shows developments in Eurosystem balance sheet items.

The Eurosystem sets the interest payable on the deposits as a matter of policy. The interest rate decision has an immediate effect on the Bank of Finland's interest expenses. Claims on monetary policy operations, in turn, mainly carry a fixed interest rate. Therefore, an increase in the deposit rate weakens the Bank's net interest income.

The structural interest rate risk position decreases as the fixed-rate monetary policy investments mature. However, net purchases and reinvestment of principal payments from maturing bonds maintain the risk position.

Chart 25.



Quarterly updates on financial risk figures are available at [suomenpankki.fi](https://suomenpankki.fi), under the section [risk management and control](#).

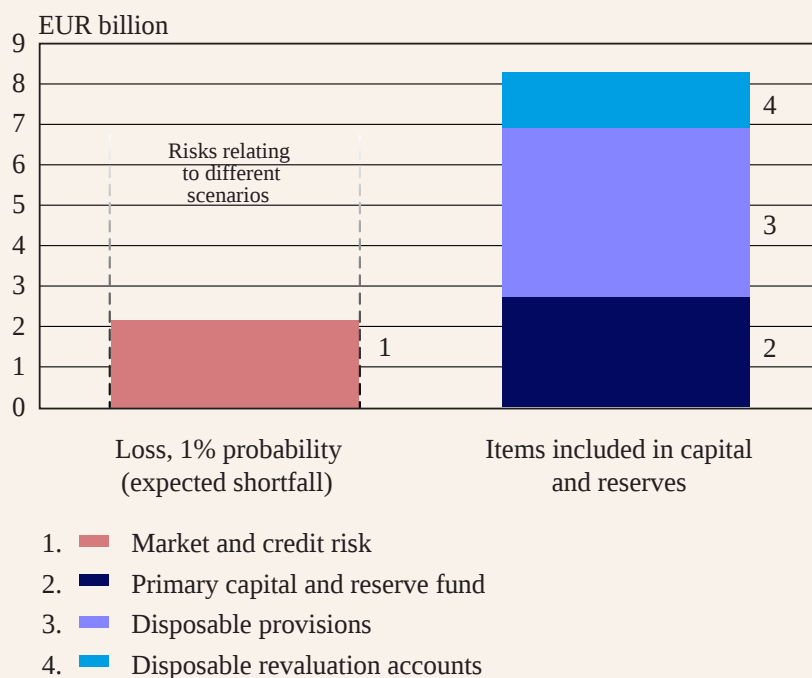
## No significant change in estimated total risks

The Bank of Finland measures total risk exposure on the balance sheet using well-established statistical methods. The risk estimate is supplemented with stress tests which assess losses that could be incurred under possible, but improbable scenarios. In estimating credit risk resulting from monetary policy operations, the Bank of Finland uses internal risk reporting produced by the ECB, which is subject to ongoing development by the Eurosystem's Risk Management Committee.

As the total risk estimate, the Bank of Finland uses a loss that would occur in the following year with a probability of 1% (*expected shortfall*). At the end of 2019, the total risk estimate was EUR 2.2 billion. This figure does not include gold price risk, as the gold revaluation accounts cover a significant decline in value. Including gold price risk, the total risk estimate is EUR 2.5 billion.

Chart 26.

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



Source: Bank of Finland.

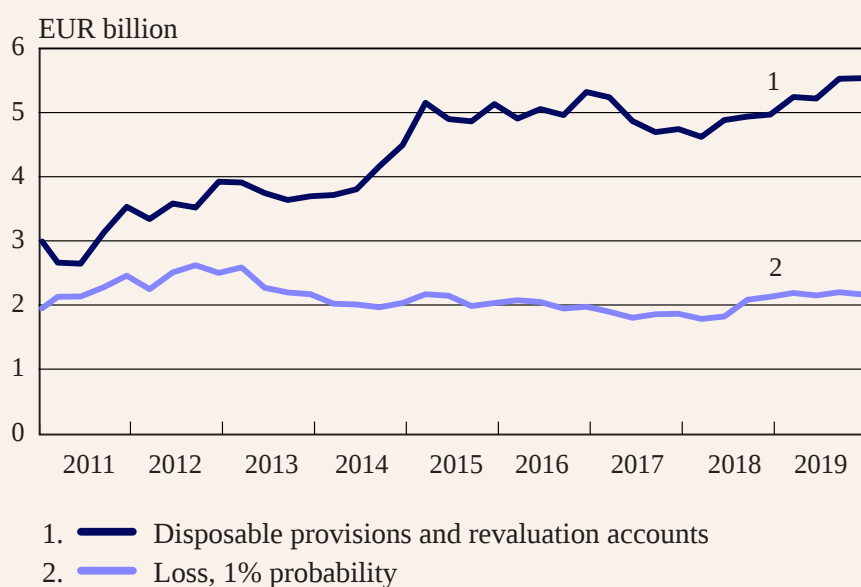
The risk estimate rose slightly from the previous year, due mainly to the increase in foreign reserves and equity investment.

At the end of 2019, the Bank of Finland had revaluation accounts totalling EUR 1.4 billion and provisions totalling EUR 4.2 billion available to cover losses. The primary capital and reserve fund amounted to EUR 2.7 billion (Chart 26).

The risk buffers strengthened in 2019 as a result of increases in provisions and a rise in the value of foreign reserves. The Bank of Finland's capital adequacy is sufficient to cover the risks arising from the performance of its tasks (Chart 27).

Chart 27.

### Risks and risk buffers excl. gold and gold revaluation accounts



Source: Bank of Finland.



## Management of climate risks

20.3.2020

Climate change will affect our environment and the economy in the decades to come. Because of climate change, companies have to change and adjust their business models. Changes in the economy and markets are also reflected in financial stability. For this reason, climate change is a topic closely linked to the activities of central banks.

The Bank of Finland pays attention to climate change both in its activities and in the assessment of the risks to the financial sector. The Bank raises awareness and promotes dialogue on sustainable finance and maps expertise in the field. In addition to internal work, the Network for Greening the Financial System (NGFS) plays a key role in the Bank of Finland's action in climate-related issues.

### **Carbon-intensive business models entail a significant transition risk**

Climate change creates two types of financial stability risks: physical risks resulting from extreme weather events and transition risks caused by exit from carbon-intensive business models.

The financial stability risks caused by climate change can be significant if financial losses increase due to, for example, more frequent and severe extreme weather events. Insurance companies, banks and investors suffer from these losses.

Transition risks will materialise if climate policies, technological innovations or changes in consumer preferences make carbon-intensive business models financially unprofitable. Investors may have to recognise losses on their assets. Transition risks are significant from the perspective of the financial sector as a whole, as not all entities will be able to divest their carbon-intensive investments without incurring losses.

## **The Bank of Finland participates in the work to strengthen climate risk identification and the role of sustainable finance**

Sustainable finance plays a fundamental role in the achievement of energy and climate targets. The Bank of Finland raises awareness and promotes dialogue on sustainable finance and climate risks and cooperates with other authorities and financial market participants in this area.

The Bank also participates in the activities of the [Network for Greening the Financial System](#) (NGFS), a global forum formed by central banks and supervisors. Marja Nykänen, the Deputy Governor of the Bank of Finland, is a member of the NGFS Plenary.

The objective of the NGFS is to develop best practices for the identification of risks related to climate change and to enhance the role of green finance. The NGFS network is essential in formulating common definitions and promoting dialogue.

The network has structured its work into three workstreams:

- Microprudential/Supervision
- Macrofinancial
- Scaling up green finance.

In 2019, the NGFS published [recommendations](#) for central banks on, for example, the integration of climate risks in financial stability monitoring and own-portfolio management. By complying with the recommendations, central banks can both enhance their role in the greening of the financial system and manage their environment and climate-related risks. After the publication of the recommendations, the network has continued its work in the dedicated workstreams.

In summer 2019, the ‘Macrofinancial’ workstream published its first [report](#) on the systemic risks emerging from climate change. The workstream ‘Scaling up green finance’, in turn, published its first [report](#) in October 2019. This gives guidance and recommendations for central banks on the integration of sustainability considerations in their investment activities.



The Bank of Finland conducts a dialogue with the financial sector and other key stakeholders on best practices to manage the risks from climate change in the sector. Dialogue is important, as it is very challenging to assess climate risks, and best practices are always the result of joint efforts.



## Managing the Bank's environmental impact

20.3.2020

The direct environmental impacts of the Bank of Finland and the Financial Supervisory Authority are limited. The largest environmental impacts in the operations of the Bank of Finland are caused by real estate, cash supply and travel. The Bank has reduced emission levels by changing operating practices and introducing new technologies in the workplace. The Bank is engaged in environmental cooperation with other European central banks to combat climate change.

The most effective method for the Bank of Finland and the Financial Supervisory Authority to decrease their environmental impact is to improve energy efficiency. Through this, CO<sub>2</sub> emissions have declined by 40% in just over ten years. The largest environmental impacts in the operations of the Bank of Finland are caused by real estate, [cash supply](#) and travel.

As in previous years, real estate was the largest source of emissions in 2019. The heating, cooling and electricity consumption of the Bank's real estate consumes the most energy. On the other hand, these emissions have declined the most, as the need for premises has declined and energy consumption has consequently fallen.

The work of public authorities and expert organisations such as the Bank of Finland and the Financial Supervisory Authority is currently associated with a large number of international meetings. Consequently, business travel remains frequent, and the emissions from this have actually increased slightly. Air transport remains the second largest source of emissions after real estate.

The staff of the Bank of Finland and the Financial Supervisory Authority increased their use of workstation video conference systems for external contacts. With the opportunities offered by new technology, more critical consideration was given to which international meetings it is necessary to attend in person and to the number of required participants.

The Bank of Finland and the Financial Supervisory Authority monitor the environmental impact of their operations using an environmental performance indicator that is proportionate to operating expenses and takes into account the greenhouse gas emissions from energy consumption, passenger transport, procurement and waste. In 2019, the Bank created 50.64 kilograms of CO<sub>2</sub> emissions for every EUR 1,000 of operating expenses. In 2018, the corresponding figure was 59.37 kilograms of CO<sub>2</sub> emissions. The Bank has not offset its emissions by purchasing emission reduction units.

The Bank of Finland continued to cooperate with the other European central banks in environmental issues. The networks of the national central banks assess best practices and discuss the environmental challenges faced by central banks. The first central banks offset carbon emissions by purchasing emission reduction units.



## Environmental impact of cash supply

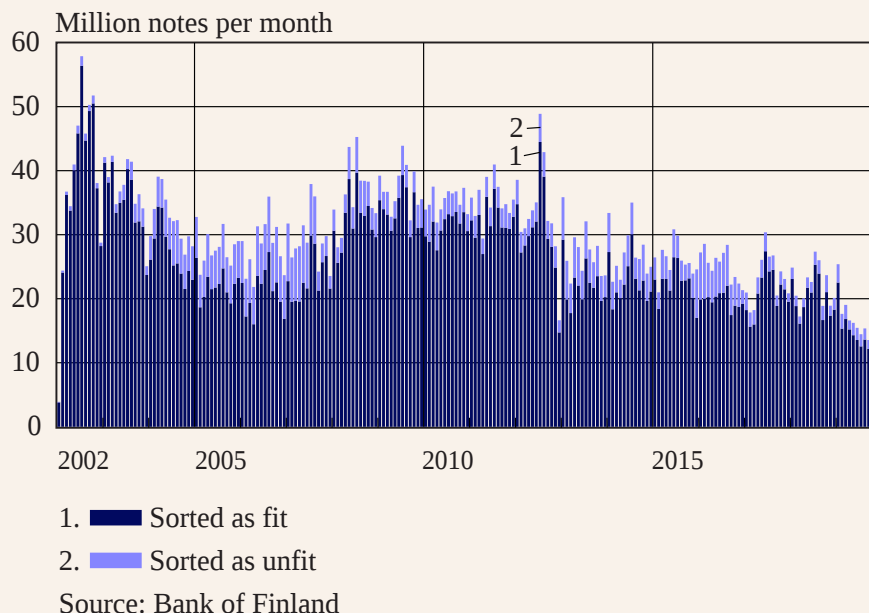
20.3.2020

The ecological impacts of cash stem from the production, distribution and use of banknotes and the destruction of unfit banknotes. For each of these, the ecological impacts differ in the material, energy and destruction processes.

The decline in the use of cash has been reflected in the sorting and destruction of banknotes by the Bank of Finland (Chart 28).

Chart 28.

### Banknotes sorted by the Bank of Finland (fit and destroyed notes)



In the Eurosystem, only central banks may destroy euro banknotes that have become unfit during circulation and replace them with new notes.

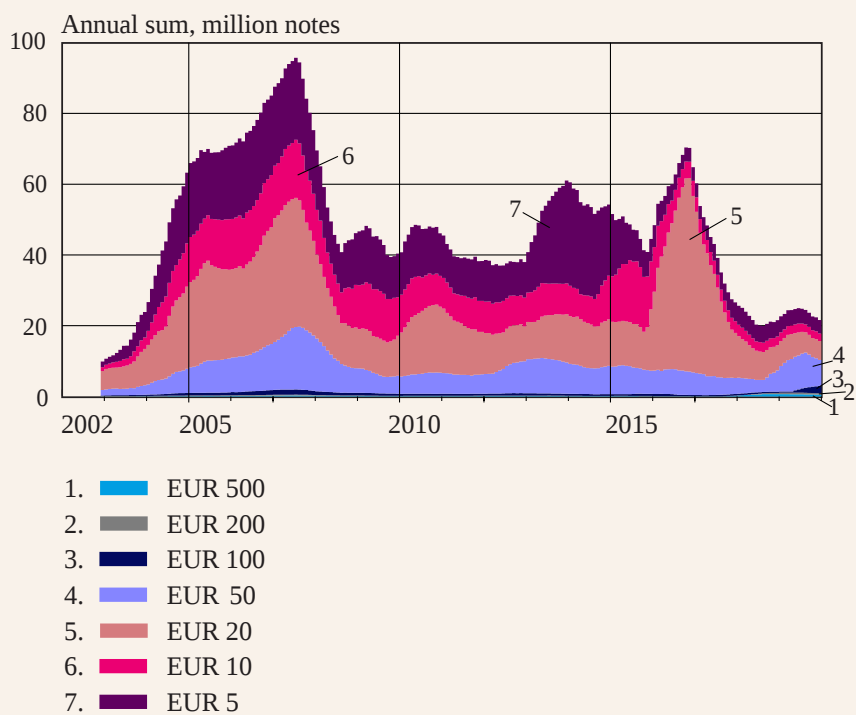
The renewal of the entire euro banknote series and the introduction of the [second series](#) starting from the end of 2013 has been gradually reflected in the destruction of the various banknote denominations (Chart 29). The changeover to the new series has progressed from the lowest to the highest denominations.

The EUR 50 was the most common note of the euro banknotes destroyed in 2019. In the second series of euro banknotes, the durability of the notes has been enhanced by the application of a protective layer of varnish. As a result, the lifespan of the euro banknotes of the smallest denominations has as much as doubled.

Cash transports and automated distribution cause some environmental impacts related to energy consumption. However, the impacts are very small when converted into CO<sub>2</sub> emissions. The Bank of Finland delivers all waste from the destruction of unfit euro banknotes to be incinerated at high temperatures that eradicate the metal compounds in the notes.

Chart 29.

### Banknotes destroyed by the Bank of Finland by banknote denominations



Source: Bank of Finland.





## Activities and strategy

20.3.2020

The Bank of Finland's vision is to be a forward-looking and effective central bank and a constructive and influential member of the Eurosystem.

The Bank of Finland is Finland's monetary authority and national central bank. It is also a member of the Eurosystem.

The Eurosystem is responsible for the monetary policy and other central banking activities of countries in the euro area and administers the use of the world's second largest currency, the euro. The primary objective of the Eurosystem and the Bank of Finland is price stability.

### **The Bank of Finland approaches its vision across a broad front**

The Bank of Finland's vision is to be a forward-looking and effective central bank and a constructive and influential member of the Eurosystem.

In realising its vision, the Bank of Finland attaches particular attention to the high quality of its expertise, the availability of competitive central bank services, the service level of the financial markets, maintenance of capital adequacy and liquidity, working processes and the wellbeing of its staff.

