



# BANK OF FINLAND ANNUAL REPORT 2021



# Release notes

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## Operations and strategy

In 2021, the Bank of Finland focused on implementing and consolidating the strategy it had updated in 2020.

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

The Bank of Finland's activities are guided by a strategy, and its overriding task is to foster stability and a sustainable economy.

During 2021, the Bank directed particular attention to the assessment of changes in its operating environment, as these present current and future challenges for the Bank's strategy. Such changes include slower growth in productivity and investment, and the ageing of the population.

### Management culture being developed by Bank and FIN-FSA

With the continuation of the COVID-19 pandemic in 2021, the Bank of Finland's staff again worked primarily from home. During this time, the focus in employee wellbeing was on clear employer communications, interactions with co-workers and ensuring recovery time outside work.

Employee job satisfaction was monitored continuously, and good results were also given recognition.

In a joint project on wellbeing at work, the Bank of Finland and the FIN-FSA revised their practices and prepared for the adoption of hybrid working patterns.

In autumn 2021, they also published a joint management vision. This will help both organisations with their management development and will guide their everyday management work.

## **Bank of Finland's future monitoring of its carbon footprint will use more detailed measures**

In 2021, the Bank of Finland switched over to using a globally popular calculation method in assessing the carbon footprint of its activities. This brought new emissions sources into the picture that were previously not visible.

As a consequence of using a more detailed calculation method, the Bank of Finland's carbon footprint grew.

## **Data Balance Sheet puts spotlight on Bank of Finland's information management**

The Bank of Finland is constantly developing its information management, data and analytics processes. The aim is to ensure these are up to date, appropriate and comprehensive in a changing operating environment.

Following legislative changes regarding information management in the public sector, the Bank of Finland will in future publish a Data Balance Sheet in conjunction with the Annual Report.

The purpose of the Data Balance Sheet is to highlight the significance of data, information and knowledge to the central bank's work, to present various matters of interest and figures on the central bank's tasks, and to focus on topical information management issues.

The Data Balance Sheet also presents information on the Bank's analytical work, data security and data protection.



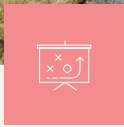
## Bank of Finland in a nutshell

The Bank of Finland is Finland's monetary authority and national central bank. At the same time it is a part of the Eurosystem, which is responsible for monetary policy and other central bank functions in the countries of the euro area as well as administering the world's second largest currency, the euro. The main objective of the Eurosystem and the Bank of Finland is price stability.

### The Bank of Finland

- prepares and implements monetary policy in Finland
- oversees the stability of the financial system and produces statistics
- conducts research and participates in economic policy debate
- takes care of clearing for interbank payments and manages its own investments
- maintains stable and efficient payment systems and issues banknotes and coins into circulation.

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



## Bank of Finland put its new strategy in place during 2021

In 2021 the Bank of Finland focused on implementing the strategy decided by the Board in December 2020 as well as on strengthening its values and assessing changes in the operating environment.

### Fostering a sustainable economy and stability

The Bank of Finland's mission statement summarising its purpose is as follows: 'The Bank of Finland fosters a sustainable economy and stability'. This is based on legislative provisions, and the Bank pursues this mission in its capacity as national central bank and member of the Eurosystem.

The following core functions complement the mission statement:

- maintaining price stability
- promoting financial stability
- ensuring the effectiveness and security of the payment system
- supporting sustainable growth and high employment in Finland and the EU.

## The Bank of Finland's vision of its future serves as a guidepost for its activities

The Bank of Finland's vision of its future is expressed as follows: 'The Bank of Finland is an influential and respected central bank that maintains price and financial stability in all circumstances with the aim of promoting citizens' wellbeing.'

The Bank of Finland carried through five strategic priorities in its activities in 2021:

1. COVID-19 crisis impact assessment and solutions;
2. contributing to the review and reform of the ECB's monetary policy strategy;
3. preparing for the Eurosystem's central bank digital currency;
4. knowledge-based management and influencing; and
5. contributing to domestic economic policy and fostering financial literacy.

## Bank of Finland strategy viable in a changing operating environment

In 2021, the Bank of Finland organised three online strategy seminars for senior management.

The first of the strategy seminars focused on leadership and resulted in a joint leadership vision for the Bank of Finland and the Financial Supervisory Authority. This leadership vision is a shared understanding of the sustained management work required to enable achievement of strategic goals by staff whose wellbeing needs are met.

In the other two online seminars, the Bank of Finland's senior management examined the Bank's strategy in terms of how effective it is in a changing operating environment. They concluded that the mission and vision statements and the principles guiding the Bank of Finland's activities were up to date and provide a sound basis for the Bank's work and its future development.

### Links

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

[Bank of Finland's indicator targets and their achievement in 2021](#)

[Organisation of the Bank of Finland](#)

[Sustainability programme](#)



[Sustainability at the Bank of Finland](#)



## Division of responsibilities between members of the Board



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 voted one of the most inspiring places to work in 2021

In 2021, Bank of Finland staff continued as a general rule to work from home (teleworking). During the COVID-19 pandemic, wellbeing at work has seen an emphasis on clear communication by the employer and an enhanced significance for the workplace as a community and for rest and the recharging of batteries. The good results of the Bank's staff surveys were widely recognised.

At the Bank of Finland, we have 378 staff working in the areas of monetary policy and research, financial markets, banking operations and currency supply.

In addition to our core activities, the Bank also has strong in-house expertise in areas such as IT, personnel and financial administration, communications and financial literacy, and language services.

The average age of Bank of Finland staff is 46.5 years. Of total staff numbers, 47% are women and 53% are men. The Bank of Finland provides a pleasant working environment, and staff are committed to their work. People stay at the Bank for on average of 15.7 years.

Chart 1.

## At year-end 2020 the Bank of Finland staff totalled 359

### Gender distribution

Total staff

Male  
**53%**  
Female  
**47%**



Management staff

Male  
**53%**  
Female  
**47%**



Sick leave  
**5.3** d/pwy



Average age  
**46.5** yrs

### Higher education index



### Leadership (national norm for expert staff 71.4%)



### Job satisfaction index (national norm for expert staff 71.5%)



Source: Bank of Finland

## Regular teleworking underlined the importance of clear communications and the need for a sense of community

On account of the COVID-19 pandemic, the Bank of Finland's staff continued teleworking as a general rule. In the office we took care only of those functions that could not be carried out at a distance.

The joint crisis organisation of the Bank of Finland and the Financial Supervisory Authority (FIN-FSA) constantly monitored the COVID-19 situation and communicated the employer's policies and guidelines regularly to the staff.

The Bank of Finland monitored staff wellbeing at work during the pandemic by use of a survey to this end. The survey was conducted in February, and the response rate among Bank of Finland and FIN-FSA staff was 83%.

The staff felt that the employer's COVID communications and guidance had been clear. There was also general satisfaction with the employer's COVID-related actions.

The survey also found that the importance of the workplace community and workmates had become clearer, but at the same time individuals' personal wellbeing at work and ability to relax after work and recharge their batteries was felt to have weakened with regular teleworking.

## **‘Changing patterns of work’ project generates new ways of working**

The Bank of Finland and FIN-FSA's joint project ‘Changing patterns of work’ will update our common working practices and collect ideas and experiences for hybrid patterns of working.

Once the pandemic situation had stabilised and the extensive teleworking recommendation had come to an end, in early November the Bank of Finland prepared to embark on a transition phase towards hybrid working. The aim was to collect experiences with combining teleworking and working on the premises.

At the end of November, the pandemic situation deteriorated once again, however, and the crisis organisation decided to return the staff to general teleworking in order to ensure operational continuity and the health and safety of staff.

## **Bank of Finland among the most inspiring places to work in Finland**

The Bank of Finland monitors satisfaction at work through a staff survey conducted every second year. Staff actively responded to the survey conducted in November, with an excellent response rate of 85.4%.

The overall outcome of the staff survey was ‘good’, according to Eezy's PeoplePower measurement scale. The results showed a positive trend since the previous survey, with no weaker outcomes.

The trend in satisfaction at work is monitored at the Bank of Finland using the PeoplePower index.

The result of 73.6 on a scale of 0–100 was significantly above the Finnish norm for expert staff (71.5). Around 38% of organisations achieve a corresponding level. As was our aim, the leadership index (73.4) also exceeded the Finnish expert norm (71.4).

As a result of the staff survey, the Bank of Finland was ranked among ‘Finland’s most inspiring workplaces’, a title awarded annually to the organisations that performed best in Eezy Flow’s PeoplePower survey.



The Bank of Finland was chosen as one of the most inspiring workplaces in 2021.<sup>2</sup>

<sup>2</sup>Eezy Flow’s PeoplePower symbol is granted each year to the best organisations participating in their employee experience survey.

## **As an employer, the Bank of Finland is #SoundButNotSerious**

The Bank of Finland is a stable, responsible employer and, as a participant in the national ‘Responsible employer’ and ‘Responsible summer job’ campaigns, is involved in developing responsibility and sustainability in working life.



In 2021, the Bank of Finland increased its employer profile communications particularly in social media, where the Bank communicated regularly on job vacancies and staff members recounted their ‘career stories’ of working at the central bank.

In the spring, we published 7 career stories, and 9 summer work blogposts, in which summer employees told of their daily experiences in their summer jobs at the Bank.

In the LinkedIn Talent Awards in 2021, the Bank of Finland was voted one of the three best employer brands in the Nordic region in the category for organisations with under 1,000 employees.



The Bank of Finland is one of the favourite employers for students of business studies, and one of the most popular employers in the public sector.

For the Bank of Finland, providing jobs for young people is an important component of our social responsibility. Every year, we have around 30 young people working in summer jobs at the Bank.

[Responsible employer](#)

[Responsible summer job](#)

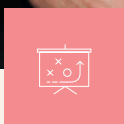
## **New Young Professionals programme launched in 2021**

The Bank of Finland and FIN-FSA's Young Professionals programme (or 'YP programme') offers new university graduates or others in the early years of their working life a unique opportunity to learn about the key functions of the central bank and the financial and insurance supervisory authority and to develop into a top financial sector professional.

In September, altogether 9 trainees began working in the Young Professionals programme on topics relating to economics, other financial specialties, IT, digitalisation and the law.

During the programme, participants gain experience in three different areas over a period of six months and become acquainted with the various sub-areas through practical work.

The Bank of Finland and FIN-FSA's previous Young Professionals programme was held in 2018–2020.



## A common management vision for the Bank of Finland and the Financial Supervisory Authority

The Bank of Finland Board adopted in autumn 2021 a common management vision for the Bank of Finland and the Financial Supervisory Authority. The new management vision represents a common view of management and lays the foundation for management development while also guiding everyday management work.

The management vision is vital for ensuring a consistent management culture and updating working practices. It will support the achievement of our strategic objectives, good staff performance and the wellbeing of the workplace community.

Chart 2.

## The management vision



Source: Bank of Finland

## Key content of the management vision

### 1. We show the way and achieve our objectives

All members of staff know our strategic objectives and both individually and in teams work to achieve them. Practical management involves guiding the staff towards these objectives via commonly agreed goals. For each member of our staff, we create the opportunity to succeed.

All members of staff work responsibly and make economical and efficient use of the resources they are allocated.

### 2. We inspire and renew

Through our management work, staff are inspired and motivated to good performance via their recognised strengths and successes.

In our management processes we recognise the need and appropriate means for constant learning and set aside sufficient time for learning. We encourage our staff to develop their own competences and communicate expertise across organisational boundaries.

We provide every member of staff with both healthy and safe working conditions and take care of staff wellbeing.

Staff wellbeing is a workplace's most important resource and a prerequisite for productive activity. Staff wellbeing and meaningful work are also competitive advantages in our employer profile and in ensuring our ability to attract prospective employees.

### 3. We grow as leaders

In our management work and throughout the workplace community we set our sights high. This means faith in the possibility of change and that all members of staff can develop their skills and are keen to overcome the challenges they will face.

Management and all members of staff play a role, through their actions, in building a psychologically safe workplace. Everyone feels they are accepted and valued for who they are and that they are free to express themselves.

Key factors in maintaining a psychologically safe workplace culture include the practical everyday actions of management, a focus on shared values and the efforts of individuals to set an example.

When *psychological safety* is secured, this will enhance the ability of teams to function effectively and will improve the sharing of information and knowledge, learning, job satisfaction, performance and creativity.

### 4. We succeed together

We seek to achieve our common objectives through cooperation in both internal and external networks. Through their own actions, all members of staff also help their colleagues to succeed.

We develop our own networks and participate in them actively. The role of a leader is to remove obstacles to working together and provide opportunities for constructive cooperation.



## Bank of Finland budget and operating expenses for 2022

It is a key objective of the Bank of Finland's strategy as a central bank to build a sustainable economy and promote stability. For us to be a credible actor in pursuit of this objective requires us to exhibit continuous and determined economic governance and HR planning.

The Bank of Finland monitors its operating expenses and related objectives closely.

The intention is to achieve the Bank's targets for efficiency and sustainability.

The Board evaluates implementation of the objectives on a quarterly basis.

### Bank of Finland

In 2021, the Bank of Finland's operating expenses totalled EUR 96.3 million (2020: EUR 94.5 million). Income totalled EUR 17.1 million and was derived from, for example, royalties, rents and various fees.

Owing to the COVID-19 pandemic, staff-related expenses, in particular, fell, since there were very few business trips or stakeholder events.

Rents from real estate and income from other than investments in the reserve fund bring down the net difference between operating expenses and income. The sale of the former Oulu regional office was completed in September.

The Bank of Finland also has other major sources of income which do not have the effect of decreasing operating expenses in the budget and are therefore not included in the tables here.

The Bank's net operating expenses totalled EUR 79.2 million. For a more detailed breakdown of the outturn for 2021 and the budget for 2022, see Table 1.

Investment expenditure totalled EUR 10.0 million (Table 2).

In autumn 2021, the Bank's budgets for the period 2022–2024 were drawn up. Of these, the Board ratified that for 2022.

The Bank has focused increased attention on the medium-term planning of investment. Investments are evaluated based on their costs, qualitative benefits and operative risks.

## Pension fund

The pension fund's operating expenses for 2021 totalled EUR 30.8 million (2020: EUR 31.1 million). Pensions paid constituted the largest cost item, amounting to EUR 28.6 million. Operating income (employment pension contributions and income from rent) amounted to EUR 14.9 million during the year.

The pension fund also received an additional contribution of EUR 10.0 million from the Bank, which was used to cover some of the pension fund deficit for the accounting period.

For a more detailed breakdown of the outturn for 2021 and the budget for 2022, see Table 3.

The pension fund's operations are published 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) each year.

The Authority's operating expenses for 2021 totalled EUR 39.7 million (2020: EUR 37.1 million). Total income amounted to EUR 42.0 million, of which supervision and processing fees accounted for EUR 38.2 million, while the Bank of Finland's contribution to funding was EUR 2.0 million.

The figure for income includes a surplus of EUR 1.9 million from the previous accounting period. The surplus for the financial year was EUR 2.4 million. The surplus will be taken into account in the following accounting period when setting the supervisory and processing fees. Investment expenditure totalled EUR 0.8 million.

For a more detailed breakdown of the outturn for 2021 and the budget for 2022, see Table 4.

The Financial Supervisory Authority's operations are presented in the authority's [own annual report](#).

**Table 1.**

<b>Bank of Finland</b>	<b>Outturn 2021 EUR m</b>	<b>Budgeted 2022 EUR m</b>
<b>1. Operating expenses and income</b>		
<i>EXPENSES</i>		
<i>Staff expenses</i>	-36.7	-38.3
<i>Staff-related expenses</i>	-0.8	-3.7
<i>Other expenses</i>	-28.5	-34.0
<i>Banking service expenses</i>	-9.4	-8.7
<i>Depreciation</i>	-8.1	-9.2
<b>Total</b>	<b>-83.5</b>	<b>-93.8</b>
<i>Banknote acquisition costs</i>	-4.5	-7.6
<i>Pension fund contribution</i>	-8.3	-8.3
<b>Total operating expenses</b>	<b>-96.3</b>	<b>-109.7</b>
<i>INCOME</i>		
<i>Banking service income</i>	3.5	3.8
<i>Real estate</i>	5.3	5.2
<i>Other income</i>	1.7	0.2
<i>Services to FIN-FSA</i>	6.5	7.0
<b>Total income</b>	<b>17.1</b>	<b>16.2</b>
<b>Net</b>	<b>-79.2</b>	<b>-93.5</b>

*Due to rounding, the totals do not necessarily tally.*



**Table 2.**

<b>Bank of Finland</b>	<b>Outturn 2021 EUR m</b>	<b>Budgeted 2022 EUR m</b>
<b>Investment</b>		
<i>Real estate investment</i>	4.7	5.6
<i>Head office premises</i>	1.5	1.5
<i>Vantaa premises</i>	2.8	3.5
<i>Other premises</i>	0.4	0.6
<i>IT-equipment and software</i>	4.5	7.2
<i>Cash handling machines</i>	0.0	0.0
<i>Security equipment</i>	0.9	1.0
<i>Other</i>	0.0	0.0
<b>Total investment</b>	<b>10.0</b>	<b>13.8</b>

*Due to rounding, the totals do not necessarily tally.*

**Table 3.**

<b>Pension fund</b>	<b>Outturn 2021 EUR m</b>	<b>Budgeted 2022 EUR m</b>
<b>1. Operating expenses and income</b>		
<i>EXPENSES</i>		
<i>Staff expenses</i>	0.0	0.0
<i>Expenses for pension fund activities</i>	-0.6	-0.3
<i>Pension fund real estate expenses</i>	-0.5	-0.6
<i>Depreciation</i>	-0.9	-1.0
<i>Pensions paid</i>	-28.6	-29.3
<b>Total expenses</b>	<b>-30.8</b>	<b>-31.1</b>
<i>INCOME</i>		
<i>Employment pension contributions</i>	13.2	14.1
<i>Internal rents</i>	1.7	1.7
<i>Pension fund contribution</i>	10.0	10.0
<b>Total income</b>	<b>24.9</b>	<b>25.8</b>
<b>Net</b>	<b>-5.9</b>	<b>-5.3</b>

*Due to rounding, the totals do not necessarily tally.*

**Table 4.**

<b>Financial Supervisory Authority</b>	<b>Outturn 2021 EUR m</b>	<b>Budgeted 2022 EUR m</b>
<b>1. Operating expenses and income</b>		
EXPENSES		
Staff expenses	-24.4	-25.7
Staff-related expenses	-0.2	-1.2
Other expenses	-5.9	-6.6
Depreciation	-0.9	-0.8
Services from the Bank of Finland	-6.5	-7.0
Pension fund contribution	-1.7	-1.7
<b>Total operating expenses</b>	<b>-39.7</b>	<b>-43.0</b>
FUNDING OF OPERATIONS		
Supervision fees	35.6	36.5
Processing fees	2.6	1.8
Bank of Finland contribution to funding	2.0	2.1
Surplus/deficit transferred from previous year	1.9	2.5
<b>Total income</b>	<b>42.0</b>	<b>43.0</b>
<b>Surplus transferred to next year</b>	<b>-2.4</b>	

*Due to rounding, the totals do not necessarily tally.*



## Bank of Finland reviewed calculation of its carbon footprint in 2021

The Bank of Finland's carbon footprint for 2021 was calculated using the internationally approved and recommended Greenhouse Gas Protocol (GHG) methodology. At the same time, new emission sources were considered in the calculation of the Bank's carbon footprint.

With the changes to the calculation method, the way the Bank of Finland's emissions were measured was revised and structured more clearly. The results of the calculation cannot, as such, be compared with those for previous years, because the carbon footprint for 2021 is bigger than before as a result of the new emission sources incorporated in the calculation.

The greenhouse gas emissions from the operations of the Bank of Finland and the Financial Supervisory Authority are minimal. Most are indirect emissions occurring in the value chain.

### **The Bank calculated its emissions in 2021 with reference to the globally recognised Greenhouse Gas Protocol**

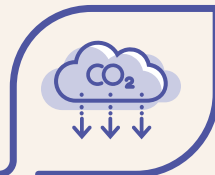
To gain a clearer picture of the emissions structure, the Bank of Finland calculated its emissions for 2021 in accordance with the GHG Protocol guidelines.

The GHG Protocol is the standardised method that is used most in an international context to determine and report on the greenhouse gas emissions of companies and other organisations.

To delineate direct and indirect emission sources, the GHG Protocol identifies three 'scopes' for GHG accounting purposes.

Scope 1: these emissions occur directly as a result of an organisation's own operations, and they are the easiest to manage. Scope 2: these are indirect emissions related to the purchase of energy, such as the generation of electricity. Scope 3: these are other indirect emissions that result from logistics operations and waste management, for example.

The adoption of the 'scope' model reduces the risk of double counting, where different companies and organisations calculate emissions for partly the same operations.



Our carbon footprint calculation method amended in line with the Greenhouse Gas Protocol<sup>1</sup> enables a more accurate emissions calculation and brings additional identified emissions sources.

<sup>1</sup>Globally recognised standards for measuring greenhouse gas emissions.

## The revised calculation method takes account of new emission sources

The emission sources from the operations of the Bank of Finland and the Financial Supervisory Authority (scopes 1 and 2) include the fuel consumption of vehicles and equipment (owned or hired) used in the management of the organisations and the consumption of purchased energy in their workplaces and facilities.

Indirect emissions from the generation of purchased energy (scope 2) were, unlike before, calculated using precise emission factors for each individual energy supplier. That clearly reduced the emissions associated with energy consumption. Previously, the calculation was based on average emission factors for energy production in Finland.

Because the electricity purchased by the Bank of Finland is more environmentally friendly than the average for the country, emission accounting using precise factors is a better reflection of the energy production method chosen by the Bank of Finland and the emissions it produces.

Furthermore, the Bank of Finland has managed to slim down its operations, with the closure of the Oulu regional office in 2020, once again reducing the need for energy.

Indirect emissions in the value chain (scope 3) relate, inter alia, to the purchases made by the Bank of Finland and Financial Supervisory Authority and the services that they use, investment in construction, transport, office waste, business trips, commuting and the energy consumption of tenants.

The most significant changes in the calculation relate to the indirect emissions in the value chain associated with scope 3. The new emission sources included in the accounting process were the production of purchased services, investment in construction and the energy consumption of tenants in properties owned by the Bank of Finland.

The calculation also took account of employee commuting and the emissions associated with working from home. There was also more focus on the calculation of emissions from the treatment of waste, transport and business travel.

## **The fact that the calculation covers a wider area means that the Bank of Finland's carbon footprint has grown**

The combined carbon footprint for the Bank of Finland and the Financial Supervisory Authority was 10,120 tCO<sub>2</sub>e in 2021, covering the emissions from their own operations plus those in the value chain.

The emissions from their own operations (scopes 1 and 2) amounted in total to 1,605 tCO<sub>2</sub>e. The indirect emissions in the value chain (scope 3) accounted for most of the emissions total (84%). It is very clear that most emissions are the result of investment in construction.

Incorporating the new emission sources in the calculation meant that the carbon footprint was bigger than in previous years. The main emission source in scope 1 was refrigerant leaks, whereas scope 3 emissions were mainly increased by investment in construction, the energy consumption of tenants and air transport.

The Bank of Finland and Financial Supervisory Authority monitor the environmental impact of their operations using an environmental performance indicator that is proportionate to operating expenses. It takes account of all the emissions from their own operations and those in the value chain (scopes 1-3).

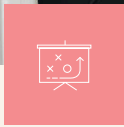
Emissions in proportion to operating expenses in 2021 were 98.19 kg/tCO<sub>2</sub>e/EUR 1,000.

## **Vantaa waste sorting station wins Bank of Finland Ideas Competition 2021**

A new waste sorting station was established at a Bank of Finland property in Vantaa. It will be used by both the Bank and the Bank's tenants.

The waste sorting station design caters for all the waste produced at the property and the current options for recycling it. The goals with this project are: to have a major environmental impact, to generate functional benefits and to cut costs.

The solution fits in with the environment and sustainability theme of the Bank of Finland's Ideas Competition, and the idea itself was the year's winner.



## New Data Balance Sheet augments Bank of Finland Annual Report

The Data Balance Sheet brings together details of the development work undertaken in information management in 2021 and focuses on various aspects of data security and data protection. It also presents interesting facts and figures concerning central bank functions, information management and analytical work. The Bank of Finland's first Data Balance Sheet will be published in April 2022.

The Act on Information Management in Public Administration, which entered into force at the beginning of 2020, obligates information management entities to organise sufficient supervision of compliance with the legislation, regulations and guidelines on information management.

[The Data Balance Sheet](#) will serve in future as a key component of the Bank of Finland's reporting on information management. It presents more extensive information than before to stakeholders on the central bank's operating environment in regard to data and its use. Its purpose is to highlight the importance of data – plus the information derived from it and the knowledge interpreted from that information – to the work of the central bank.

The Data Balance Sheet will be published after the publication of the Bank of Finland's Annual Report. It serves to complement the Annual Report from an information management perspective.



## **Information management development programmes support the Bank of Finland's strategic focus on knowledge-based management**

During the course of 2021, the Bank of Finland has been running two development programmes aimed at improved information management and development of a platform for data and analytics.

The information management development programme was launched in connection with the entry into force of the Act on Information Management in Public Administration at the beginning of 2020. The development programme focuses on implementing the requirements of the Act.

Even before the new Act, the Bank of Finland had set up a development programme for data and analytics aimed at developing for the Bank and for the Financial Supervisory Authority a system platform for data and analytics as well as management and exploitation of analytical data.

The development objectives relating to management of analytical data were later incorporated into the general development objectives for information management, and going forward the data and analytics development programme will concentrate on developing the system platform and promoting its use.

Both development programmes support the Bank of Finland's strategic focus on knowledge-based management.

## **A central bank's data processing places large demands on data security**

The information-intensive nature of the Bank of Finland's operations and the critical nature of the data being processed place large demands on data security. For that reason, the data security policy applies throughout the entire organisation.

At the Bank of Finland, the Member of the Board with responsibility for data security together with the Head of Data Security and the Data Security Officer are responsible for implementation of data security and data protection work at the Bank and the Financial Supervisory Authority.

All operations at the Bank of Finland comply with the legislation governing data security and data protection, the requirements of the European System of Central Banks and best practices in central banking.

In addition, information management at the Bank of Finland is designed to accord with ISO standard 27001.

## **Unique central bank archive's most interesting material is being placed online**

The central bank archive's oldest document is from 1812. Archive material has accumulated for over 200 years in paper form, and since 2018 almost exclusively in digital form.

The paper material occupies over 7 kilometres of shelves. Material is archived either permanently or for a set period. The National Archives of Finland decides which central bank materials are to be kept permanently.

Digitisation of the archive material was begun a few years ago. In part, digitisation focuses on historically interesting bodies of material, such as minutes of the meetings of the banking supervisors, while some of the work focuses on protecting material in danger of destruction.

The portion of the digitised material of most interest to researchers is published in the [Institutional Repository](#), whose collections are growing year by year.



# Bank of Finland's indicator targets and their achievement in 2021

31.12.2021

## I Influence and service capacity

Guiding principle

**1. We create added value through expertise, insightful solutions and confidence-building cooperation.**

**Public survey on the Bank of Finland's reputation and public confidence in the Bank**

---

Objective	The survey will be carried out every second year.	
12/2019	12/2020	12/2021
-	-	<b>New indicator</b>

**Stakeholder survey on the Bank of Finland's effectiveness in regard to the strategic priorities**

---

Objective	The survey will be carried out every second year.	
12/2019	12/2020	12/2021
-	-	<b>New indicator</b>

Guiding principle

## 2. We base our statements and decisions on knowledge, research and high-quality analysis.

Quality-weighted volume of research activities.  
Quality-weighted index of peer-reviewed articles.

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Objective  $\geq 32$

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12/2019	12/2020	12/2021
52	19	56

Guiding principle

## 3. We participate in social discourse, reach our stakeholders and engage in constructive dialogue in Finland and the Eurosystem.

The visibility and effectiveness index of the  
Bank of Finland's media output (Euro ja talous/  
Bank of Finland Bulletin media index)

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Objective  $\geq 4$

---

12/2019	12/2020	12/2021
–	New indicator	4.6

## Objective 2: The Bank of Finland maintains price and financial stability in all circumstances.

Guiding principle

### 4. We provide advanced and reliable central bank services for the changing needs of Finnish society.

The quality of central bank services from the perspective of the users of the services. (Target services and collateral management, users of statistics and reporters, professional parties to currency supply.)

**Objective**    **≥ 95% of respondents satisfied**

12/2019	12/2020	12/2021
<b>98%</b>	<b>98%</b>	<b>98%</b>

Consumer survey on access to cash and the condition of cash across society as a whole (weighted average).

**Objective**    **≥4 (on a scale of 1–5)**

12/2019	12/2020	12/2021
<b>4.1</b>	<b>4.1</b>	<b>4.1</b>

Guiding principle

### 5. We ensure operational continuity by preparing for changes, disruptions and crises.

Reserve fund + reservations relative to the assessed balance sheet risks.

**Objective**    **We accumulate reserves to achieve a sufficiently strong balance sheet under all circumstances.**

12/2019	12/2020	12/2021
<b>EUR 6,066 million</b>	<b>EUR 6,686 million</b>	<b>EUR 6,807 million</b>

Number of severe disruptions. Extensive disruptions or system disturbances to critical business operations affecting the Bank of Finland or the Financial Supervisory Authority and lasting longer than one hour.

**Objective**    **0**

12/2019	12/2020	12/2021
<b>0</b>	<b>0</b>	<b>0</b>

Guiding principle

## 6. We develop our expertise and working practices on a long-term basis and with an eye to the future.

Our management index surpasses the outcomes of external peer groups.

---

**Objective**    2019:  $\geq 71.4$ ; 2020:  $\geq 71.7$ ; 2021:  $\geq 69.9$

---

12/2019	12/2020	12/2021
<b>70.8</b>	<b>74.1</b>	<b>73.4</b>

Our job satisfaction index surpasses the outcomes of external peer groups.

---

**Objective**    2019:  $\geq 70.6$ ; 2021:  $\geq 71.5$

---

12/2019	12/2020	12/2021
<b>70.9</b>	Measurement every second year	<b>73.6</b>

Annual implementation of individual development plans

---

**Objective**    Over 80% of plans implemented well

---

12/2019	12/2020	12/2021
<b>80%</b>	<b>79%</b>	<b>80%</b>

## Objective 3: The Bank of Finland promotes citizens' wellbeing.

Guiding principle

### 7. We act responsibly and in accordance with the principles of sustainable development.

#### Carbon footprint, total emissions/operating expenditure of the Bank of Finland and the Financial Supervisory Authority

Objective	A downward trend	
12/2019	12/2020	12/2021
–	<b>Calculation method changed to accord with internationally approved and recommended greenhouse gas (GHG) protocol.</b>	<b>98 kg CO2/€1,000</b>

#### Observance of the UN Principles for Responsible Investment

Objective	2020: Reporting organised and implemented; 2021: Measurement calibrated	
12/2019	12/2020	12/2021
<b>New indicator</b>	<b>Reporting organised and implemented</b>	<b>Measurement calibration incomplete</b>

#### Minority gender as proportion of all management staff

Objective	Upward trend	
12/2019	12/2020	12/2021
<b>42%</b>	<b>45%</b>	<b>47%</b>

#### Absences through sickness

Objective	< 3.5%	
12/2019	12/2020	12/2021
<b>2.4%</b>	<b>1.7%</b>	<b>2.1%</b>

Guiding principle

## 8. We carry out our activities effectively and efficiently, maintaining stable profit distribution to the State without jeopardising the Bank's capital adequacy.

### Distributed profit

**Objective** Stable distribution of profit to the State

12/2019	12/2020	12/2021
<b>EUR 188.0</b> million	<b>EUR 100.0</b> million	<b>EUR 26.3</b> million

Interest income plus the yield on investment assets above the 5-year average of the average central bank interest on the currencies in the currency reserve

**Objective** > 0

12/2019	12/2020	12/2021
<b>New indicator</b>	<b>New indicator</b>	<b>Interest income 0.8%, yield on investment assets 2.4%</b>

Combined person years of permanent, fixed-term and temporary staff

**Objective** 2021: ≤ 385.5

12/2019	12/2020	12/2021
<b>372</b>	<b>364</b>	<b>376</b>

Aggregate departmental operational expenditure

**Objective** 2021: ≤ EUR 66 million

12/2019	12/2020	12/2021
<b>EUR 56</b> million	<b>EUR 55</b> million	<b>EUR 58</b> million



Guiding principle

## 9. We promote citizens' knowledge of the economy, the Bank of Finland and the Eurosystem by providing understandable information.

### Implementing national coordination of financial literacy

**Objective** Making progress in line with the action plan

12/2019	12/2020	12/2021
<b>New indicator</b>	<b>Implemented in line with action plan</b>	<b>Implemented in line with action plan</b>

### Time spent with the Bank of Finland's Internet content

**Objective** Average duration of visit  $\geq$  1 minute

12/2019	12/2020	12/2021
–	<b>New indicator</b>	<b>1 minute 6 seconds</b>

### Engagement rate for social media posts (Twitter)

**Objective**  $\geq$  3%

12/2019	12/2020	12/2021
–	<b>New indicator</b>	<b>1.5 %</b>



## Annual report

The Eurosystem is responsible for the single monetary policy of the euro area. The main objective of monetary policy is to keep prices stable in the euro area, so that the value of money is held more or less unchanged and strong purchasing power is preserved. Monetary policy decisions are guided by the monetary policy strategy of the European Central Bank (ECB). The ECB published a new monetary policy strategy in 2021.

The Bank of Finland contributes to maintaining financial stability in Finland. It assesses risks to the financial system, compiles financial statistics and prepares macroprudential policy. In 2021, the Bank of Finland promoted domestic financial stability particularly via measures that curb excessive indebtedness. The financial sector's role in the mitigation of climate change became increasingly important.

The Bank of Finland is responsible for the availability and issuance of euro cash in Finland. In addition to cash supply, the Bank of Finland's duties include oversight, i.e. the assessment of the reliability and efficiency of domestic payment and securities settlement systems. In 2021, the COVID-19 pandemic further strengthened the decline in the use of cash and the transition in payment habits.

Holding and managing foreign reserves are among the statutory tasks of the Bank of Finland. The Bank of Finland's asset performance was favourable in 2021. Investments in equity and real estate saw especially good returns. It was, however, a challenging year for fixed-income investments. In 2021, sustainability became the fourth objective of investment activities, alongside security, liquidity and return. The aim is for a carbon-neutral investment portfolio.

The Bank of Finland's influence is based on expertise and research. The Bank participates in social debate and promotes financial literacy in Finland. In 2021, the Bank of Finland Museum expanded its activities to include a Financial Literacy Centre.

A central bank's sustainability starts with its core functions. Our mission is rooted in the building of sustainable economic stability, thereby fostering the wellbeing of the general public.



## Monetary policy

- 47 **European Central Bank revises monetary policy strategy**
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- 63 **Monetary policy continued to be implemented using a wide range of tools**
- 74 **Asset purchase programmes in 2021**

## Monetary policy

The Eurosystem is responsible for the single monetary policy of the euro area. The main objective of monetary policy is to keep prices stable in the euro area, so that the value of money is held more or less unchanged and strong purchasing power is preserved. Monetary policy decisions are guided by the monetary policy strategy of the European Central Bank (ECB). The ECB published a new monetary policy strategy in 2021.

The Eurosystem comprises the European Central Bank and the national central banks of the euro area. 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.

The Bank of Finland is responsible for implementing the Eurosystem's monetary policy in Finland.

### **Price stability definition and inflation target at heart of ECB's 2021 revised monetary policy strategy**

The ECB's monetary policy strategy states how it will maintain price stability in the euro area and what objectives it will set for its monetary policy. The strategy also specifies how the ECB's Governing Council decides on and communicates about monetary policy.

Prior to the new strategy, a review of the ECB's monetary policy strategy was carried out in response to the changing shape of the operating environment. The Bank of Finland was involved in the review process.

The Governing Council of the ECB published the new monetary policy strategy and statement on 8 July 2021. The principal change concerned the definition of price stability and the ECB's inflation target.

The new strategy adopts a symmetric inflation target of 2% over the medium term. The symmetric nature of the inflation target means that the ECB's Governing Council considers that both negative and positive deviations from this target are equally undesirable.

## **Revised strategy also takes into account the needs of climate change mitigation and a more diverse range of communications**

Climate change and the transition towards a more sustainable economy are evident in macroeconomic indicators such as inflation, employment and investment. Climate change and the transition to a lower carbon economy also affect asset values and the risk profile on the Eurosystem balance sheet.

The ECB is increasing its analytical capacity so that it can improve the consideration of risks in its risk management work, investment activities and monetary policy operations.

For monetary policy to function well, there needs to be transparency and accountability. The ECB's written communications on monetary policy will in future take four different forms: a press release, a monetary policy statement, the Economic Bulletin and an account of the monetary policy meeting. The ECB will also supplement these information channels with material aimed at the general public.

