

## Submission to the Riksdag 2022/23:RB1

# Annual Report for Sveriges Riksbank 2022

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## To the Riksdag

Sveriges Riksbank hereby submits the Riksbank's Annual Report for 2022 to the Riksdag. In accordance with Chapter 10, Article 3 of the Sveriges Riksbank Act (1988:1385), the Annual Report includes an administration report, a balance sheet, a profit and loss account and an assessment of the Riksbank's internal controls.

In the administration report, the Riksbank describes how the Bank has conducted monetary policy, promoted a safe and effective payment mechanism and carried out other tasks during the financial year.

*The Executive Board proposes*

that the Riksdag adopt the Riksbank's profit and loss account and balance sheet for the financial year 2022 as proposed in the Annual Report.

Stockholm, 15 February 2023

On behalf of the Executive Board

ERIK THEDÉEN

/Anne Mattila Wass

Erik Thedéen, Anna Breman, Per Jansson, Martin Flodén, Henry Ohlsson and Aino Bunge took part in this decision.

The reporting clerks were Maria Ljungkvist and Henrik Gardholm.

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# The year in brief

*Much of the Riksbank's work during the year focused on the effects on the macroeconomy and financial stability of rising prices and interest rates along with Russia's invasion of Ukraine. Work continued on adapting and developing the payment market, both nationally and internationally.*

## **Policy rate raised to curb record inflation**

- In 2022, the inflation target was tested on the upside for the first time since it was first applied in 1995. CPIF inflation rose to around 10 percent by the end of the year. However, long-term inflation expectations in Sweden were only slightly above 2 percent at the end of December.
- The Riksbank gradually shifted monetary policy in an increasingly tight direction during the year and decided to raise the policy rate, which gradually rose from 0 per cent in February to 2.5 per cent in November. Asset purchases were also gradually reduced, to cease completely by the end of 2022.

## **Rising interest rates had a negative impact on the Riksbank's profit**

- In 2022, the Riksbank reported a mainly unrealised loss of SEK 81 billion. This was due to rising market interest rates reducing the value of the Riksbank's securities portfolio, particularly for government bonds and covered bonds. The loss affected the reported result via a so-called write-down, although the loss has not yet been realised. The Riksbank's equity will therefore be very low in the period ahead.
- A weaker krona has led to a positive and largely unrealised result for the gold and foreign currency reserves, which has increased the value of the revaluation account for currency and only partially affected the reported result.
- The Riksbank considers that the purchases of securities, especially during the coronavirus pandemic, supported the development of the real economy and contributed to promoting the efficiency and stability of the financial system. The aim of the purchases was precisely to stimulate the economy by keeping general interest rates down, sustaining employment and preserving confidence in the inflation target.
- The Riksbank's profits or losses are the result of the policy pursued to achieve the objective of low and stable inflation.

## **Threats to financial stability increased**

- The Riksbank assesses that the threats to financial stability in Sweden increased in 2022, among other things as a result of Russia's war of invasion in Ukraine, rising inflation and interest rates, and a poorly functioning bond market. The Riksbank assesses that these vulnerabilities were increased by the banks' lending to the highly indebted commercial property companies and, indirectly, the high indebtedness of households.
- The Riksbank is a member of the Financial Stability Council with the task of counteracting financial imbalances. Two extraordinary meetings were held during the year. One of these was on the impact of the coronavirus pandemic and the security situation on the financial markets and the other one concerned liquidity problems in the market for electricity derivatives.
- During the year, the Basel Committee presented a proposal for a common and consistent interpretation of the standards for how banks should account for climate-related financial risks. The Riksbank participated actively in the work surrounding the proposal.