The key near-term challenges for the Bank of Finland relate to the monetary policy strategy, safeguarding financial stability, the payments revolution, influencing economic policy and climate change. In order to rise to these challenges and develop the Bank's operations, the Board decided in 2019 on eight key strategic projects.

## **Climate change is an important strategic theme in the area of sustainability**

Moderating climate change will require the efforts of all central banks. In 2019 this became an important theme on the chart of the Bank of Finland's strategic risks.

Sustainability is a prominent factor in all the Bank of Finland's activities. In addition to environmental impacts, in autumn 2019 the Bank assessed its activities from the angle of economic and social impacts. The result was the launch of the sustainability programme, implementation of which will continue in 2020.





## Bank of Finland in a nutshell

20.3.2020

The Bank of Finland is the national monetary authority and central bank of Finland. At the same time, it is also a part of the Eurosystem, which is responsible for monetary policy and other central bank tasks in the euro area and administers use of the world's second largest currency – the euro. The primary objective of the Eurosystem and the Bank of Finland alike is price stability.

The primary objective of the Eurosystem and the Bank of Finland is price stability, which means a moderate rise in consumer prices. The Bank of Finland has tasks relating both to Finland and to the Eurosystem.

### Bank of Finland

- prepares and implements monetary policy in Finland
- oversees the stability of the financial system and produces statistics
- conducts research and economic policy analysis
- attends to the settlement of interbank payments and investment of its own financial assets
- maintains the stability and efficiency of payment systems and issues banknotes.

[Read more on the Bank of Finland's tasks.](#)



## The Bank of Finland fosters economic stability

20.3.2020

Stable prices, secure payment systems and a reliable financial system foster sustainable economic growth, employment and the welfare of Finnish society.

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

To fulfil its vision, the Bank of Finland

1. bases its influence on expertise, reliability and research;
2. ensures the availability of competitive central banking services in Finland;
3. contributes to maintaining the service level of the financial markets and related infrastructure;
4. maintains the capital adequacy and liquidity required in performing its tasks and actualises its financial accountability towards Finnish society;
5. ensures that its working processes are of high quality, technically advanced and sustainable;
6. builds its expertise and professional competitiveness with an eye to the future at the same time as caring for the long-term wellbeing of its personnel.

## Near-term challenges for the Bank of Finland

The key near-term challenges for the Bank of Finland relate to the monetary policy strategy, safeguarding financial stability, the payments revolution and influencing economic policy. In addition, controlling climate change will also require a response from the central bank.

### *Monetary policy strategy*

The operating environment of monetary policy has changed. The slowing of productivity growth, an ageing population and the after-effects of the financial crisis have caused a strong drop in interest rates and reduced the room for manoeuvre in monetary policy. Moreover, both actual inflation and inflation expectations have fallen below the ECB's price stability objective. The threats to environmental sustainability, digitalisation, globalisation and changes in funding structures have also been reshaping the operating environment of monetary policy and its transmission to the wider economy. The challenge in reassessing the monetary policy strategy is to be able to evaluate the significance of these factors with an open mind, relying on research-derived knowledge and analysis.

### *Safeguarding financial stability*

The business models and roles of traditional banks and other actors are changing. Finland's financial markets are very international and their Nordic connections are strong. The importance of cooperation with financial authorities is expected to grow. Assessment of the effects of macroprudential policy and the development of policy instruments remain key areas in the work of safeguarding financial stability.

### *Payments revolution*

The digital revolution in payments will test authorities' expertise and ability to steer and supervise the developments in payment systems. The rapid pace of technological developments will change the field for fintech actors and banks' business models. In addition, the use of cash in payments will decline, the forms of instant payments will change and cyber risks will grow. Continuity management will also be a key issue in the payments field.

### *Economic policy influence*

From its own field of operations, the Bank of Finland contributes facts and research results to support domestic debate and political decision-making. Key themes are the outlook for the economy, structural reforms and cost-competitiveness. Within the EU, too, there is a need for structural reforms, and solutions are being sought for weaknesses in the Monetary Union.

### *Climate change*

In 2019, climate change and the response to it became an important component of the Bank of Finland's strategic risks, and sustainability perspectives are to the fore also in a broader sense in central bank operations.

## Operational development at the Bank of Finland

In June 2019, the Board of the Bank of Finland decided on eight key strategic projects and assignments for development of the Bank's operations. These represent a response to the near-term challenges facing the Bank. Most of the assignments were carried out in cooperation with the Financial Supervisory Authority (FIN-FSA).

In 2019 we also conducted an assessment of the cooperative interfaces between the Bank and the FIN-FSA. This revealed the division of labour to be appropriate, and both authorities were seen to be efficient in their use of resources.

A systematic competence analysis was performed and we established the main foci for developing the expertise within the Bank. The selected key areas were data analysis, exploitation of statistics and data, and macroprudential analysis. In future we will also continue investing in development of management and interactive skills in the workplace.

## The Bank of Finland solves challenges responsibly

In autumn 2019, the Bank of Finland assessed its operations from the perspectives of environmental, economic and social impacts. This assessment led to the launch of our sustainability programme, implementation of which will continue in 2020. The main focus will be on sustainable growth, influential application of knowledge and management of climate risks.

The Board also decided in 2019 to launch an international economic policy process. This will support and help the Governor and other Board members as well as Finland's appointed member of the IMF Board of Governors to exert an influence in international fora.

Towards the end of 2019, preparations were launched for drawing up scenarios for the Bank of Finland's operating environment and a new vision for the Bank. The time horizon for the scenarios and the vision is 2030. The preparatory work will be carried out in 2020. It is important for the Bank of Finland that it is genuinely able to serve the interests of the public and society also in the long term.

[The Bank of Finland's activities, values and strategy](#)

[Bank of Finland objectives and results framework 2017–2019](#)

[Organisation](#)

[Sustainability programme](#)





## Division of responsibilities between members of the Board

20.3.2020



GOVERNOR  
Olli Rehn

Olli Rehn is the Governor of the Bank of Finland. He has been in post since 12 July 2018. Governor Rehn is responsible for monetary policy preparation, domestic economic policy, external communications, international affairs and internal audit. The Governor is a member of the Governing Council of the European Central Bank and represents Finland on the Board of Governors of the International Monetary Fund.



DEPUTY GOVERNOR  
**Marja Nykänen**

Marja Nykänen has been a member of the Bank of Finland Board since 1 February 2017. She is responsible for financial stability issues, macroprudential policy, statistics, legal affairs, financial and personnel administration, and security and real estate issues. She also bears responsibility for the risk control of investment activities and monetary policy, the financial stability process and the activities of the Management Group of the Bank of Finland's pension fund. Ms Nykänen is also Chairman of the Board of the Financial Supervisory Authority.



## MEMBER OF THE BOARD

### Tuomas Välimäki

Tuomas Välimäki has been a member of the Bank of Finland Board since 12 July 2018. He is responsible for investment of the Bank's financial assets, monetary policy implementation, market operations, academic economic research and research on transition economies. His area of responsibility also includes cash supply and payments as well as digitalisation and IT matters.

[Read more on the Bank of Finland Board.](#)

# Bank of Finland objectives and results framework

31.12.2019

## I Influence and service capacity

Strategic guideline

**1. The Bank of Finland's influence is built on high-level expertise and research that combines both macroeconomic and financial market perspectives.**

### Quality-weighted publication index for research

**Objective** > 32

12/2017	12/2018	12/2019
<b>25</b>	<b>32</b>	<b>52</b>

Strategic guideline

**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

**Objective** > 95% of respondents satisfied

12/2017	12/2018	12/2019
<b>93%</b>	<b>92%</b>	<b>98%</b>

### Consumer satisfaction survey on the quality and availability of cash

**Objective** > 4

12/2017	12/2018	12/2019
<b>4.0</b>	<b>4.0</b>	<b>4.1</b>



Strategic guideline

### 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

Objective	Upper quartile of the benchmark group	
12/2017	12/2018	12/2019
3/12	3/12	3/12

Visits (clicks) on the Bank's websites

Objective	Rising trend	
12/2017	12/2018	12/2019
1.6 million	1.6 million	1.6 million

## II Efficient use of resources and capital

Strategic guideline

### 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.

Share of government bonds and central bank deposits of investment assets

Objective	≥ 45%	
12/2017	12/2018	12/2019
New measure	New measure	62%

Return on financial assets exceeding the central bank rate on investment currencies

Objective	> 0; 5-year moving average	
12/2017	12/2018	12/2019
0.40%	0.41%	0.47%

Strategic guideline

## 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

**Objective** Provisions are increased with the aim of ensuring a sufficiently strong balance sheet under all circumstances.

12/2017	12/2018	12/2019
<b>EUR 5,734</b>	<b>EUR 5,850</b>	<b>EUR 6,066</b>
million	million	million

### Distributed earnings

Objective	Stable profit distribution	
	12/2018	12/2019
12/2017		
<b>EUR 104.0</b>	<b>EUR 143.0</b>	<b>EUR 188.0</b>
million	million	million

Strategic guideline

## 6. The Bank of Finland is one of the most efficient central banks in the EU.

### Permanent, fixed-term and temporary employees, expressed as total full-time equivalents

**Objective** 2019: ≤ 387,9

12/2017	12/2018	12/2019
<b>379</b>	<b>370</b>	<b>372</b>

### Total departmental operating expenses

**Objective** 2019: ≤ EUR 61 millions

12/2017	12/2018	12/2019
<b>EUR 53.4</b>	<b>EUR 54.2</b>	<b>EUR 56.3</b>
million	million	million

### III Efficiency of internal processes

Strategic guideline

#### 7. The quality of the Bank of Finland's analytic and operational processes is actively enhanced.

Fulfilled criteria as set out in departmentspecific agreements on objectives and outcomes

Objective	≥ 93%
-----------	-------

12/2017	12/2018	12/2019
76%	61%	69%

Strategic guideline

#### 8. The Bank of Finland's ICT solutions enable top quality, influential work by our experts

Feedback on IT equipment and services

Objective	≥ 93% satisfied
-----------	-----------------

12/2017	12/2018	12/2019
94%	93%	92%

Accessibility of ICT in communication technology and content management services (24/7)

Objective	≥ 99%
-----------	-------

12/2017	12/2018	12/2019
99.9%	99.8%	99.9%

Number of serious disruptions

Objective	0
-----------	---

12/2017	12/2018	12/2019
0	0	0

IT innovations that have increased productivity from the departments' perspective, proportion of departments that met their targets

Objective	= 100%
-----------	--------

12/2017	12/2018	12/2019
100%	100%	100%

Strategic guideline

## 9. The activities of the Bank of Finland are environmentally sustainable

### Total emissions / operating expenses (energy use)

Objective	Falling trend	
12/2017	12/2018	12/2019
61.2 kg CO <sub>2</sub> - emissions/energy use	59.4 kg CO <sub>2</sub> - emissions/energy use	50,6 kg CO <sub>2</sub> - emissions/energy use

## IV Building the future

Strategic guideline

## 10. The Bank of Finland raises the expertise and professional competence of its staff.

### Annual implementation of personal development plans

Objective	Over 80% of plans turn out well	
12/2017	12/2018	12/2019
85%	88%	80%

### Education level index

Objective	> 6.1	
12/2017	12/2018	12/2019
6.2	6.3	6.3

## 11. The Bank of Finland cares for the long-term wellbeing of its staff.

### Leadership index exceeds external benchmark group result

**Objective** 2017:  $\geq 3.8$ ; 2018:  $\geq 3.7$ ; 2019:  $\geq 71.4$   
\*Change in personnel survey provider and rating scale.