## **European Central Bank's monetary policy remained accommodative in 2021**

The main objective of monetary policy is to maintain price stability. Monetary policy decisions concern such matters as setting the key ECB interest rates that guide market rates.

The accommodative stance of monetary policy helps preserve favourable financing conditions for all sectors of the euro area economy.

The monetary policy of the ECB was used to support growth during 2021. The Eurosystem made sure that financing conditions remained favourable in the euro area by continuing most of the monetary policy operations that it had introduced in 2020 to help tackle the COVID-19 crisis.

The Eurosystem arranged longer-term refinancing operations for banks under favourable terms; retained the pandemic-related measures for easing collateral requirements for central bank credit; continued the large-scale securities purchases; and maintained the swap lines between central banks.

At its December 2021 meeting, the Governing Council of the ECB decided that net purchases under the pandemic emergency purchase programme (PEPP) will end in March 2022.



## European Central Bank revises monetary policy strategy

The principal changes in the new monetary policy strategy concern the price stability definition and the ECB's inflation target. The new strategy adopts a symmetric inflation target of 2% over the medium term.

[The Governing Council of the European Central Bank \(ECB\) revised the ECB's monetary policy strategy in 2021.](#) The ECB's monetary policy strategy is based on the Treaty on the Functioning of the European Union and the mandate set out within it. The ECB's Governing Council determines the strategy within the framework of that mandate.

Chart 3.

### Inflation target

**THE NEW MONETARY POLICY STRATEGY**  
aims for 2% inflation over the medium term.

The target is symmetric, meaning that negative and positive deviations from the target are considered as equally undesirable.



Source: Bank of Finland

[The ECB's new monetary policy strategy was set out in a statement published on 8 July 2021 by the Governing Council](#). The monetary policy strategy sets out how the ECB is to maintain price stability in the euro area and what goals it has established for its monetary policy. The strategy also outlines how the ECB's Governing Council is to determine the central bank's monetary policy and communicate this. [The ECB published a large number of strategy review articles in late September](#).

The Bank of Finland was actively involved in the ECB's strategy review process. It held various seminars and events to gather views; these were aimed at the academic community, civil society organisations, the general public, national parliaments and the European Parliament.

Through such events, the Bank of Finland's aim is to raise the level of interaction between the ECB and citizens. It plans to hold similar events in the future, too.

## Strategy revision prompted by the changing operating environment for monetary policy

[Changes had occurred in the operating environment for monetary policy](#) since [the ECB's Governing Council last revised the strategy in 2003](#). This was the key reason for revising the strategy in 2021.

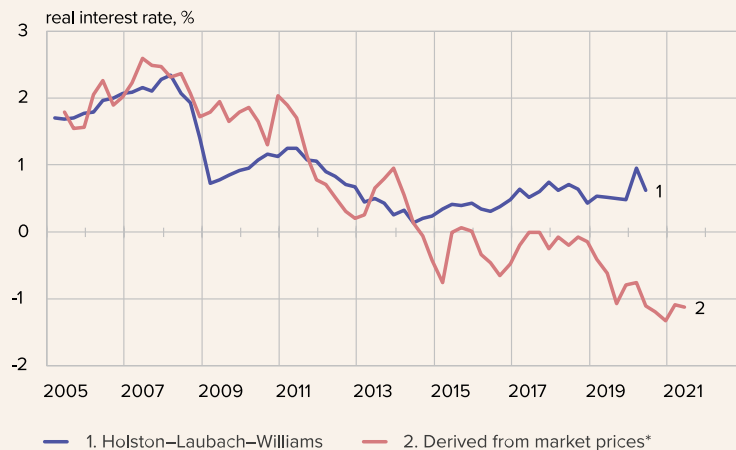
[The long-term natural or 'equilibrium' real interest rate](#), i.e. the interest rate at which the economy grows in line with its potential and the inflation target is met, has decreased for structural reasons both in the euro area and globally (Chart 4). [Estimates of the equilibrium interest rate vary and are subject to uncertainty](#).

One of the main structural reasons behind the decrease is the demographic transformation. The ageing of the population has boosted savings activity, increased demand for liquidity and reduced the level of interest rates. It may also have slowed GDP growth by impeding growth in productivity and investment.



Chart 4.

### Equilibrium real interest rate in euro area, 2005–2021



Sources: Macrobond, Bloomberg and calculations by the Bank of Finland.  
\* 5-year rate 5 years ahead, difference between interest rate swap and inflation swap.

Globalisation and the adoption of digital technologies have, in turn, had a long-term impact on the composition of goods and services production as well as the labour market, and perhaps also inflation. Furthermore, the ageing of the population has probably curtailed aggregate demand and thereby curbed inflation.

The financial environment has been substantially altered since the global financial crisis, and this has significantly affected the operating environment for monetary policy.

All the changes referred to above have limited the capacity of the ECB and other central banks to pursue any necessary relaxation of monetary policy by conventional means. In the economics literature this constraint is known as the [zero lower bound for monetary policy](#).

## ECB took climate change into account in its operational framework for monetary policy

Threats to environmental sustainability have emerged as key global challenges, and combating climate change has become one of the European Union's main goals.

Climate change and the transition towards a more sustainable economy are visible in the macroeconomic indicators that measure inflation, total output, employment, interest rates, investment and productivity. They also have an impact on financial stability and monetary policy transmission. In addition, the influence of climate change and the transition to a lower-carbon economy will be felt in asset values and risk profiles on the Eurosystem balance sheet.

Although the main responsibility for tackling climate change lies with national governments and parliaments, the ECB considers it has a duty to take [climate change considerations](#) more effectively into account in its monetary policy operational framework, within the limits of its mandate.

The ECB is also expanding its analytical capacity in order to incorporate climate issues into its economic models and to promote climate change risk measurement and reporting. This will allow it to better acknowledge the risks involved in risk management, investment and monetary policy operations.

## Diversity of ECB communications

Openness and accountability are essential for monetary policy to be clear and effective. To this end, the ECB will in future communicate its monetary policy through four different communications channels: a press release, a monetary policy statement, the Economic Bulletin and an account of the monetary policy meeting. In addition to these, the ECB will produce material aimed at the general public.

The ECB's Governing Council also considered that in a rapidly changing world, the ECB's monetary policy will likely need to be reviewed and adapted more regularly. The next assessment of the appropriateness of the monetary policy strategy is expected in 2025.

## ECB inflation target 2%

The principal changes in the revised monetary policy strategy concern the price stability definition and the ECB's inflation target.

For a long time, inflation was below the ECB's price stability target, and this also reduced inflation expectations significantly. Inflation expectations were then no longer anchored to the ECB's price stability target as strongly as before.

Under its new strategy, the ECB adopted a symmetric inflation target of 2% over the medium term. A symmetric inflation target means that the ECB's Governing Council considers that both negative and positive deviations from this target are equally undesirable. This marks a significant shift in the ECB's monetary policy.

[The ECB's de facto inflation target was distinctly below 2% prior to the new strategy](#), and its objectives in relation to inflation were asymmetric.

The ECB's Governing Council also confirmed that the harmonised index of consumer prices (HICP) will continue to be an appropriate measure (Chart 5). The index measures the change in prices of goods and services purchased by households. The Governing Council also favours the future inclusion of costs related to owner-occupied housing in the index.

Chart 5.

### Harmonised index of consumer prices (HICP), euro area, 1998Q1–2021Q2



Source: Eurostat.  
NOTE: Annual inflation for 2015 distorted by change in statistical method.

The symmetric 2% inflation target is unambiguous, clear and easy to communicate. It allows the ECB to focus on its capacity to maintain a sufficient safety margin against the risk of deflation and to make sure monetary policy has sufficient room for manoeuvre to respond to inflation that is too low.

It is also expected to influence long-term inflation expectations and to anchor them more firmly to the ECB's target. Committing to a symmetric 2% inflation target removes the perception of a 2% upper limit associated with the inflation target as previously defined.

Price stability, balanced economic growth and full employment are mutually supportive economic policy objectives. The ECB's strategy states that it aims for price stability over the medium term, and so this enables a monetary policy stance that is flexible in relation to different economic disturbances.

## Governing Council took account of zero lower bound in its monetary policy

A persistent negative deviation in inflation is particularly detrimental because of the effective lower bound on interest rates and a low equilibrium real interest rate.

Commitment to the symmetric inflation target may require especially forceful or persistent monetary policy measures based on a thorough impact assessment if the euro area economy is at risk of drifting towards the effective zero lower bound.

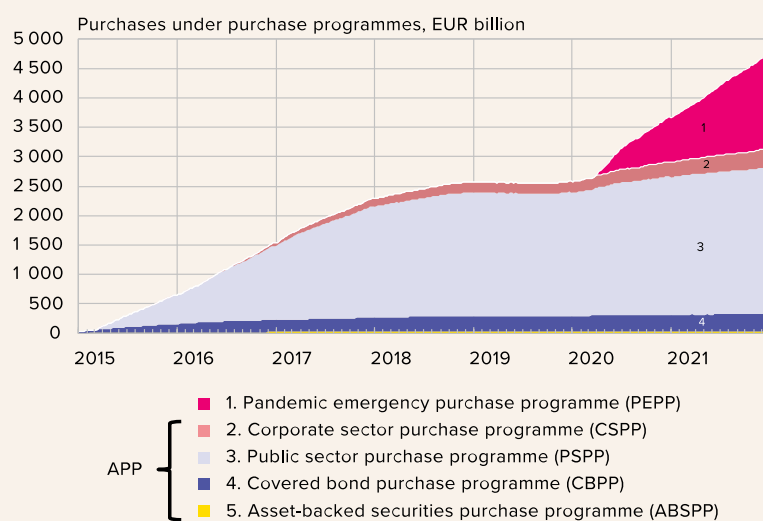
If close to the effective zero lower bound, where a reduction in interest rates would do more harm than good, the ECB's Governing Council would be ready to keep monetary policy accommodative for a longer period in order to stabilise the economy and inflation. This may also mean that inflation is above target for a transitory period.

## Asset purchases, longer-term refinancing operations and forward guidance still part of the monetary policy toolbox

Central banks resorted to large-scale purchases of securities (Chart 6) and longer-term refinancing operations (LTROs) due to a decrease in the equilibrium real interest rate and because monetary policy is constrained by the zero lower bound. The aim was to halt the slowing of inflation.

Chart 6.

### Monetary policy operations in euro area, 2015–2021

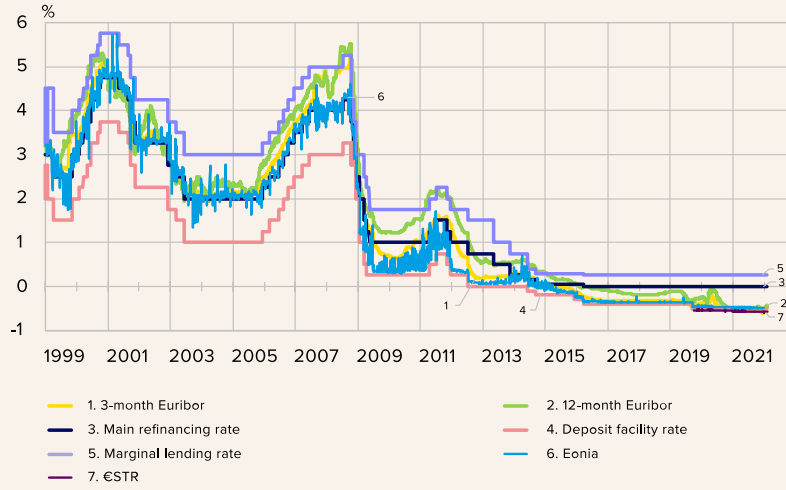


Source: European Central Bank.

Interest rate policy was expanded into the realm of negative rates (Chart 7), and the impact of interest rate policy and the asset purchase programme on market rates (Chart 8) and the related expectations was intensified through decisions concerning the duration and amounts of measures. Bank lending and lending rates were influenced through [targeted longer-term credit operations](#).

Chart 7.

### Policy rates in euro area, 1999–2021



Source: European Central Bank.

Chart 8.

### Long-term interest rates in euro area, 1998–2021



Sources: European Central Bank and Macrobond.

These new monetary policy instruments have had a significant positive effect on bank lending, GDP growth and inflation in the euro area. Use of the new instruments may nevertheless have its limits and can also have detrimental effects on financial stability, among other things. The Governing Council of the ECB will adjust the use of these instruments as necessary in order that second-round effects can be minimised, but without endangering price stability.

## **ECB's monetary policy takes account of growth-stabilising fiscal policy**

Fiscal policy operating on the principle of countercyclical economic policy may further the effectiveness of monetary policy during major recessions and when close to the effective zero lower bound. In such a situation, monetary policy and discretionary fiscal policy can mutually support and reinforce each other, underpinning recovery in the economy. The deployment of countercyclical fiscal policy nevertheless correspondingly requires buffers to be built up during upswings in the economy, if general government debt sustainability is to be secured.

Experience gained from the global financial crisis, Europe's sovereign debt crisis and the global pandemic point to the fact that effective macroeconomic consolidation requires complementary fiscal and monetary policies during times of crisis.

## **ECB will continue to support EU's general economic policies**

The Treaty on European Union states that the primary objective of the European System of Central Banks (ESCB) shall be to maintain price stability.

Without prejudice to the objective of price stability, the ESCB will support the general economic policies of the European Union with a view to achievement of the objectives of the EU as laid down in Article 3 of the Treaty on European Union.

In deciding on the use of different monetary policy instruments, for example, the ECB's Governing Council will endeavour to select the option which best supports the general economic policies of the EU. The Governing Council therefore also takes into account how the decision affects growth, employment, social progress and financial stability, and how it will help mitigate the effects of climate change.

## **Financial stability is a condition for price stability, and vice versa**

Financial crises and instability are detrimental to economic growth, employment and investment. Financial stability is based principally on the responsible conduct of banks, investors and borrowers. Public authorities, through the regulation and supervision they pursue, seek to ensure that financial system risks remain under control.

When there is a disruption on the financial markets, monetary policy aimed at price stability will seek primarily to maintain liquidity in the financial system, prevent a weakening of bank balance sheets and lending capacity, and avoid debt deflation. In debt deflation, a fall in prices causes a rise in the real value of overall debt.

The primary responsibility for maintaining financial stability rests with the banking supervision and macroprudential policy decision-makers. Financial stability forms a flexible element of monetary policy that takes into account the prevailing circumstances, but without prejudicing price stability over the medium term. To this end, preparation of the ECB's monetary policy decisions will include more extensive consideration of key factors affecting financial stability.



## European Central Bank's monetary policy in 2021

The European Central Bank's monetary policy remained very accommodative throughout 2021. The Governing Council redefined the ECB's price stability objective in July to refer to a symmetric inflation target of 2% over the medium term. In December, the Governing Council decided that the pandemic emergency purchase programme (PEPP) will end in March 2022.

The main objective of the Eurosystem's monetary policy is to maintain price stability in the euro area.

The price stability objective defined by the ECB's Governing Council means a symmetric 2% inflation target over the medium term. This allows the value of money to remain more or less unchanged and purchasing power to remain strong.

The Eurosystem's monetary policy also supports other EU economic policy goals wherever possible, such as sustainable economic growth and employment, provided that this does not prejudice the price stability objective.

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

### Policy rates remained unchanged, PEPP to end

The ECB's monetary policy continued to be very accommodative in 2021.



The Governing Council kept the policy rates unchanged throughout the year. The interest rates on the main refinancing operations, on the marginal lending facility and on the deposit facility were 0.00%, 0.25% and -0.50%, respectively.

The rates had been at this level since September 2019. The Governing Council anticipates that these rates will remain until the net asset purchases are discontinued.

Net purchases under the expanded asset purchase programme (APP), which forms part of the unconventional monetary policy measures taken, remained at a monthly pace of EUR 20 billion in 2021.

A decision was made in December 2021 that the pandemic emergency purchase programme (PEPP) will be discontinued in March 2022. Following this, the APP will be increased to a monthly pace of EUR 40 billion in the second quarter and reduced to EUR 30 billion in the third quarter of 2022, with a further reduction to EUR 20 billion from October 2022.

It was also decided that reinvestments of principal payments from maturing securities purchased under the APP will still continue more or less in full after the ECB's Governing Council begins to raise key ECB interest rates, and in any case for as long as is necessary for maintaining favourable liquidity and a monetary policy that strongly supports growth.

The Eurosystem's balance sheet amounted to a little over EUR 8,500 billion at the end of 2021.

## **Uncertain growth outlook in early 2021 ensured monetary policy remained accommodative**

In its **January 2021** assessment, the ECB's Governing Council concluded that the euro area's GDP growth and near term outlook remained weak. Inflationary pressures were also still low.

Based on this, the Governing Council decided at its January meeting to maintain its accommodative monetary policy stance.

## **Economic outlook still weak in spring 2021**

At its **March 2021** monetary policy meeting, the ECB's Governing Council announced that euro area GDP growth appeared to have slowed in the first quarter of the year as a result of the COVID-19 pandemic.

It nevertheless expected the situation to improve in the latter part of the year. Inflation was on a slight upward path due to transitory factors and rising energy prices, but, overall, inflationary pressures were still considered to be low.

ECB staff projections for euro area GDP growth were held unchanged (4.0% in 2021, 4.1% in 2022 and 2.1% in 2023), but the inflation projections were raised for 2021 and 2022.

Inflation was forecast to be 1.5% for 2021, 1.2% for 2022 and 1.4% for 2023. The ECB staff's elevated inflation forecasts for 2021 and 2022 in relation to the forecasts made in December 2020 were mainly due to transitory factors and a rise in energy prices.

Based on these assessments, it was seen as essential to preserve favourable financing conditions during the period of the pandemic. In line with its assessment of financing conditions and the inflation outlook, the ECB's Governing Council announced that the pace of net purchases under the PEPP should be increased significantly in the second quarter of 2021 compared with the previous quarter.

Net PEPP purchases will nevertheless remain within their agreed maximum, i.e. within an overall envelope of EUR 1,850 billion by the end of March 2022. In other respects the monetary policy stance remained unchanged.

At its **April** monetary policy meeting, the ECB's Governing Council stated that the growth outlook was still overshadowed by the pandemic. GDP growth was nevertheless expected to pick up in the latter half of 2021.

Inflation had again risen slightly as a result of transitory factors and higher energy prices. Financing conditions had remained favourable.

Based on this information, the ECB's Governing Council announced in April 2021 that it was retaining unchanged its accommodative monetary policy stance.

## **Pandemic subsided in summer 2021 and expectations grew of a recovery in GDP growth**

In **June**, the ECB's Governing Council took the view that euro area GDP growth would start to accelerate in the second half of 2021.

Inflation had risen further, spurred on by transitory factors and higher energy prices. The rise in inflation was expected to continue in the latter part of the year, before slowing at the start of 2022.

Financing conditions had remained favourable, more or less unchanged since March, despite a rise in market rates.

As GDP growth in the first half of the year proved to be better than expected, Eurosystem staff projections in June raised the growth forecasts for 2021 and the following year (4.6% for 2021, 4.7% for 2022 and 2.1% for 2023).

Inflation forecasts for 2021 and 2022 were also raised due to transitory factors and higher energy prices. According to ECB staff projections, consumer price inflation, as measured by the harmonised index of consumer prices (HICP), was expected to be 1.9% in 2021, 1.5% in 2022 and 1.4% in 2023.

Based on this information, the ECB's Governing Council announced in June 2021 that its accommodative monetary policy stance would remain unchanged.

At the **start of July**, the Governing Council announced the ECB's new monetary policy strategy following the conclusion of its strategy review. This incorporated an adjustment to the inflation target, which is derived from the price stability objective. The new target was a **symmetric inflation target of 2% over the medium term**.

The Governing Council also added a plan to integrate climate considerations into the other objectives of the monetary policy strategy but without prejudicing the price stability objective.

At its **July monetary policy meeting**, the ECB's Governing Council asserted that the strong second quarter GDP growth in the euro area was expected to continue in the third quarter as well. Nevertheless, in the COVID-19 pandemic the new Delta variant of the virus was seen as a significant downside risk to this outlook.

Inflation had again gathered pace a little, but this was expected to be transitory. Financing conditions were also considered to have remained favourable.

On this basis the ECB's Governing Council declared in July 2021 that it would maintain an accommodative monetary policy stance.

## **Stronger GDP growth projection in autumn 2021**

At its **September** monetary policy meeting, the ECB's Governing Council noted that euro area GDP growth had been brisk during the year.

In addition, inflation had been higher than expected due to transitory factors and the higher price of energy. Financing conditions had been favourable.

A similar outlook was also conveyed in the September 2021 ECB staff projections, which forecast GDP to be up by 5.0% in 2021, 4.6% in 2022 and 2.1% in 2023.

Euro area inflation was forecast to be 2.2 % for 2021, 1.7 % for 2022 and 1.5 % for 2023. It was again emphasised that the upward adjustment of inflation forecasts was mainly the result of transitory factors and higher energy prices.

Based on this information, the Governing Council of the ECB stated that financing conditions can be considered favourable, although net purchases under the pandemic emergency purchase programme (PEPP) would be made at a more moderate pace than in the two previous quarters.

The Governing Council also announced in September 2021 that in other respects it would keep its accommodative monetary policy stance unchanged.

At its **October** monetary policy meeting, the ECB's Governing Council noted that strong GDP growth in the euro area was expected to continue, albeit at a fractionally slower rate than forecast.

Inflation had again risen slightly, but this was viewed as largely a consequence of the rise in energy prices and the fact that production constraints on the supply side were causing demand to exceed supply. Financing conditions were also considered to have remained favourable.

On this basis, the ECB's Governing Council announced in October 2021 that it would maintain its accommodative monetary policy stance.

## **Year-end favourable outlook enabled decision on future step-by-step reduction in accommodative monetary policy**

At its **December monetary policy meeting**, the ECB's Governing Council stated that euro area GDP growth would continue to be high, though slackening slightly, in 2022.

In the pandemic, the spread of the new Omicron variant at the end of the year cast a shadow over the economic outlook. Inflation had again gathered pace, reaching 4.9% in November. This was considered to be largely a consequence of the rise in energy prices and the fact that production constraints meant that demand was exceeding supply.

Rising inflation was still seen as being transitory and would abate in 2022 when the transitory factors gradually disappeared.

Eurosystem staff projections in December showed euro area GDP growth amounting to 5.1% in 2021, 4.2% in 2022, 2.9% in 2023 and 1.6% in 2024.

The 2022 figure was lower and the 2023 figure higher than in September's projections. The inflation estimate for all years was higher than forecast in September. The ECB staff projections showed the HICP inflation rate to be 2.6% in 2021, 3.2% in 2022, 1.8% in 2023 and 1.8% in 2024.

The ECB's Governing Council concluded in December that progress on economic recovery and towards the medium-term inflation target permitted a step-by-step reduction in the pace of asset purchases over the coming quarters.

In the ECB's estimation, net purchases under the pandemic emergency purchase programme (PEPP) could be made at a more moderate rate in the first three months of 2022 than in the previous quarter. The PEPP would then be terminated at the end of March 2022, as agreed.

Under the decision, reinvestments concerning assets acquired in the PEPP can be used flexibly over time, across asset classes and among jurisdictions if the pandemic still threatens to lead to market fragmentation.

The step-by-step reduction in asset purchases must be consistent with a monetary policy stance that aims for inflation to stabilise close to the symmetric 2% target over the medium term.

The ECB's Governing Council decided to increase monthly net purchases under the APP purchase programme to EUR 40 billion in the second quarter of 2022. It was decided to reduce APP net purchases to EUR 30 billion in the third quarter of 2022. From October 2022 onwards, APP net purchases will shrink to a monthly pace of EUR 20 billion, and this will continue for as long as necessary to reinforce the accommodative impact of the policy rates.

The Governing Council of the ECB anticipates that net purchases will end shortly before key ECB interest rates start to be raised.

## **Accommodative monetary policy supports euro area GDP growth**

The ECB's monetary policy underpinned growth in the economy in 2021. The purpose of the accommodative monetary policy was to ensure that financing conditions were favourable in all sectors of the economy.

Accommodative monetary policy contributed to maintaining bank lending at a robust level and eased access to financing. Easier borrowing for households and businesses helped support the level of consumption and corporate investment. This then also boosted GDP growth and price pressures in the euro area.

The ECB's accommodative monetary policy thus sought to foster the convergence of inflation towards the symmetric 2% inflation target over the medium term.

The ECB's Governing Council considered that monetary policy should still be complemented with a targeted and growth-friendly fiscal stimulus. This will also help the economy to adjust to structural changes.

Effective implementation of the Next Generation EU (NGEU) programme and the EU's Fit for 55 climate package will contribute to stimulating stronger, greener and more balanced growth in the euro area.

## **Macroprudential policy measures will be of primary importance in fostering financial stability**

In line with the ECB's new monetary policy strategy, the Governing Council will twice a year conduct an assessment of the interaction between monetary policy and financial stability.

Accommodative monetary policy will support GDP growth, which will strengthen the balance sheets of businesses and financial institutions and prevent the risk of market fragmentation. However, at the same time an accommodative monetary policy has increased medium-term risks in the real estate and financial markets, necessitating the close monitoring of these markets.

The ECB's Governing Council considers that macroprudential policy measures should be the primary means for fostering financial stability and meeting these medium-term challenges.



## Monetary policy continued to be implemented using a wide range of tools

The Eurosystem maintained favourable financing conditions in the euro area in 2021 by continuing with most of the measures that had been introduced in 2020 due to the COVID-19 crisis. The Eurosystem arranged longer-term refinancing operations (LTROs) for banks on favourable terms, retained the pandemic-related collateral easing measures for central bank credit, continued large-scale securities purchases and maintained swap lines between central banks.

The Bank of Finland is responsible [for implementing the Eurosystem's monetary policy](#) in Finland. The Eurosystem's monetary policy implementation uses an assortment of tools that can be classified as standard and non-standard measures.

The Eurosystem's standard measures are: regular refinancing operations conducted as tender procedures against collateral; standing facilities; and the minimum reserve requirement. Standard monetary policy measures primarily influence short-term market rates.

The Eurosystem's non-standard measures include: asset purchase programmes; loans through longer-term refinancing operations; and changes in collateral policy. These have been at the heart of monetary policy particularly in the period since the global financial crisis and have allowed the Eurosystem to maintain favourable financing conditions in the euro area, also in 2021.

## Interest rates remained historically low

The Eurosystem's [deposit facility rate](#) and also [the main refinancing rate and marginal lending facility rate](#) were held throughout 2021 at their lowest ever levels, at  $-0.50\%$ ,  $0.00\%$  and  $0.25\%$ , respectively (Chart 9).

Since its meeting of 22 July 2021, the ECB's Governing Council has communicated, in line with its monetary policy strategy updated on 8 July 2021, that these policy rates will remain at their present or lower levels until it sees inflation reaching 2% well ahead of its projection horizon and durably for the rest of the projection horizon.

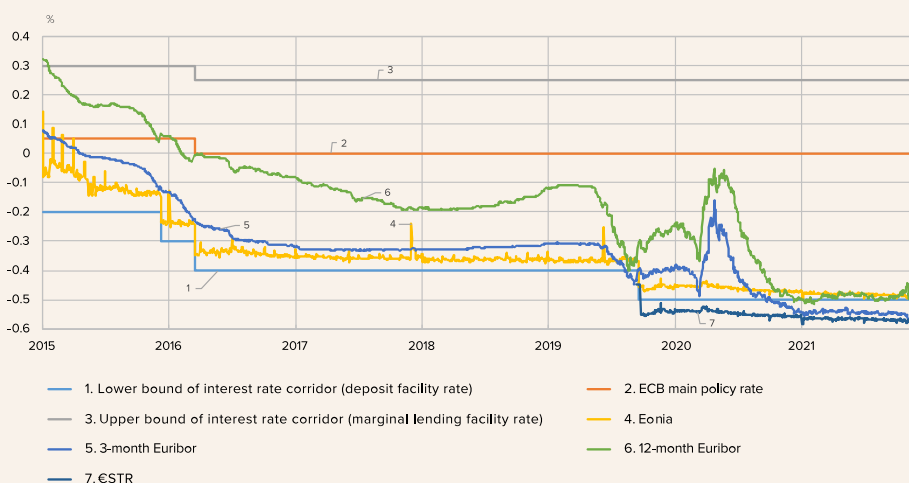
This may change only if the Governing Council considers that the trend in underlying inflation has been sufficient to expect inflation to stabilise at 2% over the medium term. Inflation may also be moderately above the target for a transitory period.

Nowadays banks have considerable holdings with central banks, and so the deposit rate is the Eurosystem's most important policy rate, as it guides the shortest market rates.

[The €STR \(euro short-term rate\)](#) and the EONIA (euro overnight index average) fixed to it, as well as longer term reference rates such as the 3-month and 12-month Euribor (euro interbank offered rate), fluctuated within a narrow range close to the ECB deposit rate during the entire year. As part of the reshaping of euro area reference rates, the EONIA was discontinued as planned at the start of 2021.

Chart 9.

### Key ECB interest rates and money market rates



Sources: European Central Bank, European Money Markets Institute and Bank of Finland.  
EONIA fixed to €STR as from 2 October 2019 (EONIA = €STR + 8.5 basis points).



## Bank of Finland's monetary policy counterparties unchanged

To operate as [counterparties in monetary policy operations](#), credit institutions are required to [hold a minimum level of reserves](#), to be subject to financial supervision, to be financially sound and to fulfil operational requirements.

The Eurosystem updated its counterparty requirements by adding a leverage ratio as a measure of financial soundness. Stemming from the leverage ratio was a requirement in line with the EU's Capital Requirements Regulation concerning own funds, which is binding on credit institutions.

The Bank of Finland's monetary policy counterparties remained unchanged. At the close of 2021 these numbered 16. They comprised Finnish credit institutions and branches of Nordic banks operating in Finland.

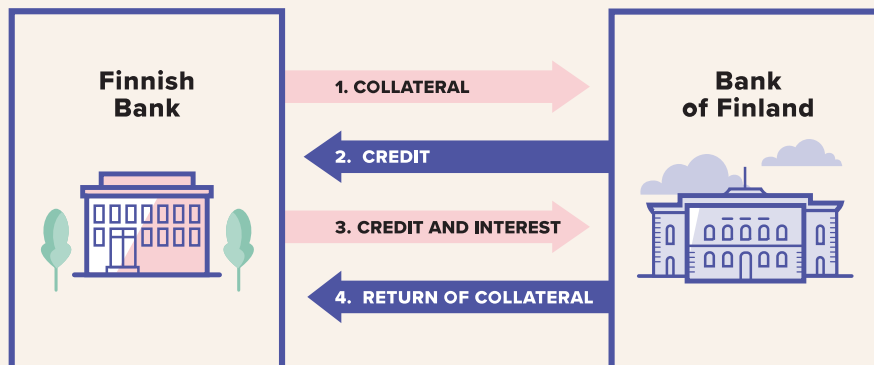
Counterparties may seek collateralised financing from the Eurosystem by participating in Eurosystem refinancing operations. Counterparties may also receive overnight credit against eligible collateral through the ECB's marginal lending facility for repayment the next business day. Intraday credit, to ensure smooth payment flows, is similarly available against collateral. Counterparties may also make deposits with the central bank.

The Eurosystem has specified eligibility criteria for accepted collateral in central bank credit operations. These criteria are outlined in the ECB's guidelines and are the same throughout the euro area.

In addition, the Bank of Finland has supplemented the ECB's guidelines with additional domestic requirements for its own counterparties. It updated [the rules for counterparties and customers](#) four times during the year.

Chart 10.

## Granting credit to banks



Source: Bank of Finland

## Longer-term refinancing operations continued to provide considerable financing on easier terms

Non-standard refinancing operations with a longer maturity were an important element of the Eurosystem's action to maintain favourable financing conditions in 2021 as the euro area economy recovered from the difficulties caused by the COVID-19 pandemic.

Under [the third series of targeted longer-term refinancing operations \(TLTRO III\) \(in Finnish\)](#) begun in 2019, four quarterly operations were conducted in 2021.

TLTRO loans were still given on reduced terms, in line with the 2020 decision of the ECB's Governing Council.

The eligible loan stock is 55% of a counterparty's loans to the non-financial private sector as at the end of February 2019, excluding loans to households for house purchase. The loan maturity is three years.

The interest rate on TLTRO loans is lower for banks that increase their net lending to households and businesses during the reference period in relation to the benchmark. The lowest rate up to June 2022 is 0.50 percentage points below the average ECB deposit facility rate. The Eurosystem has never previously granted central bank credit at an interest rate lower than the ECB's deposit rate.

The Eurosystem also conducted four pandemic emergency longer-term refinancing operations (PELTROs), offering financing with a maturity of approximately one year.

The PELTROs were conducted as fixed rate tenders with full allotment. The average rate for each operation was 0.25 percentage points below the average main refinancing rate for the maturity of the PELTRO in question.

Banks continued to be especially active in participating in TLTROs. In 2021, the amount of outstanding Eurosystem liquidity-providing operations increased from about EUR 1,800 billion to over EUR 2,200 billion. This figure consists almost solely of TLTROs.

At the close of 2021, Finnish banks had outstanding TLTRO credit totalling EUR 36 billion, whereas a year earlier this figure was EUR 22 billion.

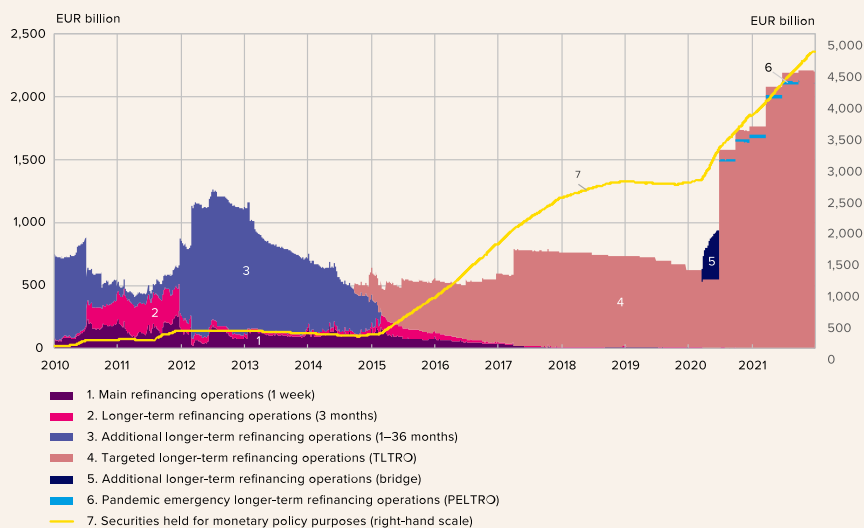
The number of TLTRO participants again remained relatively high. For example, 425 Eurosystem banks participated in the March TLTRO.

The banks also had the opportunity to bring forward the repayment of some of their TLTRO III credit in September and December 2021. At the Eurosystem level, banks' repayments on this basis totalled almost EUR 140 billion. Finnish banks did not take part in this early repayment.

At its meeting of 16 December 2021, the ECB's Governing Council did not make a decision on introducing any new TLTROs or PELTROs in 2022. However, it did declare that it will reassess the TLTRO situation at regular intervals. It also announced it would continue monitoring the financing conditions for banks and would seek to ensure that the maturing of TLTROs does not interfere with the transmission of monetary policy.

Chart 11.

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



Sources: European Central Bank and Bank of Finland.

## **Demand for dollar-denominated refinancing operations decreased to its low pre-pandemic level**

The Eurosystem ensured the availability of globally important currencies by maintaining existing arrangements with other central banks. The permanent currency swap arrangements between the Eurosystem and the central banks of the United States, the United Kingdom, Japan, Switzerland and Canada remained unchanged.

The Eurosystem continued to offer dollar-denominated financing at the March 2020 reduced rate during 2021.

The Governing Council of the ECB nevertheless decided in April 2021 to suspend three-month dollar refinancing operations from 1 July 2021. The price of dollar-denominated financing in the market had decreased and availability had improved. Demand for dollar-denominated financing in refinancing operations had declined significantly. The three-month operations can nevertheless be re-introduced if necessary.

The demand for dollar-denominated refinancing operations in 2021 was distinctly lower than in 2020.

No Bank of Finland counterparties participated in these operations in 2021.

The Eurosystem again ensured that euro-denominated liquidity needed during the pandemic crisis remained available outside the euro area as well. In line with the Governing Council's earlier decision, the following are in force until March 2022: the EUREP repo facility begun in 2020 for central banks outside the euro area; the swap lines agreed with the central banks of Croatia and Bulgaria; and the bilateral repo lines agreed with the central banks of Albania, North Macedonia, Romania, San Marino, Serbia and Hungary.