## **The payments market functioned well**

- Payments in Sweden were generally safe and efficient during the year.
- Demand for cash increased temporarily following Russia's invasion of Ukraine, albeit from a very low level.
- The RIX system's service for the settlement of instant payments (INST) became operational and an infrastructure council was established with representatives from the payment market. Work also continued on a possible e-krona.
- The Riksbank continued its cooperation with other central banks to make international payments faster and cheaper, and discussed the way forward to make central bank digital currency available to the public.
- The Riksbank intensified its work on preparedness to increase the resilience of the payment system.

## **High preparedness, satisfied employees and new management**

- Employee surveys showed that employee satisfaction is good and that managers' leadership is highly rated. The possibility of teleworking was introduced permanently after a trial period and new ethical rules were introduced at the end of the year for all staff.
- Since 1 October 2022, the Riksbank has voluntarily been part of the preparedness sector Financial services, where it cooperates with Finansinspektionen and the Swedish National Debt Office, among others. All permanent staff at the Riksbank were placed on wartime deployment during

the year. Since 1 January 2023, the Riksbank has had a clearer responsibility for ensuring that the public can continue to make payments during peacetime crisis situations and times of elevated preparedness.

- The Riksbank initiated a review of the objectives and organisation of its internal environmental work.
- Media coverage of the Riksbank increased to record levels in 2022. The public's very high level of confidence in the Riksbank fell back slightly during the year in line with the autumn's interest rate hikes. Confidence is still at high levels according to Kantar Sifo's surveys.
- On 17 June 2022, the General Council decided to appoint Erik Thedéen as Governor of the Riksbank from 1 January 2023 for a term of six years. On 2 September 2022, the General Council appointed Aino Bunge as a new member of the Executive Board from 1 December 2022 for a term of six years.

### **New Sveriges Riksbank Act**

- On 23 November 2022, the Riksdag took a decision on a new Sveriges Riksbank Act. The Sveriges Riksbank Act (2022:1568) entered into force on 1 January 2023. During 2022, the Riksbank worked on preparing its operations for the new Act.
- The Riksbank's objective of achieving low and stable inflation remains the same and its flexible inflation targeting policy has been enshrined in law. The Riksbank shall also continue to contribute to the stability and efficiency of the financial system.
- The biggest change is that the Riksbank will have increased responsibility for preparedness and cash management.
- Another important change is that scrutiny of the Riksbank will be further strengthened, with a focus on compliance, target attainment and efficiency.
- The new Act also contains provisions on the size of the Riksbank's equity.

# Statement by the Governor

I am very proud and honoured to take up the post of Governor. The Riksbank dates back to 1668, always with the task of keeping the value of money stable. This is our part in the work of giving Sweden a strong and secure economy and is an important assignment for me and my colleagues on the Executive Board to manage well.

Since 1999, we have been legally required to carry out our mission independently of political authority. This independence places high demands on the scrutiny of our work. Since the introduction of the inflation target, the Riksbank has endeavoured to communicate openly and clearly about what we do. Today, the Riksbank is regarded as one of the world's most transparent central banks. The inflation target of 2 per cent has long been well established in society and the Riksbank enjoys a high level of public confidence.

This is particularly important in times of global uncertainty and when events outside Sweden's borders are leading to rapid and major changes in economic conditions. The pandemic of recent years and the Russian invasion of Ukraine on 24 February 2022 are events that have had a major impact on the world economy and thus also on the Swedish economy. They have required resolute action on the part of the Riksbank to defend the inflation target and manage disruptions in the financial system. Inflation is now significantly higher than the Riksbank's target but there is no doubt that the Executive Board will do what is necessary to achieve the target again within a reasonable time frame.

From the beginning of the year, the Riksbank will operate under a new law. This law means that the Riksbank will have greater responsibility, particularly in terms of preparedness and cash management, but it also entails certain changes to the Riksbank's policy tasks. In 2022, the Riksbank worked on preparing for the new law.