12/2017	12/2018	12/2019
<b>3.9</b>	<b>3.8</b>	<b>70.8*</b>

### Employee satisfaction index exceeds external benchmark group result

**Objective** 2017:  $\geq 3.5$ ; 2019:  $\geq 70.6$  \*Change in personnel survey provider and rating scale.

12/2017	12/2018	12/2019
<b>3.6</b>	-	<b>70.9</b>

### Proportion of the minority gender relative to the total number of supervisory staff

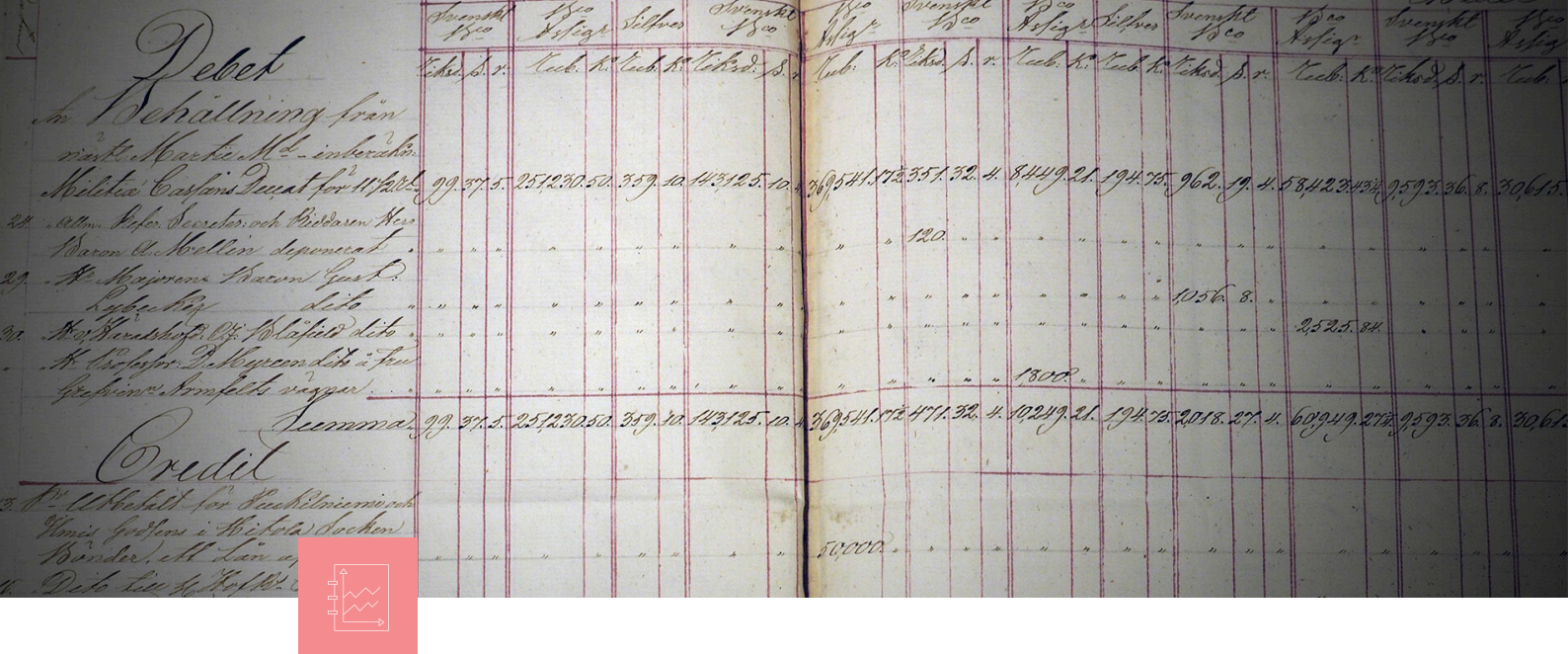
**Objective** Rising trend

12/2017	12/2018	12/2019
<b>36%</b>	<b>34%</b>	<b>42%</b>

### Sick leave absences

**Objective** Below 3.5%

12/2017	12/2018	12/2019
<b>2.6%</b>	<b>3.3%</b>	<b>2.4%</b>



## Financial Statements

31.12.2019

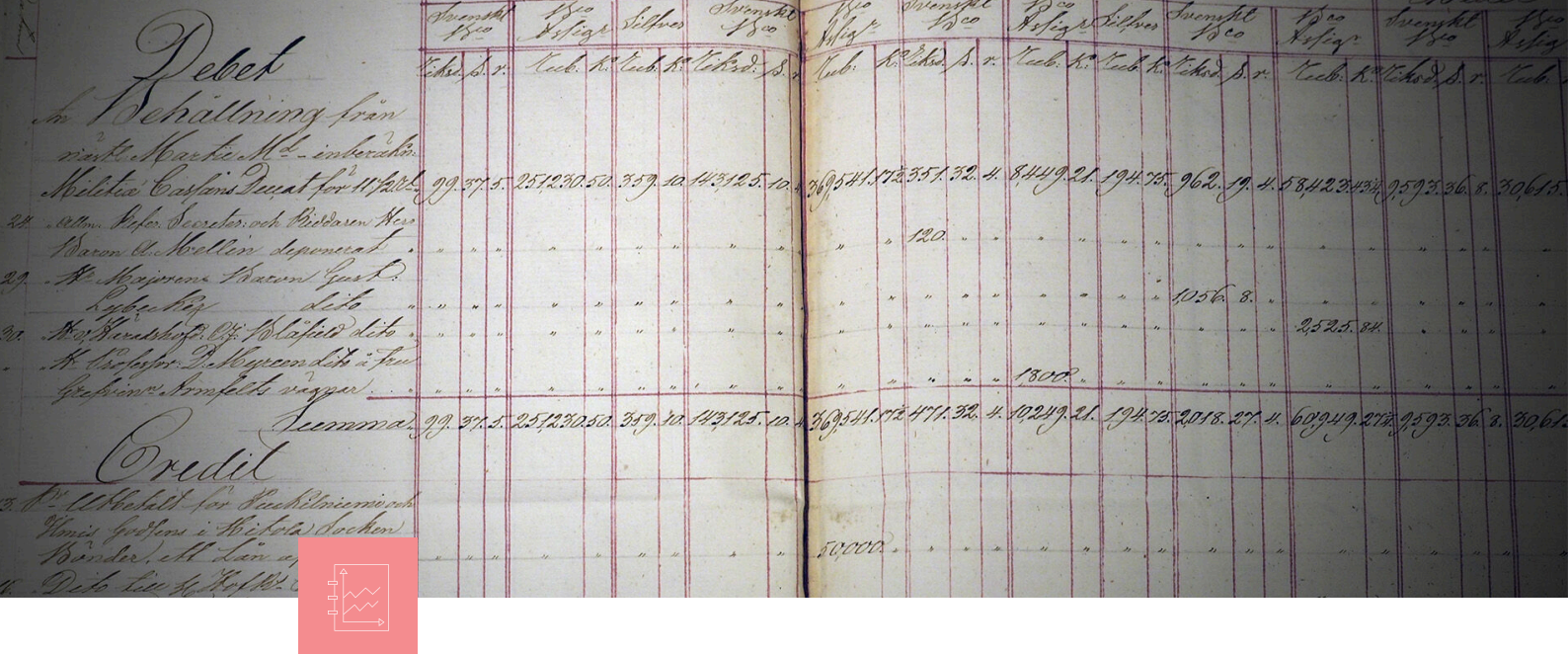
The Bank of Finland's audited profit for the financial year 2019 totals EUR 320 million. According to the Act on the Bank of Finland, half of the Bank's profit shall be transferred to the reserve fund and the remaining profit made available for use by the State. However, the Act allows for an exceptional profit distribution if justified by the Bank's financial condition or the size of the reserve fund.

The Bank of Finland's income consists primarily of interest income on banknotes and the Eurosystem's monetary policy items, investment income on foreign reserves and other financial assets of the Bank as well as the Bank's share in the ECB's profit that the ECB allocates to the euro area central banks. Net interest income amounted to EUR 755 million in 2019 (2018: EUR 697 million). Of this, EUR 589 million was earned on monetary policy items, the most significant of which was the negative interest rate charged on commercial bank deposits. However, the major part of the increase in net interest income was due to higher income on foreign reserve assets.

A general provision totalling EUR 50 million was made against risks arising from the conduct of central banking activities. The Bank of Finland's income covers its operating expenses and provisions. Operating expenses net of banknote production services and an additional pension fund contribution amounted to EUR 99 million in 2019 (2018: EUR 97 million).

— [Bank of Finland's press release on 20 Mar 2020: Bank of Finland to transfer EUR 188 million to the State](#)





## Balance sheet

31.12.2019

EUR million		31 Dec 2019	31 Dec 2018
<b>ASSETS</b>			
1	Gold and gold receivables	2,135	1,767
2	Claims on non-euro area residents denominated in foreign currency	7,932	7,116
	Receivables from the International Monetary Fund (IMF)	1,961	1,905
	Balances with banks and security investments, external loans and other external assets	5,971	5,211
3	Claims on euro area residents denominated in foreign currency	325	478
4	Claims on non-euro area residents denominated in euro	227	777
5	Lending to euro area credit institutions related to monetary policy operations denominated in euro	4,648	8,648
6	Other claims on euro area credit institutions denominated in euro	1	4
7	Securities of euro area residents denominated in euro	47,789	48,182
	Securities held for monetary policy purposes	45,946	45,496
	Other securities	1,843	2,687

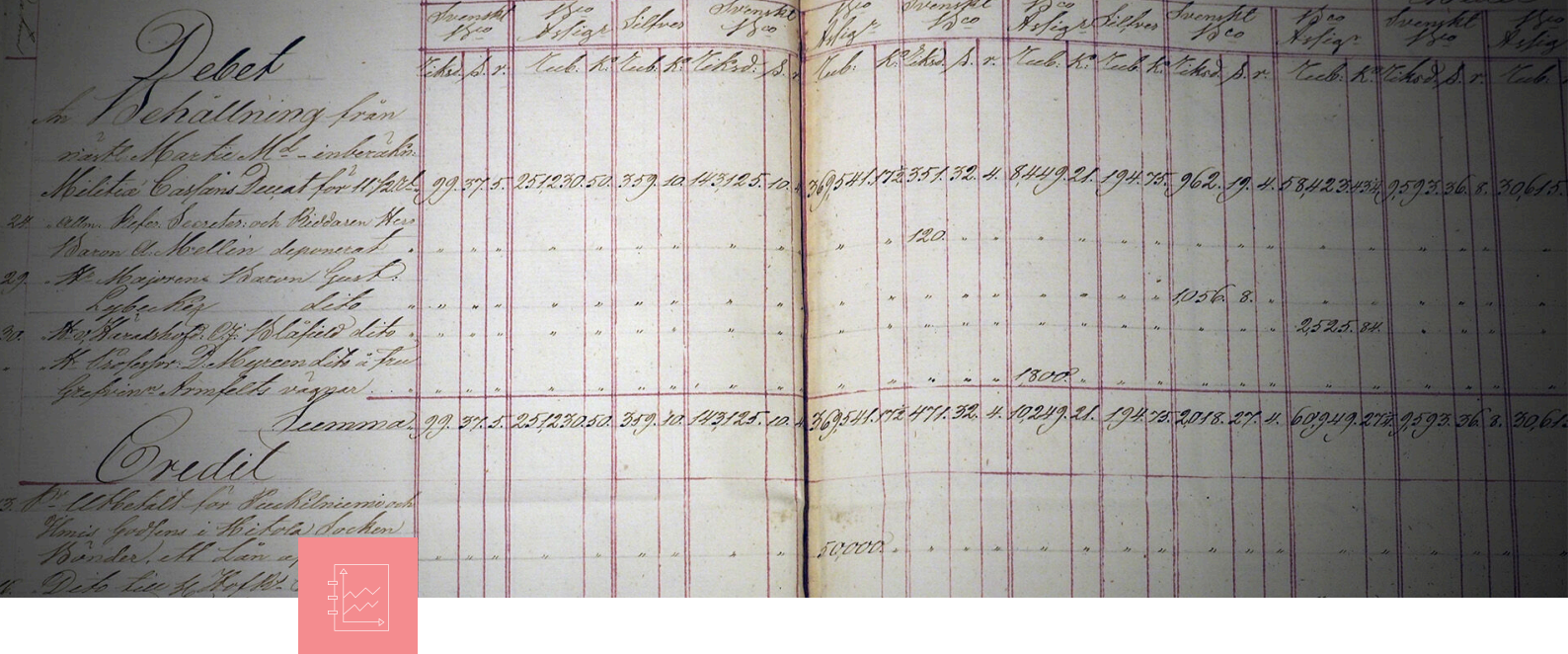


EUR million		31 Dec 2019	31 Dec 2018
<b>ASSETS</b>			
8	Intra-Eurosystem claims	62,604	44,513
	Participating interest in ECB	159	144
	Claims equivalent to the transfer of foreign reserves	736	728
	Net claims related to the allocation of euro banknotes within the Eurosystem	4,908	4,035
	Other claims within the Eurosystem (net)	56,800	39,606
9	Other assets	591	760
	Coins of euro area	33	27
	Tangible and intangible fixed assets	111	118
	Other current assets	36	112
	Sundry	411	503
	<b>Total assets</b>	<b>126,250</b>	<b>112,246</b>

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

EUR million		31 Dec 2019	31 Dec 2018
<b>LIABILITIES</b>			
1	Banknotes in circulation	21,712	20,215
2	Liabilities to euro area credit institutions related to monetary policy operations denominated in euro	90,403	76,933
	Current accounts (covering the minimum reserve system)	65,127	61,719
	Deposit facility	25,276	15,214
3	Other liabilities to euro area credit institutions denominated in euro	1	–

EUR million		31 Dec 2019	31 Dec 2018
<b>LIABILITIES</b>			
4	Liabilities to other euro area residents denominated in euro	158	600
5	Liabilities to non-euro area residents denominated in euro	1,376	2,989
6	Liabilities to euro area residents denominated in foreign currency	–	–
7	Liabilities to non-euro area residents denominated in foreign currency	–	–
8	Counterpart of special drawing rights allocated by the IMF	1,468	1,446
9	Intra-Eurosystem liabilities	–	–
10	Other liabilities	47	72
11	Revaluation accounts	3,268	2,470
12	Provisions	4,757	4,636
13	Capital and reserves	2,741	2,654
	Primary capital	841	841
	Reserve fund	1,900	1,813
14	Profit for the financial year	320	230
	<b>Total liabilities</b>	<b>126,250</b>	<b>112,246</b>



## Profit and loss account

31.12.2019

EUR million		1 Jan–31 Dec 2019	1 Jan–31 Dec 2018
1	Interest income	797	724
2	Interest expenses	-41	-27
3	NET INTEREST INCOME	755	697
4	Foreign exchange rate differences	3	11
5	Securities price differences	26	-90
6	Valuation losses related to currencies and securities	-3	-31
7	Change in foreign exchange rate and price difference provision	-24	41
	NET RESULT OF FINANCIAL OPERATIONS, WRITE-DOWNS AND RISK PROVISIONS	757	628
8	Income and expenses on fees and commissions	-4	-4
9	Net result of pooling of monetary income	-293	-242
10	Provision against losses in monetary policy operations	1	-2
11	Share in ECB profit	7	5

EUR million		1 Jan–31 Dec 2019	1 Jan–31 Dec 2018
12	Income from other equity shares and participating interests	29	25
	CENTRAL BANKING PROFIT	497	410
13	Other income	42	35
	Operating expenses	-114	-109
14	Staff costs	-54	-48
15	Pension fund contribution	-10	-10
16	Administrative expenses	-35	-38
17	Depreciation of fixed assets	-9	-12
18	Banknote production services	-6	-2
19	Other expenses	-0	-0
	OPERATING PROFIT	425	335
	Profit for the pension fund	–	–
20	Income of the pension fund	30	30
21	Expenses of the pension fund	-30	-30
22	Changes in provisions	-105	-105
23	PROFIT FOR THE FINANCIAL YEAR	320	230

25.2.2020

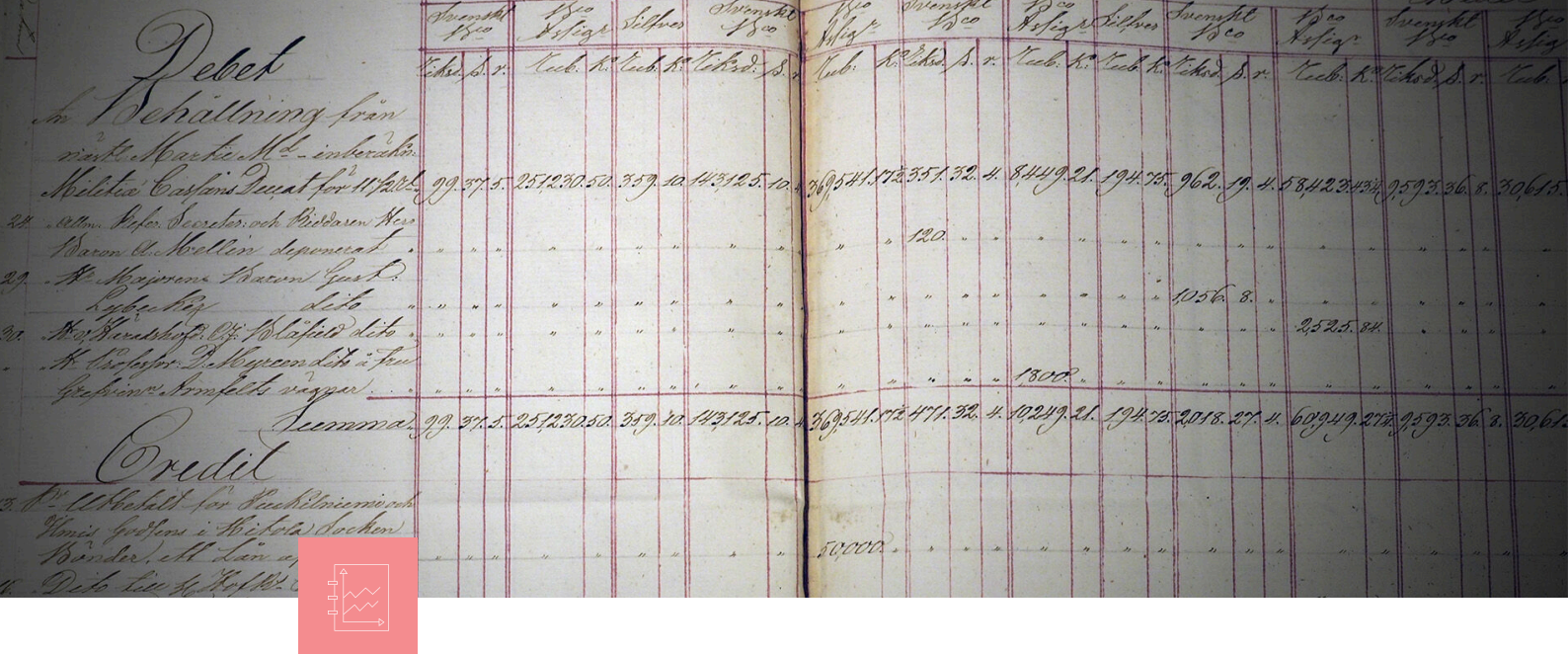
Helsinki, 25 February 2020

Marja Nykänen, Vice Chairperson

Kimmo Virolainen

./ Jutta Koivisto





# Accounting conventions

31.12.2019

## 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 ECB guideline on accounting and financial reporting does not regulate accounting for the pension fund.

## 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. No distinction is made between the price and currency revaluation differences for gold. Instead, a single gold valuation 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.

Currency	31 Dec 2019	31 Dec 2019
US dollar	1.1234	1.1450
Japanese yen	121.9400	125.8500
Swedish krona	10.4468	10.2548
Swiss franc	1.0854	1.1269
Pound sterling	0.8508	0.8945
Canadian dollar	1.4598	1.5605
Special Drawing Rights (SDR)	0.8104	0.8228
Gold	1,354.1040	1,120.9610

## 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 debt securities is entered as income or expense over the maturity of the security. Gains and losses related to movements in the prices of debt securities are calculated on the basis of 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 outward loans on the assets side of the balance sheet. Repurchase agreements, or repos, are recorded as collateralised inward deposits on the liabilities side of the balance sheet. Securities sold under repurchase agreements remain on the Bank's balance sheet.

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

Debt securities currently held for monetary policy purposes are accounted for at amortised cost (subject to impairment).

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

Marketable securities and similar assets are valued either at the mid-market prices or on the basis of the relevant yield curve prevailing on the balance sheet date, on a security-by-security basis. For 2019, mid-market prices on 31 December 2019 were used.