## **Barely any demand for standard refinancing operations**

The Eurosystem conducted [main refinancing operations](#) on a weekly basis and also carried out regular three-month longer-term refinancing operations, again in the form of fixed-rate tenders with full allotment. These refinancing operations will continue to be conducted in this way for as long as is necessary.

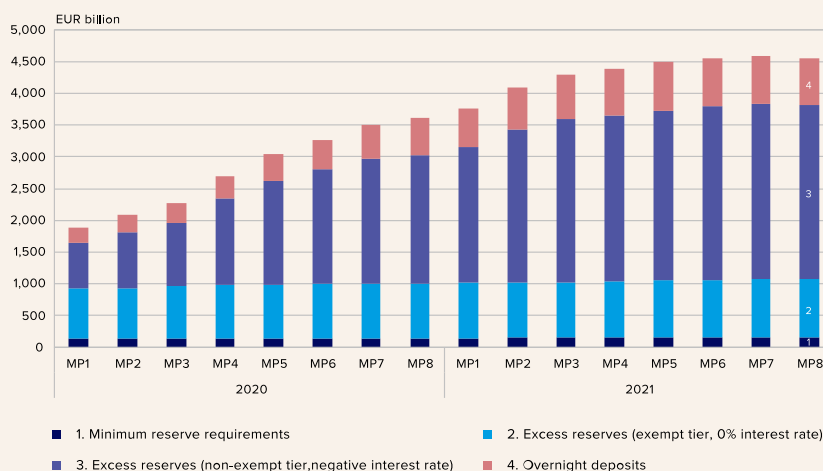
Banks satisfied their borrowing needs in the Eurosystem during 2021 by participating in longer-term and more favourable non-standard liquidity operations in particular. Little credit was sought from standard operations.

## Liquidity surplus grew even larger

Excess [liquidity](#) in the euro area banking system, i.e. banks' current account holdings with central banks in excess of the minimum reserve requirement, increased by about EUR 800 billion in 2021, to a total of approximately EUR 4,100 billion (Chart 12).

Chart 12.

### Current account holdings with the Eurosystem: averages per maintenance period

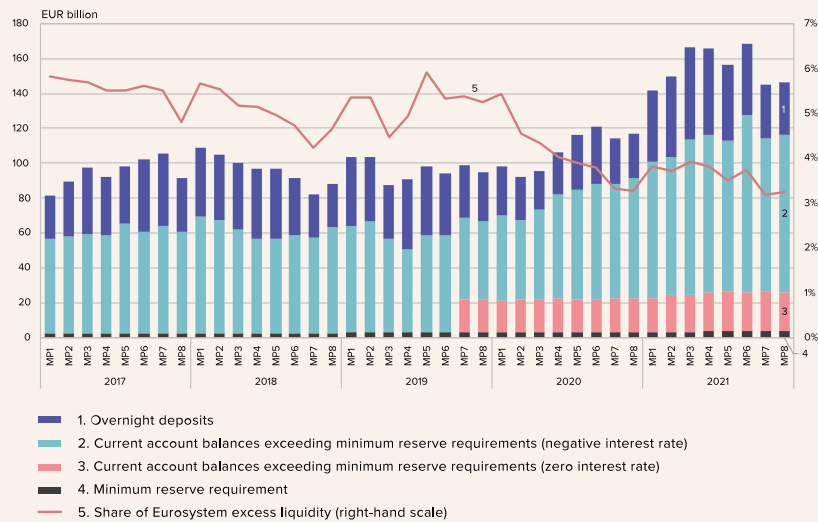


Source: European Central Bank.

Current account holdings with the Bank of Finland in excess of the minimum reserve requirement in 2021 averaged EUR 151 billion, compared with EUR 104 billion in 2020. [The minimum reserve requirement](#) was, on average, only about EUR 4 billion. At the end of 2021, these holdings amounted to EUR 125 billion, compared with EUR 111 billion in 2020 (Chart 13).

Chart 13.

### Liquidity deposits with the Bank of Finland



Source: Bank of Finland.

The increase was due especially to the continuing Eurosystem securities purchases as a result of the pandemic, and the banks' higher levels of TLTRO credit.

As a proportion of the total excess liquidity deposited across the Eurosystem, the holdings deposited with the Bank of Finland in excess of the minimum reserve requirement declined slightly from the previous year, to an average of 3.6%.

The ECB's deposit facility rate is paid on most of the excess liquidity, but the [two-tier system for reserve remuneration](#) introduced in October 2019 allows for an exempt tier to be remunerated at 0.00%.

The extent of this tier (six times the minimum reserve requirement) remained constant during 2021.

Finnish banks made almost full use of the tier exempted from the negative rate under the [two-tier system for reserve remuneration](#).

At its meeting of 16 December 2021, the ECB's Governing Council stated that it would assess the appropriate calibration of the two-tier system for reserve remuneration. This was to ensure that the negative interest rate policy does not limit banks' intermediation capacity in an environment of ample excess liquidity.

## Eurosystem continued pandemic-related collateral easing measures

The ECB's Governing Council took several decisions in 2020 concerning collateral for central bank credit in order to ensure that banks retained access to central bank refinancing facilities even in difficult situations. The Governing Council decided in December 2020 to extend the duration of the collateral easing measures until June 2022.

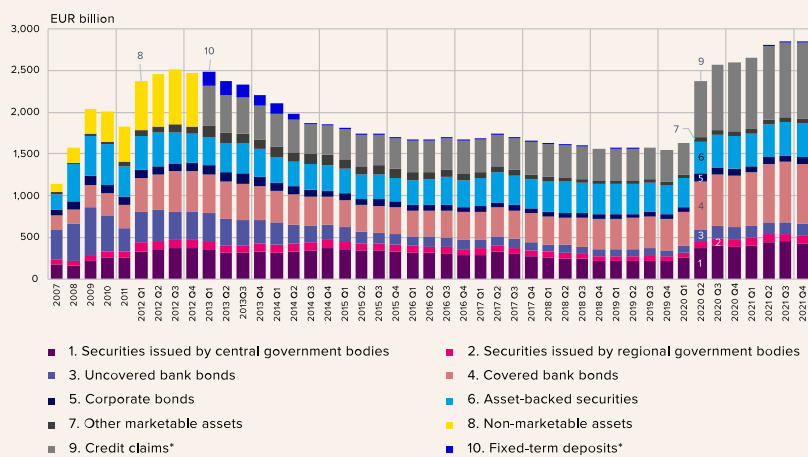
These temporary measures introduced earlier in 2020 included a 20% reduction in haircuts for eligible assets. This means the same collateral could be used to obtain more credit from the central bank.

The Eurosystem also updated its collateral framework in 2021. It [began, for example, to accept \(in Finnish\)](#) as collateral marketable assets for which the coupon rate is linked to sustainability performance targets.

The Bank of Finland maintained its domestic measures for ensuring the availability of adequate collateral. The additional credit claim framework introduced in autumn 2020 remained unchanged during 2021, with the exception of extensions to the time for granting guarantees approved in the framework.

Chart 14.

### Collateral provided to the Eurosystem



Source: European Central Bank.  
\*Breakdown available from 2013 onwards.

## Further rise in amount of collateral deposited

The total amount of collateral deposited with the Eurosystem increased again in 2021. The rise was slower than in the previous year, however. In 2020, the total grew by about 47%, while in 2021 it was up by 21% year on year (Chart 15).

In 2021, banks deposited collateral averaging a total value of approximately EUR 2,800 billion with the Eurosystem's central banks; in 2020, the corresponding figure was about EUR 2,300 billion.

The amount of collateral deposited by Bank of Finland counterparties increased further during 2021. This amounted to an average value of about EUR 40 billion in 2021, compared with approximately EUR 27 billion in 2020.

The average amount of excess collateral from Bank of Finland counterparties was 20%. This represents the proportion of the value of the collateral deposited with the Bank of Finland which is in excess of the outstanding amount of credit.

## Most popular collateral classes are still credit claims and covered bank bonds

There were some minor changes in the composition of the collateral deposited with the Eurosystem in terms of asset classes. Securities issued by central government bodies, covered bank bonds and credit claims each accounted for a slightly higher share of the total collateral than a year earlier.

In the case of credit claims, this was due, among other things, to the expansion of the additional credit claims frameworks of national central banks undertaken during the pandemic. The lowering of haircuts on credit claims and the resulting rise in collateral value were further factors.

Credit claims were in fact the most common form of asset used as collateral in the Eurosystem (32% of all collateral). The next most popular asset class was covered bank bonds (25%), and ranked third was securities issued by central government bodies (16%).

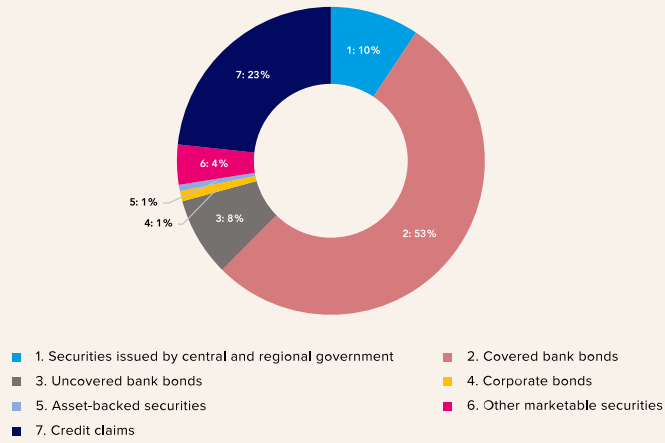
Covered bonds issued by banks were especially common as collateral among the Bank of Finland's counterparties. Their share of all collateral deposited grew to as much as 53% (Chart 8).

The second most common form of collateral among the Bank of Finland's counterparties was credit claims (23%), and the third was securities issued by central and regional government bodies (9%).



Chart 15.

### Collateral put forward to the Bank of Finland (average shares in 2021)



Source: Bank of Finland.



## Asset purchase programmes in 2021

The total amount of securities purchased under the asset purchase programmes on the Bank of Finland's balance sheet increased in 2021 to EUR 90 billion. A plan and timetable for reporting on the climate impacts of the corporate sector purchase programme (CSPP) were published by the Governing Council of the European Central Bank.

The aim of the Eurosystem's asset purchase programmes has been to support economic growth in the euro area, promote achievement of the price stability objective and ensure the transmission of low interest rates in the euro area.

The purchase programmes are one of the most important ways in which monetary policy is implemented. Under these programmes [the Eurosystem purchases securities from banks](#), thereby expanding the amount of money in the economy and pushing down the interest rates on securities.

The flexible planning and implementation of asset purchases has supported the transmission of low interest rates in the euro area during the COVID-19 pandemic.

### End of net purchases under the pandemic emergency purchase programme (PEPP)

[The ECB's Governing Council decided at its meeting on 16 December 2021](#) to end net purchases under the temporary [pandemic emergency purchase programme \(PEPP\)](#) in March 2022.

At the same meeting, the Governing Council decided that the principal payments from maturing securities purchased under the PEPP will be reinvested at least until the end of 2024 instead of the end of 2023.

PEPP reinvestments can be directed flexibly over time, across asset classes and among jurisdictions as needed. Net purchases under the PEPP can also be restarted if necessary to prevent disruptions caused by the pandemic.

In addition to implementation of the PEPP, the Eurosystem also carried out net purchases under the asset purchase programme (APP) in 2021, in line with decisions taken by the Governing Council of the ECB.

The APP consists of the following programmes: a public sector purchase programme (PSPP), a corporate sector purchase programme (CSPP), the third covered bond purchase programme (CBPP3) and an asset-backed securities purchase programme (ABSPP).

All asset classes eligible for the APP are also eligible for the PEPP. In addition, securities issued by the Greek government and shorter-term public sector debt securities with a residual maturity of at least 70 days were made eligible for purchase under the PEPP.

In 2021, the Eurosystem's holdings of assets purchased under the APP increased from EUR 2,909 billion to EUR 3,123 billion. The ECB publishes the Eurosystem's PEPP holdings every two months, and at the end of November 2021 they amounted to around EUR 1,536 billion, compared with EUR 837 billion a year earlier.

## **APP and PEPP holdings on the Bank of Finland balance sheet in 2021**

The Bank of Finland conducts asset purchases under all the purchase programmes except the asset-backed securities purchase programme (ABSPP, part of the APP).

[In 2021, holdings of monetary policy-related securities on the Bank of Finland's balance sheet increased](#) from EUR 66 billion to EUR 90 billion. Of this total, securities purchased under the PEPP amounted to EUR 28.1 billion, and securities purchased under the APP amounted to EUR 61.7 billion.

At the end of 2021, the amount of government bonds and government-related bonds purchased under the APP on the Bank of Finland's balance sheet totalled EUR 34.6 billion, and bonds issued by European supranational institutions amounted to EUR 2.4 billion.

The Bank of Finland's balance sheet at the end of 2021 also included corporate and covered bonds purchased under the APP totalling EUR 13.7 billion and EUR 11.0 billion, respectively.

Securities purchased under the PEPP are reported as a single figure on the balance sheet. The Bank of Finland's PEPP purchases consist mainly of public sector debt securities, but they also include corporate and covered bonds.

## **Bank of Finland one of six central banks conducting purchases of corporate securities for entire Eurosystem**

In corporate securities purchases under the APP and the PEPP, the Bank of Finland acts as one of the Eurosystem's six central banks conducting purchases on behalf of the entire Eurosystem.

Besides Finnish corporate bonds, the Bank of Finland is also responsible for purchasing Austrian, Estonian, Irish, Latvian and Lithuanian corporate bonds that meet the eligibility criteria of the purchase programmes.

In covered bonds, the Bank of Finland's purchases focus on the Finnish covered bond market.

The Bank of Finland itself bears the risk in public sector securities purchases, but the risks in the corporate purchase programmes are shared among the Eurosystem central banks.

[The Eurosystem makes the securities it has acquired under its asset purchase programmes available for securities lending, as appropriate.](#) The aim of [securities lending](#) is to support the liquidity of euro area bonds. The lending is conducted within the Eurosystem on a decentralised basis, and the Bank of Finland's securities holdings are available for lending through the securities depository Euroclear Bank, against securities collateral. The Bank of Finland also engages in bilateral securities lending using its holdings under the public sector purchase programme, against cash collateral.

[The Bank of Finland publishes on its website the weekly lists of public sector and corporate sector securities available for securities lending.](#)

## **Incorporating climate perspectives into the CSPP**

On 8 July 2021, the ECB's Governing Council published [a plan for including climate considerations in the ECB's monetary policy strategy](#).

Combating climate change is one of the European Union's key objectives. The Eurosystem also considers that, within the limits of its mandate, it must further incorporate climate change considerations into its monetary policy framework.

The Eurosystem already takes climate risks into account in the issuer due diligence assessments for corporate sector asset purchases.

Looking ahead, the framework guiding the allocation of corporate bond purchases will be adjusted to incorporate climate change criteria, in line with the ECB and Eurosystem mandate.

Issuers will be assessed using various climate criteria, and these will take into account the requirements of EU legislation in relation to various climate-change related metrics or commitments of the issuers to such goals.

In addition, by the first quarter of 2023, the Eurosystem will start publishing information on the environmental effects of the corporate sector purchase programme.



## Financial stability

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# Financial stability

The Bank of Finland contributes to maintaining financial stability in Finland. It assesses risks to the financial system, compiles financial statistics and prepares macroprudential policy. In 2021, the Bank of Finland promoted domestic financial stability particularly via measures that curb excessive indebtedness. The financial sector's role in the mitigation of climate change became increasingly important.

Financial stability prevails when the financial system, consisting of financial intermediators, markets and financial infrastructure, is able to cope with disruptions and the unwinding of financial market imbalances.

In an environment of financial stability, there are no severe disruptions in financial intermediation that could disturb the real economy significantly.

Financial stability is a prerequisite for a stable society. The maintenance of financial stability is one of the key tasks of the Bank of Finland.

## In 2021 the Bank of Finland paid close attention to risks of household debt accumulation

Financial stability risks can be mitigated by addressing the problems on time through macroprudential policy measures, i.e. by preventing the financial sector's risks, promoting its resilience and developing regulation.

The Bank of Finland has stressed for a long time now that the vulnerabilities related to housing loans and housing company loans as well as the continued upward trend in household indebtedness are large in Finland.

Household debt relative to disposable income continued to rise during the COVID-19 pandemic.

In 2021, the Bank of Finland thus emphasised that new targeted instruments should be introduced without delay to curb household debt accumulation. These instruments could include, for example, a maximum debt-to-income ratio, i.e. a debt cap and a limit on the maturities of housing and housing company loans.

The instruments should apply to all types of credit provision, including lending by non-banks.

## **Topical themes reflected in the development of financial market regulation and statistics**

In 2021, the Bank of Finland prepared macroprudential decisions, analysed the operational environment, assessed policy impacts and the impacts of decisions and participated in the development of macroprudential policy.

The topical themes were reflected also in the development of Bank of Finland statistics. Statistics were expanded with new data on household debt accumulation and housing market developments.

The Bank of Finland also continued to monitor the digitalisation of financial intermediation and to analyse the impacts of the changes. In 2021, the scope of the work was expanded with a survey on the use of digital channels in the provision of credit.

The Bank of Finland developed the monitoring and analysis of corporate finance by launching, together with Statistics Finland, a data academy initiative and by starting work on the development of sustainability indicators.

The Bank of Finland worked in the field of regulation and the development of statistics, both in Finland and internationally, in line with European guidelines.

## **Financial sector plays a significant role in climate change mitigation**

Climate change is a threat also to financial stability. A cause for concern were both the material damage caused by extreme weather events as well as the transition risks resulting from climate policy, i.e. the decline of asset value in carbon-intensive sectors in connection with transition to a low-carbon economy.

In 2021, the Bank of Finland participated in international cooperation and developed further its own analysis preparedness and data, for the assessment of domestic climate risks in the financial sector. It also launched a project to calculate the carbon footprint of the corporate loan stock of banks.

Major steps were taken also on the European level in 2021, as the EU defined sustainable activities and introduced climate risk management into legislation.





## A curb on household debt accumulation supports financial stability

The Bank of Finland assesses regularly risks and vulnerabilities that threaten the stability of the financial system. Currently, they relate particularly to the upward trend in household debt accumulation. In 2021, the Bank of Finland paid close attention to the vulnerabilities stemming from housing finance. The continued growth in indebtedness and the related risks should be curbed by introducing new macroprudential instruments.

The Bank of Finland has stressed for a long time that the vulnerabilities related to housing and housing company loans as well as to the continued upward trend in household indebtedness are large in Finland.

The Bank of Finland emphasised in 2021 that new targeted instruments should be introduced without delay to curb household debt accumulation.

These instruments could include, for example, a maximum debt-to-income ratio, i.e. a debt cap and a limit on the maturities of housing and housing company loans. The debt-to-income cap would curb growth in household indebtedness relative to income.

The instruments should apply to all types of credit provision, including lending by non-banks.

## Housing loans increasingly with longer maturities

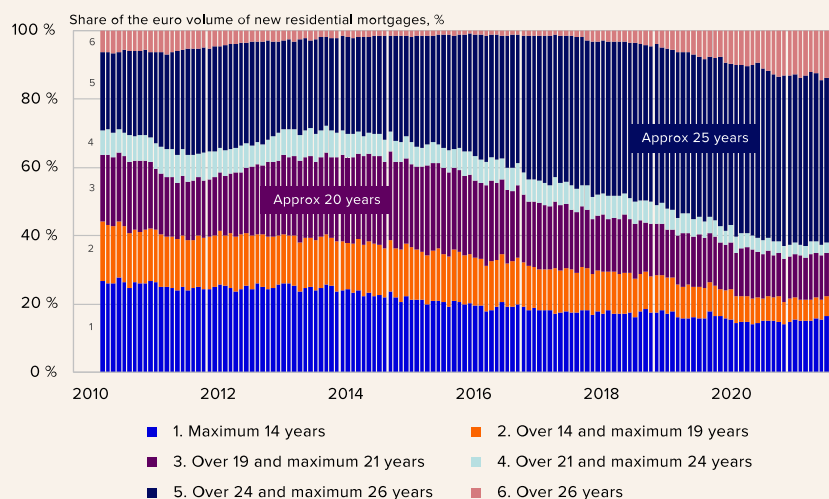
Household debt relative to disposable income continued to rise during the COVID-19 pandemic, and debt levels are record high. In addition, the maturities of housing loans are longer than ever.

The share of new housing loans with maturities of over 26 years has risen gradually in recent years, including in 2021 (Chart 16).

At the same time, the share of loans with initial maturities of less than 20 years has shrunk, accounting for only just over a fifth of new housing loans.

Chart 16.

### Maturities of new residential mortgages in Finland



Source: Bank of Finland.

A Bank of Finland analysis shows that [new mortgage borrowers have an increasing amount of debt relative to income](#). The results are based on loan-specific data on new mortgages compiled by the FIN-FSA from credit institutions. Debt-to-income ratios are higher than average in Finland's growth centres.

Calculations by the Bank of Finland showed that, considering the housing loans granted in recent years and borrowers' other debt, a neutral debt-to-income ratio would be some 500% of borrowers' gross annual income. This means that the housing loans granted recently could be granted also if the debt cap was set at 500%.

The calculations were based on the assumption that creditors would have significant room for discretion, so that the debt-to-income cap could be exceeded by 15% relative to the total euro volume of new housing loans.

## A debt cap could dampen cyclical fluctuations

The Bank of Finland also examined, using the Bank of Finland's general equilibrium model, [the possible economic impacts of the introduction of a debt-to-income cap](#). Based on the results, the impact on long-term economic growth would be moderate.

A debt-to-income cap might, however, dampen economic fluctuations relative to the current loan-to-collateral constraint.

## A loan cap useful also in housing company loans

The Bank of Finland monitored in 2021 developments in housing company loans and supported proposals for imposing a loan-to-value (LTV) limit, or a maximum credit share of 60% for housing company loans and for discontinuing the granting of interest-only periods for loans related to new housing construction.

These reforms would curtail household debt accumulation and would affect mainly the financing of new owner-occupied housing construction.

Households' need for housing loans could increase if a housing company loan would make up a smaller share of the unencumbered price of the new build. This would, however, help borrowers assess more accurately the total costs of housing.

Bank of Finland data on the domestic housing market became more comprehensive in 2021 as buy-to-let mortgages were separated from other housing loans.

The average interest rate applied on new buy-to-let mortgages is slightly higher than on residential mortgages, but lower than the average rate applied on housing company loans.

## Own stress test framework takes into account Nordic interconnectedness

The Board of the FIN-FSA did not increase the macroprudential buffers of domestic banks in 2021, but the Bank of Finland conducted extensive analyses to improve preparedness for the appropriate dimensioning of the buffers in future.

The Bank of Finland and the FIN-FSA developed jointly a stress test framework, which complements the European stress test exercises of banks.

A proprietary stress test exercise provides useful information on banks' loss-absorbing capacity in the event of a severe disruption in their operating environment.

The stress test framework takes into account that Finnish banks have business activities in the other Nordic countries, enabling the assessment of exposures to the business cycle of the other Nordic countries.

Due to Nordic interconnectedness, the Bank of Finland promoted in 2021 the analysis of contagion risks between banks in Finland and the other Nordic countries. A contagion risk analysis provides information on the possible chains of contagion and their impacts on the banking sector.

## **Fewer interest-only periods in the corporate sector**

In 2021, the Bank of Finland analyses focused in particular on how Finnish companies have coped with the pandemic.

Despite the growth in corporate credit-related risks to banks, average lending rates did not rise significantly. In 2021, there was less need for interest-only periods and for changes to loan repayment programmes than in spring 2020. Moreover, the worst fears concerning loan loss developments did not materialise.

The stock of loans to Finnish non-financial corporations contracted for several consecutive months in 2021, which may be an indication that companies' investment activity has not yet fully recovered from the impacts of the pandemic.

## **Diverse new datasets becoming available**

As in the previous year, the Bank of Finland participated in 2021 in the preparations for a positive credit register. The plan is to enter into the register data on Finnish households' credit and income.

The initiative is part of the Government's efforts to curb excessive debt. From the perspective of financial stability, the positive credit register will enable a more comprehensive, transparent and thus reliable monitoring of the credit market. Based on current information, the register will be launched in 2024.

The Bank of Finland and Statistics Finland worked on their joint analysis initiative, the purpose of which is to combine the Bank of Finland's data on corporate credit with Statistics Finland's statistical data on businesses. The actual analysis phase of the project will start in 2022.

Stability analysis was enhanced in 2021 also with the help of IT solutions that improve the availability of the extensive datasets employed by the Bank of Finland.

As a result of these changes, various reports will be automated and enhanced, which will also make the Bank of Finland's work more visible on its website.

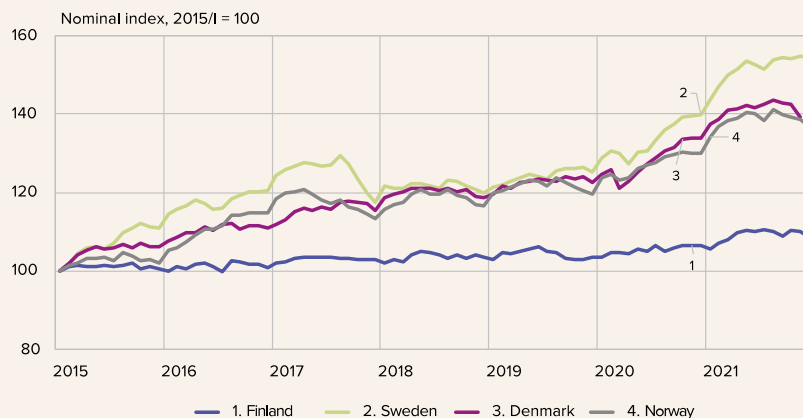
## International analysis focuses on housing markets

In all the Nordic countries, banks typically have large volumes of housing loans in their portfolios, and therefore a steep decline in housing prices could cause considerable credit losses and affect the availability and cost of funding for the banks.

Housing prices have, however, risen strongly during the pandemic both in Finland and elsewhere in Europe (Chart 17). This may further aggravate the financial stability vulnerabilities related to household indebtedness and banks' real estate exposures.

Chart 17.

### Monthly housing prices in the Nordic countries



Finland: Old owner-occupied flats. Sweden, Denmark and Norway: all housing.

Sources: Statistics Finland, Valueguard, Statistics Denmark, Eiendom Norge, Macrobond and calculations by the Bank of Finland.

## Support programmes still widely used by euro area banks

The Finnish banking system is interconnected with the financial system of the entire euro area.

The Bank of Finland monitors closely the situation of the banking sectors of the other euro area countries. During the COVID-19 pandemic, particular attention has been paid to the quality of banks' credit exposures, as the liquidity problems of companies that have suffered from the exceptional conditions may increase banks' loan losses.

The Bank of Finland also examined in 2021 the ending of interest-only periods granted by euro area banks, and on the other hand, the increasing use of government guarantee programmes. These support measures have helped borrowers during the pandemic, but they may also push credit losses into the future.

The Bank of Finland also analysed developments in international financing conditions. Investors' risk appetite reflected, on the one hand, the uncertainty as to how long inflation will remain higher than the ECB's target. On the other hand, corporate profitability was fairly strong despite the pandemic, which supported the stock and corporate bond markets in 2021.



## Development of regulation supported financial stability

In 2021, the Bank of Finland participated actively in the development of financial market regulation. It promoted domestic financial stability particularly by measures targeted at curbing excessive debt accumulation.

Financial stability policy refers to measures targeted at promoting the stability and functioning of the financial system.

Financial stability policy includes the preparation and development of macroprudential policy, i.e. measures monitoring extensively the entire financial system, and exercising influence on financial market regulation.

## Macroprudential policy curbed excessive indebtedness

Macroprudential policy contributed to supporting the operation of the banking sector. On the back of the regulatory changes already implemented, the banks were equipped with strong capital buffers and a solid liquidity position on the outbreak of the COVID-19 pandemic. The larger capital buffers and the possibility to use them improved banks' resilience to the weaker economic outlook and enabled them to continue lending to businesses and households.

The Bank of Finland participates actively in macroprudential policy preparation by delivering opinions on macroprudential decisions, analysing the operational environment, assessing policy impacts and the impacts of decisions, and by participating in the development of macroprudential policy.

In Finland, decisions on macroprudential measures are taken by the Board of the Financial Supervisory Authority (FIN-FSA), chaired by Bank of Finland Deputy Governor **Marja Nykänen**.

In 2021, the FIN-FSA Board decided quarterly on the level of the countercyclical capital buffer (CCyB) and kept the rate at 0%.

In its opinion, the Bank of Finland supported the decisions as, despite the rapid increase in housing finance, there were no signs of an overheating in the credit market. The other additional capital requirements for credit institutions were also left unchanged.

The housing market recovered rapidly from the shock caused by the COVID-19 pandemic. New-mortgage borrowers' total debt relative to income continued to increase in 2021, which further highlighted the importance of curbing household debt accumulation.

As a result, the FIN-FSA Board restored the maximum loan-to-collateral ratio (LTC), i.e. the loan cap, to the pre-pandemic level. The loan cap for residential mortgage loans other than first-home loans was lowered by five percentage points, to 85%. As a result, the maximum amount of residential mortgage loans granted to other than first-home buyers is 85% of collateral and 95% in the case of first-home buyers.

The Bank of Finland considered the decision to lower the maximum loan-to-collateral ratio to be justified.

The purpose of the decision that entered into force on 1 October 2021 was to respond to concerns that the high level of household indebtedness is structural.

The FIN-FSA Board urged lenders to exercise restraint in granting loans that are very large in relation to the applicant's income and have a longer maximum repayment period than usual.

The group of credit institutions significant for the Finnish financial system (other systemically important institutions, O-SIIs) and their additional capital requirements (O-SII buffers) remained unchanged, in accordance with the FIN-FSA Board decision taken in June. The Bank of Finland considered the decision justified.

## **Nordic decisions entered into force**

The Board of the FIN-FSA decided in 2021 to adopt the decisions on risk weights taken by the competent authorities of Sweden and Norway. The decisions apply to credit institutions registered in Finland.

Swedish Finansinspektionen decided to extend the measure that entails a 25% minimum level for the average risk weight on residential mortgage loans of credit institutions that have adopted the Internal Ratings Based Approach. In the Internal Ratings Based Approach, banks use their own credit loss parameters in the calculations of risk weights and the regulatory capital requirement.



Norway's macroprudential authority set average risk weight floors for Norwegian residential real estate exposures (20%) and commercial real estate exposures (35%).

## **Work continues on the development of macroprudential regulation**

The Bank of Finland has stressed for a long time now the adverse effects of excessive indebtedness on households and financial stability.

In 2021, Bank of Finland experts continued work to support the development of tools aimed at curbing excessive household indebtedness.

The Bank's experts have prepared legislative proposals on instruments curbing excessive household indebtedness, based on recommendations by the Ministry of Finance working group.

The European Commission has launched a public consultation on improving the macroprudential framework. In the EU's reform of macroprudential regulation, the Bank of Finland supports the use of more effective macroprudential instruments. It considers that the instruments should better tackle the risks and vulnerabilities of the financial system, including the non-banking sector, and enable an equitable competitive environment for the financial sector throughout the EU.

The Bank has participated in the preparations for a positive credit register. The register will increase transparency of risks related to indebtedness and, once finalised, will enhance the use of borrower-based macroprudential instruments.

The Bank of Finland participates in the work to extend the macroprudential toolkit outside the banking sector, particularly to funds and the insurance sector. The Bank of Finland participated in the reform of regulation on investment funds in the European Systemic Risk Board (ESRB).

## **The Bank of Finland participates in the development of legislation**

The Bank of Finland participated actively in various initiatives on financial market legislation by supporting, for example, domestic legislative preparations and legislative reform in international working groups and by issuing opinions.

Firstly, the European Commission issued a proposal for implementing into EU legislation the outstanding elements of the Basel Committee for Banking Supervision's (BCBS) Basel III reform. The Basel III standards address the capital requirements for banks.

In its opinion, the Bank of Finland stressed the benefits of the implementation of the Basel III standards and the importance of the globally uniform application of the reform for safeguarding financial stability. The proposed elements would increase the reliability and comparability of banks' capital ratios and would provide a more level playing field between banks.

The Commission's proposal also involves regulations on supervision and sustainable finance.

Secondly, the European Commission published in July a Strategy for Financing the Transition to a Sustainable Economy. The objective of the strategy is to promote the financing of the transition to a sustainable economy.

The purpose is to mitigate climate change also by increasing the sustainability of the financial system. The Bank of Finland assessed the prerequisites for a transition to a sustainable economy also from the perspective of financial stability.

Thirdly, the Commission issued a legislative proposal for a review of the solvency regulation of life and non-life insurance companies (Solvency II) and a legislative proposal for a new Insurance Recovery and Resolution Directive.

The European Commission started work on the legislative reform of bank recovery and resolution and depositor protection by launching a public consultation, on which also the Bank of Finland issued an opinion.

Bank of Finland experts also issued opinions to, for example, Parliamentary Committees on other issues related to financial regulation. These include for example, the common backstop for the Single Resolution Fund, the Commission's new action plan for the Capital Markets Union and supplementing the regulation on European crowdfunding service providers for business.

The Bank of Finland has also participated in the preparations for legislative initiatives on the prevention of money laundering and the regulation of insurance companies.

The Bank of Finland has also participated actively in the development of crisis management capabilities of the financial market authorities. Domestic authorities have cooperated closely to clarify the allocation of crisis management responsibilities and tasks. The Bank of Finland has cooperated also with the Eurosystem and the Nordic authorities.

A new [Memorandum of Understanding \(in Finnish\)](#) (MoU) between the Bank of Finland and the Financial Stability Authority was published in October.

[An updated version of the Memorandum of Understanding \(in Finnish\)](#) between the Bank of Finland, the Financial Supervisory Authority, the Financial Stability Authority, the Ministry of Social Affairs and Health and the Ministry of Finance on crisis management of the financial system was published in December.

## **Strengthening the banking system and development of the Capital Markets Union increasingly important**

The COVID-19 crisis has highlighted the need to further develop and strengthen the European banking system. Key to this work is the completion of the European Banking Union, the discussions on which are still in progress.

An important missing part of the deepening of the Banking Union is the common European Deposit Insurance Scheme (EDIS). The purpose of deposit protection is to provide protection to depositors' funds if a bank becomes permanently insolvent. Currently, EU countries have in place national deposit guarantee arrangements.

Development of the capital markets would contribute to the diversification of the European financial system, which is very bank-centred. It would improve, in particular, companies' access to finance and diversify risks.

The supporting and diversification of the markets for green finance would also help achieve the EU's climate targets.



## Financial sector plays a significant role in climate change mitigation

The role of access to finance as an enabler of the green transition has become increasingly important in recent years. Central banks and supervisors therefore assess the potential risks that climate change and climate policy may cause to the various financial sector entities. For the assessment of the financial sector's climate risks, the Bank of Finland has developed its analytical capabilities and data and has participated in international cooperation.

Transition towards a carbon neutral economy will require major investments. Financial flows must be steered from unsustainable economic activity towards sustainable activity. The financial sector has an important role as an enabler of the actions required for the mitigation of climate change.

[For the financial sector, a cause for concern is not only the transition risks caused by climate policy but also the physical risks caused by the impacts of climate change \(in Finnish\)](#). A particular cause for concern is the ability of financial sector entities to assess the impact and cost of these long-term risks on their business.

## The EU defined sustainable activities and introduced climate risk management into legislation

The COP26 climate summit in late 2021 did not achieve very ambitious progress globally. The EU has nonetheless taken significant steps in promoting its own climate targets.

The EU has stressed, in particular, the transition risks of carbon-intensive companies, especially if they do not have credible plans for reducing emissions.

At the same time, exceptional and extreme weather events, from heat waves to storms and floods, have raised concern over the physical risks caused by climate change.

[The EU's framework for sustainable finance](#) made significant progress in 2021. [In the taxonomy for sustainable activities \(in Finnish\)](#), i.e. classification, a political agreement was reached on the climate criteria and reporting under the taxonomy, and their implementation is moving ahead.

In the next phase, the scope of the EU's taxonomy for sustainable finance will be expanded beyond climate, to other environmental considerations.

Sustainable finance and climate risk considerations already have an impact on financial market regulation. For example, the EU Commission's legislative proposals to amend [insurance rules](#) and [banking rules](#) ensure that these considerations are taken into account.

## Central banks and supervisors promoted better reflection of climate risks

Work to enhance the identification and analysis of climate risks is under way in a number of various forums. The risks are reasonable on average, but unevenly distributed.

Some countries and sectors have higher-than average risk concentrations, in which case the total risk may be very significant.

The results show clearly that ambitious mitigation of climate change will reduce the total risks notably.

Year 2021 saw the publication of several key reports. One of them was the [updated climate scenarios](#) published by the NGFS climate network of central banks and financial supervisors (Network for Greening the Financial System), which the various entities can use as a basis for their own climate risk assessments. The Bank of Finland participated in this work.