The asset purchases that the Riksbank and many other central banks have undertaken in order to secure the supply of credit, maintain confidence in the inflation target and contribute to secure economic development have also meant that the Riksbank has taken on financial risks. In a situation of war in our geographical vicinity, with rising inflation and interest rates as a consequence, this means that the Riksbank will report a loss in 2022 and that its equity will be low in the period ahead. But the Riksbank's task is not to generate profits. Asset purchases have helped to maintain confidence in the inflation target and have supported the development of the real economy. The size of this economic gain is difficult to calculate precisely. According to the provisions on capital in the new Sveriges Riksbank Act, which apply from the 2023 financial year onwards, the Riksbank shall submit a petition to the Riksdag to restore its equity if it falls too low. Such a petition should be based on a broad assessment of the Riksbank's financial position and earning capacity

at the time. The work of this analysis will be an important issue for the Riksbank going forward.

My ambition is also to continue to drive active development work in all areas of the Bank, in which we both adapt to structural changes and take advantage of the opportunities offered by digitalisation. Recent years have also shown that we need to be prepared to deal with the unexpected. I see the ability to adapt quickly, both conceptually and through reprioritisation, as a key factor in achieving our mission in an uncertain environment. It is also important to ensure a positive and sustainable working environment for staff with a reasonable workload over time.

It is with pleasure that I take on the task of leading the Riksbank. I look forward to working together with my colleagues in the Executive Board and all of the Bank's competent staff in a challenging time. Finally, I would like to thank outgoing Governor Stefan Ingves for leading the Riksbank for 17 years with great commitment and success.

ERIK THEDÉEN

# ADMINISTRATION REPORT

## Organisation and management

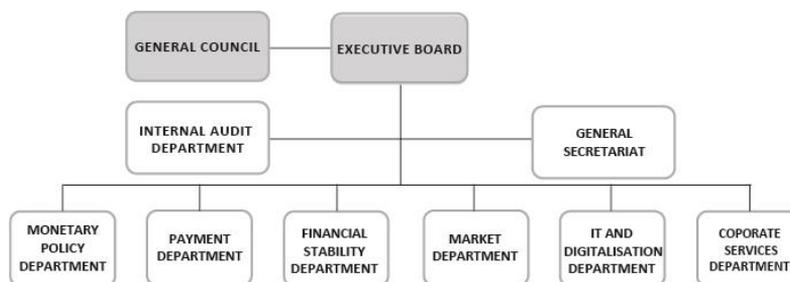
*Sveriges Riksbank is a public authority under the Riksdag. The Riksdag appoints the eleven members of the Riksbank's General Council. In turn, the General Council appoints the six members of the Riksbank's Executive Board, while the Executive Board is responsible for the Bank's operations.*

### Organisational structure

In 2022, the Riksbank consisted of eight departments (see Figure 1 and Annex 1). As of 1 July 2022, the Riksbank's Management Group consisted of the heads of all departments except the Internal Audit Department, as well as the Director of Communications and the General Counsel. The Head of the Internal Auditing Department and the Chief Risk Officer may attend the Management Group's formal meetings to the extent they consider necessary. The Head of the General Secretariat chairs the Management Group.

Some parts of the operations were reorganised during the year, among other reasons to improve the coordination of Bank-wide issues and preparedness.

**Figure 1 Organisation of the Riksbank**



### The General Council of the Riksbank

The General Council consists of eleven members and as many deputies. Members and deputies are appointed by the Riksdag after each general election for a term of office of four years. The present General Council was appointed after the election in 2022. The General Council selects a Chairperson and a Vice Chairperson from among its members.

During the period from 1 January to 10 October 2022, the composition of the Council was as follows: Susanne Eberstein (Chairperson), Michael Lundholm (Vice Chairperson), Hans Hoff, Hans Birger Ekström, Bo Broman,

Marie Granlund, Peter Helander, Ali Esbati (until 4 February), Mia Sydow Mölleby (from 6 May), Chris Heister, Mikael Eskilander and Caroline Helmersson Olsson. Deputy members over the year were Agneta Gille, Jonas Jacobsson Gjörtler, Thomas Strand, Malin Löfsjögård, Josef Fransson, Mathias Tegnér, Roger Tiefensee, ClasGöran Carlsson, Maria Plass, Sammy Almedal and Agneta Börjesson.