In 2019, the ECB guideline on accounting and financial reporting was clarified in respect of marketable investment funds. <sup>1)</sup> Marketable investment funds are valued at market prices on a net fund basis and not on the basis of the underlying assets provided that they meet certain predetermined criteria, broadly speaking in relation to the level of influence of the Bank of Finland on the day-to-day operations of the fund, the legal status of the fund and the way the investment is evaluated. There is no netting between the revaluation results of different marketable investment funds. As a result of the clarification of the guideline, the Bank of Finland's investments in real estate funds were transferred from the balance sheet item 9. 'Other current assets' to the balance sheet item 7. 'Other securities'. There were no changes to the valuation method used for real estate funds; they are valued on the basis of the last available price, and the prices are reviewed in January when the funds report the prices on the balance sheet date.

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

Intra-Eurosystem balances result primarily 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 settled in TARGET2<sup>2)</sup> and give rise to bilateral balances in the TARGET2 accounts of EU central banks. These bilateral balances are netted and 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 (e.g. interim ECB 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)’ or ‘Other liabilities 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 claims arising from the Bank of Finland’s participating interest in the ECB are reported under ‘Participating interest in ECB’. This balance sheet item includes (i) the NCBs’ paid-up share in the ECB’s subscribed capital, (ii) any net amount paid by the NCBs due to the increase in their shares in the ECB’s equity value<sup>3)</sup> resulting from all previous ECB’s capital key adjustments, and (iii) contributions in accordance with Article 48.2 of the Statute of the ESCB with respect to central banks of Member States whose derogations have been abrogated.

Intra-Eurosystem claims arising from the transfer of foreign reserve assets to the ECB by the Bank of Finland at the time of joining the Eurosystem are denominated in euro and reported under ‘Claims equivalent to the transfer of foreign reserves’.

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).

## 5. Valuation of fixed assets

Fixed assets are valued at initial cost less depreciation. Depreciation is calculated on a straight-line basis over the expected economic lifetime of an asset, beginning in the calendar month following acquisition.

The counteritem of buildings and land capitalised in the 1999 balance sheet at market prices is the revaluation account. Depreciation in respect of buildings has been entered by adjusting the revaluation account downwards so that depreciation has no impact on the Bank of Finland's profit and loss account.

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 euro area NCBs, which together comprise the Eurosystem, issue euro banknotes.<sup>4)</sup> The total value of euro banknotes in circulation is allocated to the Eurosystem central banks on the last working day of each month in accordance with the banknote allocation key.<sup>5)</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 their weightings in the capital key of the ECB. The share of banknotes allocated to each NCB is disclosed in the balance sheet under liability item 'Banknotes in circulation'. The difference between the value of the euro banknotes allocated to each NCB in accordance with the banknote allocation key and the value of the euro banknotes that it actually puts into circulation also gives rise to remunerated<sup>6)</sup> intra-Eurosystem balances. These claims or liabilities are disclosed under the sub-item 'Intra-Eurosystem claims/liabilities: Net claims/liabilities related to the allocation of euro banknotes within the Eurosystem'. In the Bank of Finland's balance sheet, the item is on the assets side.

The seigniorage income on euro banknotes is allocated in proportion to the NCBs' paid-up shares in the ECB's capital. The interest income and expense on these balances is cleared through the accounts of the ECB and is disclosed under 'Net interest income'.

## 7. Interim profit distribution by the ECB

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, as well as the income arising from the securities held under (a) the Securities Markets Programme (SMP), (b) the third covered bond purchase programme (CBPP3), (c) the asset-backed securities purchase programme (ABSPP) and (d) the public sector purchase programme (PSPP) is distributed in January of the following year by means of an interim profit distribution, unless otherwise decided by the Governing Council.<sup>21</sup> It is distributed in full unless it is higher than the ECB's net profit for the year, and subject to any decisions by the Governing Council to make transfers to the provision for financial risks.

The Governing Council may also decide to reduce the amount of the income on euro banknotes in circulation to be distributed in January by the amount of the costs incurred by the ECB in connection with the issue and handling of euro banknotes. The amount distributed to NCBs is disclosed in the profit and loss account under 'Income from equity shares and participating interests'.

Key for subscription of the ECB's capital from 1 January 2019	ESCB, capital key, %	Eurosystem, capital key, %
Nationale Bank van België/Banque Nationale de Belgique	2.5280	3.6313
Deutsche Bundesbank	18.3670	26.3827
Eesti Pank	0.1968	0.2827
Central Bank of Ireland	1.1754	1.6884
Bank of Greece	1.7292	2.4839
Banco de España	8.3391	11.9784
Banque de France	14.2061	20.4059
Banca d'Italia	11.8023	16.9530
Central Bank of Cyprus	0.1503	0.2159
Latvijas Banka	0.2731	0.3923
Lietuvos bankas	0.4059	0.5830
Banque centrale du Luxembourg	0.2270	0.3261
Central Bank of Malta	0.0732	0.1051
De Nederlandsche Bank	4.0677	5.8429
Oesterreichische Nationalbank	2.0325	2.9195
Banco de Portugal	1.6367	2.3510
Banka Slovenije	0.3361	0.4828
Národná banka Slovenska	0.8004	1.1497
Suomen Pankki – Finlands Bank	1.2708	1.8254
<b>Subtotal Eurosystem</b>	<b>69.6176</b>	<b>100.0000</b>
Bulgarian National Bank	0.8511	
Česká národní banka	1.6172	
Danmarks Nationalbank	1.4986	

Key for subscription of the ECB's capital from 1 January 2019	ESCB, capital key, %	Eurosystem, capital key, %
Hrvatska narodna banka	0.5673	
Magyar Nemzeti Bank	1.3348	
Narodowy Bank Polski	5.2068	
Banca Națională a României	2.4470	
Sveriges Riksbank	2.5222	
Bank of England	14.3374	
<b>Subtotal for non-euro area NCBs</b>	<b>30.3824</b>	
<b>Total</b>	<b>100.0000</b>	

## 8. 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 at the beginning of 2002, was to ensure that the funds related to the coverage of the pension liability are invested in a lucrative manner. Since 2017, the pension fund's investment assets have been managed as part of the Bank of Finland's financial assets, and its assets are included in the Bank's balance sheet. A separate annual report is prepared on the Bank of Finland's pension fund.

The pension fund's real estate is recorded in the balance sheet at value prevailing on transfer date less annual depreciation. If the balance sheet value of real estate has been covered by revaluation, the corresponding depreciation is recorded by reversing the revaluation so that depreciation has no impact on the Bank of Finland's profit and loss account.

## 9. 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 the market value of securities. Provisions can also be made, as necessary, to cover the Bank's pension liability.

## 10. Off-balance sheet commitments

Profits and losses arising from off-balance sheet instruments are treated in the same way as profits and losses arising from on-balance sheet instruments. Foreign exchange forward transactions are taken into account in calculating the net average cost of the currency position.

## 11. Changes in accounting conventions

There were no changes in accounting conventions in the financial year 2019.

---

1) Guideline (EU) 2019/2217 of the European Central Bank of 28 November 2019 amending Guideline (EU) 2016/2249 on the legal framework for accounting and financial reporting in the European System of Central Banks (ECB/2019/34), OJ L 332, 23.12.2019, p. 184.

2) Trans-European Automated Real-time Gross settlement Express Transfer system.

3) Equity value means the total of the ECB's reserves, revaluation accounts and provisions equivalent to reserves, minus any loss carried forward from previous periods. In the event of capital key adjustments taking place during the financial year, the equity value also includes the ECB's accumulated net profit or net loss until the date of the adjustment.

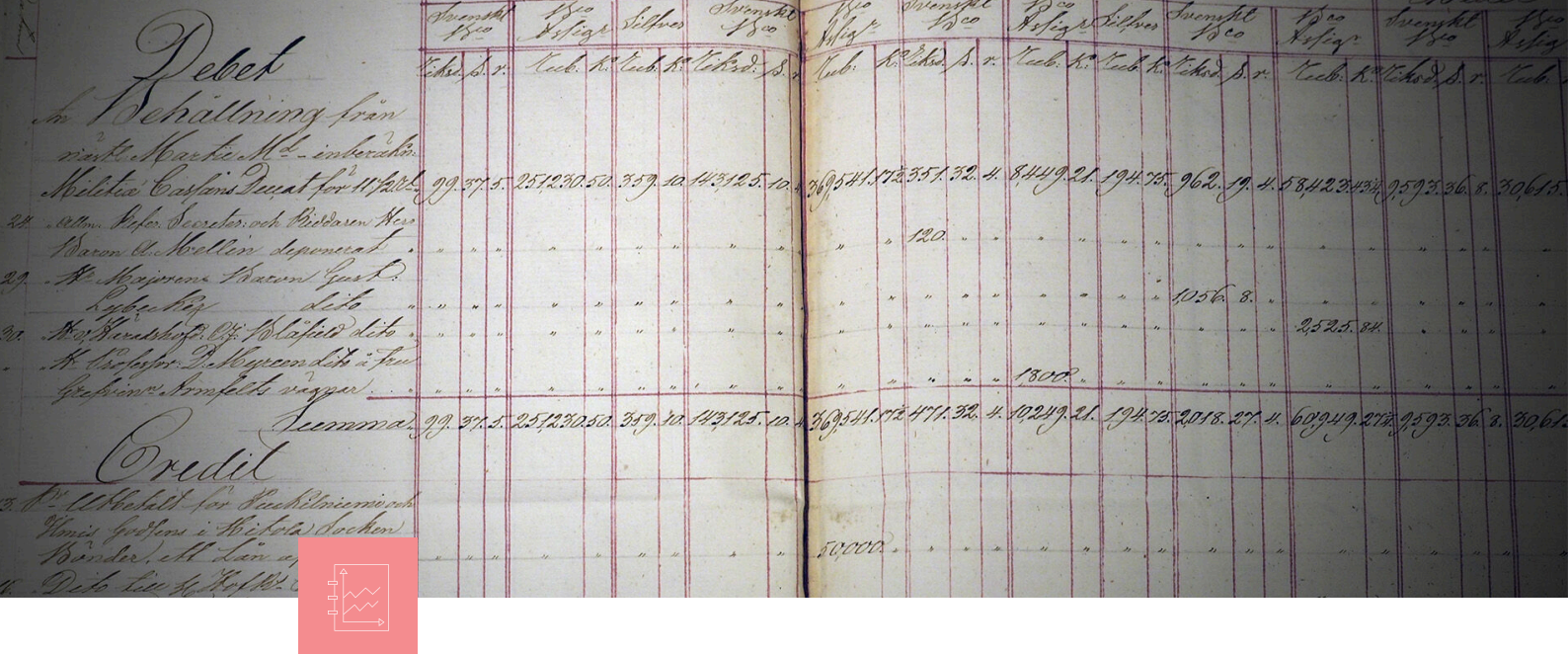
4) Decision of the European Central Bank of 13 December 2010 on the issue of euro banknotes (ECB/2010/29), OJ L 35, 9.2.2011, p. 26.

5) '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 such total.

6) ECB Decision of 3 November 2016 on the allocation of monetary income of the national central banks of Member States whose currency is the euro (recast) (ECB/2016//36).

7) Decision (EU) 2015/298 of the European Central Bank of 15 December 2014 on the interim distribution of the income of the European Central Bank (ECB/2014/57) (recast), OJ L 53, 25.2.2015, p. 24 (as amended).





## Notes on the balance sheet

31.12.2019

### Assets

#### 1. Gold and gold receivables

The Bank of Finland'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 – and the other NCBs participating in the Eurosystem – transferred about 20% of its gold holdings to the ECB.

Gold	31 Dec 2019	31 Dec 2018
Holdings (troy ounces, million)	1.6	1.6
Price: EUR per troy ounce	1,354.1	1,121.0
Market price (EUR m)	2,134.7	1,767.2
Change in market value (EUR m)	367.5	61.6

## 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 International Monetary Fund (IMF)

Breakdown of receivables from the IMF	31 Dec 2019		31 Dec 2018	
	EUR m	SDR m	EUR m	SDR m
Reserve tranche in the IMF	494.5	400.7	417.9	343.8
Special Drawing Rights (SDRs)	1,387.5	1,124.5	1,363.4	1,121.8
Other receivables from the IMF	79.0	64.3	124.0	102.0
<b>Total</b>	<b>1,961.0</b>	<b>1,589.5</b>	<b>1,905.3</b>	<b>1,567.6</b>

EUR/SDR exchange rate in financial years 2018 and 2019	2019	2018
End-March	0.8092	0.8474
End-June	0.8186	0.8282
End-September	0.7996	0.8297
End-December	0.8104	0.8228

Finland's quota in the IMF is SDR 2,410.6 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 1,387.5 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 the sub-item changes on the basis of foreign exchange transactions between the member countries. It is also 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 1,961.0 million.

## 2.2 Balances with banks and security investments, external loans and other external assets

This item includes foreign currency-denominated deposits and security investments as well as external loans and other external assets.

Breakdown of claims on non-euro area residents denominated in foreign currency	31 Dec 2019	31 Dec 2018	Change
	EUR m	EUR m	EUR m
Deposits	101.5	108.3	-6.8
Coupon papers	4,954.4	4,408.0	546.4
Discount papers	2.9	–	2.9
Other	911.8	694.4	217.4
<b>Total</b>	<b>5,970.6</b>	<b>5,210.8</b>	<b>759.8</b>

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

	31 Dec 2019		31 Dec 2018	
Currency	EUR m	%	EUR m	%
Pound sterling	490.1	9.9	463.4	10.5
US dollar	4,279.9	86.3	3,773.0	85.6
Japanese yen	187.2	3.8	171.6	3.9
Total	4,957.3	100.0	4,408.0	100.0

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

	31 Dec 2019		31 Dec 2018	
Maturity	EUR m	%	EUR m	%
Up to 1 year	759.0	15.3	657.0	14.9
Over 1 year	4,198.3	84.7	3,751.0	85.1
Total	4,957.3	100.0	4,408.0	100.0

### 3. Claims on euro area residents denominated in foreign currency

This item consists of foreign currency-denominated deposits and securities, as well as other claims on euro area residents.

Breakdown of claims on euro area residents denominated in foreign currency	31 Dec 2019	31 Dec 2018	Change
	EUR m	EUR m	EUR m
Coupon papers	332.8	538.0	-205.2
Other	-8.1	-59.7	51.6
<b>Total</b>	<b>324.7</b>	<b>478.3</b>	<b>-153.6</b>

Currency breakdown of securities of euro area residents denominated in foreign currency				
	31 Dec 2019		31 Dec 2018	
Currency	EUR m	%	EUR m	%
Pound sterling	185.8	55.8	146.5	27.2
US dollar	147.0	44.2	391.5	72.8
<b>Total</b>	<b>332.8</b>	<b>100.0</b>	<b>538.0</b>	<b>100.0</b>

Remaining maturity of securities of euro area residents denominated in foreign currency				
	31 Dec 2019		31 Dec 2018	
Maturity	EUR m	%	EUR m	%
Up to 1 year	124.6	37.4	322.0	59.8
Over 1 year	208.2	62.6	216.0	40.2
<b>Total</b>	<b>332.8</b>	<b>100.0</b>	<b>538.0</b>	<b>100.0</b>

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

This item includes euro-denominated deposits with non-euro area counterparties, securities issued outside the euro area and other euro-denominated claims.

Claims on non-euro area residents denominated in euro	31 Dec 2019	31 Dec 2018	Change
	EUR m	EUR m	EUR m
Deposits	–	19.1	-19.1
Coupon papers	226.8	753.9	-527.1
Other	–	4.4	-4.4
<b>Total</b>	<b>226.8</b>	<b>777.3</b>	<b>-550.5</b>

Remaining maturity of securities of non-euro area residents denominated in euro				
	31 Dec 2019		31 Dec 2018	
Maturity	EUR m	%	EUR m	%
Up to 1 year	47.0	20.7	282.4	37.5
Over 1 year	179.8	79.3	471.4	62.5
<b>Total</b>	<b>226.8</b>	<b>100.0</b>	<b>753.9</b>	<b>100.0</b>

## 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 total Eurosystem holding of monetary policy assets amounts to EUR 624,233 million, of which the Bank of Finland holds EUR 4,648.3 million. In accordance with Article 32.4 of the ESCB Statute, losses from monetary policy operations, if they were to materialise, are 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. 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 (MROs) are executed through liquidity providing reverse transactions with a frequency and a maturity of one week, on the basis of standard tenders. MROs are conducted as fixed rate tender procedures. These operations play a key role in achieving the aims of steering interest rates, managing market liquidity and signalling the monetary policy stance.