The European Central Bank (ECB) published [an EU economy-wide climate stress test](#). One of the key outcomes of the stress test was that the risks differ considerably across European regions and corporate sectors.

In the European Systemic Risk Board (ESRB) [report on the impact of climate risks on financial stability](#), the findings were very similar to those in the ECB's assessment.

[The ECB's Banking Supervision reviewed banks' approaches to manage climate risks](#). The results show that none of the institutions are close to fully aligning their practices with the supervisory expectations, but some have already taken considerable steps.

## The Bank of Finland continued work to identify domestic financial sector climate risks

In 2021, the Bank of Finland contributed actively in the development of sustainable finance by issuing opinions on the [EU's sustainable finance strategy \(in Finnish\)](#), [sustainable finance taxonomy \(in Finnish\)](#) and the [European green bond standard \(in Finnish\)](#).

The Bank of Finland published [an article on the impact of coastal flood risks on property used as collateral for bank loans](#). The article shows that the risks are reasonable overall but very unevenly distributed along the coastal areas.

The Bank of Finland also launched an analysis on the financial sector's transition risks. This work deepens our previous analysis on the financial sector's transition risks.

In addition, [the Bank of Finland continued work on the identification of data needs \(in Finnish\)](#) on the development of new indicators.

In international forums, for example in the NGFS and in the committee of European central banks and statistical authorities CMFB (Committee on Monetary, Financial and Balance on Payments Statistics), the better and more extensive availability of relevant data was actively promoted. Those conducting climate risk analyses should be better informed of all the statistical data sources available, and the data should be more granular and forward-looking.

In early 2021, the Bank of Finland launched a project on [measuring the carbon footprint of loans to domestic non-financial corporations \(NFC\) by banks](#). The carbon footprint improves the measuring of the transition risks of banks' loan stock.

It is also a tool for monitoring how banks are implementing the national climate strategy as Finland transitions to a carbon-neutral society by 2035.



We launched a project to calculate the carbon footprint of the corporate loan stock of banks.



## Bank actively develops financial market statistical practices in 2021

Topical themes were evident in 2021 in the development of Bank of Finland statistics. The whole area of statistics was broadened with new data on indebtedness and on developments on the housing loan market. The Bank of Finland improved the way corporate finance is monitored and analysed with the launch, in collaboration with Statistics Finland, of the Data Academy project and the commencement of development work on sustainable development indicators. The Bank of Finland also took an active role in statistics projects within the European System of Central Banks.

Compiling statistics is one of the statutory tasks of the Bank of Finland.

The Bank meets the information needs of users by actively developing the collection and compilation of statistics and by ensuring that they are up-to-date, relevant and comprehensive, even in a changing operational environment.

### **In 2021, the Bank of Finland began to compile statistics on OFIs and published new data on household indebtedness**

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

In 2021, the Bank began to collect data on ‘other financial institutions’ (OFIs). The aim is to gain a more comprehensive picture of the state and sources of indebtedness in Finland and broaden the analysis of changes to financial channels.

The Bank of Finland has published two fact sheets on [the new statistics on other financial institutions](#). A clearer picture was obtained of the role of OFIs in financial intermediation and as sources of borrowing.

Vehicle finance specialists account for most (79%) of the loans to households granted by OFIs.

Other entities in the OFI sector that lend to households include consumer credit and small loan companies, banks’ finance companies and pawnshops.

A more substantial picture of household indebtedness was also obtained by collecting data on vehicle loans from credit institutions.

## **The Bank of Finland’s statistics service produces new data on buy-to-let mortgages**

The Bank of Finland’s statistics service has regularly produced data on housing loans, including mortgages on holiday homes.

The housing loan market has been exceptionally brisk during the COVID-19 pandemic. Up-to-date information has attracted general interest, and the media has been following the Bank’s publications closely.

At the end of the third quarter of 2021, households owed EUR 106.0 billion in mortgage loans and EUR 20.1 billion in loans from housing cooperatives.

In 2021, the Bank of Finland also collected data from credit institutions on buy-to-let mortgages. More and more investors are looking to profit from investing in property, financed through borrowing.

At the end of December 2021, Finnish households owed a total of EUR 8.6 billion in buy-to-let mortgages, which accounted for 8.1% of all household loans.

At the same time, a substantially higher rate of interest was payable on new buy-to-let mortgages (0.94%) than on owner occupier mortgages.

The Bank of Finland has published information on buy-to-let mortgages on the [analytical loans and deposits dashboard](#).



## Monitoring and analysis of corporate finance made use of the new granular database in 2021

The assessment of the impact of the COVID-19 pandemic on the economy and on finance has involved a close watch on trends in corporate finance and an evaluation of those trends.

The monitoring of corporate finance has entailed the use of indicators produced from statistics on banking and securities, although these have been supplemented and fine-tuned with new granular data.

The collection of granular data has made it possible to gain a sharper image of financial intermediation with respect to companies than in previous years.

It has meant being able to respond promptly to the issues that have arisen and have increased in number due to the pandemic.

The Bank of Finland has also made robust efforts to improve the quality of the data on sustainable development, add to it, and make it more accessible. At the start of 2021, the Bank launched a project to measure the carbon footprint of its corporate loan portfolio.

This involved an innovative indicator combining the granular corporate loan portfolio with carbon footprint data on corporate counterparties in the Energy Authority's [emissions trading data \(in Finnish\)](#).

The indicator aroused interest internationally, and the Bank of Finland also reported on the preliminary results at the [IMF \(International Monetary Fund\) Statistical Forum](#). More on the Bank of Finland's efforts to manage climate risks is described in the section '[Financial sector has a major role to play in combating climate change](#)'.

## New Data Academy will use new statistical data to address topical research issues crucial to decision-making

In 2021, the Bank of Finland, in collaboration with Statistics Finland, launched the joint Data Academy project, the aim of which is, firstly, to build a unique corporate finance dataset.

The intention is to use the combined data from the information pools of both organisations for purposes of analysis and research.

In future, the aim of the project is also to share information and knowledge concerning the use of data and associated technical skills, and to investigate the need to produce new data.

## **In 2021 the Bank of Finland actively developed its compilation of statistics in accordance with European guidelines**

Statistics on payments have been extended and updated, as ways of paying have changed in many ways in recent years.

A project is under way at the Bank of Finland to implement in Finland the new requirements for compiling payments statistics in the euro area (ECB/2020/59). The new data will be collected for the first time for the first quarter of 2022.

The Bank of Finland has compiled statistics on individual voluntary pension funds, especially for the European Central Bank (ECB) and for the preparation of the financial accounts, since February 2020.

In 2021, the Bank of Finland improved the coverage of these statistics and the availability of quarterly statistics. Not all entities were previously covered in the quarterly reports.

In the compilation of statistics on pension funds, the Bank of Finland employs the results of the Financial Supervisory Authority's data collection, which is undertaken in accordance with European regulations.

Unlike in many European countries, the voluntary pension fund sector has not grown very substantially in Finland and the pension institutions continue to hold most pension assets.

## **New Integrated Reporting Framework aimed at reducing statistics reporting burden on banks**

The ECB Governing Council [decided in December 2021 to kickstart the Integrated Reporting Framework \(IReF\)](#), in the preparations for which the Bank of Finland has been closely involved.

The purpose of the project is to integrate and harmonise the collection of statistical data by banks in the euro area. It is expected to reduce the statistics reporting burden for banks, as the reporting process will be standardised.

The [cost-benefit survey](#) conducted in spring 2021 suggests that the IReF was given a strong mandate by the sector, the users of data and the compilers of statistics too.

The IReF is the biggest ever project targeted at the ESCB statistics service. According to a provisional timetable, reporting under the new framework is to start 2026-2027.



## Bank of Finland monitors and analyses digitalisation of financial intermediation

In 2021, the Bank of Finland continued to monitor the digitalisation of financial intermediation and analyse the consequences of change. During the year, it published an article on the diversification of financial intermediation in Finland, conducted a survey on the use of digital channels in the Finnish banking industry, and promoted greater international cooperation on digitalisation and innovation.

In the summer, the Bank published a [Bank of Finland Bulletin article on the diversification and digitalisation of lending in Finland \(in Finnish\)](#). The article explained how the effects of digitalisation are evident in lending to households and companies and described the sort of factors that apply to the Finnish financial sector.

Although the majority of loans in Finland are still granted by banks, the number of new lenders and new approaches to lending is increasing both within the banking sector and outside it.

The Bank of Finland broadened its approach to the monitoring of digitalisation by means of a survey on the use of digital channels in lending. The survey focused on how the banks have exploited digital channels in lending, such as mobile or online banking, and how relevant to lending by the banks external channels (e.g. comparison and competitive bidding websites) are.

Besides the question of digital channels, the survey also sought to discover how great a proportion of decisions to grant loans were made automatically with no actual employee involved.

## Digital channels are hugely important in lending

The results suggest that digital channels play a major role in lending, although branches still have their part to play.

For example, loan applications by households were usually made digitally, but at the later stages of granting loans digital services were used less.

An exception to this trend was unsecured consumer loans, most of which were granted via digital channels, with no need for the personal involvement of branches, for example. Unsecured consumer loans tended to be granted particularly often on the basis of an automatic decision, while with other loan products the number of automatic decisions was far smaller.

Loan sales via non-bank channels was an especially common phenomenon with ‘digibanks’, which have no high street branches.

## International cooperation in pursuit of a broader understanding of digitalisation

The importance of greater cooperation between central banks internationally was stressed. One example of this is the collaboration between the European Central Bank (ECB), the Eurosystem NCBs and BIS (the Bank for International Settlements) concerning the establishment of centres of the BIS [Innovation Hub](#) in the euro area, actually in Frankfurt and Paris.

The mission of the BIS Innovation Hub is to identify and share views on trends in financial technology, to develop technology to improve the functioning of the global financial system and to act as a platform for dialogue between central bank experts on matters of innovation.

The Innovation Hub’s programme is structured around six core themes regarded as important for both the Hub itself and the central banks. These include, for example, digital currency and green finance.

The BIS Innovation Hub has launched the BIS Innovation Network, which is aimed at enhancing cooperation between central bank experts in matters falling under the Hub’s mandate.

The network convened for the first time in January. It consists of representatives of various central banks around the world, including two from the Bank of Finland.



## Money and payments

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# Money and payments

26.3.2021

The Bank of Finland is responsible for the availability and issuance of euro cash in Finland. In addition to cash supply, the Bank of Finland's duties include oversight, i.e. the assessment of the reliability and efficiency of domestic payment and securities settlement systems. In 2021, the COVID-19 pandemic further strengthened the decline in the use of cash and the transition in payment habits.

Digital means of payment have become more widespread, purchases are increasingly made online, and mobile payment has already replaced card payment to some extent.

The COVID-19 pandemic has strengthened the transition in the payments landscape. Due to the protracted pandemic, most of the changes will probably be permanent.

## **The number of payments transferred via the TARGET2-Suomen Pankki system increased further**

The Bank of Finland provides to banks and other financial market entities the Eurosystem's common TARGET services (Trans-European Automated Real-time Gross settlement Express Transfer system).

TARGET2 is a second-generation payment system operated by the Eurosystem. The number of interbank payments transferred via the TARGET2-Suomen Pankki system increased in 2021, whereas the value of transactions decreased slightly compared to 2020.

Both the European Commission and the Eurosystem have a new strategy on the development of retail payments. One of the objectives is to promote the instant credit transfer (SCT Inst) scheme.

Based on the decision taken by the Governing Council of the ECB in summer 2020, all Payment Service Providers (PSPs) which are reachable in TARGET2 and adhere to the SEPA Instant Credit Transfer scheme should also become reachable in the TIPS service (TARGET Instant Payment Settlement).

The first Finnish banks joined the Eurosystem TIPS instant payment service at the end of 2021.

## **ECB Governing Council project seeks to establish a concrete form for a digital euro**

The Governing Council of the ECB launched in 2021 a two-year investigation project, the purpose of which is to establish a concrete form for a digital euro, i.e. a central bank digital currency for the euro area.

A digital euro would complement the range of future payment instruments and would improve the operational reliability of the economy, as in contrast to the other electronic payment instruments, it would not be dependent on the systems of companies located outside the euro area.

Many open questions remain, however, on a digital euro and on how it would be implemented. Depending on the method of implementation, the impact of a digital euro on the economy and financial stability differs considerably.

The purpose of the investigation project is to determine how to achieve the largest possible benefits and the smallest possible risks for a digital euro.



## A step towards a digital euro in 2021

The Governing Council of the ECB launched in 2021 an extensive investigation project, the objective of which is to establish a concrete form for a digital euro. The project is a significant step towards a future where citizens have access to both cash and a digital form of the euro.

The proposed central bank digital currency for the euro area is referred to as the digital euro. The colloquial expression ‘digital cash’ can also be used as the digital euro would be issued by the central bank. A central bank digital currency could improve the operational reliability of the economy, as in contrast to the other electronic payment instruments, it would not be dependent on the systems of companies located outside the euro area.

### The Eurosystem gets organised to promote a digital euro

[A central bank digital currency](#) has become one of the important themes in the work of central bankers around the world.

The Eurosystem started its own investigative work on a central bank digital currency in early 2020 by establishing a Eurosystem High-Level Task Force on Central Bank Digital Currency. The Bank of Finland’s representative in this Task Force is Member of the Board **Tuomas Välimäki**.

[According to the Task Force](#), a digital euro would be a payment instrument that is offered to the public and replicates some of the features of cash. It would not be so much a system provided to banks or institutions, as for them a central bank digital currency is already an everyday reality in the form of TARGET payment services.



In 2021, the Eurosystem took the next step as the ECB Governing Council took a decision to launch a [two-year investigation project \(in Finnish\)](#).

This project is significantly larger than the preceding preparatory work, as dozens of experts from both the ECB and all the Eurosystem central banks participate in the project.

The most important decision-making body in the project is the High-Level Task Force, where the Bank of Finland continues to be represented by Tuomas Välimäki.

## Many open questions on a digital euro

A central bank digital currency [can be implemented in a number of ways \(in Finnish\)](#). It could be in the form of a deposit account that would function largely in the same manner as current commercial bank accounts. On the other hand, it could be, for example, a simpler mobile wallet application that provides only basic payment services.

Depending on the method of implementation, the impact of a digital euro on the economy and financial stability could vary considerably.

The purpose of the investigation project is to determine how to achieve the largest possible benefits and the smallest possible risks for a digital euro.

The project has several sub-working groups and interim phases in which the various experts look for answers to the open questions. This is not solely an ECB project as it involves experts from all the euro area central banks.

The project also draws on know-how by external stakeholders, particularly via an industry advisory group and by launching public consultations and consumer surveys.

## A digital euro could complement the payment possibilities

One of the most important objectives of a digital euro is to complement the range of future payment instruments.

As a result, a means of payment provided by the central bank would be available also in an increasingly digital economy and in an economy where the traditional use of cash is less dominant.

The purpose of a digital euro is neither to compete with the services provided by banks and payment institutions, nor to fully replace cash.

In most euro area countries, [citizens are already largely accustomed to using electronic payment instruments](#) in daily payments. Many of these payment instruments are, however, dependent on the systems of companies located outside the euro area.

The development of new payment systems for the euro area will improve the operational reliability of the economy under all circumstances. In addition, it will enhance the development and maintenance of payment flows, under the terms of euro area citizens.

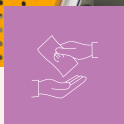
## **The Eurosystem project defines the digital euro but does not take a decision on issuance**

A decision on the issuance of a digital euro has not yet been made, and a possible decision will not be taken before the completion of the project that was launched in 2021.

The objective of the investigation project is to ensure that the Eurosystem will be prepared to issue a digital euro if it is considered justified some day in the future. In that case, the Eurosystem would already have a plan in place.

In practice, a digital euro could become available to citizens towards the end of the current decade, at the earliest. The Eurosystem may also conclude that a digital euro is not necessary for a long time yet.

Payments must be possible under all circumstances. With the digital euro project, the Eurosystem wants to ensure that people always have access to secure payment solutions and payment systems that enable the functioning of everyday life under all future scenarios.



## Bank notes and cash supply

The Bank of Finland is responsible for issuing bank notes and coins in Finland. The aim of the Bank of Finland and other cash supply entities is to ensure that non-counterfeit cash in good condition is available all over Finland in line with demand. The Bank of Finland endeavours to ensure that cash is permanently available as a competitive payment method.

### COVID-19 pandemic contributed to decline in use of cash

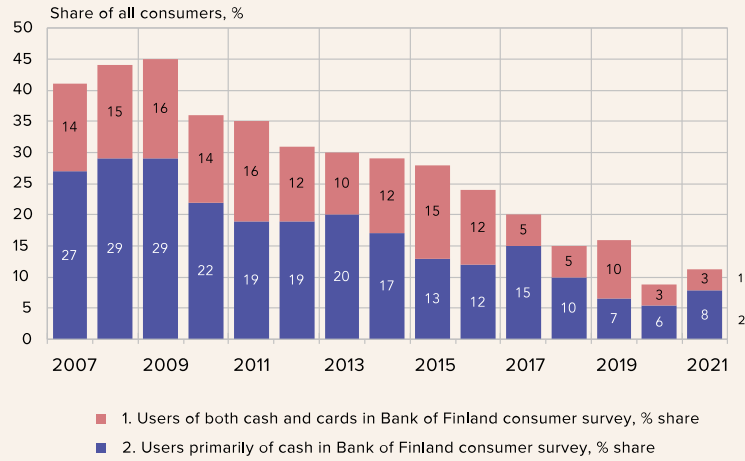
[The use of cash as a payment method](#) has been on the wane over the last few years, and the COVID-19 pandemic contributed to the decline in 2021. As the pandemic has dragged on, there is also a greater probability that the change will become permanent for the most part. Despite this trend, however, cash still remains an important payment method for many people and organisations in Finland.

[According to a consumer survey conducted by the Bank of Finland \(in Finnish\)](#), cash was still the primary payment method for almost half a million Finns in October 2021 (Chart 18).

The results of the survey suggest that use of cash has declined in particular among those consumers who usually use cash or a card by and large just as often. The relative numbers of such consumers would seem to have remained the same during the pandemic, a few percentage points either way.

Chart 18.

### Various users of cash in Bank of Finland consumer surveys



Source: Bank of Finland, consumer surveys.

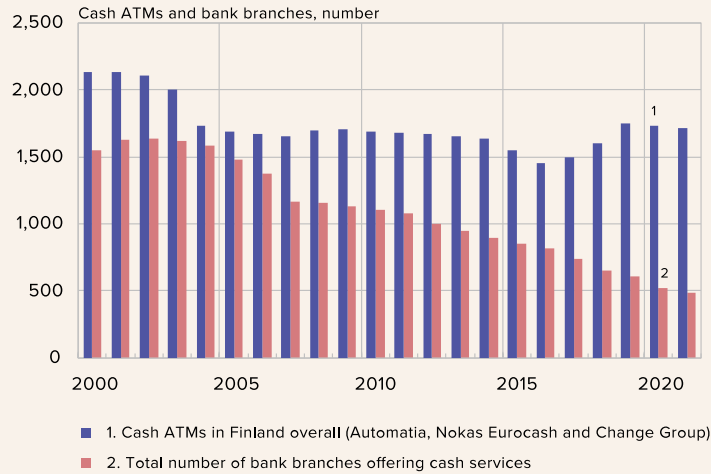
## Large regional differences in the availability of cash in Finland

Cash in Finland is mostly distributed via cash dispensers (ATMs) or bank branches. The number of branches offering cash services has fallen sharply over the years, however, and they have shorter business hours.

Furthermore, the number of ATMs levelled off or even fell slightly in 2021 (Chart 19). Nevertheless, the results of the consumer survey show that people tended in the main to remain satisfied with the general availability of cash.

Chart 19.

### Cash ATMs and bank branches offering cash services



Sources: Automatia, Nokas CMS and Change Group.

[The Bank of Finland looked into the availability of cash \(in Finnish\)](#) based on the geographical location of ATMs and the population generally in 2021.

The study suggested that Finns on average have reasonable access to ATMs, although there are considerable differences from one area to another. Almost one in two municipalities have just one ATM, if they have one at all.

The situation could deteriorate quickly. In many other countries steps have already been taken to ensure that cash is available.

## 2021 saw an increase in the issue of banknotes and coins

There was a further increase in the issue of bank notes and coins in Finland in 2021 (Chart 20), even though the use of cash declined.

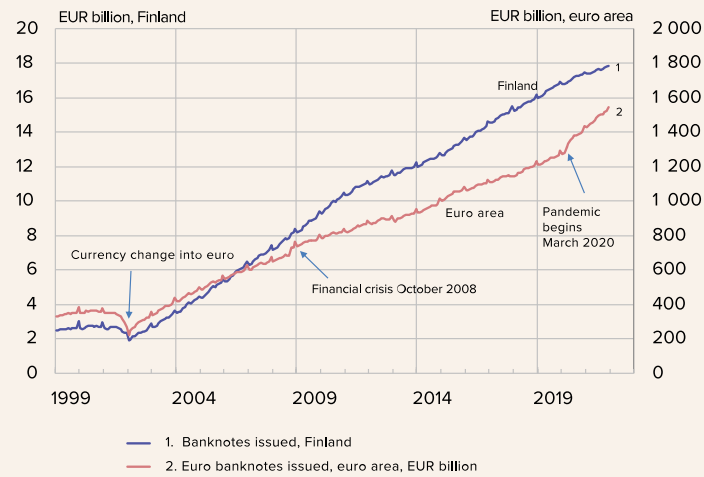
The same trend has been discernible throughout the euro area, and [the European Central Bank](#) (ECB) has investigated the matter. In Finland, the phenomenon has been more evident during the pandemic.

One explanation for the trend in Finland is that [people have been holding on to cash and keeping it in their wallet \(in Finnish\)](#).

Holding on to cash is generally a sign of uncertain times, when people prepare themselves for unexpected expenses or otherwise want to be sure they are able to pay what they owe in times of crisis.

Chart 20.

### Banknotes issued in Finland and the euro area



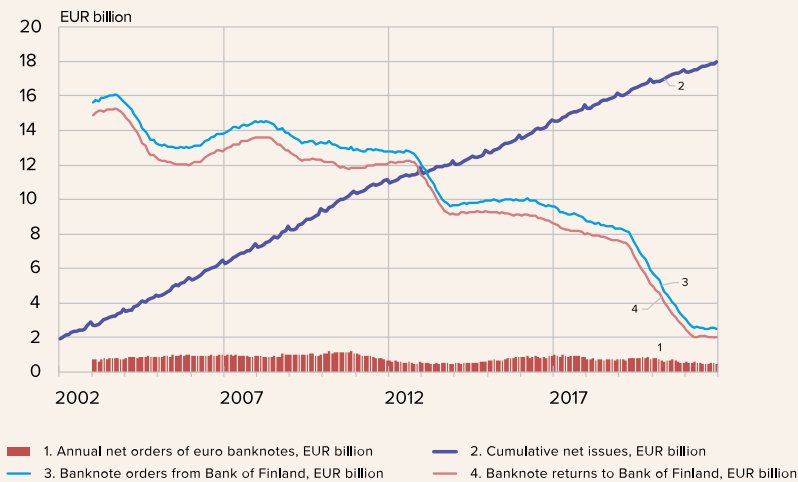
Sources: Bank of Finland and European Central Bank.

The downward trend in euro banknote orders from the Bank of Finland and returns to the Bank seems to be levelling off (Chart 21).

The considerable decline in previous years was due to Bank of Finland branch closures, though most recently it is the pandemic that has been the main reason for the downward trend.

Chart 21.

### Euro banknotes ordered from and returned to the Bank of Finland



Source: Bank of Finland.

## There will need to be a reliable supply of cash in the future too

[The use of cash has also been avoided \(in Finnish\)](#) in transactions during the COVID-19 pandemic for reasons of hygiene.

Consumers were generally asked to pay for their goods at cash desks in shops using contactless debit or credit cards, with customers not making physical contact with the payment terminal, as with transactions requiring verification.

According to a [study \(in Finnish\)](#) by the ECB, however, the virus is not likely to be spread by cash.

For some, cash is still an important way to pay for goods and services, and for some it is the only option. [The availability and acceptance of cash](#) are something that must also be guaranteed in the future.

As long as consumers and companies need and want to use cash, it must be possible to do so at a reasonable cost.



We are safeguarding access to cash and cash availability and will continue to do so in the future.

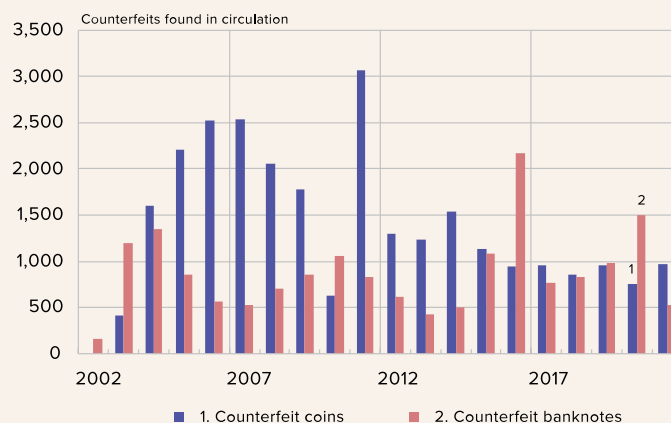
## Counterfeit euro cash in Finland in 2021

In 2021 [in Finland](#) and [in the euro area](#) there were fewer counterfeit euro banknotes in circulation than ever before.

A total of 523 counterfeit banknotes were discovered. The number of counterfeit coins found was 977 (Chart 22). The EUR 20 banknote was the denomination with the highest number of counterfeits, amounting to one third of the counterfeit banknotes in circulation.

Chart 22.

### Euro banknote and coin counterfeits in Finland

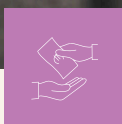


Source: National Bureau of Investigation.

The Bank of Finland organised seminars on banknotes for cash professionals in the years prior to the pandemic. In 2021 [an online course \(in Finnish and Swedish\)](#) was created to run alongside these. The subject is how to tell if a banknote is genuine.

The course is intended to make it easier [to identify the factors that show that a banknote is not counterfeit \(in Finnish\)](#), regardless of time and place. The online course is available to the general public as well as professionals.





## The COVID-19 pandemic accelerated the transition in the payments landscape in 2021

The Bank of Finland's oversight tasks comprise the assessment of risks related to systems, policy work to promote the efficiency of payments, and analysis work that supports these tasks. Payment habits have changed increasingly rapidly during the COVID-19 crisis. Payment systems and securities settlement systems have operated reliably during exceptional conditions, so too in 2021.

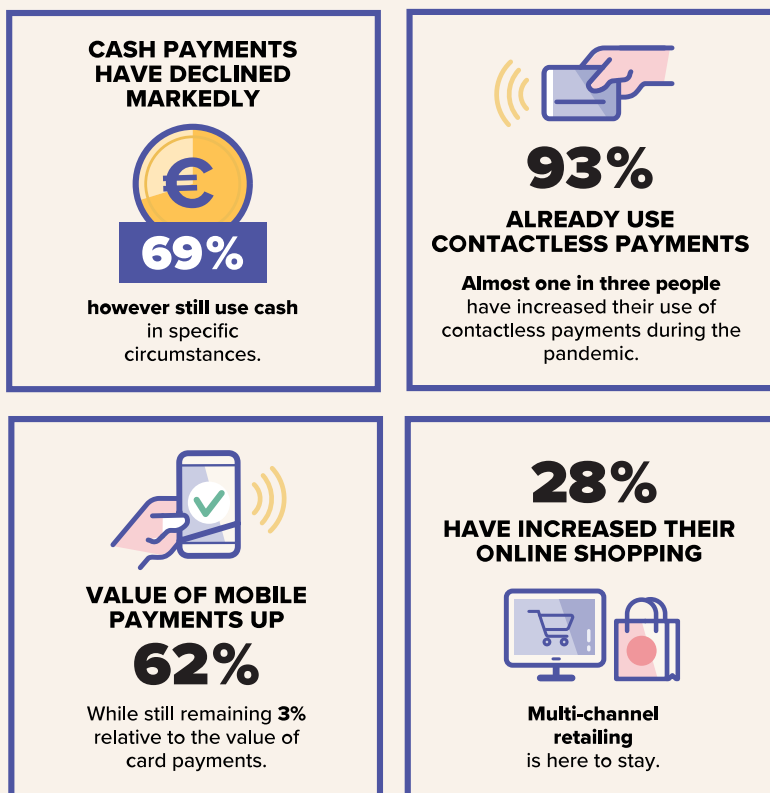
The COVID-19 pandemic has affected consumer behaviour and payment habits (Chart 23).

Digital payment methods have become more widespread, purchases are increasingly made online, and mobile payment has already replaced card payment to some extent.

These trends have also been evident earlier, but the COVID-19 pandemic has accelerated the transition and turned new payment habits into permanent habits.

Chart 23.

## COVID-19 has accelerated change in use of payment methods in Finland



Source: Bank of Finland

## Objective is to promote the coverage of instant payments throughout the euro payments area

In May 2021, the Bank of Finland organised the 14th [Payments Forum \(in Finnish\)](#) – this time as a webinar. In connection with the Forum, the Bank published the first issue of [the Bank of Finland Bulletin that focused solely on money and payments](#).

The Forum and the publication discussed several important themes on the development of oversight as well as payment and settlement systems. One of the themes was the impact of the exceptional conditions, which was examined in the article [COVID-19 pandemic causing permanent change in payment habits](#).

Both the European Commission and the Eurosystem have a new strategy for the development of retail payments.

The Bank of Finland article on [the trend in European retail payments and its impacts on the Finnish markets \(in Finnish\)](#) examined the objectives set by these authorities concerning European payment habits and instant payments as well as how Finnish banks' development projects contribute to the achievement of the objectives.

One of the objectives is to promote the instant credit transfer (SCT Inst) scheme.

The purpose of the Eurosystem measures is to improve the coverage of instant payments, i.e. to enable the transfer of payments via instant transfer schemes throughout the Single Euro Payments Area.

The issue was discussed in the article [Eurosystem wants to enable pan-European transfer of instant payments \(in Finnish\)](#), published on the Bank of Finland Bulletin website in late 2021.

In instant payments, the funds required for the settlement of transactions are transferred as individual payments. For the settlement of instant payments, the banks therefore must have a larger balance than before on their central bank account.

The scale of the increase in the liquidity need and the factors affecting the system-level liquidity need or the liquidity need of individual participants was examined in the article [Instant payments as a new normal: Case Study of liquidity impacts for Finnish market](#), published in the Bank of Finland Economics Review.

The Bank of Finland coordinates the national [Payments Council](#), which brings together the key entities in the payments market. The Council continued its work in 2021 to promote payment solutions that are efficient for society as a whole.

## What is oversight?

The task of central bank oversight is to assess the reliability and efficiency of payment and securities settlement systems as a whole.

The article [Payment and settlement systems subject to oversight](#), published in spring 2021, described the oversight requirements set for these systems and how the fulfilment of the requirements is assessed.

The systems subject to Bank of Finland oversight are, for example, the payment systems used by the banks operating in Finland, such as EBA Clearing's STEP2 and RT1 or the domestic system Siirto, as well as the securities settlement system operated by Euroclear Finland.

Oversight is conducted both independently and in international cooperation.

## Analysis supports the Bank of Finland's oversight activities and policy work

The Bank of Finland hosted in October 2021 the 10th Economics of Payments conference. [The three-day conference Economics of Payments X](#) was conducted as a virtual event, and it attracted a wide group of participants globally.

The Bank of Finland continued in 2021 to develop its [payment and settlement system simulator](#) and to provide support services to the simulator users. The software is used as an oversight tool for assessing the risks related to payment and settlement systems and for improving the systems.

In 2021, a significantly renewed version of the simulator was released, the BoF-PSS3. In September, the Bank organised a simulator seminar in the form of a webinar, as in 2020.

2021 also saw the launch of a development project, in which the Bank of Finland, together with the European Central Bank, provide to the Eurosystem a new analysis environment for TARGET services. The Bank of Finland's role in this cooperation is to provide simulator software that can replicate the functionalities of the renewed TARGET-system.

The simulator is also used in the Bank of Finland's own analysis work. An example of this is the study [Measuring counterparty risk in FMI](#)s, and it is also an area of study in which oversight work is linked with the central bank's financial stability task and the work of the Financial Stability Authority.

## Contingency measures protect the functioning of systems

The opportunities presented by digitalisation are made use of extensively by the financial sector. This does, however, also expose the entities to cyber risks. One of the best ways of managing cyber risks is to test the systems with exercises that simulate an actual situation.

In 2021, financial sector entities applied in their red team penetration testing the [TIBER-FI Implementation Guideline](#) introduced by the Bank of Finland in 2020.

TIBER stands for Threat Intelligence-based Ethical Red Teaming. TIBER-FI is based on the TIBER-EU framework adopted by the European Central Bank in May 2018 and that provides guidance on penetration testing.

The purpose of penetration testing is to establish the ability of financial sector entities to protect against cyber and other threats and to identify areas for improvement.

The Bank of Finland also conducted testing under the TIBER-FI framework on its own critical functions, and gained valuable experience and knowledge for improving protection.

The services provided by the financial sector are highly dependent on systems and databases located outside Finland.

[For the development of national preparedness \(in Finnish\)](#), the Bank of Finland proposed a so-called safe haven procedure as an alternative for financial sector contingency planning.

In the procedure, the data required for the provision of basic banking services are stored daily in a separate protected server environment, a digital vault. In the event of a crisis, the data can be recovered from the vault. The model also includes the idea of a standby arrangement that enables the temporary provision of basic banking services, if necessary.



## In 2021, the Bank of Finland participated in the development of TARGET services

The Bank of Finland provides to banks and other financial market entities the Eurosystem's common TARGET services. In 2021, the Bank of Finland participated actively in Eurosystem-wide market infrastructure development projects for the improvement of TARGET services.

TARGET services comprise payment system services (TARGET2), instant payment services (TIPS) and settlement system services (T2S).

[TARGET2](#) is one of the largest payment systems in the world. It is owned by the Eurosystem central banks. More than one thousand credit institutions have a TARGET2 account.

At the end of 2021, a total of 24 credit institutions operating in Finland and the Nordic countries as well as ancillary systems used the Bank of Finland's TARGET2- Suomen Pankki component.

The average daily number of payments settled via the TARGET2-Suomen Pankki component in 2021 was 3,600, with an average aggregate value of EUR 41 billion per day.

The daily number of transactions has increased in recent years. This was also the case in 2021, with an increase of 41% year-on-year. The value of transactions, however, decreased slightly compared to 2020.

The TARGET2- Suomen Pankki component accounts for some one percent of the total number and for two percent of the total value of transactions in TARGET2.

## The new TARGET system entered the testing phase in 2021

TARGET2 will be discontinued in 2022, and it will be replaced by a new TARGET system in November 2022.

The Bank of Finland is actively participating in the development of the new system, in which customers are provided payment and liquidity management services, as in the current system.

In the [T2-T2S consolidation project](#) for the introduction of the new system, the central bank testing phase was launched in June.

In September, TARGET participants started network connectivity testing. Actual user testing activities will start in early 2022.

The Bank of Finland organised in 2021 several information sessions and user trainings on the project.

## Finnish banks joined the TIPS instant payment service in 2021

The first Finnish banks joined the Eurosystem's [TARGET Instant Payment Settlement](#) (TIPS) service at the end of 2021.

The EBA Clearing RT1 system, which is the main system for settling Finnish banks' instant payments, also migrated its liquidity management to TIPS in December 2021.

This was based on the [decision taken by the Governing Council of the ECB in summer 2020](#). All Payment Service Providers (PSPs) which are reachable in TARGET2 and adhere to [the SEPA Instant Credit Transfer](#) scheme should also become reachable through the TIPS service.

At the same time, all automated clearing houses offering instant payment services are to migrate their technical accounts from TARGET2 to TIPS.

The decision will remove barriers to European instant payment, as all PSPs providing instant payments, counterparties and ultimately end customers will therefore be reachable via TIPS.

In 2021, the Bank of Finland worked actively in Eurosystem working groups to promote the achievement of the objective set by the ECB Governing Council and supported the migration of its participants to TIPS.

## A decision was taken in 2021 that Eurosystem collateral management will migrate to the T2S platform

The new uniform [Eurosystem Collateral Management System](#) (ECMS) will replace the existing collateral management systems of all the Eurosystem national central banks in November 2023.

[The ECB Governing Council decided](#) in April 2021 that when the ECMS is launched, the national central banks will take eligible marketable collateral from their monetary policy counterparties only via central securities depositories (CSDs) that are part of [TARGET2-Securities \(T2S\)](#).

T2S is a securities settlement platform, constructed by the Eurosystem, where the settlement of transactions takes place in central bank money.

The Bank of Finland has prepared, together with the Finnish central securities depository Euroclear Finland (EFi), the ECB and the Finnish markets, the migration of EFi to T2S.