Following the general election in September, a new constellation of the Council was appointed as of 11 October: Bo Broman (Chairperson), Tomas Eneroth (Vice Chairperson as of 18 October), Susanne Ackum, Martin Kinunen, Annelie Karlsson, Hans Birger Ekström, Hans Hoff, Mattias Karlsson, Jonas Jacobsson Gjörtler, Emma Lennartsson and Mats Odell. Andrea Kronvall, Mathias Tegnér, Malin Löfsjögård, Linda Lindberg, Ulla Andersson, Maria Plass, Peter Helander, Erik Kristow, Katarina Brännström, Rasmus Ling and Hanna Clivemo (from 12 December) were appointed as deputy members.

### **The General Council's tasks**

The General Council appoints the members of the Riksbank's Executive Board and determines their salaries and other terms of appointment. The General Council also determines the design of banknotes and coins.

The Council also has a controlling function and must monitor and review the work of the Executive Board and submit proposals concerning the allocation of the Riksbank's profits.

The Chairperson and Vice Chairperson may attend and speak at the Executive Board's meetings, but they do not have the right to vote or make proposals.

The Executive Board and the Council consult each other on their petitions to the Riksdag and the Government within their respective areas of responsibility, and also on proposals to the Riksdag and the Government for statutory amendments or other measures taken by the State. In addition, the General Council submits consultation responses within its field of competence.

## **The Executive Board of the Riksbank**

The Executive Board of the Riksbank consists of six members with terms of office of five or six years. The General Council appoints the Chairman of the Executive Board, who shall, at the same time, be Governor of the Riksbank, and at least one Vice Chairman, who shall, at the same time, be First Deputy Governor of the Riksbank.

### **The Executive Board's tasks**

The Executive Board has a joint responsibility for the focus, development and efficiency of the operations. The Executive Board also decides on the

organisation of the Riksbank. Furthermore, the Executive Board takes decisions regarding monetary and exchange rate policy, important issues in the area of financial stability, payment issues and the Riksbank's asset management. The Executive Board also decides on strategic objectives, business plan and budget. The Governor of the Riksbank has a mandate to follow up activities in relation to adopted plans and approved budget. The Governor of the Riksbank also has managerial responsibility for the heads of department.

The Executive Board takes decisions collectively at its meetings. In 2022, the Board held a total of 23 meetings, five of which were monetary policy meetings. In addition, the Executive Board took 15 decisions by circulation.

At least twice a year, the Executive Board is required to present a written report on monetary policy to the Riksdag Committee on Finance. In 2022, members of the Executive Board participated at the Riksdag in two open hearings on monetary policy, one open hearing on financial stability and one open hearing on the Riksbank's report to the Riksdag: Account of monetary policy 2021.

## **Members of the Executive Board**

In 2022, the Executive Board consisted of the following members:

### *Stefan Ingves*

Stefan Ingves was Governor of the Riksbank and Chairman of the Executive Board until 31 December 2022. He took up the post on 1 January 2006. Since then, he has had his term of office extended twice by the General Council, most recently in September 2017 by a further five years until 31 December 2022.

Stefan Ingves was a member of the General Council of the European Central Bank (ECB) and First Vice-Chair of the European Systemic Risk Board (ESRB). Since 2006, he was a member of the Board of Directors of the Bank for International Settlements (BIS), where he was elected Vice-Chairman of the BIS in November 2021. He was Chair of the BIS Banking and Risk Management Committee (BRC) since 2007 and also Swedish representative on the Board of Governors of the International Monetary Fund (IMF), Member of the Nordic-Baltic Macprudential Forum (NBMF) and Member of the Financial Stability Council.