## **5.2 Longer-term refinancing operations**

These operations (LTROs) aim to provide counterparties with additional longer-term refinancing. In 2019 operations were conducted with maturities equal to the reserve maintenance period and with maturities between 3 and 48 months. These operations were conducted at fixed rate with allotment of the total amount bid.

In 2016 the Governing Council introduced a new series of four targeted longer-term refinancing operations (TLTRO II). These operations have a four-year maturity, with a possibility of repayment after two years. Additionally, in 2019 the Governing Council introduced a new series of seven quarterly targeted longer-term refinancing operations (TLTRO III). These operations have a three-year maturity, with a possibility of repayment after two years. According to the decisions taken by the Governing Council, the final interest rate applicable to each TLTRO III operation can be as low as the average interest rate on the deposit facility prevailing over the life of the operation. Given that the rate for accruing interest will only be known starting from 2021 and that a reliable estimate is not possible until that time, the deposit facility rate is used for calculating the TLTRO III interest for 2019, as this was deemed a prudent approach.

## **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**

These are reverse open-market transactions through standard tenders to enable the Eurosystem to adjust its structural liquidity position vis-à-vis the financial sector.

## **5.5 Marginal lending facility**

Marginal lending facilities may be used by counterparties to obtain overnight liquidity from NCBs at a pre-specified interest rate 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 2019 EUR m	31 Dec 2018 EUR m	Change EUR m
Main refinancing operations	–	–	–
Longer-term refinancing operations	4,648.3	8,648.3	-4,000.0
Fine-tuning reverse operations	–	–	–
Structural reverse operations	–	–	–
Marginal lending facility	–	–	–
Credits related to margin calls	–	–	–
Total	4,648.3	8,648.3	-4,000.0

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

This item consists of euro-denominated deposits and accounts with euro area credit institutions.

Other claims on euro area credit institutions denominated in euro	31 Dec 2019	31 Dec 2018	Change
	EUR m	EUR m	EUR m
Current accounts	0.6	0.0	0.5
Reverse repurchase agreements	–	–	–
Emergency Liquidity Assistance (ELA)	–	–	–
Other	–	3.8	-3.8
<b>Total</b>	<b>0.6</b>	<b>3.8</b>	<b>-3.3</b>

On 17 May 2017, the Governing Council decided to publish the text of the Emergency Liquidity Assistance (ELA) agreement with the aim of further increasing transparency regarding ELA. This publication replaces the ELA procedures document that has been available on the ECB website since October 2013. For the text of the press release, click on: <http://www.ecb.europa.eu/press/pr/date/2017/html/ecb.pr170619.en.html>.

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

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

### 7.1 Securities held for monetary policy purposes

As at 31 December 2019 this item consisted of securities acquired by the Bank of Finland within the scope of the three covered bond purchase programmes <sup>1)</sup>, the Securities Markets Programme (SMP) <sup>2)</sup>, the public sector purchase programme (PSPP) <sup>3)</sup> and the corporate sector purchase programme (CSPP) <sup>4)</sup>.

Purchases under the first covered bond purchase programme (CBPP1) were completed on 30 June 2010, while the second covered bond purchase programme (CBPP2) ended on 31 October 2012. The Governing Council decided to cease further SMP purchases on 6 September 2012.

On 1 November 2019 the Eurosystem restarted its net purchases of securities under the asset purchase programme (APP) [5](#) at a monthly pace of EUR 20 billion on average. This followed a period of ten months since end-2018 during which the Eurosystem only reinvested, in full, the principal payments from maturing securities purchased under the APP. The Governing Council expects net purchases to run for as long as necessary to reinforce the accommodative impact of its policy rates, and to end shortly before it starts raising the key ECB interest rates. The Governing Council also intends to continue the reinvestments for an extended period of time past the date when the Governing Council starts raising the key ECB interest rates, and in any case for as long as necessary to maintain favourable liquidity conditions and an ample degree of monetary accommodation.

The securities purchased under all of these programmes are valued on an amortised cost basis subject to impairment (see ‘Valuation and amortisation of securities’ in the notes on accounting conventions).

The amortised cost of the securities held by the Bank of Finland, as well as their market value [6](#) (which is not recorded on the balance sheet or in the profit and loss account and is provided for comparison purposes only), are as follows:

Securities held for monetary policy purposes	31 Dec 2019		31 Dec 2018		Change	
	EUR m Balance sheet value	EUR m Market value	EUR m Balance sheet value	EUR m Market value	EUR m Balance sheet value	EUR m Market value
First covered bond purchase programme (CBPP1)	–	–	–	–	–	–
Second covered bond purchase programme (CBPP2)	15.0	16.2	97.0	99.0	-82.1	-82.8
Third covered bond purchase programme (CBPP3)	7,409.2	7,563.2	6,697.3	6,760.2	711.9	803.0
Securities Markets Programme (SMP)	617.4	668.5	1,079.9	1,159.3	-462.5	-490.8
Public sector asset purchase programme (PSPP sovereign)	28,629.7	30,038.8	28,308.3	28,673.0	321.4	1,365.8
Public sector asset purchase programme (PSPP supra)	3,017.0	3,176.6	3,175.9	3,194.1	-158.8	-17.5
Corporate sector purchase programme (CSPP)	6,257.9	6,491.5	6,137.3	6,080.9	120.6	410.6
<b>Total</b>	<b>45,946.2</b>	<b>47,954.8</b>	<b>45,495.6</b>	<b>45,966.5</b>	<b>450.6</b>	<b>1,988.3</b>

The Governing Council assesses on a regular basis the financial risks associated with the securities held under these programmes. Impairment tests are conducted on an annual basis, using data as at the year-end and are approved by the Governing Council. In these tests, impairment indicators are assessed separately for each programme.

In accordance with Article 32.4 of the ESCB Statute, losses from holdings of securities purchased under the SMP, CBPP3 and CSPP as well as securities of supranational organisations (supra) purchased under the PSPP, if they were to materialise, are shared in full by the Eurosystem NCBs, in proportion to their prevailing ECB capital key shares. As a result of impairment tests conducted on the CSPP portfolio, the Governing Council has deemed it appropriate to maintain a buffer against credit risks in monetary policy operations during 2019 (see 'Provisions' in the notes on the balance sheet).

In the context of the impairment test conducted as at the end of 2019 on securities purchased under the CBPP3 programme, the Governing Council identified one impairment indicator in particular, relating to the holdings of a security issued by a credit institution which continued to encounter significant financial difficulties in 2019. The Governing Council considered that the identified impairment indicators had not affected the estimated future cash flows. No impairment losses were therefore recorded at the year-end on the Bank of Finland's securities purchased under the CBPP3 programme. Furthermore, no impairment losses were recorded in respect of the other securities purchased under the CBPP3 programme.

The following table shows, for each programme, total holdings of Eurosystem NCBs and the Bank of Finland's share held on the balance sheet.

Securities held for monetary policy purposes	Held by NCBs		On the Bank of Finland's balance sheet	
	31 Dec 2019 EUR m	31 Dec 2018 EUR m	31 Dec 2019 EUR m	31 Dec 2018 EUR m
Securities Markets Programme (SMP)	44,215.8	67,654.0	617.4	1,079.9
Third covered bond purchase programme (CBPP3)	241,933.8	240,655.9	7,409.2	6,697.3
Public sector asset purchase programme (PSPP supra)	225,169.2	224,506.5	3,017.0	3,175.8
Corporate sector purchase programme (CSPP)	184,505.4	178,050.3	6,257.9	6,137.3
<b>Total</b>	<b>695,824.2</b>	<b>710,866.7</b>	<b>17,301.5</b>	<b>17,090.3</b>

## 7.2 Other securities

This item includes coupon bonds and discount papers issued in the euro area as well as fund shares.

Breakdown of other securities of euro area residents denominated in euro	31 Dec 2019	31 Dec 2018	Change
	EUR m	EUR m	EUR m
Coupon papers	528.7	1,554.1	-1,025.4
Discount papers	110.0	377.1	-267.1
Fund investments	1,204.0	755.4	448.6
<b>Total</b>	<b>1,842.7</b>	<b>2,686.6</b>	<b>-843.9</b>

Remaining maturity of other securities of euro area residents denominated in euro	31 Dec 2019		31 Dec 2018	
Maturity	EUR m	%	EUR m	%
Up to 1 year	233.2	36.5	1,210.3	62.7
Over 1 year	405.4	63.5	720.9	37.3
<b>Total</b>	<b>638.7</b>	<b>100.0</b>	<b>1,931.2</b>	<b>100.0</b>

Of the increase in fund investments, EUR 72.4 million is related to the transfer of real estate funds from the balance sheet item 9, 'Other assets' (sub-item 'Shares and other equity').

## 8. Intra-Eurosystem claims

### 8.1 Participating interest in ECB

Key for subscription of the ECB's capital	Until 31 December 2018, %	From 1 January 2019, %
Nationale Bank van België/Banque Nationale de Belgique	2.4778	2.5280

Key for subscription of the ECB's capital	Until 31 December 2018, %	From 1 January 2019, %
Deutsche Bundesbank	17.9973	18.3670
Eesti Pank	0.1928	0.1968
Central Bank of Ireland	1.1607	1.1754
Bank of Greece	2.0332	1.7292
Banco de España	8.8409	8.3391
Banque de France	14.1792	14.2061
Banca d'Italia	12.3108	11.8023
Central Bank of Cyprus	0.1513	0.1503
Latvijas Banka	0.2821	0.2731
Lietuvos bankas	0.4132	0.4059
Banque centrale du Luxembourg	0.2030	0.2270
Central Bank of Malta	0.0648	0.0732
De Nederlandsche Bank	4.0035	4.0677
Oesterreichische Nationalbank	1.9631	2.0325
Banco de Portugal	1.7434	1.6367
Banka Slovenije	0.3455	0.3361
Národná banka Slovenska	0.7725	0.8004
Suomen Pankki – Finlands Bank	1.2564	1.2708
<b>Subtotal Eurosystem</b>	<b>70.3915</b>	<b>69.6176</b>
Bulgarian National Bank	0.8590	0.8511
Česká národní banka	1.6075	1.6172
Danmarks Nationalbank	1.4873	1.4986
Hrvatska narodna banka	0.6023	0.5673



Key for subscription of the ECB's capital	Until 31 December 2018, %	From 1 January 2019, %
Magyar Nemzeti Bank	1.3798	1.3348
Narodowy Bank Polski	5.1230	5.2068
Banca Națională a României	2.6024	2.4470
Sveriges Riksbank	2.2729	2.5222
Bank of England	13.6743	14.3374
<b>Subtotal for non-euro area NCBs</b>	<b>29.6085</b>	<b>30.3824</b>
<b>Total</b>	<b>100.0000</b>	<b>100.0000</b>

Pursuant to Article 28 of the ESCB Statute, the ESCB national central banks are the sole subscribers to the capital of the ECB. Subscriptions depend on shares which are fixed in accordance with Article 29 of the ESCB Statute and are subject to adjustment every five years or whenever there is a change in composition of the ESCB national central banks.

For the Bank of Finland this balance sheet item includes (i) the paid-up share in the ECB's subscribed capital, (ii) the net amount paid by the Bank of Finland due to the increase in its share in the ECB's equity value resulting from all previous ECB's capital key adjustments, and (iii) contributions in accordance with Article 48.2 of the Statute of the ESCB.

In connection with the quinquennial adjustment of the ECB capital key, on 1 January 2019, the share that the Bank of Finland held in the subscribed capital of the ECB increased from 1.2564% to 1.2708% and asset item 8.1 'Participating interest in ECB' increased from EUR 144.3 million to EUR 159.1 million.

## 8.2 Claims equivalent to the transfer of foreign reserves

These represent the Bank of Finland's claims arising from the transfer of foreign reserve assets to the ECB, when the Bank of Finland joined the Eurosystem. These claims are denominated in euro at a value fixed at the time of their transfer. The remuneration of these claims is calculated daily at the latest available marginal interest rate used by the Eurosystem in its tenders for main refinancing operations, adjusted to reflect a zero return on the gold component.

The adjustments to the capital key weightings of the ECB on 1 January 2019 also resulted in the adjustment of the claim of the Bank of Finland with respect to the foreign reserve assets transferred to the ECB. In order to reflect its increased capital key share, the euro-denominated claim of the Bank of Finland increased by EUR 8.3 million to EUR 736.4 million on 1 January 2019.

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

This item includes the claim arising from the adjustment of the banknotes of the Bank of Finland to correspond to the ECB's capital key as well as the liability resulting from the share of 8% of the banknotes in circulation allocated to the ECB. For both the claim and the liability, the counter entry is recorded under the balance sheet liability item 'Banknotes in circulation'. [Z](#)

At the end of 2019, the balance sheet item totalled EUR 4,908.0 million (EUR 4,034.6 million in 2018). The increase in comparison to 2018 was due to the increase of 3.8% in banknotes put into circulation by the Bank of Finland, while banknotes in circulation in the Eurosystem as a whole increased by 7.4% from 2018. The remuneration of these claims is calculated daily at the latest available marginal interest rate used by the Eurosystem in its tenders for main refinancing operations.

### 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 2019	31 Dec 2018	Change
	EUR m	EUR m	EUR m
Due to/from ECB in respect of TARGET2 (including balances held with Eurosystem banks through correspondent accounts)	57,067.1	39,826.7	17,240.4
Due to/from ECB in respect of monetary income	-292.9	-242.1	-50.8
Due from ECB in respect of the ECB's interim profit distribution	26.1	21.3	4.9
Other claims/liabilities within the Eurosystem (net)	56,800.3	39,605.9	17,194.5

The balance of EUR 56,800.3 million as at 31 December 2019 represents the sum 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; and (3) the Bank of Finland's position vis-à-vis the ECB in respect of the ECB's interim profit distribution and any amounts receivable or refundable.

Regarding the first component, the year-end net transfers via TARGET2 had a credit balance of EUR 57,067.1 million. The remuneration of this position is calculated daily at the latest available marginal interest rate used by the Eurosystem in its tenders for main refinancing operations.

The second component, i.e. the position vis-à-vis the ECB in respect of the annual pooling and allocation of monetary income within the Eurosystem NCBs, had a debit balance of EUR -292.9 million at year-end (see 'Net result of pooling of monetary income' in the notes on the profit and loss account).

Concerning 2019, following a decision by the Governing Council, the amount due to euro area NCBs with respect to the ECB's interim profit distribution was EUR 1,431 million (see 'Interim profit distribution by the ECB' in the notes on accounting conventions). The related amount due to the Bank of Finland as at 31 December 2019 was EUR 26.1 million (see 'Income from equity shares and participating interest' in the profit and loss account).

## 9. Other assets

This item consists of the Bank of Finland's holdings of euro coins, fixed assets and investment assets (shares and other equity). The item also includes valuation results of off-balance sheet items, accruals and other receivables as well as the pension fund's assets which consist entirely of real estates.

Tangible fixed assets	31 Dec 2019	31 Dec 2018	Change
Book value	EUR m	EUR m	EUR m
Land	8.5	8.5	–
Buildings	83.9	89.8	-6.0
Machinery and equipment	11.1	11.2	-0.0
Art and numismatic collection	0.6	0.6	0.0
Total	104.0	110.0	-6.0

Intangible fixed assets	31 Dec 2019	31 Dec 2018	Change
Book value	EUR m	EUR m	EUR m
IT systems	7.0	7.6	-0.6
<b>Total</b>	<b>7.0</b>	<b>7.6</b>	<b>-0.6</b>

Other holdings and sundry assets	31 Dec 2019	31 Dec 2018	Change
	EUR m	EUR m	EUR m
Coins of euro area	33.4	26.6	6.8
Shares and other equity	22.7	98.5	-75.8
Pension fund's real estate	12.8	14.0	-1.2
Accruals	379.6	432.3	-52.7
Items relating to valuation of off-balance sheet items	28.9	67.9	-39.0
Sundry assets	2.3	2.6	-0.3
<b>Total</b>	<b>479.7</b>	<b>641.9</b>	<b>-162.2</b>

The decrease in the sub-item 'Shares and other equity' is mainly due to the transfer of real estate fund investments to the balance sheet item 7.2 'Other securities'.