The ECB's Market Infrastructure Board (MIB) confirmed in summer 2021 that [EFi will migrate to T2S](#) on 11 September 2023.

The Bank of Finland already provides to its participants central bank money accounts in T2S for securities settlement purposes abroad, but the number of the accounts will increase following the migration of EFi to T2S.

## TARGET systems operated reliably in 2021

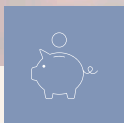
The TARGET systems operated reliably throughout the 2021 and there were no significant incidents.

The [independent review of incidents in the TARGET services in 2020](#), launched by the ECB, was completed in 2021.

[The results of the review](#) were published in July 2021, and they included a total of eighteen recommendations on, among other things, business continuity, testing and crisis communication protocols.

The Eurosystem has already taken the necessary measures, and in December 2021 the ECB published [an action plan](#) to implement the recommendations made in the review. The work will continue in the years to come.





## Management of financial assets

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# Management of financial assets

26.3.2021

Holding and managing foreign reserves are among the statutory tasks of the Bank of Finland. The Bank of Finland's asset performance was favourable in 2021. Investments in equity and real estate saw especially good returns. It was, however, a challenging year for fixed-income investments. In 2021, sustainability became the fourth objective of investment activities, alongside security, liquidity and return. The aim is for a carbon-neutral investment portfolio.

In managing its financial assets, the Bank of Finland safeguards the value of the assets and its ability to support the liquidity of the banking system whenever necessary.

The Bank of Finland's financial risks consist of market, credit and liquidity risks. The Bank manages the risks associated with investment activity through diversification and adherence to the risk limits for investments and investment activities.

The Bank of Finland's capital adequacy is sufficient to cover the risks arising in the performance of its tasks.

## Higher returns on the Bank of Finland's financial assets

At the end of 2021, the Bank of Finland's financial assets amounted to around EUR 11 billion. These consisted of gold holdings, foreign reserves and investments in equities and real estate.

The Bank of Finland's investments of assets are informed by the investment policy decided annually by the Bank's Board. More than half the Bank of Finland's fixed-income portfolios comprise sovereign bonds and central bank deposits.

In addition to its income investments, the Bank of Finland manages a long-term investment portfolio. In 2021, the Bank of Finland's long-term investment activities consisted of equity and real estate investments, handled indirectly through mutual funds.

Long-term investment activity has a higher expected return and lower liquidity requirement than with other portfolios.

The Bank of Finland's financial assets yielded an overall return of 8.6% or EUR 866 million in 2021 (0.5%, EUR 76 million in 2020).

## **The Bank of Finland's objective is a carbon-neutral investment portfolio**

Sustainable investment is a key component of the Bank of Finland's asset management. The Bank of Finland has signed the UN-backed Principles for Responsible Investment (PRI).

In 2021, the Bank of Finland set a carbon-neutral target for its own investments and published the first intermediate targets in its climate roadmap, the purpose of which is to ensure the achievement of long-term goals.

The Bank's ambitious carbon-neutral objective means that all its investment portfolios, except for gold, must be carbon-neutral by 2050.

In 2021, the Bank also expressed its public support for the international Task Force on Climate-related Financial Disclosures (TCFD), a reporting framework focused on the threats and opportunities associated with climate change.

TCFD recommendations can help companies, investors and financiers to report on their climate risks with reference to jointly approved specifications. The Bank of Finland has publicly pledged to support these recommendations and develop its own reporting system to take them into account.



## Bank of Finland's management of financial assets in 2021

The Bank of Finland's asset performance in 2021 was favourable. Investments in equity and real estate saw especially good returns. It was, however, a challenging year for fixed-income investments. Considerable advances were made during the year in the area of responsible investing.

The Bank of Finland's financial assets refer to its own invested items, which totalled approximately EUR 11 billion at the end of 2021. Financial assets do not include balance sheet items related to Eurosystem monetary policy measures, for example monetary policy asset purchase programmes or loans to banks.

The Bank of Finland decides on the volume of its financial assets within the framework of the [ANFA Agreement](#) (Agreement on Net Financial Assets).

The Bank of Finland's financial assets are managed in line with central bank objectives, taking into account the returns on investment, the risks attached, and considerations of responsibility. In 2021, responsibility was added as a fourth pillar representing the objectives in investment activities, alongside security, liquidity and return. There was also major progress in other areas of [responsible investment](#) as well during the year.

### The size of Bank of Finland foreign reserves is a policy decision

Holding and managing foreign reserves are among the statutory tasks of the Bank of Finland. The size of Bank of Finland foreign reserves and the currency breakdown is a policy decision based on considerations of preparedness.

The decision is taken by the Board at least once every three years. In 2021, a decision was taken on the currency-specific targets for the period 2022-2024. The current targets for these reserves are set at USD 5 billion, GBP 650 million and JPY 95 billion, respectively.

The corresponding sums in euros were EUR 4.4 billion for the US dollar, EUR 773 million for the British pound and EUR 726 million for the Japanese yen, at the exchange rate in effect at the end of 2021.

The management of foreign reserves has a key role in the Bank of Finland's endeavours to ensure that it is financially equipped to deal with future uncertainties and risks. If necessary, the national central banks in the Eurosystem must transfer their foreign reserves to the European Central Bank (ECB). Moreover, the Bank of Finland makes provision for crises that can weaken Finland's external solvency.

## Composition of financial assets

At the end of 2021, the Bank of Finland's financial assets amounted to around EUR 11 billion (Table 5). These assets comprised direct and indirect fixed-income investments, investments in equity and real estate, gold holdings and [items denominated in IMF Special Drawing Rights \(SDRs\) \(in Finnish\)](#).

Direct and indirect foreign currency-denominated fixed income investments and SDR items comprise the foreign reserves. The foreign currency-denominated fixed-income investments are in US dollars (USD), sterling (GBP) and Japanese yen (JPY).

The Bank of Finland's gold holdings amounted to EUR 2.5 billion at the end of 2021. No active investment decisions were made in regard to gold in 2021.

The Bank of Finland's financial assets grew in 2021 by EUR 936 million, especially as a result of the rise in the market value of its stock portfolio and the strengthening US dollar.

Owing to the COVID outbreak, in 2020 the Bank of Finland began to re-invest in Finnish commercial papers. With the recovery of the market, these activities were put on hold, and the last commercial papers fell due in the first half of 2021. The Bank of Finland is prepared to recommence these activities if the market situation changes.

**Table 5.**

<b>The Bank of Finland's financial assets, EUR million</b>	<b>31 Dec 2021</b>	<b>31 Dec 2020</b>
Gold	2,537	2,434
Foreign reserves	6,719	6,261
<i>SDR</i>	690	574
<i>US dollar-denominated fixed-income</i>	4,256	4,200
<i>Sterling-denominated fixed-income</i>	777	732
<i>Yen-denominated fixed-income</i>	732	754
<i>Fixed-income funds</i>	264	0
Euro-denominated fixed-income	0	61
Equity funds	1,513	1,135
Real estate funds	176	119
<b>Total</b>	<b>10,946</b>	<b>10,010</b>

**Source: Bank of Finland.**

## Policy on investment of financial assets

The Bank of Finland's investments are guided by investment policy, which is decided annually by the Bank's Board. The investment policy covers fixed-income investment policy, long-term investment policy and the responsible investment principles.

The policy on fixed-income investments sets a strategic allocation for the Bank's investments and determines a strategic level of interest rate risk for the various currencies. The investment policy sets out a strategic market-based index that serves as a benchmark for the Bank's investment activities. Asset Management may deviate from the strategic index within a pre-set range and in accordance with the investment policy's risk limits.

Long-term investment activity has a higher expected return and lower liquidity requirement than with other portfolios. The risk-return ratio improves across the whole balance sheet when the investment portfolio is diversified.

The Bank of Finland updates the responsible investment principles when necessary, and annually in connection with the investment policy update. [The responsible investment principles and the practical measures taken in 2021](#) are described in their own section.

A long-term investment policy that takes into account balance sheet risks as a whole ensures that the balance sheet is healthy and promotes the Bank of Finland's target for steady profit distribution to the State, without endangering capital adequacy.

## Fixed-income portfolios

At the end of 2021, the Bank of Finland had direct fixed-income investments worth EUR 5 765 million.

These comprised sovereign bonds and central bank deposits (55%), supranational or government-related bonds (27%), covered bonds (5%), corporate bonds (12%) and cash instruments (2%).

Fund-based fixed-income investments were worth EUR 264 million in total. They consisted entirely of an investment in the Bank for International Settlements (BIS) Green Bond fund.

As a measure of interest rate risk, the average duration of the fixed-income portfolios at the end of 2021 was 1.8 years. Fixed-income investments are made in debt securities with high credit ratings.

## Long-term investment activities

In 2021, the Bank of Finland's long-term investment activities consisted of equity and real-estate investments, handled indirectly through funds and ETFs. The value of the portfolio at the end of the year totalled EUR 1 688 million.

The equity investments have been diversified cost-effectively by investing in passive Exchange Traded Funds (ETFs) mirroring the global index for developed markets.

The real estate investments have been diversified across a number of unlisted European funds. Each fund owns real estate in central locations, which makes the properties easy to let. This ensures a steady return on investment over the long term in the form of rent.

## Financial asset returns and risks

The Bank of Finland's financial assets yielded an overall return of 8.6%, or EUR 866 million in 2021 (Table 6).

The global economy recovered with the roll-out of the COVID-19 vaccine, and monetary accommodation continued to aid the recovery in 2021. The inflation rate rose with, for example, the higher cost of energy, with the result that interest rates increased, especially in the United States.

The rise in interest rates meant that the return on fixed-income investments was in negative territory. By denomination, the return on US dollar investments stood at EUR -28.7 million. For sterling it was EUR -5.9 million, for the yen EUR -0.4 million and for the euro EUR -0.1 million.

Equity prices rose in 2021 as a result of the general economic recovery and healthy business results. The stock market, however, at times showed signs of uncertainty, with increased expectations of a rise in interest rates and changing attitudes to the seriousness of the pandemic. The total return on the Bank of Finland's equity investments in 2021 was 23.1%, i.e. EUR 273 million.

The annual return on real estate funds fluctuates with the rents received and changes in property values. In 2021, the real estate market recovered from the situation that prevailed the preceding year, which was reflected in an upswing in transactions, higher valuations and a normalisation of rent affordability. The return on the Bank of Finland's real estate investments in 2021 was 6.5%, or EUR 10 million.

The strengthening of the dollar and sterling against the euro was experienced as a good currency revaluation, yielding a return of EUR 483 million. The value of fixed-income investment items denominated in foreign currency rose overall: the change in US dollar-denominated assets was EUR 349 million, for sterling-denominated assets it was EUR 52 million and for yen-denominated assets, EUR -23 million.

Currency revaluation related to the equity portfolio was EUR 105 million . This is included in the EUR 483 million currency revaluation figure.



**Table 6.**

Return on the Bank of Finland's own financial assets	2021		2020	
	%	EUR m	%	EUR m
Fixed-income investments	-0.6	-35	3.3	213
Equity funds	23.1	273	17.4	177
Real estate funds	6.5	10	-1,6	-2
Currency revaluation	6.8	483	-7,3	-587
<b>Excluding gold and SDR</b>	<b>10.5</b>	<b>731</b>	<b>-2,8</b>	<b>-198</b>
Gold	4.3	103	14.0	299
SDR	4.9	32	-4,3	-25
<b>Total</b>	<b>8.6</b>	<b>866</b>	<b>0.5</b>	<b>76</b>

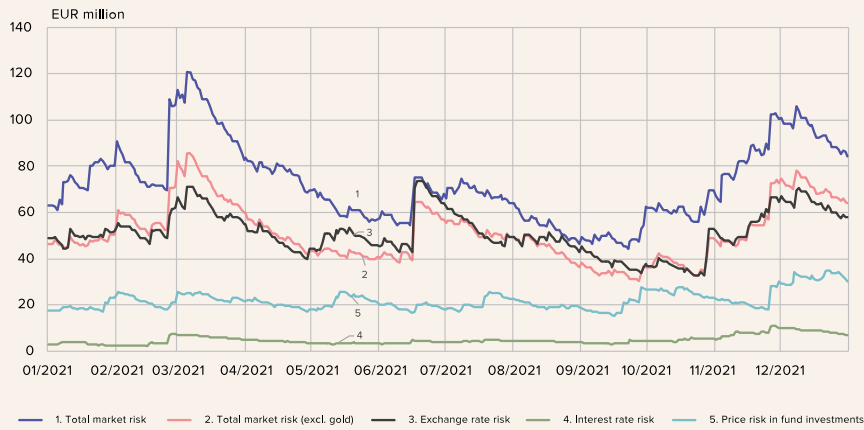
**Source: Bank of Finland.**

The total market risk associated with the Bank's financial assets (Value-at-Risk 99%, 1 day) varied between EUR 44 million and EUR 121 million in 2021 (Chart 24).

Exchange rate risk is the Bank of Finland's major risk associated with its foreign currency-denominated fixed-income investment portfolios. The volume of the Bank's foreign reserves has been scaled to the level required for the functions of a central bank.

Chart 24.

### VaR figures for market risk in the Bank of Finland's financial assets in 2021\*



Source: Bank of Finland.  
\* Daily period, 99% confidence level.

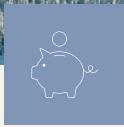
## Share of the European Central Bank's foreign reserves

[The European Central Bank \(ECB\) has foreign reserves of its own.](#) Management of the foreign reserves of the ECB is 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 foreign exchange operations.

The value of Finland and Estonia's pooled US dollar-denominated portfolio of ECB foreign reserves at the end of 2021 stood at EUR 1,141 million.

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



## Bank of Finland's goal is a carbon-neutral investment portfolio

In 2021, the Bank of Finland set a carbon neutrality goal for its investment portfolio and announced the first intermediate targets for its climate roadmap. The regularly reviewed intermediate targets ensure we will reach the net-zero target for the Bank's investment activities.

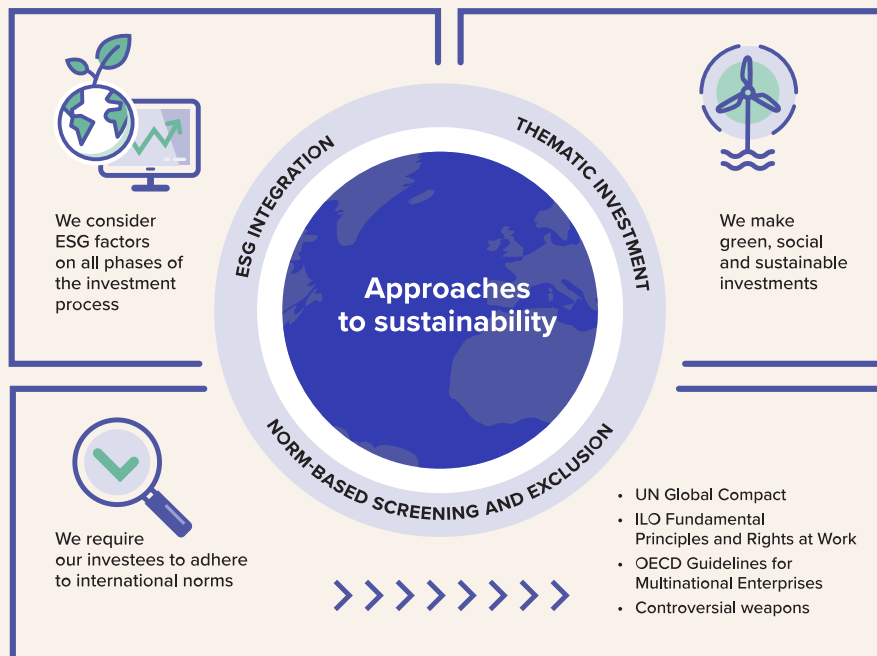
Responsible investment is a key component of the Bank of Finland's asset management. In 2021, sustainability was added as an objective for guiding the Bank of Finland's investment activities, alongside liquidity, security and return.

The Board of the Bank of Finland adopted in December 2021 the updated public [responsible investment principles](#), which the Asset Management division implements in practice.

The Bank of Finland has already earlier chosen ESG (environmental, social, governance) integration, thematic investment and norm-based screening and exclusion as the most important approaches to responsible investment.

Chart 25.

## Bank of Finland's approaches to sustainability



Source: Bank of Finland

## The Bank of Finland participated in 2021 in international working groups on climate risk indicators and climate-related disclosures

Bank of Finland experts worked in 2021 actively in international working groups for central banks (for example the Eurosystem and the Network for Greening the Financial System), which discussed in particular climate-related disclosure as well as the procurement and availability of climate data.

The working groups have, for example, prepared disclosure recommendations and climate risk indicators applicable for central banks.

In addition, Bank of Finland experts have given presentations on measures concerning the setting of climate targets, both at international and national events.

## The Bank of Finland is a forerunner in climate targets among central banks

The Bank of Finland has set an ambitious goal, according to which its entire investment portfolio, excluding gold, for which an internationally accepted carbon footprint method does not yet exist, must achieve carbon-neutrality by 2050 at the latest.

The Bank of Finland is one of the first central banks to set such a comprehensive carbon-neutrality target for its investment portfolio. Achievement of the target depends on how governments succeed in the targets defined in the Paris Agreement on climate change, as due to the nature of central banking activities, the bulk of the Bank of Finland's reserves is invested in government bonds.

For the Bank's equity and corporate bond portfolios, it is possible to achieve the net-zero target even before 2050. Hence, the Bank has set a 50% emission intensity reduction target for equity investments by the end of 2025, compared with the level of Q1 2021.

The Bank of Finland restricts direct investments in individual companies whose turnover exceeds the thresholds on carbon, gas and oil business as follows:

- A maximum 2% of turnover from thermal coal
- A maximum 5% of turnover from the energy use of coal
- A maximum 10% of turnover from oil drilling
- A maximum 40% of turnover from gas production.

The restrictions will enter into force by the end of 2022, at which point restrictions will also be set on unconventional forms of oil and gas production, such as Arctic drilling and oil sands.

Intermediate targets have also been set for the carbon neutrality of the other asset classes. [The intermediate targets and the next steps in the roadmap are described in a press release.](#)

## The Bank of Finland has made a global commitment to sustainability

The Bank of Finland signed the UN-backed Principles for Responsible Investment (PRI) among the first central banks, already in 2019.

Commitment to the principles is not only symbolic; the signatories are subject to minimum requirements, which the Bank of Finland already fulfils.

The Bank of Finland's own responsible investment principles recognise environmental, social and corporate governance (ESG) issues.

The Bank of Finland's responsible investment principles cover its entire investment assets, whereas the minimum requirement laid down in the UN-backed Principles for Responsible Investment is over 50% of investment assets.

The minimum requirement in the UN-backed Principles for Responsible Investment is that responsible investment activities are supervised by management and that either internal or external resources are allocated for the practical implementation of the principles.

At the Bank of Finland, responsible investment activities are monitored by the Board and staff resources are available for the practical implementation of the principles.

The signatories to the UN-backed Principles for Responsible Investment also commit to reporting through the PRI reporting framework.

The Bank is also a member of the international climate network NGFS (Network of Central Banks and Supervisors for Greening the Financial System). The purpose of the network is to contribute to the sustainability of central banking activities.

The Bank is furthermore a member of the Finnish organisation Finsif ry (Finland's Sustainable Investment Forum), which promotes sustainable investment.



We set a carbon-neutrality target for our investment portfolio and published the first intermediate targets for our climate roadmap.

## **The Bank of Finland develops reporting to take into account the recommendations of the TCFD disclosure framework**

In 2021, the Bank of Finland gave public support to the international TCFD disclosure framework (Task Force on Climate-related Financial Disclosures) that focuses on the threats and opportunities presented by climate change.

The TCFD recommendations provide to companies, investors and lenders a framework for reporting climate risks using commonly accepted specifications.

The Bank of Finland has issued a public commitment to supporting these recommendations and develops its own reporting to take into account the TCFD recommendations.

The TCFD framework consists of four thematic areas: governance, strategy, risk management, and metrics and targets.

The recommendations for the thematic areas include further recommendations that the committed organisations should strive to fulfil.

## **Management: the management of climate risks and opportunities in the organisation**

The Bank of Finland Board approves the objectives of the Bank's investment activities and the responsible investment principles.

In 2021, the Board approved the updated responsible investment principles and a carbon-neutrality target for its own investment activities.

In addition, a roadmap was prepared and intermediate targets were defined for guiding this long-term target. [The intermediate targets and the next steps on the roadmap are described in a press release.](#)

These climate targets together with the responsible investment principles constitute an entity whose realisation the Bank of Finland Board monitors regularly, at least once a year.

The Bank of Finland also has a responsible investment working group . The task of the working group is to supervise and monitor the implementation of responsible investment activities and report thereon.

The working group includes the Head of Market Operations and representatives from the Risk Management and Asset Management divisions as well as the responsible investment expert. The working group meets at least once every quarter.

The climate risks and opportunities of individual investments and external asset managers are monitored by the Bank's Asset Management division, as part of standard portfolio management.

## Strategy: the disclosure of potential and actual climate impacts from the perspective of business, strategy and financial planning

The Bank of Finland's most significant climate impacts arise from its investment portfolio. The climate impacts of other activities are examined as part of the [Bank of Finland's comprehensive sustainability programme](#).

The climate goal is a long-term target, and to ensure achievement of the target, the Bank of Finland Board has decided on intermediate targets for the first stage in its climate roadmap. The achievement of the intermediate targets and the setting of new intermediate targets is reviewed regularly.

The Bank of Finland excludes from its direct investments companies whose turnover exceeds the maximum limit defined by the Bank of Finland on fossil fuels, unless the companies have a credible plan to fall below the limit values.

Bank of Finland experts participate actively in various working groups aimed at promoting the accounting and reporting of climate risks.

Calculation methods must be developed and data quality and coverage must be improved to strengthen further the use of climate information to support investment decisions.

In equity investments, the Bank of Finland's focus is on the stewardship activities of asset managers and the selection of the benchmark indices applied.

Asset managers exercise shareholder rights, for example via active voting and engagement processes. By changing the benchmark index, the holdings of the passive portfolio can also be changed significantly.

However, sufficient change cannot be achieved by mere exclusion; a larger impact in the longer term can be achieved via active ownership.

In real estate investments, the Bank of Finland pays attention to building specific environmental certificates, the climate targets set on individual funds, as well as the real estate funds' results and measures taken in accordance with the international GRESB benchmark (formerly: Global Real Estate Sustainability Benchmark).

GRESB is an organization that performs ESG surveys and assessments on real estate and infrastructure investments.

In addition, the Bank of Finland continues to make thematic investments in green, social and sustainability bonds, taking account of the market condition.



## Risk management: identification, assessment and management of climate risks

The identification of climate-related financial risks and opportunities requires a large amount of information suitable for investors.

In addition to the Bank of Finland's own data procurement already in use, the intention during 2022 is to start using the climate data from the Eurosystem climate data procurement.

External data facilitates and enhances identification of the most significant climate impacts of the portfolio. In addition to identification, assessment and risk management, the climate impacts of the portfolio are disclosed to various levels of the organisation.

In addition, external asset managers are monitored regularly with the help of climate targets, reporting and surveys. The results fall within the scope of the internal reporting of the impacts of investment activities.

## Measurement and targets: calculation of the carbon-intensity of the investment portfolio and consistent disclosure of climate risks

Definition of the carbon-neutrality target for the Bank of Finland's investment portfolio is based on the greenhouse gas emissions that are defined in the Kyoto Protocol and converted into carbon dioxide equivalent (CO<sub>2</sub>e) emissions in accordance with market practice.

Calculation of the portfolio's carbon intensity is based on the weighted average carbon intensity (waci) metric recommended by the TCFD.

The calculation includes the first two scopes of the carbon footprint metrics: scope 1, i.e. investment entities' direct own emissions and scope 2, i.e. investment entities' emissions from purchased electricity and energy. Scope 3 emissions, i.e. emissions that occur in the value chain, can be included later. The target applies to the entire investment portfolio, excluding gold, for which an internationally accepted carbon footprint method does not yet exist.

In addition, in early 2021, the Eurosystem national central banks, together with the European Central Bank, agreed on a [common stance for climate-related disclosures for non-monetary policy portfolios](#).

Consistent disclosure requires coherent climate data, for the purpose of which common procurement was launched in 2021. The results of the procurement are expected in early 2022, to enable disclosure of the first reports in the first quarter of 2023.

The Bank of Finland has made carbon footprint calculations on its portfolios and used the PACTA (Paris Agreement Capital Transition Assessment) tool for conducting scenario analyses on its investment activities.

PACTA measures the alignment of climate portfolios with the Paris Agreement on Climate Change, and uses in the assessments Paris Agreement -aligned climate scenarios.

The carbon footprint and carbon-intensity calculations made in 2021 related to fixed-income and equity investments. A portfolio-level calculation was not performed on real estate investments.

The carbon footprint calculation covered 100% of government bonds, 98.9% of other direct fixed-income investments and 85.2% of equity investments. The calculation was performed by Institutional Shareholder Services (ISS ESG).

Emission results and analyses will be published once the Eurosystem has taken a decision on the reporting recommendations.



## Management of Bank of Finland's financial risks

Implementation of monetary policy and safeguarding the stability and viability of the financial system are core central bank tasks. They involve financial risks, for which the Bank of Finland prepares by ensuring the strength of its balance sheet. In 2021, there was an increase in the risks associated with the Bank's monetary policy and financial assets.

### Risks arise in investment activities and the implementation of monetary policy

At the end of 2021, [the Bank of Finland's financial assets amounted to around EUR 11 billion](#). These consisted of gold holdings, foreign reserves and investments in equity and real estate funds. On the other hand, financial assets do not include items connected with the implementation of monetary policy, such as loans to banks or securities acquired in monetary policy operations.

Foreign reserves include liquid fixed-term investments. The amount of foreign reserves has been scaled to a level required in order for the Bank of Finland to perform its central banking tasks.

The domestic commercial papers acquired in 2020 in order to mitigate the adverse economic effects of the COVID-19 pandemic fell due in the first half of 2021. As a consequence, the Bank of Finland's financial assets no longer included euro-denominated fixed-income investments at the end of 2021.

A significant proportion of the Bank of Finland's financial assets are debt securities purchased for monetary policy purposes and claims on banks resulting from monetary policy implementation.

The Eurosystem's monetary policy measures are implemented on a decentralised basis among the different Member States and the ECB, but, to a large extent, the risks and returns are shared among the national central banks.

The risk relating to monetary policy assets corresponds, in principle, to each national central bank's [capital key share](#) in the aggregate monetary policy assets of the national central banks. At the end of 2021, the Bank of Finland's share was 1.837%. However, the risks associated with government debt instruments and government-related debt instruments purchased under the public sector purchase programme (PSPP) and the pandemic emergency purchase programme (PEPP) are borne individually by each national central bank involved.

## Increase in the volume of monetary policy assets

The volume of Eurosystem monetary policy assets grew in 2021 by around EUR 1,400 billion, reaching approximately EUR 6,900 billion by the end of the year. The increase was mainly due to the purchases of debt instruments under the PEPP and the loans granted under TLTROs (targeted longer-term refinancing operations). Furthermore, net purchases under the asset purchase programme (APP) continued in 2021, pushing up the volume of Eurosystem monetary policy assets.

The Bank of Finland's share of monetary policy assets grew by around EUR 29 billion, reaching approximately EUR 119 billion by the end of the year. As a result of the increase in monetary policy assets, the risks associated with them also increased during the year.

Table 7.

Bank of Finland's financial assets and share of monetary policy assets	31 Dec 2021 EUR million	31 Dec 2020 EUR million
<b>Financial assets</b>	<b>10,946</b>	<b>10,010</b>
Gold	2,537	2,434
Foreign reserves	6,720	6,261
Euro-denominated fixed-income investments	0	61
Equity fund investments	1,513	1,135
Real estate fund investments	176	119
<b>Share of monetary policy assets</b>	<b>118,748</b>	<b>90,022</b>
<b>Refinancing operations</b>	<b>40,446</b>	<b>32,939</b>
Targeted longer-term refinancing operations <sup>1</sup>	40,375	32,423
Other refinancing operations <sup>1</sup>	70	515
<b>Debt instruments under the asset purchase programme</b>	<b>50,121</b>	<b>43,842</b>
Finnish government bonds and government-related bonds	34,554	29,822
Bonds of supranational institutions <sup>1</sup>	4,859	4,580
Covered bonds <sup>1</sup>	5,019	4,841
Corporate bonds <sup>1</sup>	5,688	4,600
<b>Debt instruments under the pandemic emergency purchase programme <sup>2</sup></b>	<b>28,070</b>	<b>12,747</b>
<b>Terminated programmes</b>	<b>111</b>	<b>494</b>
Securities markets programme <sup>1</sup>	101	484
Covered bond purchase programme	10	10
<b>Total</b>	<b>129,694</b>	<b>100,032</b>

**1) Capital key share (1.837% as of 1 Feb 2020) of aggregate claims by national central banks.**

**2) In the case of the pandemic emergency purchasing programme the table shows the amount on the Bank of Finland's balance sheet.**

In addition to the claims listed in Table 7, the Bank of Finland's assets included EUR 34 billion in intra-Eurosystem claims, consisting mainly of the [Target2 balance](#). [At the end of 2021, the Bank of Finland's balance sheet total was EUR 176 billion.](#)

## **The Bank of Finland manages its risks through diversification**

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 most 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. The exchange rate risk is also diversified with investment in the Chinese yuan, since the Bank of Finland has receivables from the International Monetary Fund (IMF).

A strategic allocation of investments is determined by means of a benchmark index. This, together with a highly detailed limits framework, acts as a guide to taking on interest rate and credit risks. In 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 with high credit ratings.

The Bank of Finland invests some of its own funds in a variety of instruments on the international stock and real estate markets. The investments are made through funds and diversify the other risks on the Bank's balance sheet.

In the implementation of monetary policy purchase programmes, the Bank of Finland, in the same way as the other central banks, complies with the Eurosystem eligibility criteria and other risk-management rules.

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

## Structural interest rate risk on the Bank of Finland balance sheet

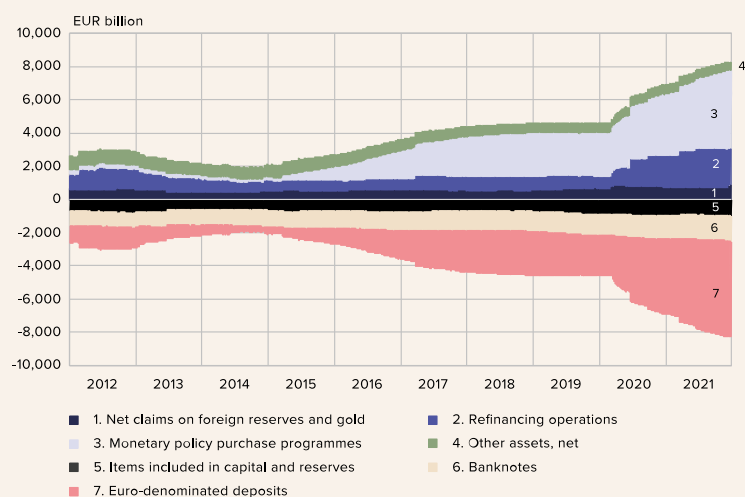
The Eurosystem sets the interest payable on the central bank deposits made by commercial banks as a matter of policy. The interest rate decision has an immediate effect on the Bank of Finland's interest expenses. Monetary policy assets, however, mainly carry a fixed interest rate. Thus, an increase in the deposit rate weakens the Bank's net interest income. This difference in the interest rates applied to assets and liabilities on the balance sheet poses a structural interest rate risk for the Bank of Finland's balance sheet.

Liquidity created via the purchase programmes and refinancing operations is reflected on the liabilities side of the balance sheet as growth in central bank deposits. The structural interest rate risk position decreases as the fixed-rate debt instruments acquired for monetary policy reasons mature.

As net purchases under the purchase programmes continue, the structural interest rate risk position increases. Furthermore, the reinvestment of principal payments from maturing bonds serve to maintain the structural interest rate risk position.

Chart 26.

### Developments in Eurosystem balance sheet items



Source: European Central Bank.

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

## Increased risk associated with the Bank of Finland's monetary policy and financial assets in 2021

The Bank of Finland's balance sheet as well as the risk associated with monetary policy increased in 2021 in comparison with the previous year. The reason for the greater risk was mainly the increase in the volume of monetary policy assets, which was affected in particular by monetary policy stimulus measures. Furthermore, the risks attached to the financial assets increased slightly, mainly because of the rise in value of equity fund investments.

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 that assess losses that could be incurred under possible, though improbable, scenarios.

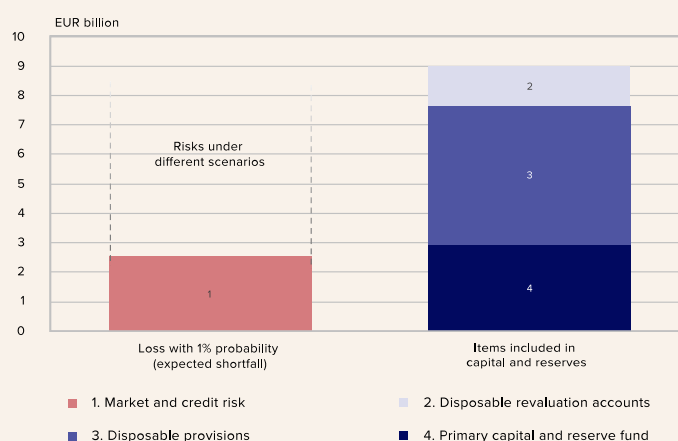
In estimating credit risk resulting from monetary policy assets, the Bank of Finland uses internal risk reporting produced by the ECB, which is subject to ongoing development by the Eurosystem's Risk Management Committee.

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 2021, the total risk estimate was EUR 2.5 billion. This figure does not include the gold price risk, as the gold revaluation accounts cover a significant decline in value. If the gold price risk is included, the total risk estimate is EUR 2.8 billion.

Chart 27.

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



Source: Bank of Finland.



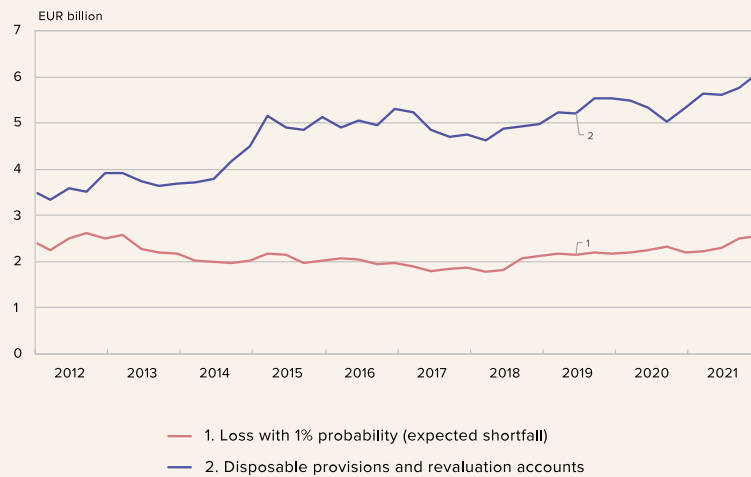
At the end of 2021, the Bank of Finland had revaluation accounts totalling EUR 1.3 billion and provisions totalling EUR 4.7 billion available to cover losses. The primary capital and reserve fund amounted to EUR 2.9 billion (Chart 27).

The risk buffers strengthened in 2021, largely as a result of currency fluctuations and the rise in value of equity fund investments.

The Bank of Finland's capital adequacy is sufficient to cover the risks arising in the performance of its tasks (Chart 28).

Chart 28.

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



Source: Bank of Finland.



## Engagement and cooperation

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# Engagement and cooperation

26.3.2021

The Bank of Finland's influence is based on expertise and research. The Bank participates in social debate and promotes financial literacy in Finland. In 2021, the Bank of Finland Museum expanded its activities to include a Financial Literacy Centre.

The Bank of Finland's statements on domestic economic policy are based on the objectives set by law and in the EU Treaty.

The statements focus on the identification of problems and assessment of the effects of alternatives for action. The ultimate objectives of the Bank's statements are price stability, balanced economic growth and financial stability.

## **COVID-19 pandemic made economic forecasting more difficult – long-term attention in Finland's sustainability gap**

In 2021, the Bank of Finland published two forecasts for the Finnish economy, which signalled that the domestic economy would rapidly recover from the recession.

In the early phase of the COVID-19 crisis, extensive and swift response of economic policy succeeded in preventing a wave of bankruptcies and mass unemployment. The pandemic dragged on, however, increasing public debt and thus the need to strengthen the public finances.

Going forward, instead of expansionary fiscal policy, it is important to pay attention to the challenges posed by the ageing population, rising interest rates and future crises.