## 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.

During 2019, the total value of banknotes in circulation within the Eurosystem increased by 7.4%. According to the allocation key, the Bank of Finland had euro banknotes in circulation worth EUR 21,711.6 million at the end of the year, compared with EUR 20,215.2 million at the end of 2018. The value of euro banknotes actually issued by the Bank of Finland in 2019 increased by 3.8% from EUR 16,180.7 million to EUR 16,803.6 million. As this was less than the allocated amount, the difference of EUR 4,908.0 million (compared to EUR 4,034.6 million in 2018) is shown under asset sub-item 'Net claims related to the allocation of euro banknotes within the Eurosystem'.

Banknotes in circulation	31 Dec 2019	31 Dec 2018
	EUR m	EUR m
EUR 5	77.9	82.4
EUR 10	-94.1	-81.0
EUR 20	3,263.6	3,196.8
EUR 50	11,661.3	10,868.3
EUR 100	-1,117.2	-997.1
EUR 200	654.5	505.8
EUR 500	2,357.5	2,605.5
<b>Total</b>	<b>16,803.6</b>	<b>16,180.7</b>
ECB issue figure	-1,887.8	-1,757.9
CSM figure	6,795.9	5,792.5
Banknotes in circulation in accordance with the ECB's capital key	21,711.6	20,215.2

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

Liabilities to euro area credit institutions related to monetary policy operations denominated in euro	31 Dec 2019 EUR m	31 Dec 2018 EUR m	Change EUR m
Current accounts (covering the minimum reserve system)	65,126.6	61,719.2	3,407.4
Deposit facility	25,276.1	15,213.6	10,062.5
Fixed-term deposits	–	–	–
Fine-tuning reverse operations	–	–	–
Deposits related to margin calls	–	–	–
<b>Total</b>	<b>90,402.7</b>	<b>76,932.8</b>	<b>13,469.9</b>

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

Current accounts contain the credit balances on the transaction accounts of credit institutions that are required to hold minimum reserves. Banks' minimum reserve balances have been remunerated since 1 January 1999 at the latest available marginal interest rate used by the Eurosystem in its tenders for main refinancing operations. Since June 2014, the reserve holdings exceeding the required minimum reserves are remunerated at zero per cent or the deposit facility rate, whichever is lower.

Starting on 30 October 2019, the Governing Council introduced a two-tier system for reserve remuneration, which exempts part of credit institutions' excess liquidity holdings (i.e. reserve holdings in excess of minimum reserve requirements) from negative remuneration at the rate applicable on the deposit facility. This part is remunerated at the annual rate of 0%. The volume of reserve holdings in excess of minimum reserve requirements that was exempt at year-end from the deposit facility rate – the exempt tier – was determined as a multiple of 6 on an institution's minimum reserve requirements.<sup>8)</sup> The non-exempt tier of excess liquidity holdings continues to be remunerated at the lower of either zero percent or the deposit facility rate.

### 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.

## **3. Other liabilities to euro area credit institutions denominated in euro**

The Bank of Finland's other liabilities to euro area credit institutions denominated in euro totalled EUR 1.5 million.

## **4. Liabilities to other euro area residents denominated in euro**

This item consists of euro-denominated liabilities to the public sector (EUR 150 million) and credit institutions other than those subject to the reserve requirement (EUR 8.3 million).

## **5. 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 (EUR 1,376.0 million).

## **6. Liabilities to euro area residents denominated in foreign currency**

As at 31 December 2019, the Bank of Finland had no liabilities to euro area residents denominated in foreign currency.



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

As at 31 December 2019, the Bank of Finland had no liabilities to non-euro area residents denominated in foreign currency.

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

This item is the counteritem of SDRs (cf. item on the asset side). Originally the amount of SDRs and their counteritem were equal. As a result of transactions, the Bank of Finland's claims related to SDRs were smaller at the end of 2019 than their counteritem on the liabilities side of the balance sheet. On the liabilities side, the counteritem is a fixed amount totalling SDR 1,189.5 million. In the balance sheet, the item is presented in euro, valued at the rate prevailing on 31 December 2019 (EUR 1,467.7 million).

## 9. Intra-Eurosystem liabilities (net)

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'.

## 10. Other liabilities

This item consists of accruals, accounts payable and other liabilities. Accruals include e.g. transferable items recorded in connection with the financial accounts and interest payable on credit under repo agreements and long-term refinancing operations. Sub-item 'Sundry' includes e.g. liabilities related to value-added and withholding tax payments as well as salaries and pensions to be paid.

Other liabilities	31 Dec 2019	31 Dec 2018	Change
	EUR m	EUR m	EUR m
Accruals	47.6	73.2	-25.6
Accounts payable	1.3	0.5	0.8
Sundry	-1.8	-1.9	0.1
Total	47.1	71.8	-24.7

## 11. 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.

Revaluation accounts	31 Dec 2019	31 Dec 2018	Change
	EUR m	EUR m	EUR m
Gold	1,745.7	1,378.2	367.5
Foreign currencies:			
USD	865.7	783.7	82.0
GBP	59.9	22.3	37.7
JPY	123.6	102.3	21.4
SDR	12.4	7.5	4.8
Other currencies	0.2	0.1	0.0
Securities	81.1	15.0	66.1
Fund investments	229.2	1.3	227.9
Other revaluations	150.1	159.9	-9.8
<b>Total</b>	<b>3,267.9</b>	<b>2,470.2</b>	<b>797.7</b>

## 12. 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 2019, these provisions totalled EUR 4,756.7 million. Provisions consist of a general provision, provision against real value loss, pension provision, foreign exchange rate and price difference provision and a provision against losses in monetary policy operations.

In accordance with the decision of the Governing Council taken under Article 32.4 of the ESCB Statute, the provision against credit risks in monetary policy operations is allocated between the national central banks of participating Member States (NCBs) in proportion to their subscribed capital key shares in the ECB prevailing in the year when the initial impairment occurred. As a result of the annual impairment test of the CSPP portfolio, the Governing Council has reviewed the appropriateness of the volume of the provision against credit risks established in 2018 and decided to reduce this provision from a total amount of EUR 161.1 million as at 31 December 2018 to an amount of EUR 89.4 million as at 31 December 2019. The Bank of Finland's share in this provision amounts to EUR 1.6 million (2018: EUR 2.9 million). The respective adjustments are reflected in the NCB's profit and loss accounts. In the case of the Bank of Finland, the resulting income amounted to EUR 1.3 million in 2019 (see 'Net result of pooling of monetary income' in the notes on the profit and loss account).

The pension provision is made to cover the Bank of Finland's pension liabilities. These liabilities total EUR 554.9 million: 106.2% of this amount is covered by the pension provision, i.e. EUR 589.2 million. The change in the pension provision consists of a reduction of EUR -0.4 million in the revaluation account and a loss of EUR -6.8 million for the pension fund which was covered by reducing the pension provision. At the end of 2019, real estate in the value of EUR 12.8 million was earmarked for covering the pension provision (see 'Other assets' in the notes on the balance sheet). No specified assets have been earmarked for covering the remaining portion (EUR 576.3 million) of the pension provision. Instead, these assets are managed as part of the Bank's financial assets.

Provisions (EUR m)	Total provisions	Change in provisions	Total provisions	Change in provisions	Total provisions
	31 Dec 2017	2018	31 Dec 2018	2019	31 Dec 2019
Foreign exchange rate and price difference provision	850	-41	809	24	833
General provision	1,745	50	1,795	50	1,845
Provision against real value loss	1,378	55	1,433	55	1,488
Pension provision	604	-8	596	-7	589
Provision against losses in monetary policy operations	1	2	3	-1	2
<b>Total</b>	<b>4,579</b>	<b>58</b>	<b>4,636</b>	<b>120</b>	<b>4,757</b>

### 13. Capital and reserves

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

Capital and reserves (EUR m)	31 Dec 2019	31 Dec 2018	Change
Primary capital	840.9	840.9	–
Reserve fund	1,900.0	1,812.7	87.3
Total	2,741.0	2,653.7	87.3

### 14. Profit for the financial year

The profit for the financial year 2019 totalled EUR 319.8 million.

Profit for the financial year (EUR m)	31 Dec 2019	31 Dec 2018	Change
To be transferred for the needs of the State	188.0	143.0	45.0
Bank of Finland's share of profit (to be transferred to the reserve fund)	131.8	87.3	44.5
Total	319.8	230.3	89.5

### Post-balance-sheet events

As a result of the departure of the United Kingdom from the EU and consequent withdrawal of the Bank of England from the European System of Central Banks (ESCB), the weightings assigned to the remaining NCBs in the key for subscription to the ECB's capital were adjusted with effect from 1 February 2020, as follows:

Key for subscription of the ECB's capital	Until 31 January 2020	From 1 February 2020
Nationale Bank van België/Banque Nationale de Belgique	2.5280	2.9630
Deutsche Bundesbank	18.3670	21.4394
Eesti Pank	0.1968	0.2291
Central Bank of Ireland	1.1754	1.3772
Bank of Greece	1.7292	2.0117
Banco de España	8.3391	9.6981
Banque de France	14.2061	16.6108
Banca d'Italia	11.8023	13.8165
Central Bank of Cyprus	0.1503	0.1750
Latvijas Banka	0.2731	0.3169
Lietuvos bankas	0.4059	0.4707
Banque centrale du Luxembourg	0.2270	0.2679
Central Bank of Malta	0.0732	0.0853
De Nederlandsche Bank	4.0677	4.7662
Oesterreichische Nationalbank	2.0325	2.3804
Banco de Portugal	1.6367	1.9035
Banka Slovenije	0.3361	0.3916
Národná banka Slovenska	0.8004	0.9314
Suomen Pankki – Finlands Bank	1.2708	1.4939
<b>Subtotal Eurosystem</b>	<b>69.6176</b>	<b>81.3286</b>
Bulgarian National Bank	0.8511	0.9832
Česká národní banka	1.6172	1.8794
Danmarks Nationalbank	1.4986	1.7591
Hrvatska narodna banka	0.5673	0.6595

Key for subscription of the ECB's capital	Until 31 January 2020	From 1 February 2020
Magyar Nemzeti Bank	1.3348	1.5488
Narodowy Bank Polski	5.2068	6.0335
Banca Națională a României	2.4470	2.8289
Sveriges Riksbank	2.5222	2.9790
Bank of England	14.3374	–
<b>Subtotal for non-euro area NCBs</b>	<b>30.3824</b>	<b>18.6714</b>
<b>Total</b>	<b>100.0000</b>	<b>100.0000</b>

## Impact on the Bank of Finland's share in the ECB's capital

The ECB kept its subscribed capital unchanged at EUR 10,825 million after Bank of England's withdrawal from the ESCB. The share of the Bank of England in the ECB's subscribed capital, which stood at 14.3%, was reallocated among both the euro area NCBs and the remaining non-euro area NCBs. As a result, the Bank of Finland's share in the ECB's subscribed capital increased from 1.2708% to 1.4939%.

The ECB's paid-up capital will also remain unchanged at EUR 7,659 million in the year of the United Kingdom's departure from the EU, i.e. in 2020, as the remaining NCBs have covered the withdrawn Bank of England's paid-up capital of EUR 58 million. Of this, the Bank of Finland's share was EUR 1.7 million and it was paid on 3 February 2020. Euro area NCBs will pay up in full their increased subscriptions to the ECB capital in two additional annual instalments. As a result, the Bank of Finland will transfer to the ECB an amount of EUR 11.2 million in both 2020 and 2021.

## Impact on NCB's claims equivalent to the foreign reserve assets transferred to the ECB

Pursuant to Article 30.2 of the Statute of the ESCB, the contributions of the NCBs to the transfer of foreign reserve assets to the ECB are fixed in proportion to their share in the ECB's subscribed capital. Following (a) the increase in the weighting of the euro area NCBs (which have transferred foreign reserve assets to the ECB) in the ECB's subscribed capital resulting from Bank of England's withdrawal from the ESCB and (b) a decision of the Governing Council to reduce the proportion of the euro area NCBs' contributions, so that the total amount of foreign reserve assets already transferred by the euro area NCBs will remain at the current level, the claim equivalent to this transfer was marginally adjusted. This resulted in a minor increase in the Bank of Finland's claim, which was paid to the ECB on 3 February 2020.

## Off-balance sheet commitments

Off-balance sheet commitments	31 Dec 2019	31 Dec 2018
	EUR m	EUR m
Futures contracts		
Nominal value of purchase agreements	69.4	1,692.0
Nominal value of sales agreements	–	-211.1
Market value of FX-swap agreements	3.8	-8.7
Investment commitments related to real estate funds	50.0	–
Securities lending	37.0	785.7

In accordance with the Governing Council's decision, the Bank of Finland has made available for lending its holdings of securities purchased under the CBPP3, the PSPP and the CSPP. Securities lending operations conducted against collateral other than cash collateral are recorded in off-balance-sheet accounts at the end of the year.<sup>21</sup> Such securities lending operations with a value of EUR 37 million (2018: EUR 786 million) were outstanding as at 31 December 2019.



- 
- 1) Decision ECB/2009/16 of 2 July 2009 on the implementation of the covered bond purchase programme (OJ L 175, 4.7.2009, p. 18), Decision ECB/2011/17 of 3 November 2011 on the implementation of the second covered bond purchase programme (OJ L 297, 16.11.2011, p. 70) and Decision ECB/2014/40 of 15 October 2014 on the implementation of the third covered bond purchase programme (OJ L 335, 22.10.2014, p. 22).
- 2) Decision ECB/2010/5 of 14 May 2010 establishing a securities markets programme (OJ L 124, 20.5.2010, p. 8).
- 3) Decision ECB/2015/10 of 4 March 2015 establishing a public sector purchase programme (OJ L 121, 14.5.2015, p. 20), as amended).
- 4) Decision ECB/2016/16 of 1 June 2016 establishing a corporate sector purchase programme (OJ L 157, 15.6.2016, p. 28).
- 5) The APP programme consists of the third covered bond purchase programme (CBPP3), the asset-backed securities purchase programme (ABSPP), the PSPP and the CSPP. Further details on the APP can be found on the ECB's website (<https://www.ecb.europa.eu/mopo/implementation/html/index.en.html>).
- 6) Market values are indicative and were derived on the basis of market quotes. When market quotes were not available, market prices were estimated using internal Eurosystem models.
- 7) According to the accounting regime chosen by the Eurosystem on the issue of euro banknotes, a share of 8% of the total value of the euro banknotes in circulation is allocated to the ECB on a monthly basis. The remaining 92% of the value of the euro banknotes in circulation are allocated to the NCBs also on a monthly basis, whereby each NCB shows in its balance sheet a share of the euro banknotes issued corresponding to its paid-up share in the ECB's capital. The difference between the value of the euro banknotes allocated to the NCB according to the aforementioned accounting regime, and the value of euro banknotes put into circulation, is recorded as a 'Net claims/liabilities related to the allocation of euro banknotes within the Eurosystem'.
- 8) The multiplier may be adjusted by the Governing Council over time in line with changing levels of excess liquidity holdings.
- 9) Cash collateral received in securities lending operations is recorded in on-balance-sheet accounts (see liability item 3. 'Other liabilities to euro area credit institutions denominated in euro' and liability item 5. 'Liabilities to non-euro area residents denominated in euro' in the notes on the balance sheet). There were no such loans as at 31 December 2019.

## 31.12.2019

Interest income from and outside the euro area totalled EUR 796.7 million. Of this, EUR 144.7 million consisted of foreign currency-denominated interest income and EUR 652.0 million of euro-denominated interest income.

ESCB items – claims equivalent to the transfer of foreign reserves to the ECB, claims and liabilities relating to the ECB's share of euro banknotes and to the application and adjustment of the ECB capital key, as well as TARGET2 balances – are remunerated at the interest rate on the main refinancing operations (MRO). Since the MRO rate was 0% throughout 2019, no interest income was earned from ESCB items.

Foreign currency-denominated interest income received outside the euro area (EUR m)	2019	2018	Change
Non-euro area coupon bonds	114.2	89.3	24.9
Non-euro area discount papers	0.2	0.7	-0.5
Non-euro area deposits	2.2	1.8	0.4
Other	19.9	16.1	3.8
<b>Total</b>	<b>136.5</b>	<b>107.9</b>	<b>28.7</b>

Euro-denominated interest income received outside the euro area (EUR m)	2019	2018	Change
Non-euro area coupon bonds	0.5	0.8	-0.3
Non-euro area deposits	0.0	0.5	-0.5
Other	7.4	8.3	-0.9
<b>Total</b>	<b>7.9</b>	<b>9.6</b>	<b>-1.7</b>

Foreign currency-denominated interest income received from the euro area (EUR m)	2019	2018	Change
Euro area coupon bonds	7.8	9.6	-1.8
Euro area deposits	0.3	0.1	0.2
<b>Total</b>	<b>8.1</b>	<b>9.7</b>	<b>-1.6</b>

<b>Euro-denominated interest income received from the euro area (EUR m)</b>	<b>2019</b>	<b>2018</b>	<b>Change</b>
Euro area coupon bonds	-1.9	-2.9	1.0
Euro area discount papers	-0.4	-3.7	3.3
Euro area deposits	0.0	0.7	-0.6
Dividends on euro-denominated investments	21.8	15.2	6.6
ESCB items	–	–	–
Interest income from monetary policy lending	–	–	–
Interest income from monetary policy securities	226.1	200.9	25.1
Interest income from negative interest rates on credit institutions' deposits	387.5	380.0	7.5
Other	11.1	6.5	4.6
<b>Total</b>	<b>644.1</b>	<b>596.6</b>	<b>47.6</b>

<b>Total interest income (EUR m)</b>	<b>2019</b>	<b>2018</b>	<b>Change</b>
Foreign currency-denominated interest income received outside the euro area	136.5	107.9	28.7
Euro-denominated interest income received outside the euro area	7.9	9.5	-1.7
Foreign currency-denominated interest income received from the euro area	8.1	9.7	-1.6
Euro-denominated interest income received from the euro area	644.1	596.6	47.6
<b>Total</b>	<b>796.7</b>	<b>723.7</b>	<b>73.0</b>

## 2. Interest expenses

Foreign currency-denominated interest expenses paid outside the euro area (EUR m)	2019	2018	Change
Non-euro area deposits	-0.2	-0.0	-0.2
Other	-15.6	-13.4	-2.2
<b>Total</b>	<b>-15.8</b>	<b>-13.4</b>	<b>-2.4</b>

Euro-denominated interest expenses paid outside the euro area (EUR m)	2019	2018	Change
Non-euro area deposits	-0.0	-0.4	0.4
Other	-0.0	-0.3	0.3
<b>Total</b>	<b>-0.0</b>	<b>-0.7</b>	<b>0.7</b>

Euro-denominated interest expenses paid in the euro area (EUR m)	2019	2018	Change
Monetary policy lending	-24.9	-11.6	-13.2
Other	-0.7	-1.3	0.6
<b>Total</b>	<b>-25.6</b>	<b>-13.0</b>	<b>-12.6</b>

Total interest expenses (EUR m)	2019	2018	Change
Foreign currency-denominated interest expenses paid outside the euro area	-15.8	-13.4	-2.4
Euro-denominated interest expenses paid outside the euro area	-0.0	-0.7	0.7
Euro-denominated interest expenses paid in the euro area	-25.6	-13.0	-12.6
<b>Total</b>	<b>-41.4</b>	<b>-27.0</b>	<b>-14.4</b>

### 3. Net interest income

Net interest income (EUR m)	31 Dec 2019	31 Dec 2018	Change
<b>Interest income</b>			
Financial assets	183.1	142.8	40.3
Monetary policy items	613.6	580.9	32.7
ESCB claims	–	–	–
<b>Total</b>	<b>796.7</b>	<b>723.7</b>	<b>73.0</b>
<b>Interest expenses</b>			
Financial assets	-16.5	-15.4	-1.1
Monetary policy items	-24.9	-11.6	-13.2
ESCB liabilities	–	–	–
<b>Total</b>	<b>-41.4</b>	<b>-27.0</b>	<b>-14.4</b>
<b>NET INTEREST INCOME</b>	<b>755.3</b>	<b>696.7</b>	<b>58.6</b>

### 4. Foreign exchange rate differences

This item includes realised exchange rate gains and losses arising from the sale of currency positions. In 2019, gains related to exchange rate movements amounted to EUR 2.6 million.

## **5. Securities price differences**

This item includes realised gains and losses arising from the sale of securities. In 2019, realised gains from the sale of securities amounted to EUR 26.2 million, of which EUR 1.9 million related to the sale of securities in the CSPP portfolio due to corporate actions.

## **6. Valuation losses related to currencies and securities**

This item consists of valuation losses related to currencies and securities. Each security type and currency is treated separately. There were no valuation losses related to currencies in 2019. Valuation losses related to securities amounted to EUR 3.2 million.

## **7. Change in foreign exchange rate and price difference provision**

Realised net gains arising from foreign exchange rate and price differences, totalling EUR 23.8 million, were used to increase the foreign exchange rate and price difference provision in accordance with the accounting conventions. All provisions have been specified in the notes on the balance sheet under liabilities.

## **8. Income and expenses on fees and commissions**

The item includes fees and commissions related to investment activities.

## 9. Net result of pooling of monetary income

Monetary income	31 Dec 2019	31 Dec 2018
	EUR m	EUR m
Net monetary income pooled by the Bank of Finland	513.4	450.9
Net monetary income allocated to the Bank of Finland	206.3	217.9
<b>Net monetary income according to the capital allocation key</b>	<b>-307.1</b>	<b>-233.0</b>
Corrections to monetary income reallocation of previous years	14.2	-9.0
<b>Total</b>	<b>-292.9</b>	<b>-242.1</b>

The amount of each Eurosystem NCB's monetary income is determined by measuring the 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; accrued interest recorded at quarter-end by each NCB on monetary policy liabilities the maturity of which is one year or longer; liabilities vis-à-vis the ECB backing the claim in relation to swap agreements that earn net income for 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 consist mainly 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; claims on euro area counterparties related to swap agreements between the ECB and non-Eurosystem central banks that earn net income for the Eurosystem; accrued interest recorded at quarter-end by each NCB on monetary policy assets the maturity of which is one year or longer; a limited amount of each NCBs' gold holdings in proportion to each NCB's capital key share.



The amount of each NCB's monetary income shall be determined by measuring the actual income that derives from the earmarkable assets recorded in its books. As an exception to this, gold is considered to generate no income and the following are considered to generate income at the latest available marginal interest rate used by the Eurosystem in its tenders for main refinancing operations: (i) securities held for monetary policy purposes under Decision ECB/2009/16 of 2 July 2009 on the implementation of the covered bond purchase programme, (ii) securities held for monetary policy purposes under Decision ECB/2011/17 of 3 November 2011 on the implementation of the second covered bond purchase programme and (iii) debt instruments issued by central, regional and local governments and recognised agencies and substitute debt instruments issued by public non-financial corporations under Decision ECB/2015/10 of 4 March 2015 on the implementation of a secondary markets public sector asset purchase programme. Where the value of a 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 NCBs according to the subscribed ECB capital key. The difference between the monetary income pooled by the Bank of Finland amounting to EUR 513.4 million and reallocated to the Bank of Finland amounting to EUR 206.3 million is the net result arising from the calculation of monetary income.

## **10. Provision against losses in monetary policy operations**

This item contains the Bank of Finland's share in 2019 of the net result of the provision against credit risks in monetary policy operations of the Eurosystem, amounting to an income of EUR 1.3 million (see 'Provisions' in the notes on the balance sheet).

## **11. Share in ECB profit**

The ECB distributed EUR 384 million profit for the financial year 2018, of which the Bank of Finland's share recorded for the financial year 2019 totalled EUR 6.9 million.

## **12. Income from other equity shares and participating interests**

This item includes the Bank of Finland's share, EUR 26.1 million, in income on the SMP- and APP-related portfolios distributed by the ECB in the form of interim profit distribution for the financial year 2019. The item also includes dividends received on shares in the BIS, EUR 3.2 million.

## 13. Other income

This item consists of the Financial Supervisory Authority's supervision and processing fees, EUR 33.3 million. The item also includes income from real estate, EUR 5.6 million, capital gains from the sale of a real estate corporation, EUR 2.2 million and commissions and fees.

## 14. Staff costs

Staff costs	31 Dec 2019	31 Dec 2018
	EUR m	EUR m
Salaries and fees	43.9	39.4
Employer's contributions to the pension fund	8.5	7.6
Other staff-related costs	1.5	1.0
Total	53.9	48.0

Average staff size	2019	2018
	Number of staff	Number of staff
Bank of Finland	362	356
Financial Supervisory Authority	226	194
Total	588	550

Basic salaries paid to the members of the Board (EUR)	2019
Olli Rehn	271,293
Marja Nykänen	244,527
Tuomas Vähimäki	199,749
<b>Total</b>	<b>715,569</b>

Fringe benefits (meal benefits, company-paid telephone and company car) paid to the members of the Board totalled EUR 28,668.

Pension benefits of the members of the Board are determined according to the Bank of Finland's Pension Rule, without special terms and under 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 Public Sector Pension Act. 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 does not exceed 60% of salary.

## 15. Pension fund contribution

Approved by the Parliamentary Supervisory Council, the Bank of Finland paid a contribution of EUR 10 million to the Bank's pension fund in 2019 to cover the pension fund's deficit for the financial year.

## 16. Administrative expenses

Administrative expenses	2019	2018
	EUR m	EUR m
Supplies and purchases	0.5	0.5
Machinery and equipment	7.1	6.8
Real estate	8.9	9.5
Staff-related expenses	4.0	3.6
Purchase of services	12.8	12.6
Other	2.1	4.6
Total	35.4	37.6

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.

## 17. Depreciation of fixed assets

Depreciation of tangible fixed assets	31 Dec 2019	31 Dec 2018
	EUR m	EUR m
Buildings	3.4	4.4
Machinery and equipment	2.7	3.0
<b>Total</b>	<b>6.1</b>	<b>7.4</b>

Depreciation of intangible fixed assets	31 Dec 2019	31 Dec 2018
	EUR m	EUR m
IT systems	3.2	4.3
<b>Total</b>	<b>3.2</b>	<b>4.3</b>

## 18. Banknote production services

Costs related to banknote production services totalled EUR 5.7 million.

## 19. Other expenses

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

## **20. Income of the pension fund**

This item includes the Bank of Finland's and Financial Supervisory Authority's employer contributions and employee's share of premium income, EUR 11.7 million, as well as a contribution of EUR 10 million paid by the Bank to the pension fund. Income from the pension fund's real estate, EUR 1.7 million, is also recorded under this item.

## **21. Expenses of the pension fund**

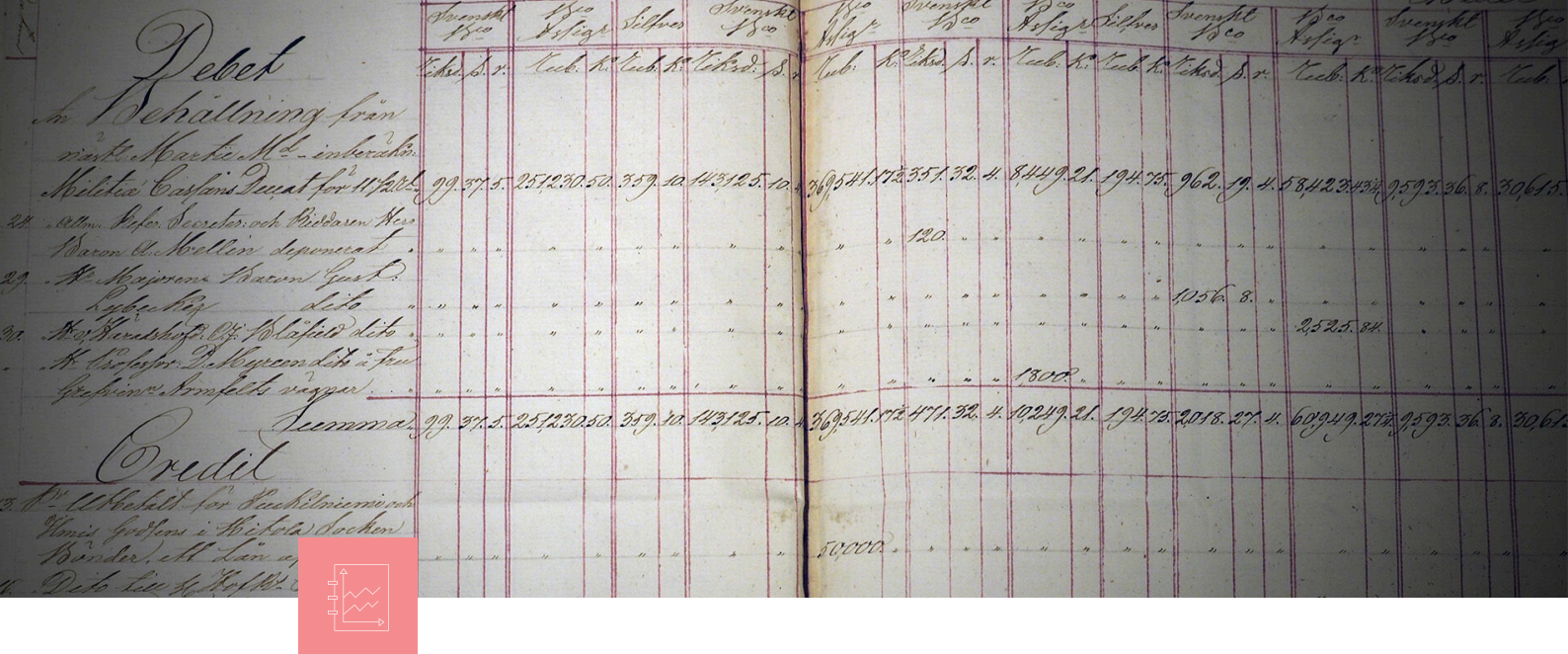
This item includes pensions paid, EUR 28.4 million, the Bank of Finland pension fund's management costs and depreciation of the pension fund's fixed assets.

## **22. Changes in provisions**

This item includes the increase of the provision against real value loss, EUR 55 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.

## **23. Profit for the financial year**

The profit for the financial year 2019 totalled EUR 319.8 million. The Board proposes to the Parliamentary Supervisory Council that EUR 188.0 million of the profit be made available for the needs of the State.



## Appendices to the financial statements

31.12.2019

EUR m	31 Dec 2019	31 Dec 2018
<b>Shares and other interests, nominal value</b>		
Bank for International Settlements (BIS) <sup>1</sup>	22.4 (1.96%)	22.4 (1.96%)
Shares in housing companies	0.2	2.5
Other shares and interests	0.1	0.1
<b>Total</b>	<b>22.7</b>	<b>25.0</b>
<b>Bank of Finland's liability share in the Finnish Central Securities Depository Fund</b>	<b>0.3</b>	<b>0.3</b>
<b>Liability arising from pension commitments</b>		
Bank of Finland's pension liability <sup>2</sup>	554.9	554.8
– of which covered by provisions	589.2	596.4
<b>Customer service office</b>		
Deposits	0.2	21.4
Loans	0.1	3.0

EUR m	31 Dec 2019	31 Dec 2018
-------	----------------	----------------

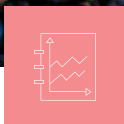
1 In parentheses, the Bank of Finland's relative holdings of the BIS shares in circulation.

2 Pension liability for 2019 includes indexation of pensions and paid-up policies entering into force on 1 January 2020.

Building	Address	Year of completion	Volume m <sup>3</sup> (approx.)
Helsinki	Rauhankatu 16	1883/1961/2006	52,108
	Rauhankatu 19	1954/1981	40,487
	Snellmaninkatu 6 <sup>1</sup>	1857/1892/2001	23,600
	Snellmaninkatu 2 <sup>1</sup>	1901/2003	3,225
	Ramsinniementie 34	1920/1983/1998	4,800
Oulu	Kajaaninkatu 8	1973	17,230
Vantaa	Turvalaaksontie 1	1979	334,243
Inari	Saariseläntie 9	1968/1976/1998	6,100

1 Transferred to the ownership of the Bank of Finland's pension fund from the beginning of 2002.





## Notes on risk management

31.12.2019

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

Investment activities are exposed to risks, which 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 division and the Market 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 division.