In 2021, as in previous years, the Bank of Finland highlighted the key role of the labour market and employment for economic growth. Investments in education and facilitating work-based immigration, as well as research, development and innovation can support the growth potential of the economy.

## **2021 was a record-busy year for Bank of Finland's economic research activities**

In 2021, the Bank of Finland cooperated actively in the field of international research.

Discussion papers covered a wide array of topical international themes. The Bank of Finland also co-organised several domestic and international meetings and events in 2021.

There was a clear increase in the number of the Bank's research articles published in international journals. In addition to the COVID-19 pandemic, research themes were influenced by, for example, the ECB's strategy review.

## **Eurosystem is the Bank of Finland's most important network for cooperation**

Economic and financial issues related to central bank policies are cross-border in nature, so measures to address them call for close international cooperation.

The most important cooperation network is the Eurosystem, which consists of the ECB and the national central banks of the countries that have adopted the euro.

In 2021, the 30th anniversary conference of the Bank of Finland Institute for Emerging Economies (BOFIT) brought together central bank governors and leading researchers in the field of emerging economies.

The Bank also participated in the work of international and European institutions and committees and cooperated with the national central banks of other countries.

## **In 2021, COVID-19 pandemic highlighted importance of communication**

The Bank of Finland's communication goals are to produce clear content on monetary policy and financial stability issues and to reach key target groups by providing diversified information on the Bank's various communication channels.

Accordingly, the Bank of Finland shared content with a broad range of audiences in 2021.

Social media took an increasingly prominent role in the provision of information. The Bank of Finland's publications reached almost 2.5 million users, of which 70% were on Twitter.

Visualisations and short videos made the topics easier to understand, and in-depth articles provided more detailed information.

The Bank of Finland regularly measures the effectiveness of its communications.

## **Bank of Finland wants to encourage citizens' interest in financial matters**

One of the Bank of Finland's strategic priorities is to foster citizens' financial literacy. As the key target group is young people, the Bank of Finland cooperates with educational institutions.

In 2021, the Bank of Finland Museum expanded its activities to include a Financial Literacy Centre, sharing economic and financial information through gaming applications, for example.



## The Bank of Finland and domestic economic policy in 2021

In 2021, the Bank of Finland's statements focused especially on the long-term conditions for economic growth and on the public finances. The COVID-19 crisis fuelled public debt and reinforced the need to strengthen fiscal sustainability and the conditions for long-term economic growth.

In 2021, as in previous years, the Bank of Finland analysed economic developments and participated in economic policy debate in Finland.

The Bank of Finland's statements on 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.

### Statements focus on the identification of problems and assessment of alternatives for action

The Bank of Finland's primary objective is price stability. The 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 of Finland's statements are based on expert knowledge and focus on the identification of problems and assessment of the effects of alternatives for action.

However, setting the ultimate economic policy goals and decision-making in this area is the task of elected representatives.

## **The COVID-19 crisis reinforced the need to strengthen the public finances**

As the pandemic continued in 2021, the Bank of Finland emphasised that measures to combat the crisis effectively were also pivotal for the economy. Vaccination coverage played an important role in this.

The Finnish economy has weathered the difficulties caused by the COVID-19 crisis better than expected during the worst days of the pandemic. The crisis was not forecast to have a similar long-lasting impact on total output as usually follows a deep economic crisis.

After the most severe phase of the pandemic, however, the general government debt-to-GDP ratio was around 10 percentage points higher than before the crisis.

In the early phase of the COVID-19 crisis, the extensive and rapid economic policy response succeeded in preventing mass unemployment and a wave of bankruptcies. Growth in public debt was well justified at that time.

At the end of 2021, however, the situation had already changed. With the economy standing on a firmer ground, there is good reason to change the direction of fiscal policy in order to make provision for the effects of ageing population and future crises.

In the management of the public finances, it is also worth noting that at some point the general level of interest rates will rise from the exceptional lows of recent years.

Strengthening the public finances was deemed particularly important in Finland, as the proportion of elderly people in the population is growing exceptionally rapidly and, at the end of 2021, the Finnish economy was already entering a more favourable cyclical phase.

During an upswing, an expansionary fiscal policy does not support growth and employment effectively. It could instead lead to an increase in public procurement costs and to a general rise in costs and prices, in addition to increasing the level of public debt.

## **Sustainable management of the public finances can be supported in various ways**

International experience suggests that rules-based fiscal policy contributes to the sustainable management of the public finances. The central government spending limits procedure used in Finland has been a workable model in this respect.

There may well be reason to deviate from the spending limits in a crisis situation, but if such expectations become the rule, the benefits of the spending limits procedure for fiscal sustainability will be lost.

In 2021, the Bank of Finland highlighted that Finland should return as soon as possible to such central government spending limits that lead public finances closer to balance.

The Bank also emphasised the need to consider strengthening the national fiscal governance framework, for example in accordance with the Swedish model.

The Swedish system includes clear numerical targets for the general government budget balance and debt, and a reporting obligation on the Government regarding achievement of these targets.

As expenditure related to an ageing population continues to grow, it would be beneficial in bringing Finland's public finances onto a sustainable footing to explore in detail where it is possible to cut public expenditure.

In 2021, the Bank of Finland noted that, in this task, decision-makers could be supported by a comprehensive, regularly prepared spending review that critically examines each expenditure item.

Such a review would best be prepared centrally under the direction of the Ministry of Finance or an independent expert body. A spending review would be most meaningful if linked into the decision-making process and if it has the support of decision-makers and is commissioned by them.

## **The Finnish economy has gradually fallen behind the other Nordic countries**

The upward trend in public debt during the COVID-19 crisis reinforced the need to improve Finland's economic performance.

During the 15 years preceding the crisis, the Finnish economy fell behind the pace of the other Nordic countries. Labour productivity growth was almost stationary, the employment rate was notably lower than in the other Nordic countries and the working-age population started to contract.

In terms of economic prospects, one worrying trend during the past 15 years has been that the average educational attainment of young adults has begun to decline in Finland.

This has been exceptional by international standards. In fact, it is projected that the rise in the average educational level of the Finnish population will come to a halt in the coming decades.

The Bank of Finland stressed in 2021 that Finland's growth potential and fiscal sustainability can be supported with various reform measures. We can invest in education and training, improve opportunities for work-based immigration, seek to increase research and development activities and reform innovation policy on a broader basis.



Strengthening incentives for employment is vital, especially with regard to the outlook for the public finances.

## **Labour market plays a key role**

In 2021, as in previous years, the Bank of Finland highlighted the great importance of the labour market for economic growth and employment.

Labour market changes in recent years reflect the importance of increasing bargaining at local level. At the same time, it is important that bargaining on the terms and conditions of employment is well coordinated in Finland.

The Bank of Finland underlined the need to monitor changes in labour costs relative to other countries and in relation to labour productivity. The related assessments were surrounded by a high degree of uncertainty during the COVID-19 crisis.

From the perspective of employment developments, it is important that Finland's cost-competitiveness does not materially deteriorate.

## **Strengthening economic coordination in the EU is important for Finland, too**

In 2021, the Bank of Finland contributed to the discussions on developing the Monetary Union and economic coordination in the EU. The Bank emphasised that it was important to continue strengthening the Monetary Union, for example by taking the next steps towards the establishment of a Banking Union and a Capital Markets Union.

The Bank of Finland also considered it necessary that the EU fiscal policy framework be reformed. The fiscal rules should be more simple and support countercyclical fiscal policies in good times, too.

This way the rules could more strongly support the sustainable management of the public finances and allow room for expansionary fiscal policies during economic recessions.

A [proposal of the European Fiscal Board](#) provides one good starting point for the reform of the EU fiscal rules framework.



## Prolongation of the pandemic brought about uncertainty in economic forecasts in 2021

The Bank of Finland published two extensive forecasts for the Finnish economy in 2021. The forecasts suggested that Finland would recover rapidly from the economic contraction caused by the COVID-19 pandemic. Economic growth would, however, be overshadowed by the prolongation of the pandemic, supply bottlenecks and higher inflation.

For monetary policy preparation and decision-making, the Eurosystem needs an informed view of the economic situation in its Member States and how it is about to evolve. This necessitates independent and analytical assessment of economic developments for the immediate years ahead.

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

The forecast for the Finnish economy is drawn up as part of the Eurosystem's macroeconomic projections. Forecasts for the public finances and short-term inflation forecasts are also produced as part of the Eurosystem's projections.

### March interim forecast pointed to stronger growth and gradual receding of the pandemic

In the March 2021 interim forecast, the Bank of Finland estimated that economic growth would pick up more than previously projected.

GDP growth was forecast to accelerate to 2.6% in 2021. The improved outlook was seen to stem primarily from the recovery of private consumption.

GDP growth would continue to gather pace in 2022 and reach 2.7%, reflecting a gradual rebound in investment. In 2023, economic growth would slow to close to 1%.

The forecast was based on the assumption that, as vaccination coverage increases, containment measures could be gradually lifted and economic growth would gain momentum.

Growth would also be underpinned by the stronger-than-expected economic developments in 2021 and strengthening of export markets.

## **Extensive June forecast expected economic growth to pick up with the easing of the pandemic**

In the extensive June 2021 forecast, the Finnish economy was projected to grow 2.9% in 2021 and 3.0% in 2022. However, the fast pace of growth was anticipated to remain transient.

In 2023, GDP growth would slow to 1.3%, reflecting the lacklustre long-term growth prospects of an ageing economy.

The June forecast projected economic growth to gather pace across the board as the pandemic eases. Strong consumer confidence, together with the release of pent-up demand, would support household consumption.

With the recovery of the export markets, Finnish exports would rapidly rise back towards pre-pandemic levels. Economic growth would also be bolstered by investments.

The forecast also emphasised that the favourable international economic operating environment would support Finnish exports. The world economy continued to recover, and global monetary and fiscal policy stimulus were supporting the conditions for growth.

Finnish exports were swiftly bouncing back to pre-pandemic levels on the back of a considerable strengthening of global demand.

The ECB continued to pursue strong monetary accommodation, and the low level of funding costs would underpin household consumption and corporate investment over the forecast years.

A rise in commodity prices and stronger consumer demand were foreseen to push up inflation notably in 2021, threatening to curb growth worldwide. The forecast suggested, however, that the strong rise in prices would be temporary.

## **Growth for 2021 was revised up in the September interim forecast**

The autumn 2021 interim forecast pointed to a better outlook for economic growth than had been assessed in the spring.

Economic growth in spring 2021 had been notably faster than anticipated. Corporate and household confidence was improving as vaccinations progressed and restrictions were lifted.

GDP was forecast to grow 3.5% in 2021 and 2.8% in 2022. Driven by strong economic growth, employment also grew faster in the summer than previously expected.

Fuelled by rapid economic growth, consumer price inflation picked up especially on account of rising energy prices.

## **December forecast saw growth overshadowed by supply disruptions and the pandemic**

In the December 2021 forecast, the Bank of Finland stressed the importance of the deteriorating COVID-19 situation, supply disruptions and rapidly rising raw material prices as factors overshadowing Finland's economic growth (Chart 29).

Economic growth was expected to remain weaker than forecast, should global supply-side disruptions persist or the pandemic situation deteriorate further.

According to the December forecast, Finland's economic growth would be 3.5% in 2021, after which it would moderate to 2.6% in 2022.

Supply bottlenecks and high raw material prices, however, were expected to blunt growth in the economy and fuel inflation.

Growth was projected to slow to 1.3% by 2024, reflecting the muted longer-term growth potential of Finland's ageing economy.

Chart 29.

### **ECONOMY GROWING, but COVID-19 poses a threat**

- Economic growth rests on domestic consumption and investment.
- Economic recovery is uneven due to the COVID-19 situation.
- Rapid growth will be transient. Growth potential is overshadowed by an ageing population and sluggish labour productivity growth.



### **SUPPLY DISRUPTIONS are slowing growth and driving inflation**

- The pandemic has led to a shortage of raw materials and electronics components worldwide.
- The disruptions have pushed up production costs.
- The disruptions are expected to ease towards the end of 2022.



Source: Bank of Finland

## **The pandemic, supply disruptions and rapid rise in prices brought about uncertainty in forecasts**

The Bank of Finland systematically revised up its forecasts in 2021. The inflation forecast was also revised up due to rising energy prices.

The greatest uncertainty associated with the forecasts produced in 2021 continued to relate, particularly in the short term, to the development of the pandemic situation.

The Bank of Finland emphasised, for example, that as long as the pandemic was not brought under control everywhere in the world, it had the potential of disrupting production chains and holding back global economic growth.

Global supply-side disruptions were also creating great uncertainty in the forecasts. It was difficult to predict the duration of the supply problems or all their effects, especially in a situation where recurrent infection waves kept slowing down the global recovery from the pandemic.

The inflation outlook was also surrounded by significant risks, although at the end of 2021 these risks were anticipated to remain transitory.

Even though the forecasts were also subject to positive risks, especially as regards household consumption turning out to be stronger than expected, as a whole the risks to the forecast were tilted to the downside.

## The Bank of Finland produced a new long-term growth forecast for Finland

The Bank of Finland produced a [new long-term growth forecast](#) for the period 2021–2070.

The forecast suggested that, over the next two decades, long-term economic growth would remain roughly at 1.2% per annum and would thereafter slow further.

Finland's growth prospects would be hampered by an ageing population and a weak productivity trend. In addition to age demographics, growth opportunities would also be threatened, in particular, by declining human capital.

The Bank of Finland's new forecasting framework for long-term economic growth is based on endogenous growth theory and was drawn up in cooperation with the National Audit Office of Finland (NAOF).

## The Bank of Finland's forecasts were widely discussed on social media

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

During the year, the Bank of Finland's forecasts were also widely discussed in both the national media and also social media. Interest in the Bank's forecasts remained high.

### Economic monitoring, analysis and development of forecasting models are important

In support of the Bank of Finland forecast, the Bank regularly publishes a report on recent developments in the Finnish economy.

In 2021, the Bank also published topical articles supporting forecasting and economic monitoring on the Bank of Finland Bulletin website. The articles concerned, for example, the public finances, supply bottlenecks, households and non-financial corporations.

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

The continuous development of forecasting models is a key part of forecasting work at the Bank of Finland. In 2021, work continued on developing the models simulating the Finnish macroeconomy – Aino 2.0 and Aino 3.0 – and the data systems related to their use.



## Research at the Bank of Finland in 2021

The Bank of Finland published a near record number of research contributions in 2021. The research themes were influenced by both the ECB's strategy review and the continuation of the COVID-19 pandemic. The 30th anniversary conference of BOFIT brought together central bank governors and leading researchers in the field of emerging economies.

In 2021, the Bank of Finland published a near record number of research contributions in academic journals. Publications in high-quality journals, in particular, increased significantly.

The Bank also organised several online events and hybrid meetings for the academic community.

The [30th Anniversary Conference](#) of the Bank of Finland Institute for Emerging Economies (BOFIT) was attended by, for example, the Governors of the central banks of Russia and China.

In the background work underlying the ECB's strategy review, the focus in 2021 was on analysing research in the various subsegments of monetary policy.

### Bank of Finland researchers and international cooperation

In 2021, the Bank of Finland's researchers participated, among other things, in the activities of the workstreams set up to analyse [monetary-fiscal policy interactions](#) and [financial stability](#).

The Bank's researchers analysed the [symmetry of the ECB's inflation target](#) in a peer-reviewed study. This became a key theme in the ECB's strategy review.

The Bank of Finland also conducted a survey among international researchers on the [optimal inflation target](#) for a central bank.

The analyses conducted at BOFIT in 2021 highlighted, for example, the problems and risks in the Chinese real estate sector. Work continued on analysing the impacts of the COVID-19 pandemic and trade wars on the global economy and large emerging economies.

## Selected Bank of Finland discussion papers in 2021

The Bank of Finland [Research Discussion Papers](#) published in 2021 dealt with topics such as [inflation dynamics and forecast](#) (Manuel Martins and Fabio Verona), [yield curve momentum](#) (Markus Sihvonen), the Federal Reserve's [new inflation target](#) (Seppo Honkapohja and Nigel McClung), [human frictions in the transmission of economic policy](#) (Francesco D'Acunto, Daniel Hoang, Maritta Paloviita and Michael Weber), and [optimal pharmaceutical patent policy](#), which affects e.g. vaccine development (Olena Izhak, Tanja Saxell and Tuomas Takalo).

Below are some examples of research contributions published under the BOFIT Discussion Paper series:

Denis Davydov, Jukka Sihvonen and Laura Solanko found in their research entitled '[Who cares about sanctions? Observations from annual reports of European firms](#)' that there are significant differences in European countries in how firms perceive sanctions such as, for example, those imposed after the illegal annexation of Crimea. This is partially, but not entirely, explained by the countries' economic and financial integration with Russia.

Mikko Mäkinen's research '[Does a financial crisis change a bank's exposure to risk? A difference-in-differences approach](#)' found that the Russian banks that had been hardest hit by the crisis of 2008 later changed their risk-taking behaviour in such a way that their capital adequacy risks were reduced.

In their research entitled '[What 31 provinces reveal about growth in China?](#)', Eeva Kerola and Benoît Mojon use provincial data to build an alternative indicator for GDP growth in China. The alternative GDP indicator is calculated on a quarterly basis and is published in [BOFIT China statistics](#).

## Publications in the BoF Economics Review series in 2021

Several analyses were published in the [BoF Economics Review](#) series in 2021.



The analyses covered topics such as [long-run forecasting](#) of Finland's economic growth on the basis of human capital; competition and regulation in the [ATM industry](#); and the economic effects of a [debt-to-income constraint](#) utilising the Aino model for the Finnish economy.

## Bank of Finland research articles in international journals

One of the key objectives of the Bank of Finland's research activities is to publish the Bank's research articles in recognised international peer-reviewed journals. In 2021, a [record number](#) of such articles were published in various journals.

Below is a sample of the articles published in 2021.

Michaela Elfsbacka-Schmöller and Martin Spitzer analysed in their paper entitled '[Deep recessions, slowing productivity and missing \(dis-\)inflation in the euro area](#)' the factors underlying recent years' inflation developments in the euro area. In their research article '[How much do non-performing loans hinder loan growth in Europe?](#)', Eero Tölö and Matti Virén examined the impact of non-performing loans on bank lending in the euro area.

Sami Alpanda, Eleonora Granziera and Sarah Zubairy studied monetary policy transmission in the different phases of the economic and business cycle in their paper entitled '[State dependence of monetary policy across business, credit and interest rate cycles](#)'.

All three articles were published in the *European Economic Review*.

Adam Gulan, Markus Haavio and Juha Kilponen examined the exogenous and endogenous factors leading to the Finnish Great Depression of the 1990s in their article '[Can large trade shocks cause crises? The case of the Finnish-Soviet trade collapse](#)'.

Gene Ambrocio and Iftekhar Hasan broadened the view on the pricing of sovereign bonds on the global market in their paper entitled '[Quid pro quo? Political ties and sovereign borrowing](#)'.

Both research articles were published in the *Journal of International Economics*.

Mikael Juselius and Előd Takáts examined the relationship between demographics and inflation in different countries and times in their article '[Inflation and demography through time](#)'. The article was published in the *Journal of Economic Dynamics and Control*.

Zuzana Fungáčová, Rima Turk and Laurent Weill analysed in their paper '[High liquidity creation and bank failures](#)' the link between Russian banks' liquidity creation and the withdrawal of their authorisation. The article was published in the *Journal of Financial Stability*.

## Presentation of Bank of Finland research to stakeholders

In 2021, the Bank of Finland's research findings were presented in the Eurosystem working groups on modelling and forecasting, in research networks and in a number of research conferences in Finland and abroad.

Researchers from the Bank of Finland published five columns in [VoxEU](#), one of the key fora for economic policy discussion.

## The Bank of Finland organised domestic and international meetings in 2021

In 2021, the Bank organised or co-organised several academic events on topical policy issues.

In September–October, the Bank of Finland co-organised a joint conference entitled '[New Avenues for Monetary Policy](#)' with the Centre for Economic Policy Research (CERP), a '[Workshop on Banking and Finance in Emerging Markets](#)' with the University of Strasbourg and Fordham University, and a joint conference entitled '[Monetary Policy Approaches: A Comparative Appraisal](#)' with the European Money and Finance Forum (SUERF).

The *18th ESCB Emerging Markets Workshop* was co-organised in December with the central banks of Austria and Spain.

The Bank of Finland also organised a special session on the theme '*Implications of Large Global Shocks on Macro Modelling*' in connection with the Annual Meeting of the Central Bank Research Association (CEBRA).

In 2021, the Bank of Finland organised a number of shorter online seminars at which the Bank's own and visiting researchers presented their research.



## The Bank of Finland and international cooperation in 2021

Economic and financial issues related to central bank policies are cross-border in nature, so measures to address them call for close international cooperation. Due to the COVID-19 pandemic, cooperation was largely virtual in 2021.

The Eurosystem is the Bank of Finland’s most important network for cooperation.

The Bank also participates in the work of international and European institutions and committees and cooperates with the national central banks of other countries.

Chart 30.



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

Source: Bank of Finland

The Bank of Finland is represented in a number of ECB bodies and other international fora. [The representatives are listed on the Bank of Finland website.](#)

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

The International Monetary Fund (IMF) is an organisation of 190 member countries, working to foster international cooperation, open and rules-based foreign trade, sustainable economic growth and financial stability.

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 2020, this post was taken up by **Mika Pösö** for a three-year term running until the end of 2022.

Policy positions on topics discussed by the IMF Executive Board are agreed between the countries of the constituency. In 2020–2022, the lead role in preparing the positions is taken by Finland. This preparatory work is carried out in collaboration between the Bank of Finland and the Finnish Ministry of Finance.

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 were held in virtual and hybrid format in 2021

Due to the COVID-19 pandemic, the meetings of the International Monetary and Financial Committee (IMFC), organised in connection with the IMF Spring and Annual Meetings, were held virtually in the spring and in a hybrid format in the autumn.

In the spring, the Nordic and Baltic countries were represented on the IMFC by Norway's Minister of Finance **Jan Tore Sanner** and in the autumn by **Lars Rohde**, the Governor of Denmark's Nationalbank.

Discussions at the IMF Spring and Annual Meetings focused on the post-pandemic recovery and the global promotion of vaccination uptake.

**Kristalina Georgieva**, Managing Director of the IMF, emphasised in her contributions at these meetings the divergence between different country groups in the economic impacts of the COVID-19 pandemic.

She also stressed that policy measures should be targeted correctly, while speeding up economic reforms, so that future economic growth would be green, digital and inclusive.

An important decision taken by the IMF in 2021 was to increase the allocation of [Special Drawing Rights](#) (SDRs) by an equivalent of USD 650 billion in August 2021.

This was a global crisis measure of historic proportions, which the IMF approved to reinforce the liquidity buffers of its member countries and to support economic recovery. It also improved the opportunities to continue combating the pandemic.

Ei linkkiä englannin käännökseen.

## **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, commonly known as the Ecofin Council.

In 2021, the EFC convened 14 times in its full composition, i.e. with the national central banks.

At its meetings, the EFC discussed, among other things, the impacts of the COVID-19 pandemic on the economy and the financial markets, the Next Generation EU package, development of the banking and capital markets union, prevention of money laundering, and the need to modernise the global financial architecture.

The EFC also prepared joint positions for international meetings.

In 2021, the Bank of Finland also participated in the work of many EU committees and institutions promoting the stability of the banking and the 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.

In 2021, the ESRB assessed, among other things, the financial stability implications of the COVID-19 pandemic for the EU, and discussed, for example, issues relating to the vulnerabilities associated with the corporate sector, real estate markets and money market funds. The ESRB also discussed the EU countries' macroprudential policies and measures.

The Conference on Systemic Risk Analytics, which is co-organised by the Bank of Finland, the ESRB and the RiskLab Finland research group at Arcada and Hanken School of Economics, was held for the first time entirely virtually.

## **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 2021, the meetings were held virtually. While the topics largely focused on the economic consequences of the COVID-19 crisis, the Governors also discussed, for example, the role of central banks in the work to address climate change.

## **Bank of Finland cooperates 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 topical issues.

In 2021, the governors convened once in a virtual meeting and once in Oslo in a hybrid meeting. Deputy governors, in turn, held one virtual meeting, and also an in-person meeting in Stockholm.

These various events discussed, for example, the prospects of the economies recovering from the pandemic, payment systems-related issues and other topical matters.

Cooperation between Nordic central bank experts was furthered in 2021 mainly in virtual meetings covering a wide array of different departmental activities.



## The Bank of Finland’s communications highlighted diversification and accessibility in 2021

The COVID-19 pandemic continued to have a major impact on the Bank of Finland’s communication needs and practices in 2021. The accessibility of monetary policy communication improved as both the European Central Bank and the Bank of Finland increased the provision of easy-to-read content.

The COVID-19 pandemic that broke out in 2020 was also strongly reflected in the Bank of Finland’s activities in 2021. The Bank has actively monitored and analysed the economic repercussions of the pandemic and has [regularly provided information \(in Finnish\)](#) in this area.

The Bank of Finland’s internal communications have also played an important role. With timely and transparent internal communication measures, we aimed to ensure the continuity of operations and the safety of the Bank’s staff.

Social media have further strengthened their role among the Bank of Finland’s communication channels.

The COVID-19 pandemic and the diversification and fragmentation of the media have increased the need for analytical and fact-based information, transparency and regular communication.

In the context of adopting its new monetary policy strategy in summer 2021, the ECB also analysed the effectiveness of its monetary policy communication. The analysis indicated that communication should be clearer and tailored to different audiences.

The ECB has already improved the accessibility of its communications by, for example, providing easy-to-read summaries in all the euro area languages in connection with its decisions.

## **Something for everyone – layered communication made Bank of Finland content more accessible**

In 2021, the Bank of Finland’s communication goals were to produce clear and diversified content in our various communication channels. By using ‘layered’ communication, we published information in different formats, tailored according to the specificities of our key target groups.

We provided content ranging from in-depth analysis articles to accessible visualisations and short videos.

In 2021, the Bank of Finland set targets and indicators based on its strategy for the amount of readily understandable content. These targets and indicators are regularly monitored.

Other communication indicators were also upgraded to support the effectiveness of the Bank of Finland’s communications.

## **The Bank of Finland held online events on various economic topics in 2021**

In 2021, we organised four press conferences in connection with the publication of the online journal Euro & talous.

The topics discussed at these events included the effects of the COVID-19 pandemic on economic growth in Finland and abroad, the importance of monetary policy accommodation and the risks associated with household debt accumulation.

We also held press events on the ECB’s renewed monetary policy strategy and on the digital euro project launched by the Eurosystem.

In the autumn, the Bank of Finland announced that it had set climate targets for its investment portfolio.

These topics were also prominently featured on all of the Bank’s various websites and in the speeches and interviews given by the Bank of Finland’s Board and experts.



In early autumn, the Bank organised a public event at the Turku Europe Forum 2021 to discuss the outlook for Europe after Brexit, COVID-19 and many other crises.

## The Bank of Finland's social media strategy reform progressed in 2021

The Bank of Finland's main websites – [suomenpankki.fi](https://suomenpankki.fi) and [eurojatalous.fi](https://eurojatalous.fi) – attracted almost two million visitors in 2021. To develop the websites, we conducted a user survey and interviewed our key stakeholders.

Our [social media channels](#) gained over three thousand new followers in 2021.

The Bank of Finland posted over 1,900 times on social media, reaching almost 2.5 million users. Almost 70% of the posts were tweets on Twitter.

The implementation of the Bank of Finland's social media strategy reform, which was initiated last year, progressed as planned in 2021.

The Bank regularly measures and analyses the achievement of the objectives and reports quarterly on the findings to the staff. In 2021, success was achieved in implementing channel-specific goals in a more active and targeted manner.

## Bank of Finland staff members communicated actively in 2021

In 2021, our staff members published about 60 blog posts, and by the end of the year almost a quarter of the [Bank's experts were tweeting about their work on Twitter](#).

Information about the Bank of Finland's activities reached a wider audience and was more accessible than before: not only did we use our official communications channels but members of the Bank's staff also posted actively on their own user accounts.

Active communication by our experts also reflects the openness and transparency of information produced at the Bank of Finland and, consequently, confidence in the Bank as an employer.

The Bank of Finland supported our experts' online and social media engagement by investing in various training courses and regular staff meetings.

In 2021, we gained recognition for successful communication on our employer image. With regard to social media, one of the most significant accomplishments was that the Bank of Finland was ranked among the top three in the Nordic region in the [LinkedIn Talent Awards 2021, in the category of Best Employer Brand](#).

Chart 31.

## Bank of Finland communications highlighted diversification and accessibility



Source: Bank of Finland.

## Launch of the Financial Literacy Centre at the Bank of Finland Museum

The COVID-19 pandemic kept the Bank of Finland Museum by and large closed in 2021. However, the Museum held 15 hybrid events, in which the audience could participate online.

The Bank of Finland Museum was open for one and a half months in 2021. During that time, over 900 visitors found their way to the Museum.

In the field of financial literacy and economic know-how, the most significant effort in 2021 was the [launch of a Financial Literacy Centre at the Bank of Finland Museum](#).



## The Bank of Finland drew up a financial literacy strategy for Finland

One of the Bank of Finland's strategic priorities is to foster citizens' financial literacy. In January 2021, Bank of Finland Governor Olli Rehn submitted to Minister of Justice Anna-Maja Henriksson a proposal for a national financial literacy strategy, which was drawn up under the leadership of the Bank of Finland. The Bank promotes financial literacy in cooperation with other actors in this field. To this end, the activities of the Bank of Finland Museum were reorganised in 2021.

With the completion of Finland's first national financial literacy strategy, the Bank of Finland also aims to play a key role in the implementation of the strategy.

In 2021, the Bank of Finland supported the Ministry of Justice in taking the next steps with the strategy.

The Ministry of Justice received budget funding starting in 2022 for the implementation of the strategy. The Bank of Finland also has a representative on the Advisory Board on Personal Financial Management, which is led by the Ministry of Justice.

### The Bank of Finland's objective is to encourage citizens' interest in financial matters

One of the Bank of Finland's strategic priorities for the operational planning period 2021–2023 is *contributing to domestic economic policy and fostering financial literacy*.

The goal is to encourage citizens' interest in economic and financial matters and to help them understand how important the overall economy and monetary policy are for their own financial activities.

This will serve as a basis for enabling citizens to make the best possible decisions in their own finances.

## **In 2021, the Bank of Finland Museum's activities were expanded to include a Financial Literacy Centre**

In 2021, the activities of the Bank of Finland Museum were expanded, enabling it to operate not only as a museum and visiting centre but also as Finland's Financial Literacy Centre.

The Museum's new mission is *'Understand the economy better – manage your finances better'*. The vision is the same as the one set out in the national financial literacy strategy, namely that *Finland will have the world's best financial literacy by 2030*.

The COVID-19 pandemic kept the Bank of Finland Museum closed for a long time, enabling in-depth development of the Museum's activities to foster citizens' financial literacy. To this end, the Bank remodelled the Museum's premises, listened to stakeholders' views and wishes, modified the Museum's content, such as display case materials, multimedia and guided tours, and piloted new activities.

As a new form of activity, Museum visitors can play the cooperation partners' online games *Moneymaster* and *Välttämätön, tarpeellinen, turha* (*'Essential, necessary, unnecessary'*).

The Bank of Finland Museum organises various meetings and discussion events as well as seminars in cooperation with the network of participants involved.

With the launch of the Financial Literacy Centre, the Bank of Finland Museum now serves as a forum for sharing economic and financial information and as a physical and virtual meeting place for stakeholders and for the general public.

The new activities of the Museum cater better than before for the needs of schools and teachers as well as other cooperation partners that foster financial literacy. On its website [Learn economy](#), the Bank of Finland, in collaboration with Professor **Panu Kalmi** from the University of Vaasa, has published material used in financial education in three different languages; Finnish, Swedish and English.

The Bank of Finland assesses and develops the Financial Literacy Centre in continuous interaction with its stakeholders and the Museum's visitors.

In addition, the Bank seeks to find new target groups, especially among the citizens whose financial knowledge should be strengthened.



We expanded the Bank of Finland Museum's activities to include a Financial Literacy Centre.

## Cooperation between educational institutions fosters financial literacy of the young

Young people are the main target group for the promotion of financial literacy. They can be easily reached in extensive cooperation with educational institutions.

The Bank of Finland organises and manages contacts with the ECB and other national central banks within the framework of the annual Generation Euro Students' Award competition.

The Bank annually organises a series of talks and seminars on economic and financial matters to school teachers. These 'Talous tutuksi' educational events are organised in cooperation with Finance Finland, the Association for Teachers of History and Social Studies in Finland, the Finnish National Agency for Education, the Finnish Foundation for Share Promotion and Economy and Youth TAT. The Bank of Finland is in charge of organising the events in 2021 and 2022.

The Bank is also represented in the steering group of the project on teacher and teacher trainers' financial education skills. In autumn 2021, Helsinki Graduate School of Economics launched an [online course on the economy \(in Finnish\)](#), which received funding from the Bank of Finland.

The members of the Bank of Finland Board and experts from the Bank regularly visit educational institutions to give lectures on economic issues.

The Bank has also participated in the financial skills project coordinated by the Vamos services of the Helsinki Deaconess Foundation. In this project, employees from the Bank have taught financial skills to young people who are marginalised and at risk of social exclusion.

## The Bank of Finland is involved in international financial literacy networks

The Bank of Finland actively participates in international financial literacy activities.

The Bank of Finland is the only full member in the OECD's International Network on Financial Education (OECD/INFE) and is also involved in two of its working groups.

The Bank of Finland has presented Finland's financial literacy strategy to the Network. The Bank also informs national stakeholders of the meetings of OECD/INFE, which are held twice a year, and of research findings disseminated within the Network.

In addition to the Network, the Bank of Finland cooperates with financial literacy researchers of different countries.



## Sustainability at the Bank of Finland

A central bank's sustainability starts with its core functions. Our mission is rooted in the building of sustainable economic stability, thereby fostering the wellbeing of the general public.

The Bank of Finland's role is to help ensure the level of prices remains stable, payment systems are secure and accessible, and the financial system is reliable. The Bank also has a role in the construction of a socially and ecologically sustainable society.

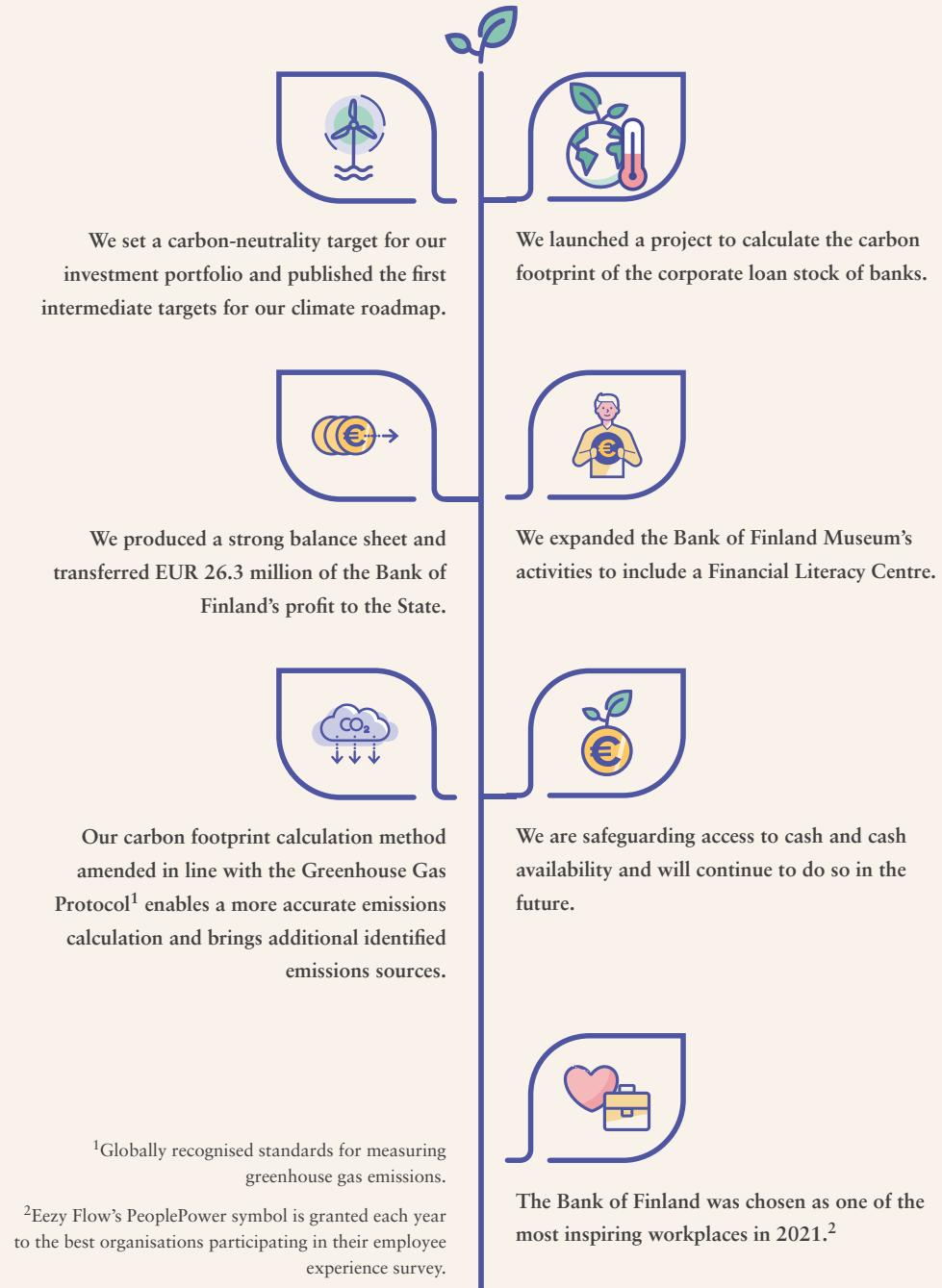
In addition, the Bank of Finland is committed in its core activities to furthering the United Nations' sustainable development goals.

The Bank's sustainability programme focuses on promoting sustainable growth and wellbeing, influencing policy and debate through information provision and active engagement, and managing climate risks.

The Bank reports on implementation of the goals set in the sustainability programme in its Annual Report and Personnel Audit.

Implementation of the sustainability programme is overseen by the joint sustainability network of the Bank of Finland and the Financial Supervisory Authority. The network consists of almost 50 members, and in 2021 it met on a regular basis. The network's steering group is led by the Bank's Deputy Governor, Marja Nykänen.

## Sustainability at the Bank of Finland: key examples





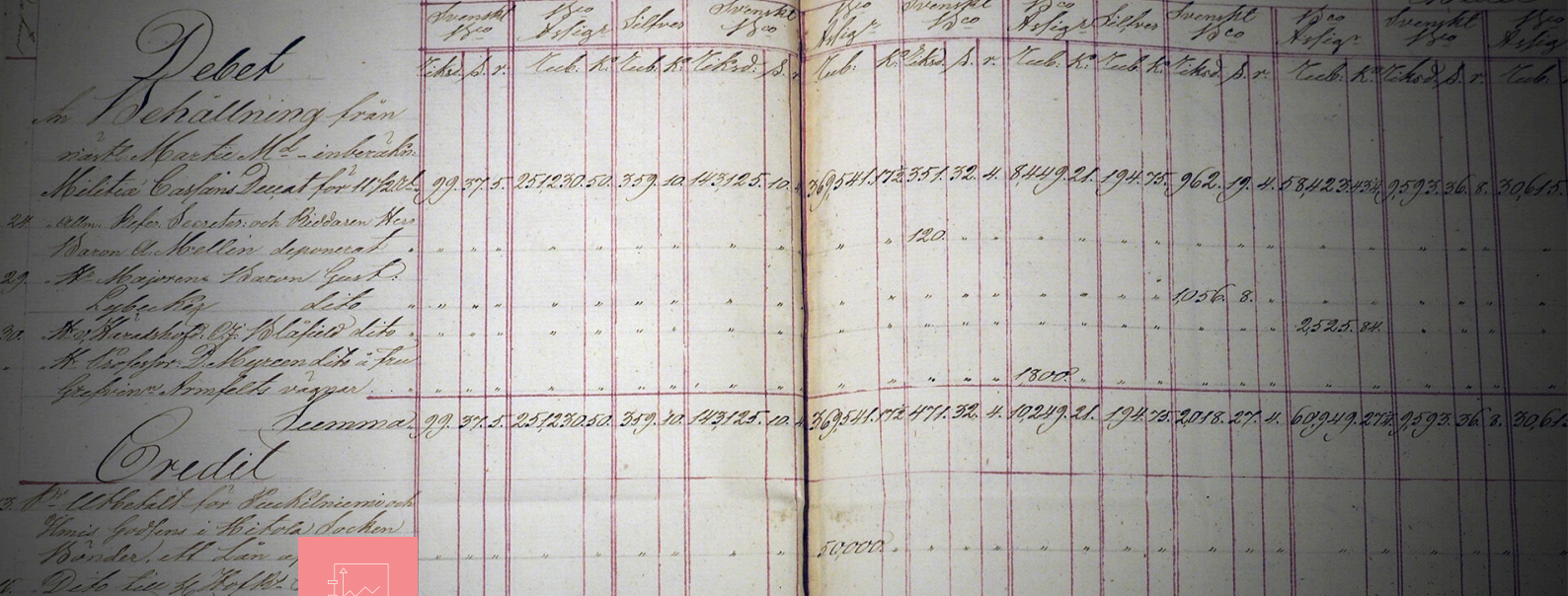
## Financial Statements

The Parliamentary Supervisory Council has confirmed the Bank of Finland's financial statements and has, upon proposal by the Bank's Board, decided that EUR 26 million, i.e. half of the Bank's profit for the financial year 2021, will be transferred to the State.

The Bank of Finland's audited profit for the financial year 2021 totals EUR 52 million. According to the Act on the Bank of Finland, half of the Bank's profit is to be transferred to the reserve fund and the remaining profit made available for use by the State. The Act also allows for a decision to be made to distribute the profit differently if justified by the Bank's financial condition or the size of the reserve fund.

The Bank of Finland's income consists primarily of the following: interest income on banknotes and on the Eurosystem's monetary policy items; investment income on foreign reserves and on other financial assets of the Bank; and its share of the European Central Bank's profit that is distributed to the euro area national central banks. In 2021, the Bank of Finland's net interest income amounted to EUR 658 million (2020: EUR 731 million). Interest income was lower than in previous years due to a decrease in interest income on foreign reserves and lower yields on Finnish government bonds. In addition, interest expenses related to targeted monetary policy operations (TLTRO III) increased further, and so the Bank of Finland's share in the Eurosystem's monetary income fell to EUR 21 million (2020: EUR 79 million).

The Bank of Finland's income covers its operating expenses and provisions. Operating expenses, excluding banknote production services and an additional pension fund contribution, amounted to EUR 106 million in 2021 (2020: EUR 99 million).



## Balance sheet

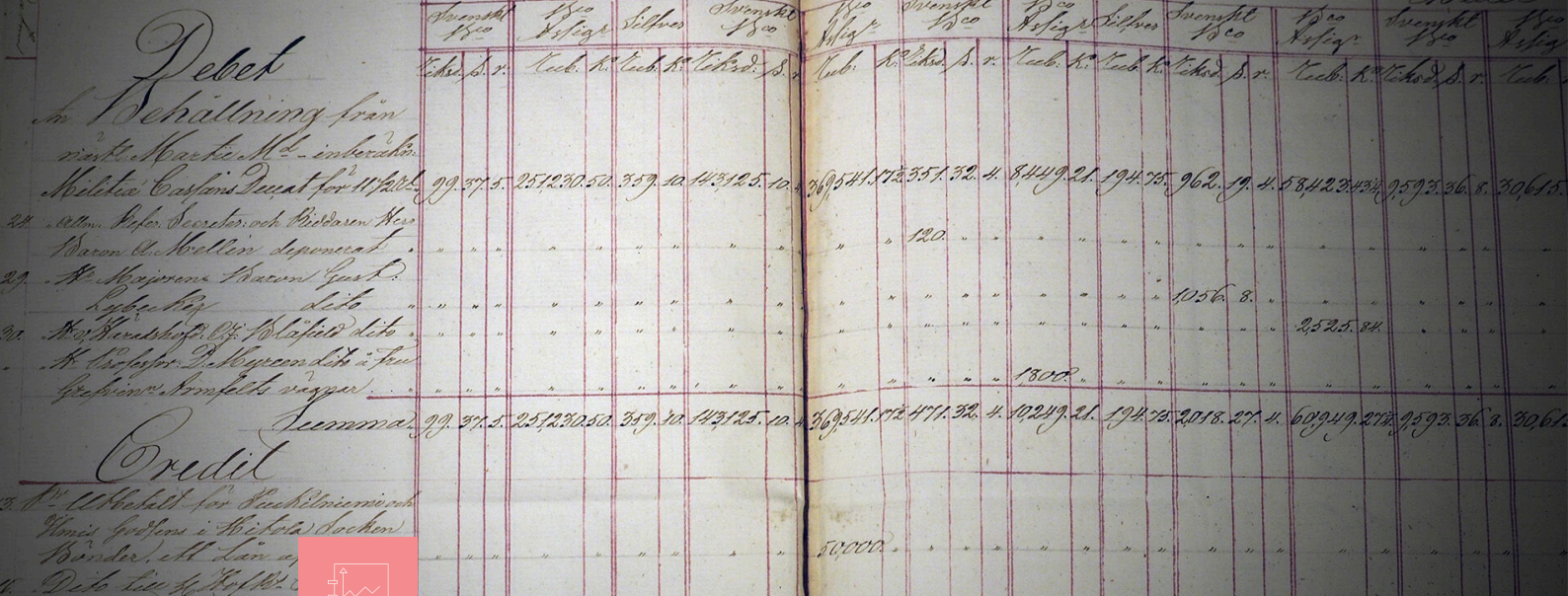
31.12.2021

EUR million		31 Dec 2021	31 Dec 2020
<b>ASSETS</b>			
1	Gold and gold receivables	2,537	2,434
2	Claims on non-euro area residents denominated in foreign currency	12,180	8,461
	Receivables from the International Monetary Fund (IMF)	5,016	1,973
	Balances with banks and security investments, external loans and other external assets	7,164	6,488
3	Claims on euro area residents denominated in foreign currency	360	295
4	Claims on non-euro area residents denominated in euro	–	–
5	Lending to euro area credit institutions related to monetary policy operations denominated in euro	36,113	21,779
6	Other claims on euro area credit institutions denominated in euro	0	0
7	Securities of euro area residents denominated in euro	90,001	65,657
	Securities held for monetary policy purposes	89,825	65,477
	Other securities	176	180

EUR million		31 Dec 2021	31 Dec 2020
<b>ASSETS</b>			
8	Intra-Eurosystem claims	33,983	56,871
	Participating interest in ECB	177	165
	Claims equivalent to the transfer of foreign reserves	741	741
	Net claims related to the allocation of euro banknotes within the Eurosystem	8,263	6,872
	Other claims within the Eurosystem (net)	24,802	49,093
9	Other assets	608	625
	Coins of euro area	38	45
	Tangible and intangible fixed assets	92	101
	Other current assets	34	35
	Sundry	444	445
	<b>Total assets</b>	<b>175,782</b>	<b>156,121</b>

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

EUR million		31 Dec 2021	31 Dec 2020
<b>LIABILITIES</b>			
1	Banknotes in circulation	26,100	24,243
2	Liabilities to euro area credit institutions related to monetary policy operations denominated in euro	124,607	110,864
	Current accounts (covering the minimum reserve system)	101,054	89,190
	Deposit facility	23,553	21,674
3	Other liabilities to euro area credit institutions denominated in euro	306	–
4	Liabilities to other euro area residents denominated in euro	2,708	5,608
5	Liabilities to non-euro area residents denominated in euro	5,388	2,743
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	4,326	1,402
9	Intra-Eurosystem liabilities	–	–
10	Other liabilities	448	133
11	Revaluation accounts	3,623	2,876
12	Provisions	5,309	5,237
13	Capital and reserves	2,915	2,873
	Primary capital	841	841
	Reserve fund	2,074	2,032
14	Profit for the financial year	52	142
<b>Total liabilities</b>		<b>175,782</b>	<b>156,121</b>



## Profit and loss account

31.12.2021

EUR million		1 Jan–31 Dec 2021	1 Jan–31 Dec 2020
1	Interest income	981	857
2	Interest expenses	-323	-126
<b>3</b>	<b>NET INTEREST INCOME</b>	<b>658</b>	<b>731</b>
4	Foreign exchange rate differences	5	36
5	Securities price differences	44	311
6	Valuation losses related to currencies and securities	-28	-16
7	Change in foreign exchange rate and price difference provision	-21	-331
	<b>NET RESULT OF FINANCIAL OPERATIONS, WRITE-DOWNS AND RISK PROVISIONS</b>	<b>658</b>	<b>731</b>
8	Income and expenses on fees and commissions	-5	-4
9	Net result of pooling of monetary income	-483	-397
10	Share in ECB profit	7	17
11	Income from other equity shares and participating interests	9	23
	<b>CENTRAL BANKING PROFIT</b>	<b>186</b>	<b>371</b>

EUR million		1 Jan–31 Dec 2021	1 Jan–31 Dec 2020
12	Other income	44	46
	Operating expenses	-120	-118
13	Staff costs	-61	-57
14	Pension fund contribution	-10	-10
15	Administrative expenses	-35	-33
16	Depreciation of fixed assets	-9	-9
17	Banknote production services	-5	-9
18	Other expenses	-0	-0
	<b>OPERATING PROFIT</b>	<b>110</b>	<b>299</b>
	Profit for the pension fund	–	–
19	Income of the pension fund	31	31
20	Expenses of the pension fund	-31	-31
21	Changes in provisions	-58	-157
<b>22</b>	<b>PROFIT FOR THE FINANCIAL YEAR</b>	<b>52</b>	<b>142</b>

The image shows a historical handwritten ledger from the Bank of Finland. The ledger is divided into two main sections: 'Debet' (Debit) on the left and 'Credit' (Credit) on the right. Each section has multiple columns for recording transactions, with numerical values written in cursive. The entries include various financial items and their corresponding amounts. A red square icon with a white waveform is overlaid on the bottom left of the image.

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

22.2.2022

The Board proposes to the Parliamentary Supervisory Council that EUR 26,163,892.85 of the profit of EUR 52,463,892.85 be transferred to the reserve fund in accordance with section 21, subsection 2 of the Act on the Bank of Finland and that the remaining EUR 26,300,000.00 be made available for the needs of the State.

Helsinki, 22 February 2022

THE BOARD OF THE BANK OF FINLAND

Olli Rehn, Governor

Marja Nykänen, Deputy Governor

Tuomas Välimäki, Member of the Board

The image shows a historical handwritten ledger with multiple columns. The left side is labeled 'Debet' and the right side is labeled 'Credit'. The entries are in Swedish and include various financial transactions. The columns are headed with 'Swenskt 1750', 'Kopier', 'Sittes', and 'Swenskt 1750'. The entries include 'Schillingning från', 'Nöjeskost', 'Kopier', 'Sittes', and 'Swenskt 1750'. The ledger is written in a cursive script and shows a double-entry system with columns for 'Debet' and 'Credit'.

## Accounting conventions

31.12.2021

### 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 2021	31 Dec 2020
US dollar	1.1326	1.2271
Japanese yen	130.3800	126.4900
Swedish krona	10.2503	10.0343
Swiss franc	1.0331	1.0802
Pound sterling	0.8403	0.8990
Canadian dollar	1.4393	1.5633
Special Drawing Rights (SDR)	0.8091	0.8485
Gold	1,609.4830	1,543.8840

## 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 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 2021, mid-market prices on 31 December 2021 were used.

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.

Real estate funds are valued on the basis of the last available price. 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 European Union (EU) that are settled in central bank money in euro. These transactions are for the most part initiated by private entities. They are primarily settled in TARGET2 – the Trans-European Automated Real-time Gross settlement Express Transfer system – 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 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>1)</sup> resulting from all previous ECB 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 cost less depreciation. Depreciation is calculated on a straight-line basis over the expected economic lifetime of an asset, beginning primarily 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>2)</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>3)</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>4)</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 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), (d) the public sector purchase programme (PSPP), and (e) the pandemic emergency purchase programme (PEPP) is distributed in January of the following year by means of an interim profit distribution, unless otherwise decided by the Governing Council.<sup>5)</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 interest'.

## 8. Pension fund

The assets of the Bank of Finland's pension fund are included in the Bank's balance sheet. A separate annual report is prepared on the 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 recognised and treated in a similar manner to on-balance sheet instruments. Foreign exchange forward transactions are included in the net foreign currency position when calculating average costs.

## 11. Changes in accounting conventions

There were no changes in accounting conventions in the financial year 2021.

- 
- 1) 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.
  - 2) Decision of the ECB of 13 December 2010 on the issue of euro banknotes (ECB/2010/29) (2011/67/EU) (OJ L 35, 9.2.2011, p. 26), as amended. The unofficial consolidated text with the list of amendments can be found [here](#).
  - 3) 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.
  - 4) Decision (EU) 2016/2248 of the ECB of 3 November 2016 on the allocation of monetary income of the national central banks of Member States whose currency is the euro (ECB/2016/36), (OJ L 347, 20.12.2016, p. 26), as amended. The unofficial consolidated text with the list of amendments can be found [here](#).
  - 5) Decision (EU) 2015/298 of the ECB of 15 December 2014 on the interim distribution of the income of the European Central Bank (ECB/2014/57), (OJ L 53, 25.2.2015, p. 24), as amended. The unofficial consolidated text with the list of amendments can be found [here](#).

## Notes on the balance sheet

31.12.2021

### 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 national central banks (NCBs) participating in the Eurosystem – transferred about 20% of its gold holdings to the ECB.

Gold	31 Dec 2021	31 Dec 2020
Holdings (troy ounces, million)	1.6	1.6
Price: EUR per troy ounce	1,609.5	1,543.9
Market price (EUR m)	2,537.3	2,433.9
Change in market value (EUR m)	103.4	299.2

#### 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 receivables from the International Monetary Fund (IMF).

## Receivables from the International Monetary Fund (IMF)

Breakdown of receivables from the IMF	31 Dec 2021		31 Dec 2020	
	EUR m	SDR m	EUR m	SDR m
Reserve tranche in the IMF	741.2	599.7	576.0	488.7
Special drawing rights	4,234.5	3,426.2	1,326.5	1,125.5
Other receivables from the IMF	40.3	32.6	70.7	60.0
<b>Total</b>	<b>5,016.0</b>	<b>4,058.6</b>	<b>1,973.3</b>	<b>1,674.2</b>

EUR/SDR exchange rate in financial years 2020 and 2021	2021	2020
End-March	0.8277	0.8025
End-June	0.8333	0.8143
End-September	0.8216	0.8318
End-December	0.8091	0.8485

Finland's quota in the IMF amounts to 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 special drawing rights allocation amounts to EUR 4,234.5 million. The special drawing rights 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 item increased significantly in August 2021, when the IMF increased the allocation of special drawing rights by an equivalent of USD 650 billion. This was a global crisis measure of historic proportions, which the IMF approved to reinforce the liquidity buffers of its member countries and to support economic recovery. It also improved the possibilities to continue combating the pandemic. The Bank of Finland's share in the allocation was SDR 2.3 billion, i.e. EUR 2.8 billion. The value of the sub-item also changes on the basis of foreign exchange transactions between the member countries. It is also affected by interest 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 5,016.0 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 2021 EUR m	31 Dec 2020 EUR m	Change EUR m
Deposits	44.7	41.8	2.9
Coupon papers	3,963.5	4,579.4	-615.9
Discount papers	485.5	–	485.5
Fund investments	1,775.7	1,134.6	641.0
Other	894.9	732.0	162.9
<b>Total</b>	<b>7,164.3</b>	<b>6,487.9</b>	<b>676.4</b>

Currency breakdown of securities of non-euro area residents denominated in foreign currency				
Currency	31 Dec 2021		31 Dec 2020	
	EUR m	%	EUR m	%
Pound sterling	410.8	9.2	432.5	9.4
US dollar	3,827.3	86.0	3,896.0	85.1
Japanese yen	211.0	4.7	250.9	5.5
<b>Total</b>	<b>4,449.1</b>	<b>100.0</b>	<b>4,579.4</b>	<b>100.0</b>

Remaining maturity of securities of non-euro area residents denominated in foreign currency				
Maturity	31 Dec 2021		31 Dec 2020	
	EUR m	%	EUR m	%
Up to 1 year	1,638.0	36.8	889.9	19.4
Over 1 year	2,811.0	63.2	3,689.5	80.6
<b>Total</b>	<b>4,449.1</b>	<b>100.0</b>	<b>4,579.4</b>	<b>100.0</b>

### 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 2021 EUR m	31 Dec 2020 EUR m	Change EUR m
Deposits	87.2	32.2	55.0
Coupon papers	269.3	270.9	-1.6
Other	3.4	-8.4	11.8
<b>Total</b>	<b>359.9</b>	<b>294.7</b>	<b>65.2</b>

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

Currency	31 Dec 2021		31 Dec 2020	
	EUR m	%	EUR m	%
Pound sterling	145.5	54.0	182.4	67.3
US dollar	123.8	46.0	88.5	32.7
<b>Total</b>	<b>269.3</b>	<b>100.0</b>	<b>270.9</b>	<b>100.0</b>

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

Maturity	31 Dec 2021		31 Dec 2020	
	EUR m	%	EUR m	%
Up to 1 year	148.0	55.0	96.9	35.8
Over 1 year	121.3	45.0	174.0	64.2
<b>Total</b>	<b>269.3</b>	<b>100.0</b>	<b>270.9</b>	<b>100.0</b>

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

As at 31 December 2021, the Bank of Finland had no claims on non-euro area residents denominated in euro.

## 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 2,201,882.1 million, of which the Bank of Finland holds EUR 36,113.4 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.

Lending to euro area credit institutions related to monetary policy operations denominated in euro	31 Dec 2021 EUR m	31 Dec 2020 EUR m	Change EUR m
Main refinancing operations	–	–	–
Longer-term refinancing operations	36,113.4	21,779.0	14,334.4
Fine-tuning reverse operations	–	–	–
Structural reverse operations	–	–	–
Marginal lending facility	–	–	–
Credits related to margin calls	–	–	–
<b>Total</b>	<b>36,113.4</b>	<b>21,779.0</b>	<b>14,334.4</b>

### 5.1 Main refinancing operations

Main refinancing operations (MROs) are executed through liquidity providing reverse transactions with a frequency and a maturity of normally one week, on the basis of standard tenders. They 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 2021 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 series of four targeted longer-term refinancing operations (TLTRO II) with a four-year maturity. The last of these operations matured in 2021. Additionally, in 2019 the Governing Council introduced a new series of seven quarterly targeted longer-term refinancing operations (TLTRO III). Furthermore, on 10 December 2020 the Governing Council added three further operations to this series, which were conducted between June and December 2021. These operations have a three-year maturity. For the first seven TLTRO III, from September 2021, starting 12 months after the settlement of each TLTRO III, participants have the option on a quarterly basis of terminating or reducing the amount of TLTRO III concerned before maturity. For the eighth or subsequent TLTROs III, participants have that option on a quarterly basis starting in June 2022. According to the initial decisions taken by the Governing Council, the final interest rate applicable to each TLTRO III operation could be as low as the average interest rate on the deposit facility prevailing over the life of the operation. Furthermore, in response to the COVID-19 shock, in 2020<sup>11</sup> the Governing Council decided that for the period between 24 June 2020 and 23 June 2021 and the period between 24 June 2021 and 23 June 2022 – referred to as the *special interest rate period* and the *additional special interest rate period* respectively – the interest rate applicable can be as low as 50 basis points below the average interest rate on the deposit facility prevailing over the same period, but in any case may not become less negative than -1%.

The actual interest rates can only be known at the maturity or early repayment of each operation and before that a reliable estimate is only possible as far as the interest rate related data regarding the special interest rate period and the additional special interest rate period have already been communicated to the counterparties. Consequently, it was deemed a prudent approach to use the deposit facility rate minus 50 basis point, but in any case not higher than -1%, for calculating the TLTRO III interest over the two special interest rate periods, and the deposit facility rate for calculating the TLTRO III interest over the rest of the life of an operation, until more reliable data is available. This means, that for the annual accounts 2021, the following rates are used for calculating the TLTRO III interest accruals: interest rates over the special interest rate periods until 23 June 2021, for which the interest rate related data was communicated to the counterparties on 10 September 2021, and the deposit facility rate minus 50 basis points, with a ceiling of -1%, over the additional special interest rate period from 24 June 2021 until 31 December 2021.

Additionally, on 30 April 2020 the Governing Council decided to conduct a new series of seven additional longer-term refinancing operations which matured in the third quarter of 2021, called pandemic emergency longer-term refinancing operations (PELTROs). These operations provided liquidity support to the euro area financial system and contributed to preserving the smooth functioning of money markets by providing an effective backstop after the expiry of the bridge longer-term refinancing operations (LTROs) that have been conducted since March 2020. Furthermore, on 10 December 2020 the Governing Council also decided to offer four additional PELTROs in 2021 allotted on a quarterly basis, each with a tenor of one year. These operations provide a liquidity backstop to the euro area banking system and contribute to preserving the smooth functioning of the money market during the extended pandemic period.

The PELTROs were conducted as fixed rate tenders with full allotment. The interest rate is 25 basis points below the average rate applied in the Eurosystem's main refinancing operations over the life of the respective PELTRO.

### **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.

## 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 2021 EUR m	31 Dec 2020 EUR m	Change EUR m
Current accounts	0.0	0.0	0.0
Reverse repurchase agreements	–	–	–
Emergency Liquidity Assistance (ELA)	–	–	–
Other	–	–	–
<b>Total</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</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

### 7.1 Securities held for monetary policy purposes

As at 31 December 2021 this item consisted of securities acquired by the Bank of Finland within the scope of the three covered bond purchase programmes (CBPPs), the Securities Markets Programme (SMP), the public sector purchase programme (PSPP), the corporate sector purchase programme (CSPP) and the pandemic emergency purchase programme (PEPP).

	Start date	End date	Decision	Universe of eligible securities <sup>1</sup>
<b>Completed / Terminated programmes</b>				
CBPP1	July 2009	June 2010	ECB/2009/16	Covered bonds of euro area residents
CBPP2	November 2011	October 2012	ECB/2011/17	Covered bonds of euro area residents
SMP	May 2010	September 2012	ECB/2010/5	Public and private debt securities issued in the euro area <sup>2</sup>
<b>Asset purchase programme (APP)</b>				
CBPP3	October 2014	active	ECB/2020/8, as amended	Covered bonds of euro area residents
ABSPP	November 2014	active	ECB/2014/45, as amended	Senior and guaranteed mezzanine tranches of asset-backed securities of euro area residents
PSPP	March 2015	active	ECB/2020/9	Bonds issued by euro-area central, regional or local governments or recognised agencies as well as by international organisations and multilateral development banks located in the euro area
CSPP	June 2016	active	ECB/2016/16, as amended	Bonds and commercial papers issued by non-bank corporations established in the euro area
<b>Pandemic emergency purchase programme (PEPP)</b>				
PEPP	March 2020	active	ECB/2020/17, as amended	All asset categories eligible under the APP <sup>3</sup>

**1) Further eligibility criteria for the specific programmes can be found in the Governing Council's decisions.**

**2) Only public debt securities issued by five euro area treasuries were purchased under the SMP.**

**3) A waiver of the eligibility requirements was granted for securities issued by the Greek Government.**

In 2021 the Eurosystem conducted net purchases under the asset purchase programme (APP) <sup>2)</sup> at a monthly pace of EUR 20 billion on average. In December 2021 the Governing Council decided <sup>3)</sup> on a monthly net purchase pace of EUR 40 billion in the second quarter and EUR 30 billion in the third quarter of 2022. From October 2022 onwards, the Governing Council will maintain net asset purchases at a monthly pace of EUR 20 billion 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.

In addition, in 2021 the Eurosystem carried on its net asset purchases under the pandemic emergency purchase programme (PEPP) <sup>4)</sup>, with a total envelope of EUR 1,850 billion <sup>5)</sup>. Purchases were conducted in a flexible manner based on the assessment of financing conditions and the inflation outlook. In December 2021 the Governing Council also decided to discontinue net asset purchases under the PEPP at the end of March 2022 but they could be resumed, if necessary, to counter negative shocks related to the pandemic. Furthermore, the Governing Council extended the reinvestment horizon for the principal payments from maturing securities purchased under the PEPP until at least the end of 2024. PEPP reinvestments can be adjusted flexibly across time, asset classes and jurisdictions at any time. The future roll-off of the PEPP portfolio will be managed to avoid interference with the appropriate monetary policy stance.

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, and their market value <sup>6)</sup> (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 (EUR m)						
	31 Dec 2021		31 Dec 2020		Change	
	Balance sheet value	Market value	Balance sheet value	Market value	Balance sheet value	Market value
CBPP2	10.0	10.0	10.0	10.4	0.0	-0.4
SMP	64.5	74.8	413.2	438.4	-348.7	-363.6
CBPP3	11,004.1	11,045.9	9,668.7	9,915.2	1,335.4	1,130.7
PSPP - government/ agency securities	34,554.3	35,451.4	29,822.5	31,793.8	4,731.8	3,657.6
PSPP - supranational securities	2,426.5	2,574.0	2,664.1	2,917.4	-237.7	-343.4
CSPP	13,695.0	13,905.6	10,151.4	10,587.4	3,543.6	3,318.2
PEPP - covered bonds	233.3	231.5	95.3	96.9	138.0	134.7
PEPP - government/ agency securities	23,200.9	22,974.3	10,784.7	10,926.4	12,416.2	12,047.9
PEPP - corporate sector securities	4,636.3	4,676.1	1,866.8	1,991.0	2,769.5	2,685.1
<b>Total</b>	<b>89,824.9</b>	<b>90,943.6</b>	<b>65,476.7</b>	<b>68,676.8</b>	<b>24,348.2</b>	<b>22,266.8</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 programmes, from holdings of securities of supranational organisations purchased under the PSPP and from holdings of covered bonds and corporate sector securities purchased under the PEPP, 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 as at 31 December 2021 on securities purchased under the aforementioned programmes, the Governing Council decided that all future cash flows on these securities are expected to be received. 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 (EUR m)	Held by Eurosystem NCBs		On the Bank of Finland's balance sheet	
	31 Dec 2021	31 Dec 2020	31 Dec 2021	31 Dec 2020
SMP	5,486.3	26,334.6	64.5	413.2
CBPP3	273,233.2	263,535.9	11,004.1	9,668.7
PSPP - supranational securities	264,537.0	249,316.6	2,426.5	2,664.1
CSPP	309,675.5	250,403.2	13,695.0	10,151.4
PEPP - covered bonds	5,377.1	2,814.7	233.3	95.3
PEPP - supranational securities	130,590.5	47,796.1	–	–
PEPP - corporate sector securities	43,781.6	43,153.6	4,636.3	1,866.8
<b>Total</b>	<b>1,032,681.2</b>	<b>883,354.6</b>	<b>32,059.7</b>	<b>24,859.6</b>

## 7.2 Other securities

This item includes fund shares from the euro area. In 2020, it also included domestic commercial papers purchased by the Bank of Finland to mitigate the negative economic impacts of the COVID-19 pandemic.

Breakdown of other securities of euro area residents denominated in euro (EUR m)	31 Dec 2021	31 Dec 2020	Change
Discount papers	–	60.9	-60.9
Fund investments	175.8	119.5	56.3
<b>Total</b>	<b>175.8</b>	<b>180.4</b>	<b>-4.6</b>

Remaining maturity of other securities of euro area residents denominated in euro	31 Dec 2021		31 Dec 2020	
Maturity	EUR m	%	EUR m	%
Up to 1 year	–	–	60.9	100.0
Over 1 year	–	–	–	–
<b>Total</b>	<b>–</b>	<b>–</b>	<b>60.9</b>	<b>100.0</b>

## 8. Intra-Eurosystem claims

### 8.1 Participating interest in ECB

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 capital key adjustments, and (iii) contributions in accordance with Article 48.2 of the Statute of the ESCB.

### NCBs' paid-up share in the ECB's capital

	Capital key since 1 February 2020, %	Subscribed capital EUR millions	Paid-up capital as at 31 December 2020 EUR millions	Paid-up capital as at 31 December 2021 EUR millions	Paid-up capital as at 31 December 2022 EUR millions
Nationale Bank van België/Banque Nationale de Belgique (Belgium)	2.9630	320.7	276.3	298.5	320.7
Deutsche Bundesbank (Germany)	21.4394	2,320.8	1,999.2	2,160.0	2,320.8
Eesti Pank (Estonia)	0.2291	24.8	21.4	23.1	24.8
Central Bank of Ireland (Ireland)	1.3772	149.1	128.4	138.8	149.1
Bank of Greece (Greece)	2.0117	217.8	187.6	202.7	217.8
Banco de España (Spain)	9.6981	1,049.8	904.3	977.1	1,049.8
Banque de France (France)	16.6108	1,798.1	1,548.9	1,673.5	1,798.1
Banca d'Italia (Italy)	13.8165	1,495.6	1,288.3	1,392.0	1,495.6
Central Bank of Cyprus (Cyprus)	0.1750	18.9	16.3	17.6	18.9
Latvijas Banka (Latvia)	0.3169	34.3	29.5	31.9	34.3
Lietuvos bankas (Lithuania)	0.4707	51.0	43.9	47.4	51.0
Banque centrale du Luxembourg (Luxembourg)	0.2679	29.0	25.0	27.0	29.0
Central Bank of Malta (Malta)	0.0853	9.2	8.0	8.6	9.2

**NCBs' paid-up share in the ECB's capital**

	Capital key since 1 February 2020, %	Subscribed capital EUR millions	Paid-up capital as at 31 December 2020 EUR millions	Paid-up capital as at 31 December 2021 EUR millions	Paid-up capital as at 31 December 2022 EUR millions
De Nederlandsche Bank (The Netherlands)	4.7662	515.9	444.4	480.2	515.9
Oesterreichische Nationalbank (Austria)	2.3804	257.7	222.0	239.8	257.7
Banco de Portugal (Portugal)	1.9035	206.1	177.5	191.8	206.1
Banka Slovenije (Slovenia)	0.3916	42.4	36.5	39.5	42.4
Národná banka Slovenska (Slovakia)	0.9314	100.8	86.9	93.8	100.8
Suomen Pankki – Finlands Bank (Finland)	1.4939	161.7	139.3	150.5	161.7
<b>Subtotal for euro area NCBs</b>	<b>81.3286</b>	<b>8,803.8</b>	<b>7,583.6</b>	<b>8,193.7</b>	<b>8,803.8</b>
Bulgarian National Bank (Bulgaria)	0.9832	106.4	4.0	4.0	4.0
Česká národní banka (Czech Republic)	1.8794	203.4	7.6	7.6	7.6
Danmarks Nationalbank (Denmark)	1.7591	190.4	7.1	7.1	7.1
Hrvatska narodna banka (Croatia)	0.6595	71.4	2.7	2.7	2.7
Magyar Nemzeti Bank (Hungary)	1.5488	167.7	6.3	6.3	6.3

#### NCBs' paid-up share in the ECB's capital

	Capital key since 1 February 2020, %	Subscribed capital EUR millions	Paid-up capital as at 31 December 2020 EUR millions	Paid-up capital as at 31 December 2021 EUR millions	Paid-up capital as at 31 December 2022 EUR millions
Narodowy Bank Polski (Poland)	6.0335	653.1	24.5	24.5	24.5
Banca Națională a României (Romania)	2.8289	306.2	11.5	11.5	11.5
Sveriges Riksbank (Sweden)	2.9790	322.5	12.1	12.1	12.1
<b>Subtotal for non-euro area NCBs</b>	<b>18.6714</b>	<b>2,021.2</b>	<b>75.8</b>	<b>75.8</b>	<b>75.8</b>
<b>Total</b>	<b>100.0000</b>	<b>10,825.0</b>	<b>7,659.4</b>	<b>8,269.5</b>	<b>8,879.6</b>

## Capital of the ECB

The subscribed capital of the ECB is EUR 10,825 million. After the Bank of England's withdrawal from the ESCB on 31 January 2020, the ECB kept its subscribed capital unchanged and the share of the Bank of England in the ECB's subscribed capital was reallocated among both the euro area NCBs and the remaining non-euro area NCBs.

The ECB's paid-up capital also remained unchanged at EUR 7,659 million in 2020, as the remaining NCBs covered the withdrawn Bank of England's paid-up capital of EUR 58 million. In addition, the Governing Council decided that the euro area NCBs would pay up in full their increased subscriptions in two annual instalments in 2021 and 2022<sup>71</sup>. As a result, the Bank of Finland was required to pay up the first instalment of EUR 11.2 million on 29 December 2021, increasing its share in the paid-up capital of the ECB from EUR 139.3 million in 2020, to EUR 150.5 million in 2021. The second instalment will be paid up in 2022. The balance sheet item also includes net adjustments totalling EUR 26.0 million recorded in different years on account of changes to the ECB capital key.

## 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 joined the Eurosystem. Pursuant to Article 30.2 of the Statute of the ESCB, these contributions are fixed in proportion to NCBs' share in the subscribed capital of the ECB, meaning the size of the item changes when the ECB capital key changes. 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.

As at 31 December 2021, the Bank of Finland's claims equivalent to the transfer of foreign reserves totalled EUR 741.1 million.