Risks to investment activities are reported daily to the persons involved in operational investment activities and monthly to the Bank of Finland Board. Developments in investment returns are reported monthly to the persons involved in investment activities and the Board member responsible for investment activities. Returns are considered quarterly in the Markets Committee, chaired by the Board member responsible for investment activities. The Board discusses risks and returns 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.

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

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 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 decision-making bodies. In addition, the Investment Group acts as an internal decision-maker within the Market Operations department and as coordinator of matters common to the investment and risk control functions. The Head of Market Operations chairs the Investment Group and makes decisions therein. The Head of the Administration department's Risk Control and Financial Accounting division chairs the Risk Group and makes decisions therein.

The Bank of Finland has a Financial Risks Committee which, independently of the management of financial assets is tasked with supporting the Board by supervising and assessing financial risks that may affect the Bank's balance sheet. The committee is not a decision-making body but instead gives recommendations and submits matters to the Board for information or decision, as necessary. The Financial Risks Committee is chaired by the Board member responsible for risk control.

The Bank of Finland also has an Operational and Cyber Risks Committee. The task of the Committee is to evaluate the Bank's level of operational and cyber risks management and to give instructions and make recommendations on development of risk management procedures. Similarly to the Financial Risks Committee, the Operational and Cyber Risks Committee is not a decision-making body but instead gives recommendations and submits matters to the Board for information or decision, as necessary. The Operational and Cyber Risks Committee is chaired by the Board member responsible for risk control.

## Risk measures and breakdowns

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

Credit rating	31 Dec 2019	29 Dec 2018
	EUR m	EUR m
AAA	1,956	2,783
AA+	2,936	2,846
AA	454	942
AA–	95	169
A+	1,412	1,265
A	204	224
A–	77	135
BBB+	54	59
BBB	–	–
BBB–	–	–
Below BBB–	–	–
No credit rating	–	–
<b>Total</b>	<b>7,188</b>	<b>8,423</b>

<sup>1</sup> Covered bonds have been classified according to their own credit rating and not the credit rating of the issuer. The Bank of Japan has been rated according to the credit rating of the government.

Totals may not add up due to rounding.

Source: Bank of Finland.

**Breakdown of debt instruments and deposits in the Bank of Finland's financial assets, by home country of issuer/counterparty (according to market value)**

Country or region	31 Dec 2019	31 Dec 2018
	EUR m	EUR m
<b>Euroarea</b>	<b>918</b>	<b>2,400</b>
Germany	502	1,026
France	215	617
Netherlands	101	357
Austria	74	214
Finland	27	134
Belgium	–	52
<b>Rest of Europe</b>	<b>1,050</b>	<b>1,103</b>
Sweden	467	454
United Kingdom	294	336
Norway	156	196
Denmark	111	80
Switzerland	22	37
<b>America</b>	<b>3,708</b>	<b>3,497</b>
United States	2,926	2,704
Canada	782	793
<b>Asia and Oceania</b>	<b>1,324</b>	<b>1,199</b>
Japan	1,185	975
Australia	130	190
South Korea	9	–
Singapore	–	33

Country or region	31 Dec 2019	31 Dec 2018
	EUR m	EUR m
International institutions	187	224
Total	7,188	8,424

Totals and subtotals may not add up due to rounding.

Source: Bank of Finland.

### Sensitivity of the Bank of Finland's financial assets to market changes

EUR m	2019	2018
Change in the value of the 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	-1,150	-1,006
Change in the value of the Bank of Finland's financial assets after an interest rate rise of 1% as at 31 Dec	-148	-151
Change in the value of the Bank of Finland's equity funds after a decrease in the value of equity funds by 25%	-270	-183

Source: Bank of Finland.

## Allocation of the Bank of Finland's fixed-income investment portfolios at the end of 2019

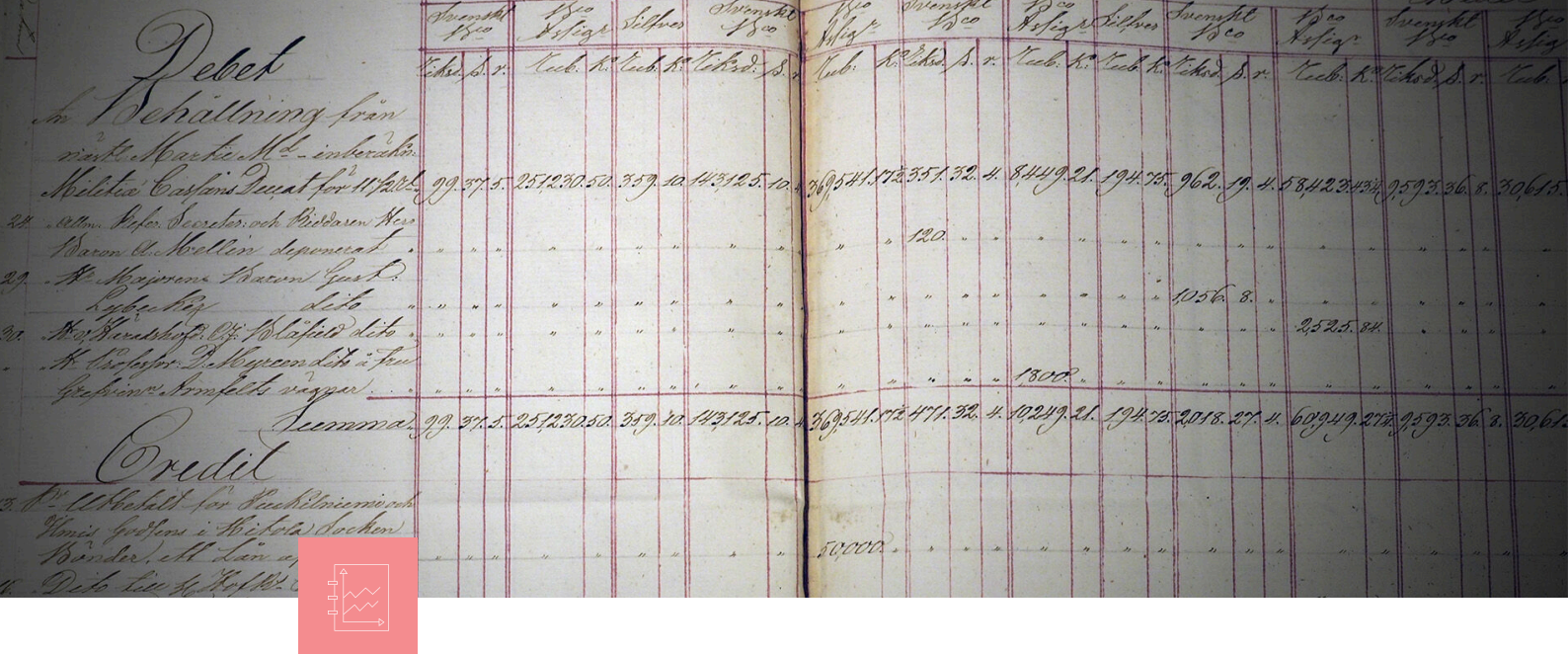
Fixed-income investment portfolios	Allocation at year-end (%)
Government debt instruments and central bank deposits	61.5
Government-related debt instruments	20.9
Covered bonds	9.2
Corporate bonds	7.8
Cash holdings	0.6
<b>Total</b>	<b>100.0</b>

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 causes additional costs.
- **Operational risk** refer to risk of extra costs or losses resulting from inadequate or failed internal processes, personnel, systems or external events.
- **Investment portfolio** consists of foreign currency-denominated and euro-denominated fixed-income investment portfolios and long-term investments. Its objective is to safeguard the value of financial assets and the Bank of Finland's ongoing ability to meet with its central bank commitments.
- **Foreign reserves** consist of unhedged foreign-currency investments and claims. These include the foreign-currency fixed-income 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 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 realisation.





## Auditor's report

6.3.2020

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 2019 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, 6 March 2020

Mika Kari

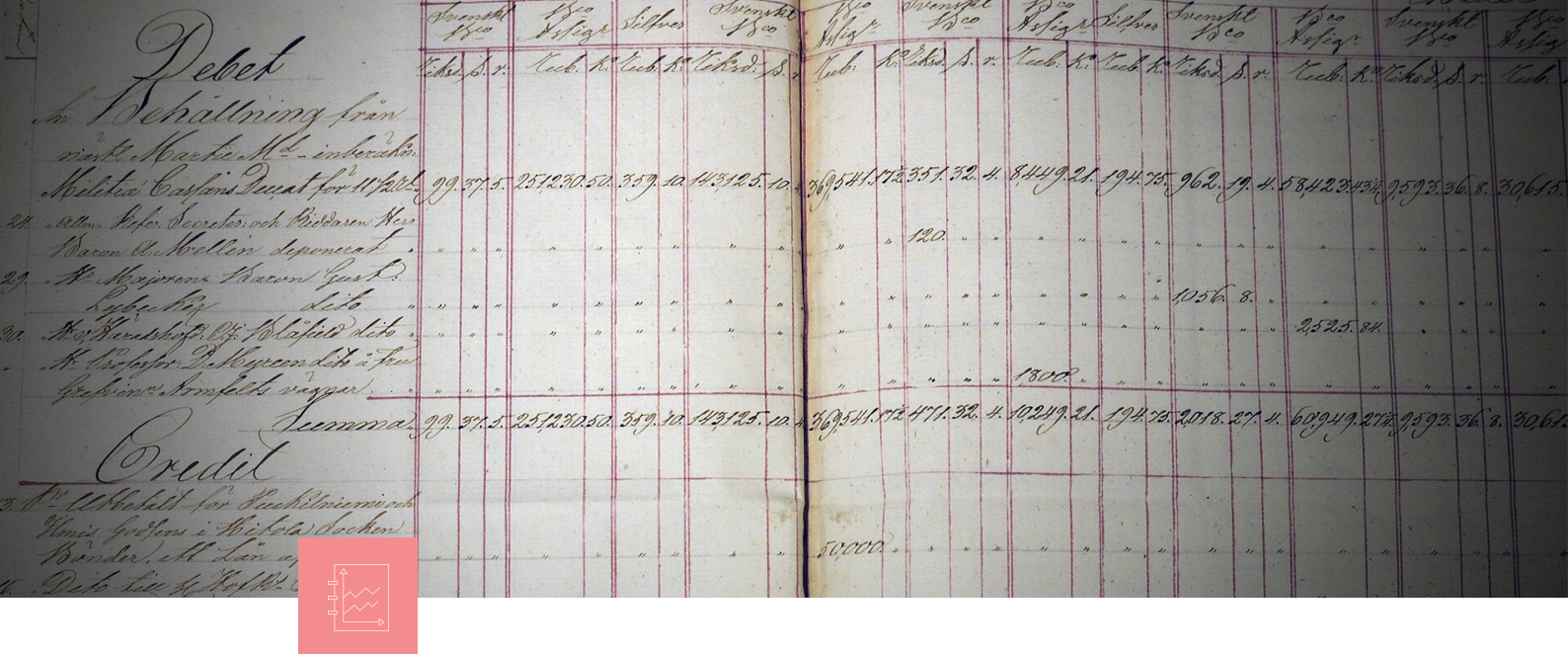
Esko Kiviranta

Jukka Kopra

Lotta Kauppila, Authorised Public Accountant

Timo Tuokko, Authorised Public Accountant

Markku Koskela, Authorised Public Accountant



## Statement regarding the audit

28.2.2020

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

To the Bank of Finland

Report on the audit of financial statements

### Opinion

In our opinion, the financial statements give a true and fair view of the Bank of Finland's financial position and results, in accordance with the Accounting Principles and Methods approved by the Governing Council of the European Central Bank and the Act on the Bank of Finland, and comply with statutory requirements.

#### Object of the audit

We have audited the financial statements of the Bank of Finland (business identity code 0202248-1) for the year ended 31 December 2019. The financial statements comprise the balance sheet, the profit and loss account and notes.

### Basis for opinion

We conducted our audit in accordance with good auditing practice in Finland. Our responsibilities under good auditing practice are further described in the 'Auditor's responsibilities for the audit of the financial statements'.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

#### *Independence*

We are independent of the Bank of Finland in accordance with the ethical requirements that are applicable in Finland and are relevant to our audit, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

## **Responsibilities of the Board of the Bank of Finland for the financial statements**

The Board of the Bank of Finland is responsible for the preparation of financial statements that give a true and fair view of the Bank of Finland's financial position and results, in accordance with the laws and regulations governing the preparation of the Bank's financial statements, and that comply with statutory requirements. The Bank of Finland Board is also responsible for such internal control as it determines necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Bank of Finland Board is responsible for assessing the Bank's ability to continue as going concern, disclosing, as applicable, matters relating to going concern and using the going concern basis of accounting. The financial statements are prepared using the going concern basis of accounting unless there is an intention to liquidate the Bank or cease operations, or there is no realistic alternative but to do so.

## **Auditor's responsibilities for the audit of financial statements**

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with good auditing practice will always detect material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

As part of an audit in accordance with good auditing practice, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Bank's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of the Bank of Finland Board's use of the going concern basis of accounting and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Bank's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Bank to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events so that the financial statements give a true and fair view.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Helsinki, 28 February 2020  
PricewaterhouseCoopers Oy  
Authorised Public Accountants  
Jukka Paunonen  
Authorised Public Accountant



## Organisation

1.4.2020

### Parliamentary Supervisory Council

---

#### Chairman

Antti Lindtman

#### Vice Chairman

Toimi Kankaanniemi

Mari Holopainen

Kalle Jokinen

Markus Lohi

Markus Mustajärvi

Petteri Orpo

Pia Viitanen

Ville Vähämäki

---

#### Secretaries to the Parliamentary Supervisory Council

Lauri Kajanoja

Maritta Nieminen

## Board

---

### Governor

Olli Rehn

### Deputy Governor

Marja Nykänen

### Member of the Board

Tuomas Vähimäki

---

### Secretary to the Board

Maritta Nieminen

## Departments

---

### Monetary Policy and Research

Juha Kilponen

#### Forecasting

Meri Obstbaum

#### Institute for Economies in Transition (BOFIT)

Iikka Korhonen

#### Monetary Policy and International Economy

Hanna Freystätter

#### Research

Esa Jokivuolle

---

### Financial Stability and Statistics

Katja Taipalus

#### Macroprudential Analysis

Paavo Miettinen

#### Financial Statistics

Elisabeth Flittner

#### Macroprudential Policy

Tuulia Asplund

#### Statistical Analysis and Information Services

Harri Kuussaari

**Market Operations**

Juha Niemelä

**Monetary Policy Implementation**

Niko Herrala

**Asset Management**

Jarno Ilves

**Banking Services**

Teemu Peltoniemi

**Counterparties and Collateral**

Marjaana Hohti

---

**Payment Systems**

Päivi Heikkinen

**Cash Division**

Heli Snellman

**Oversight of Market Infrastructure**

Jussi Terho

---

**General Secretariat**

Elisa Newby

**International Affairs**

Satu Kivinen

**Communications**

Jenni Hellström

**Legal Affairs**

Maritta Nieminen

**Strategy and Organisation****Assistant Services for the Board**

---

**Administration**

Veli-Matti Lumiala

**Administrative Services**

Hannu Vesalainen

**Risk Control and Financial Accounting**

Antti Nurminen

**Personnel and Financial Control**

Antti Vuorinen

**Property Management**

Paavo Perttu

**Language Services**

Eija Puttonen

**Security**

Tero Reponen

---

## **ICT and Information Management**

Petteri Vuolasto

### **Bank of Finland IT Services**

Petri Salminen

### **Financial Supervision IT services**

Kirsti Ikonen

### **Shared IT Services**

Sami Kirjonen

### **Shared Information Management Services**

Mia Ristimäki

- Content Management Services
- Document Management Services
- Library and Information Services

---

## **Internal Audit**

Helena Rantanen

---

The Financial Supervisory Authority, headed by Anneli Tuominen, operates in association with the Bank of Finland.