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

This item consists of the claim arising from the adjustment of the banknotes of the Bank of Finland to correspond to the ECB capital key as well as the liability related to 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'.<sup>81</sup>

At the end of 2021, the balance sheet item totalled EUR 8,263.0 million (EUR 6,871.6 million in 2020). The increase in comparison to 2020 was due to the increase of 2.7% in banknotes put into circulation by the Bank of Finland in 2021 as well as the rise of 7.7% in banknotes in circulation in the Eurosystem as a whole. 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 2021 EUR m	31 Dec 2020 EUR m	Change EUR m
Due to/from ECB in respect of TARGET2 (including balances held with Eurosystem banks through correspondent accounts)	25,282.4	49,467.7	-24,185.4
Due to/from ECB in respect of monetary income	-483.1	-398.3	-84.9
Due from ECB in respect of the ECB's interim profit distribution	2.8	23.1	-20.4
<b>Other claims/liabilities within the Eurosystem (net)</b>	<b>24,802.0</b>	<b>49,092.6</b>	<b>-24,290.6</b>

The balance of EUR 24,802.0 million as at 31 December 2021 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 any amounts receivable or refundable, including the amount due to the Bank of Finland from the ECB in respect of the ECB's interim profit distribution.

Regarding the first component, the year-end net transfers via TARGET2 had a credit balance of EUR 25,282.4 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 -483.1 million at year-end (see 'Net result of pooling of monetary income' in the notes on the profit and loss account).

Concerning 2021, 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 150 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 2021 was EUR 2.8 million (see 'Income from other equity shares and participating interests' 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.

<b>Tangible fixed assets</b>			
<b>Book value</b>	<b>31 Dec 2021 EUR m</b>	<b>31 Dec 2020 EUR m</b>	<b>Change EUR m</b>
Land	6.8	7.2	-0.4
Buildings	66.0	75.2	-9.1
Machinery and equipment	10.8	10.9	-0.0
Art and numismatic collection	0.6	0.6	–
<b>Total</b>	<b>84.3</b>	<b>93.8</b>	<b>-9.5</b>

<b>Intangible fixed assets</b>			
<b>Book value</b>	<b>31 Dec 2021 EUR m</b>	<b>31 Dec 2020 EUR m</b>	<b>Change EUR m</b>
IT systems	8.0	6.8	1.2
<b>Total</b>	<b>8.0</b>	<b>6.8</b>	<b>1.2</b>

<b>Other holdings and sundry assets (EUR m)</b>	<b>31 Dec 2021</b>	<b>31 Dec 2020</b>	<b>Change</b>
Coins of euro area	37.6	44.5	-6.9
Shares and other equity	22.6	22.6	–
Pension fund's real estate and accruals	11.3	12.1	-0.7
Accruals	440.2	425.6	14.6
Items relating to valuation of off-balance sheet items	2.6	18.0	-15.4
Sundry assets	1.0	1.1	-0.1
<b>Total</b>	<b>515.4</b>	<b>524.0</b>	<b>-8.6</b>

## Liabilities

### 1. Banknotes in circulation

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

During 2021, the total value of banknotes in circulation within the Eurosystem increased by 7.7%. According to the allocation key, the Bank of Finland had euro banknotes in circulation worth EUR 26,100.1 million at the end of the year, compared with EUR 24,243.3 at the end of 2020. The value of the euro banknotes actually issued by the Bank of Finland in 2021 increased by 2.7% from EUR 17,371.6 million to EUR 17,837.1 million. As this was less than the allocated amount, the difference of EUR 8,263.0 million (compared to EUR 6,871.6 million in 2020) is shown under asset sub-item 'Net claims related to the allocation of euro banknotes within the Eurosystem'.

Banknotes in circulation (EUR m)	31 Dec 2021	31 Dec 2020
EUR 5	74.8	74.9
EUR 10	-90.6	-101.9
EUR 20	3,250.2	3,281.1
EUR 50	12,784.6	12,285.6
EUR 100	-1,179.9	-1,163.0
EUR 200	810.8	738.3
EUR 500	2,187.2	2,256.6
<b>Total</b>	<b>17,837.1</b>	<b>17,371.6</b>
ECB issue figure	-2,269.5	-2,108.0
CSM figure	10,532.4	8,979.6
<b>Banknotes in circulation in accordance with the ECB capital key</b>	<b>26,100.1</b>	<b>24,243.3</b>

## 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 2021 EUR m	31 Dec 2020 EUR m	Change EUR m
Current accounts (covering the minimum reserve system)	101,053.9	89,190.3	11,863.6
Deposit facility	23,552.7	21,673.8	1,878.9
Fixed-term deposits	–	–	–
Fine-tuning reverse operations	–	–	–
Deposits related to margin calls	–	–	–
<b>Total</b>	<b>124,606.6</b>	<b>110,864.1</b>	<b>13,742.5</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, excluding funds of credit institutions that are not freely disposable and accounts of credit institutions exempt from minimum reserve requirements, which are disclosed separately under liability item 3 ‘Other liabilities to euro area credit institutions denominated in euro’. 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>9)</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**

As at 31 December 2021 this item amounted to EUR 305.7 million (in 2020 the Bank of Finland had no liabilities to euro area credit institutions denominated in euro). The item included repurchase agreements, EUR 300.9 million, and collateral related to currency swap agreements, EUR 4.8 million.

## **4. Liabilities to other euro area residents denominated in euro**

This item consists of euro-denominated liabilities to the public sector (EUR 2,700 million) and to credit institutions other than those subject to minimum reserve requirements (EUR 8.0 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 4,688.2 million) as well as repurchase agreements (EUR 698.4 million) and cash collateral related to currency swap agreements (EUR 1.9 million).

## **6. Liabilities to euro area residents denominated in foreign currency**

As at 31 December 2021, 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 2021, 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 special drawing rights (cf. item on the asset side). Originally the amount of special drawing rights and their counteritem were equal. As a result of transactions, the Bank of Finland's claims related to special drawing rights were smaller at the end of 2021 than their counteritem on the liabilities side of the balance sheet. On the liabilities side, the counteritem amounts to SDR 3,500.0 million. The value of the item increased in August 2021, when the IMF increased the allocation of special drawing rights. The Bank of Finland's share in the allocation was SDR 2.3 billion. In the balance sheet, the item is presented in euro, valued at the rate prevailing on 31 December 2021 (EUR 4,325.6 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 asset 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 repurchase 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 (EUR m)	31 Dec 2021	31 Dec 2020	Change
Accruals	446.7	132.7	314.0
Accounts payable	1.6	0.0	1.6
Sundry	-0.3	0.3	-0.6
<b>Total</b>	<b>448.0</b>	<b>133.0</b>	<b>315.0</b>

## 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 (EUR m)	31 Dec 2021	31 Dec 2020	Change
Gold	2,148.3	2,044.9	103.4
Foreign currencies:			
USD	764.6	335.9	428.7
GBP	68.3	17.9	50.4
JPY	72.9	95.5	-22.5
SDR	30.3	–	30.3
Other currencies	0.2	0.2	-0.0
Securities	24.3	130.9	-106.7
Fund investments	380.9	109.6	271.3
Other revaluations	132.8	141.2	-8.5
<b>Total</b>	<b>3,622.6</b>	<b>2,876.1</b>	<b>746.5</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 2021, these provisions totalled EUR 5,309.5 million. Provisions consist of a general provision, provision against real value loss, pension provision and foreign exchange rate and price difference provision.

The pension provision is made to cover the Bank of Finland's pension liabilities. These liabilities total EUR 547.7 million, and 105.2% of this amount is covered by the pension provision, i.e. EUR 576.1 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 -5.9 million for the pension fund which was covered by reducing the pension provision. At the end of 2021, real estate in the value of EUR 11.0 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 564.8 million) of the pension provision. Instead, these assets are managed as part of the Bank's financial assets.

Provisions (EUR m)	Total provisions 31 Dec 2019	Change in provisions 2020	Total provisions 31 Dec 2020	Change in provisions 2021	Total provisions 31 Dec 2021
Foreign exchange rate and price difference provision	833	331	1,164	21	1,185
General provision	1,845	100	1,945	–	1,945
Provision against real value loss	1,488	57	1,545	58	1,603
Pension provision	589	-7	582	-6	576
Provision against losses in monetary policy operations	2	-2	–	–	–
<b>Total</b>	<b>4,757</b>	<b>480</b>	<b>5,237</b>	<b>73</b>	<b>5,309</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 2021	31 Dec 2020	Change
Primary capital	840.9	840.9	–
Reserve fund	2,073.8	2,031.8	42.0
<b>Total</b>	<b>2,914.8</b>	<b>2,872.7</b>	<b>42.0</b>

## 14. Profit for the financial year

The profit for the financial year 2021 totalled EUR 52,5 million.

Profit for the financial year (EUR m)	31 Dec 2021	31 Dec 2020	Change
To be transferred for the needs of the State	26.3	100.0	-73.7
Bank of Finland's share of profit (to be transferred to the reserve fund)	26.2	42.0	-15.9
<b>Total</b>	<b>52.5</b>	<b>142.0</b>	<b>-89.6</b>

## Off-balance sheet commitments

Off-balance sheet commitments (EUR m)	31 Dec 2021	31 Dec 2020
Futures contracts		
Nominal value of purchase agreements	–	–
Nominal value of sales agreements	-20.0	–
Market value of FX swap agreements	8.1	-0.0
Investment commitments related to real estate funds	35.0	50.0
Securities lending	109.5	744.6



In accordance with the Governing Council's decisions, the Bank of Finland has made available for lending its holdings of securities purchased under the CBPPs, CSPP, PSPP and the PEPP. The Bank of Finland has also made available for lending securities belonging to its own investment assets. Securities lending operations conducted against collateral other than cash are recorded in off-balance-sheet accounts at the year-end.<sup>10)</sup> Such lending operations with a value of EUR 109.5 million (2020: EUR 744.6 million) were outstanding as 31 December 2021.

- 
- 1) Decisions of the Governing Council of 30 April 2020 and 10 December 2020.
  - 2) Further details on the APP can be found on the [ECB's website](#).
  - 3) See the [press release of 16 December 2021](#) on the Governing Council's decision.
  - 4) Further details on the PEPP can be found on the [ECB's website](#).
  - 5) If favourable financing conditions can be maintained with asset purchase flows that do not exhaust the envelope over the net purchase horizon of the PEPP, the envelope need not be used in full.
  - 6) Market values are indicative and are derived on the basis of market quotes. When market quotes are not available, market prices are estimated using internal Eurosystem models.
  - 7) In particular, Decision (EU) 2020/138 of the ECB of 22 January 2020 on the paying-up of the European Central Bank's capital by the national central banks of Member States whose currency is the euro and repealing Decision (EU) 2019/44 (ECB/2020/4), Decision (EU) 2020/136 of the ECB of 22 January 2020 on the paying-up of the European Central Bank's capital by the non-euro area national central banks and repealing Decision (EU) 2019/48 (ECB/2020/2) and Decision (EU) 2020/139 of the ECB of 22 January 2020 laying down the terms and conditions for transfers of the European Central Bank's capital shares between the national central banks and for the adjustment of the paid-up capital and repealing Decision (EU) 2019/45 (ECB/2020/5).
  - 8) According to the accounting regime chosen by the Eurosystem on the issue of euro banknotes, a share of 8% of the total value of the euro banknotes in circulation is allocated to the ECB on a monthly basis. The remaining 92% of the value of the euro banknotes in circulation are allocated to the NCBs also on a monthly basis, whereby each NCB shows in its balance sheet a share of the euro banknotes issued corresponding to its paid-up share in the ECB's capital. The difference between the value of the euro banknotes allocated to the NCB according to the aforementioned accounting regime, and the value of euro banknotes put into circulation, is recorded as 'Net claims/liabilities related to the allocation of euro banknotes within the Eurosystem'.
  - 9) The multiplier may be adjusted by the Governing Council over time in line with changing levels of excess liquidity holdings.
  - 10) 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).

The image shows a page from an old handwritten ledger. The page is divided into two main sections: 'Debet' (Debit) on the left and 'Credit' (Credit) on the right. Each section has multiple columns for recording transactions. The entries are written in cursive Swedish. A red square icon with a white line graph is overlaid on the bottom left of the image.

## Notes on the profit and loss account

31.12.2021

### 1. Interest income

Interest income from and outside the euro area totalled EUR 981.3 million. Of this, EUR 86.3 million consisted of foreign currency-denominated interest income and EUR 895.1 million of euro-denominated interest income.

The interest rate on overnight deposits was negative throughout the year, meaning interest was charged on central bank deposits. In addition to overnight deposits, such negative interest was also earned on minimum reserve deposits in excess of the minimum reserve requirements.

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 2021, no interest income was earned from ESCB items.

<b>Foreign currency-denominated interest income received outside the euro area (EUR m)</b>	<b>2021</b>	<b>2020</b>	<b>Change</b>
Interest income from coupon bonds	55.2	91.2	-36.0
Income from discount papers	0.3	0.1	0.2
Interest income from deposits	0.0	0.3	-0.3
Dividends	25.7	20.5	5.3
Other interest income	1.9	4.3	-2.4
<b>Total</b>	<b>83.2</b>	<b>116.3</b>	<b>-33.1</b>

<b>Euro-denominated interest income received outside the euro area (EUR m)</b>	<b>2021</b>	<b>2020</b>	<b>Change</b>
Interest income from coupon bonds	–	0.0	-0.0
Interest income from deposits	0.2	0.0	0.2
Other interest income	20.3	6.4	13.9
<b>Total</b>	<b>20.5</b>	<b>6.4</b>	<b>14.1</b>

<b>Foreign currency-denominated interest income received from the euro area (EUR m)</b>	<b>2021</b>	<b>2020</b>	<b>Change</b>
Interest income from coupon bonds	3.1	4.7	-1.6
Interest income from deposits	0.0	3.2	-3.2
<b>Total</b>	<b>3.1</b>	<b>7.9</b>	<b>-4.8</b>

<b>Euro-denominated interest income received from the euro area (EUR m)</b>	<b>2021</b>	<b>2020</b>	<b>Change</b>
Interest income from coupon bonds	–	-0.1	0.1
Income from discount papers	0.1	2.0	-1.9
Interest income from deposits	0.0	–	0.0
Dividends on euro-denominated investments	3.9	8.8	-4.8
ESCB items	–	–	–
Interest income from monetary policy lending	–	–	–
Interest income from monetary policy securities	200.6	233.3	-32.7
Interest income from negative interest rates on credit institutions' deposits	633.4	428.3	205.2
Other interest income	36.4	53.9	-17.5
<b>Total</b>	<b>874.6</b>	<b>726.2</b>	<b>148.4</b>

<b>Total interest income (EUR m)</b>	<b>2021</b>	<b>2020</b>	<b>Change</b>
Foreign currency-denominated interest income received outside the euro area	83.2	116.3	-33.1
Euro-denominated interest income received outside the euro area	20.5	6.4	14.1
Foreign currency-denominated interest income received from the euro area	3.1	7.9	-4.8
Euro-denominated interest income received from the euro area	874.6	726.2	148.4
<b>Total</b>	<b>981.3</b>	<b>856.8</b>	<b>124.5</b>

## 2. Interest expenses

<b>Foreign currency-denominated interest expenses paid outside the euro area (EUR m)</b>	<b>2021</b>	<b>2020</b>	<b>Change</b>
Interest expenses on deposits	–	-0.0	0.0
Other interest expenses	-1.4	-3.0	1.6
<b>Total</b>	<b>-1.4</b>	<b>-3.1</b>	<b>1.7</b>

<b>Euro-denominated interest expenses paid outside the euro area (EUR m)</b>	<b>2021</b>	<b>2020</b>	<b>Change</b>
Other interest expenses	–	-0.0	0.0
<b>Total</b>	<b>–</b>	<b>-0.0</b>	<b>0.0</b>

<b>Foreign currency-denominated interest expenses paid in the euro area (EUR m)</b>	<b>2021</b>	<b>2020</b>	<b>Change</b>
Other interest expenses	–	-0.0	0.0
<b>Total</b>	<b>–</b>	<b>-0.0</b>	<b>0.0</b>

<b>Euro-denominated interest expenses paid in the euro area (EUR m)</b>	<b>2021</b>	<b>2020</b>	<b>Change</b>
Interest expenses on monetary policy lending	-321.8	-119.4	-202.4
Other interest expenses	–	-3.2	3.2
<b>Total</b>	<b>-321.8</b>	<b>-122.6</b>	<b>-199.2</b>

<b>Total interest expenses (EUR m)</b>	<b>2021</b>	<b>2020</b>	<b>Change</b>
Foreign currency-denominated interest expenses paid outside the euro area	-1.41	-3.1	1.7
Euro-denominated interest expenses paid outside the euro area	–	-0.0	0.0
Foreign currency-denominated interest expenses paid in the euro area	–	-0.0	0.0
Euro-denominated interest expenses paid in the euro area	-321.82	-122.6	-199.2
<b>Total</b>	<b>-323.2</b>	<b>-125.7</b>	<b>-197.5</b>

### 3. Net interest income

Net interest income (EUR m)	31 Dec 2021	31 Dec 2020	Change
<b>Interest income</b>			
Financial assets	147.2	195.2	-48.0
Monetary policy items	834.1	661.6	172.5
ESCB claims	–	–	–
<b>Total</b>	<b>981.3</b>	<b>856.8</b>	<b>124.5</b>
<b>Interest expenses</b>			
Financial assets	-1.4	-6.3	4.9
Monetary policy items	-321.8	-119.4	-202.4
ESCB liabilities	–	–	–
<b>Total</b>	<b>-323.2</b>	<b>-125.7</b>	<b>-197.5</b>
<b>NET INTEREST INCOME</b>	<b>658.1</b>	<b>731.1</b>	<b>-73.0</b>

### 4. Foreign exchange rate differences

This item includes realised exchange rate gains and losses arising from the sale of currency positions. In 2021, gains related to exchange rate movements amounted to EUR 4.9 million.

### 5. Securities price differences

This item includes realised gains and losses arising from the sale of securities. In 2021, realised gains from the sale of securities amounted to EUR 44.5 million.

## 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 2021. Valuation losses related to securities totalled EUR 28.1 million.

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

Realised net gains arising from foreign exchange rate and price differences, totalling EUR 21.2 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 (EUR m)	31 Dec 2021	31 Dec 2020
Net monetary income pooled by the Bank of Finland	507.5	476.5
Net monetary income allocated to the Bank of Finland	21.5	79.3
<b>Monetary income reallocation for the year</b>	<b>-486.0</b>	<b>-397.2</b>
Corrections to monetary income reallocation of previous years	2.8	-1.1
Share of provision against counterparty risks	–	1.6
<b>Total</b>	<b>-483.1</b>	<b>-396.7</b>

This item contains the net result of pooling of monetary income for 2021, amounting to an expense of EUR 486.0 million in comparison to an expense of EUR 397.2 million in the previous year.

The amount of monetary income of each Eurosystem national central bank (NCB) is determined by measuring the annual income that derives from the earmarkable assets held against its liability base. Any interest paid on liabilities included within the liability base is to be deducted from the monetary income to be pooled. 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 table below specifies the items that comprise the earmarkable assets and the liability base as well as the remuneration rate applied to each item.



<b>Earmarkable assets</b>	<b>Remuneration rate</b>	<b>Liability base</b>	<b>Remuneration rate</b>
Amount of gold holdings in proportion to each NCB's capital key share	0%	Banknotes in circulation	Not applicable
Claims equivalent to the transfer of foreign reserves to the ECB (except gold)	Main refinancing operations rate	Liabilities to euro area credit institutions related to monetary policy operations denominated in euro	Rate of return
Lending to euro area credit institutions related to monetary policy operations denominated in euro	Rate of return	Net liabilities arising from balances of TARGET accounts	Main refinancing operations rate
CBPP, CBPP2, PSPP - government/agency bonds and PEPP - government securities	Main refinancing operations rate		
SMP, CBPP3, PSPP - Supra, CSPP and PEPP (excluding PEPP - government securities)	Rate of return		
Claims on non-Eurosystem central banks that relate to liquidity-providing operations	Actual interest income (including accruals)		
Accrued coupon interest related balances on impaired securities held for monetary policy purposes and for which full income/ risk sharing applies	Not applicable		
Net claims related to the allocation of euro banknotes within the Eurosystem	Main refinancing operations rate		
Accrued interest relating to regular monetary policy operations with a maturity of over 1 year	Not applicable		

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 507.5 million and reallocated to the Bank of Finland amounting to EUR 21.5 million is the net result arising from the calculation of monetary income.

## **10. Share in ECB profit**

The ECB distributed EUR 383 million profit for the financial year 2020, of which the Bank of Finland's share recorded for the financial year 2021 totalled EUR 7.0 million.

## **11. Income from other equity shares and participating interests**

This item includes the Bank of Finland's share, EUR 2.8 million, in income on the Securities Markets Programme (SMP) portfolio, the expanded asset purchase programme (APP) portfolio and the pandemic emergency purchase programme (PEPP) portfolio distributed by the ECB in the form of interim profit distribution for the financial year 2021. The item also includes dividends received on shares in the BIS, EUR 6.7 million.

## **12. Other income**

This item consists of income of the Financial Supervisory Authority (FIN-FSA), EUR 37.7 million. The item also includes income from real estate, EUR 5.3 million, and commissions and fees.

## 13. Staff costs

Staff costs (EUR m)	31 Dec 2021	31 Dec 2020
Salaries and fees	49.6	45.8
Employer's contributions to the pension fund	9.4	8.9
Other staff-related costs	2.1	1.9
<b>Total</b>	<b>61.1</b>	<b>56.6</b>

Average staff size	2021	2020
	Number of staff	Number of staff
Bank of Finland	368	355
Financial Supervisory Authority	239	231
<b>Total</b>	<b>607</b>	<b>586</b>

Basic salaries paid to the members of the Board (EUR)	2021
Olli Rehn	280,979
Marja Nykänen	254,749
Tuomas Välimäki	207,128
<b>Total</b>	<b>742,856</b>

Fringe benefits (meal benefits, company-paid telephone and company car) paid to the members of the Board totalled EUR 42,991.70.

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.

## 14. 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 2021 to cover the pension fund's deficit for the financial year.

## 15. Administrative expenses

Administrative expenses (EUR m)	2021	2020
Supplies and purchases	0.5	0.4
Machinery and equipment	7.4	7.0
Real estate	8.9	8.5
Staff-related expenses	1.0	1.3
Purchase of services	15.1	13.7
Other	2.3	2.1
<b>Total</b>	<b>35.2</b>	<b>32.9</b>

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

## 16. Depreciation of fixed assets

Depreciation of tangible fixed assets (EUR m)	31 Dec 2021	31 Dec 2020
Buildings	3.7	3.6
Machinery and equipment	2.6	2.5
<b>Total</b>	<b>6.2</b>	<b>6.1</b>

Depreciation of intangible fixed assets (EUR m)	31 Dec 2021	31 Dec 2020
IT systems	2.8	2.8
<b>Total</b>	<b>2.8</b>	<b>2.8</b>

## 17. Banknote production services

Costs related to banknote production services totalled EUR 4.5 million.

## 18. Other expenses

The majority of other expenses relate to collection costs, exchange rate and rounding differences and other similar costs.

## 19. Income of the pension fund

This item includes the Bank of Finland's and the FIN-FSA's employer contributions and employee's share of premium income, totalling EUR 13.2 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.

## **20. Expenses of the pension fund**

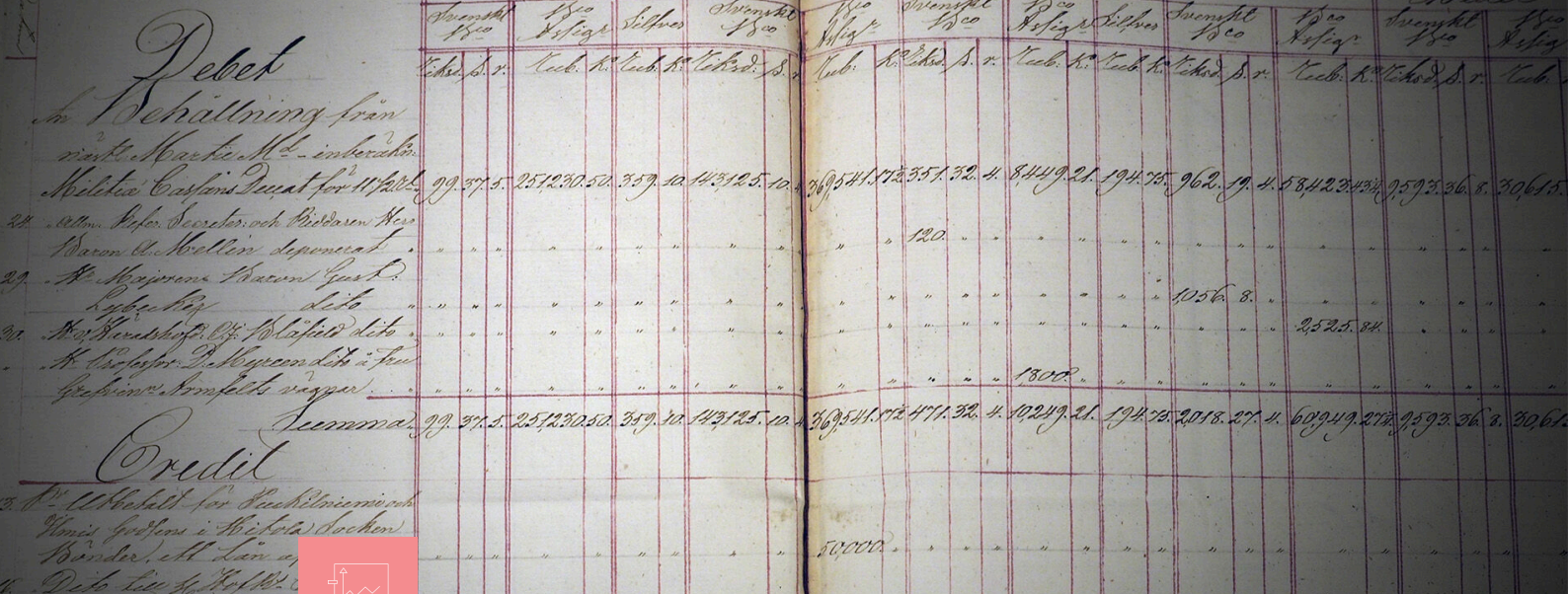
This item includes pensions paid, EUR 28.6 million, the pension fund's management costs and depreciation of the pension fund's fixed assets.

## **21. Changes in provisions**

This item includes the increase of the provision against real value loss, EUR 58 million. All provisions have been specified in the notes on the balance sheet under liabilities.

## **22. Profit for the financial year**

Profit for the financial year 2021 totalled EUR 52.5 million. The Board proposes to the Parliamentary Supervisory Council that EUR 26.3 million of the profit be made available for the needs of the State.



## Appendices to the financial statements

31.12.2021

EUR million	31 Dec 2021	31 Dec 2020
<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	0.2
Other shares and interests	0.0	0.0
<b>Total</b>	<b>22.6</b>	<b>22.6</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>	547.7	556.0
– of which covered by provisions	576.1	582.4

1) In parentheses, the Bank of Finland's relative holdings of the BIS shares in circulation.

2) Pension liability for 2021 includes indexation of pensions and paid-up policies entering into force on 1 January 2022.

## The Bank of Finland's real estate

Building	Address	Year of completion	Volume m <sup>3</sup> (approx.)
Helsinki	Rauhankatu 16	1883/1961/2006	52,108
	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
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

31.12.2021

## Risk management and control of risks in 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 every quarter 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. A 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 the objectives of investment activities, investment policy as well as risk management and responsible investment 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, long-term investment activity, the strategic allocation of the fixed-income investment portfolio by investment category, the leeway permitted in fixed-income 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. Decisions on new counterparties to investments are taken mainly by the Investment Group or in exceptional cases by the Markets Committee. 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.

In addition to the decision-making bodies specified above, the Bank of Finland also has an internal working group on responsible investment. The working group makes decisions on the companies to be excluded from or brought back within the scope of the Bank's investment activities. These decisions are based on responsible investment principles and are taken using analyses of an external service provider.

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 2021 EUR m	31 Dec 2020 EUR m
AAA	3,077	3,341
AA+	437	378
AA	44	31
AA-	366	312
A+	1,260	1,268
A	205	178
A-	137	115
BBB+	47	32
BBB	14	-
BBB-	-	5
Below BBB-	-	-
No credit rating	82	56
<b>Total</b>	<b>5,670</b>	<b>5,716</b>

**1 Covered bonds have been classified according to their own credit rating, not that of the issuer. The Bank of Japan has been rated according to the government's credit rating. Due to changes to the methodology for determining credit ratings, the values for the reference period have been recalculated.**

*Totals may not add up due to rounding.*

## 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 (EUR m)	31 Dec 2021	31 Dec 2020
<b>Euro area</b>	<b>214</b>	<b>266</b>
Netherlands	75	67
Austria	67	60
Germany	53	56
France	19	22
Finland	–	61
<b>Rest of Europe</b>	<b>852</b>	<b>832</b>
Sweden	347	320
United Kingdom	290	244
Norway	116	151
Denmark	81	102
Switzerland	18	16
<b>America</b>	<b>2,977</b>	<b>3,102</b>
United States	2,477	2,491
Canada	500	612
<b>Asia and Oceania</b>	<b>1,151</b>	<b>1,153</b>
Japan	1,111	1,087
Australia	18	52
South Korea	22	13
<b>International institutions</b>	<b>477</b>	<b>362</b>
<b>Total</b>	<b>5,670</b>	<b>5,716</b>

*Totals and subtotals may not add up due to rounding.*

## Sensitivity of the Bank of Finland's financial assets to market changes

EUR m	2021	2020
Change in the value of the Bank of Finland's financial assets (incl. equity fund investments) after appreciation of the euro exchange rate by 15% relative to foreign reserve currencies and gold as at 31 Dec	-1,387	-1,267
Change in the value of the Bank of Finland's financial assets after an interest rate rise of 1% as at 31 Dec	-109	-123
Change in the value of the Bank of Finland's equity funds after a decrease in the value of equity funds by 25%	-378	-284

## Allocation of the Bank of Finland's fixed-income investment portfolios at the end of 2021

Fixed-income investment portfolios	Allocation at year-end (%)
Government debt instruments and central bank deposits	52.2
Government-related debt instruments	29.9
Covered bonds	4.9
Corporate bonds	11.4
Cash holdings	1.6
<b>Total</b>	<b>100.0</b>

## 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** refers 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 corresponds to the average loss in a 1% risk event.

The image shows a page from an old ledger with handwritten entries in Swedish. The page is divided into two main sections: 'Debet' (Debit) on the left and 'Credit' (Credit) on the right. The entries are organized into columns, with some columns containing numbers and others containing text descriptions. The handwriting is in a cursive script typical of the 18th or 19th century. A red square icon with a white line graph is overlaid on the bottom left of the image.

## Auditor's report

11.3.2022

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 2021 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, 11 March 2022

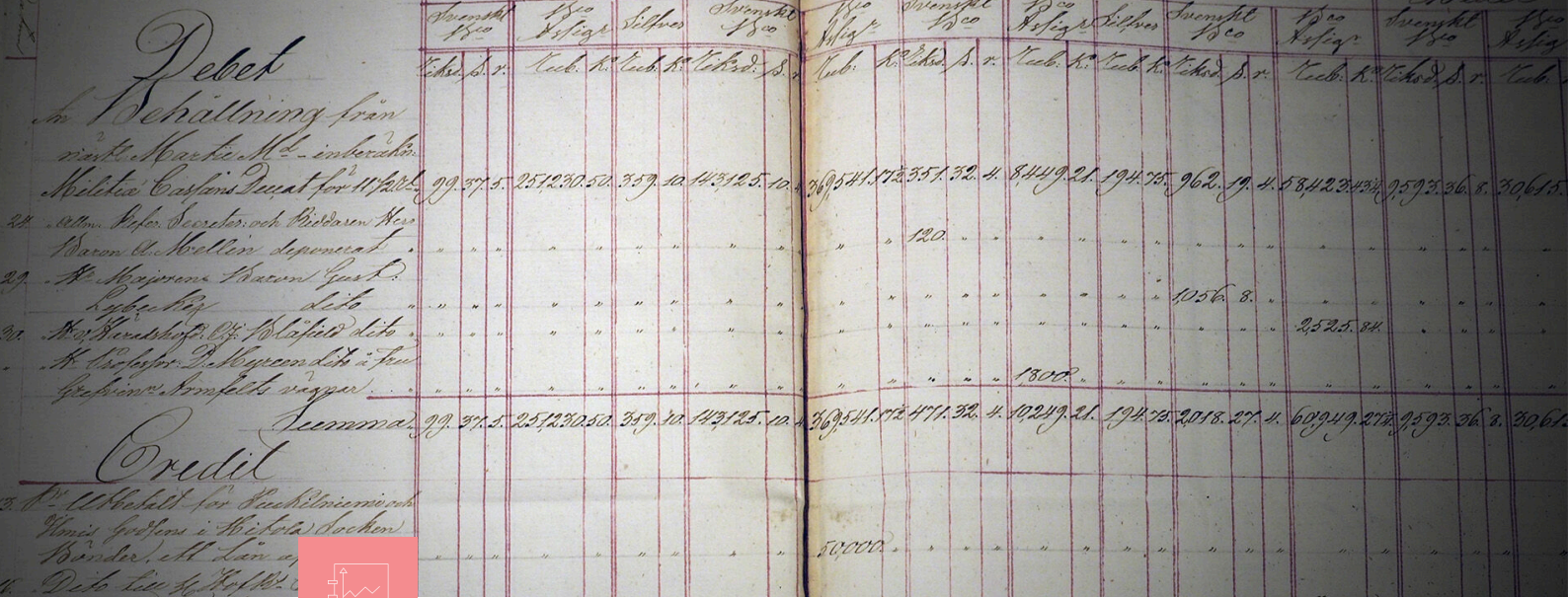
Mika Kari

Katri Kulmuni

Jukka Kopra

Lotta Kauppila,  
Authorised Public Accountant, Secretary

Timo Tuokko,  
Authorised Public Accountant



## Statement regarding the audit

28.2.2022

### 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

We have audited the financial statements of the Bank of Finland (business identity code 0202248-1) for the year ended 31 December 2021. The financial statements comprise the balance sheet, the profit and loss account and notes.

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.



## **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 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.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

## **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 2022  
KPMG OY AB  
Juha-Pekka Mylén  
Authorised Public Accountant



# Organisation

25.3.2022

## Parliamentary Supervisory Council

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### Chairman

Antti Lindtman

### Vice Chairman

Toimi Kankaanniemi

Mari Holopainen

Kalle Jokinen

Esko Kiviranta

Markus Mustajärvi

Petteri Orpo

Pia Viitanen

Ville Vähämäki

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### Secretaries to the Parliamentary Supervisory Council

Kimmo Virolainen

Anne Hedman

## Board

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### Governor

Olli Rehn

### Deputy Governor

Marja Nykänen

### Member of the Board

Tuomas Välimäki

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### Secretary to the Board

Elisa Newby

## Departments

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### Monetary Policy and Research

Juha Kilponen

#### Forecasting

Meri Obstbaum

#### Institute for Economies in Transition (BOFIT)

Iikka Korhonen

#### Monetary Policy and International Economy

Lauri Vilmi (acting)

#### Research

Esa Jokivuolle

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### Financial Stability and Statistics

Katja Taipalus

#### Macprudential Analysis

Helinä Laakkonen

#### Financial Statistics

Elisabeth Flittner

#### Macprudential Policy

Hanna Freystätter

#### 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

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## **Payment Systems**

Päivi Heikkinen

## **Cash Division**

Heli Snellman

## **Fintech Section**

Aleksi Grym

## **Oversight of Market Infrastructure**

Jussi Terho

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## **General Secretariat**

Elisa Newby

## **International Affairs**

Satu Kivinen

## **Communications**

Jenni Hellström

## **Legal Affairs**

Jutta Koivisto

## **Strategy and Organisation**

## **Assistant Services for the Board**

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### **Administration**

Veli-Matti Lumiala

### **Administrative Services**

Hannu Vesalainen

### **Personnel and Financial Control**

Antti Vuorinen

### **Language Services**

Eija Puttonen

### **Risk Control and Financial Accounting**

Antti Nurminen

### **Property Management**

Paavo Perttu

### **Security**

Marko Lavikkala

---

### **ICT and Information Management**

Petteri Vuolasto

#### **Bank of Finland IT Services**

Petri Salminen

#### **Shared IT Services**

Sami Kirjonen

#### **Financial Supervision IT services**

Kirsti Ikonen

#### **Shared Information Management Services**

Mia Ristimäki

- Content Management Services
- Document Management Services
- Library and Information Services

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### **Internal Audit**

Helena Rantanen

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The Financial Supervisory Authority, headed by Anneli Tuominen, operates in association with the Bank of Finland.