### *Cecilia Skingsley*

Cecilia Skingsley was First Deputy Governor of the Riksbank until 6 June 2022. She took up the post on 8 November 2019 after an extended term of office as Deputy Governor from May 2013. Cecilia Skingsley was the Riksbank's representative on the Committee on Payments and Market Infrastructures (CPMI). She was also the Governor of the Riksbank's alternate on the

ECB General Council, as well as a member of the General Board of the European Systemic Risk Board (ESRB) and its Advisory Technical Committee (ATC). Within the framework of the G20 agenda for improving cross-border payments, she led the working group in the areas of interoperable platforms, stablecoins and central bank digital currencies. Furthermore, Cecilia Skingsley chaired the Retail Payments Council and the Cash Handling Advisory Board, and was a member of the Financial Stability Council.

#### *Anna Breman*

Anna Breman has been First Deputy Governor of the Riksbank since 2 September 2022. She took up the post of Deputy Governor on 1 December 2019 for a six-year term of office ending on 30 November 2025. She represents the Riksbank in the Nordic-Baltic Monetary and Financial Committee (NBMFC), which she also chairs. She also represents the Riksbank in the IMF cooperation between Sweden, the Netherlands, Belgium and Switzerland (G4). Furthermore, Anna Breman is the Riksbank's representative in the Network for Greening the Financial System (NGFS), is a deputy in the International Monetary and Financial Committee (IMFC) and is responsible for the Riksbank's Technical Assistance (TA). She has also taken over from Cecilia Skingsley as the Governor of the Riksbank's alternate on the ECB General Council and as a member of the General Board of the ESRB.

#### *Per Jansson*

Per Jansson is Deputy Governor of the Riksbank. He took up the post on 1 January 2012. Since then, he has had his term of office extended twice by the General Council, most recently in August 2021 by a further six years until 31 December 2027. He represents the Riksbank on the EU Economic and Financial Committee (EFC) and the Committee on the Global Financial System (CGFS) at the BIS. Furthermore, Per Jansson is the Governor of the Riksbank's alternate on the Board of Directors of the BIS.

#### *Martin Flodén*

Martin Flodén is Deputy Governor of the Riksbank. He took up the post on 22 May 2013 for a term of office of five years. In 2018, his term of office was extended by another six years until 21 May 2024. He represents the Riksbank in the OECD's Working Party 3 (WP3), the Basel Committee (BCBS), the Financial Stability Board (FSB), the Regional Consultative Group for Europe (RCG-E) and the Bellagio Group. Martin Flodén also chairs the Riksbank's infrastructure council for payments and securities.

#### *Henry Ohlsson*

Henry Ohlsson is Deputy Governor of the Riksbank. He took up the post on 12 January 2015 for a term of office of six years and, in 2020, received an

extended term of office for another five years until 11 January 2026. He represents the Riksbank in the ECB International Relations Committee (IRC) and the FSB Regional Consultative Group for Europe (RCG-E) and, since 2019, he has been one of two Chairs of the FSB RCG-E.

### *Aino Bunge*

Aino Bunge is Deputy Governor of the Riksbank. She took up the post on 1 December 2022 for a six-year term of office until 30 November 2028. Aino Bunge is the Riksbank's representative on the Committee on Payments and Market Infrastructure (CPMI) and a member of the ESRB's Advisory Technical Committee (ATC).

### **External assignments of the Executive Board members**

If a member of the Executive Board wishes to take up an external assignment in addition to their employment at the Riksbank, this must be approved by the General Council and reviewed every second year. Stefan Ingves has been elected Member of The Royal Swedish Academy of Engineering Sciences. This assignment is suspended. He is also Chair of the Board of Directors of the Toronto Centre, which promotes financial stability by organising courses for supervisory authorities and central banks in emerging market and low-income countries. Martin Flodén is a research fellow at the Center for Economic and Policy Research and, in 2022, was also a member of a reference group for a project within the Expert Group for Public Economics (ESO). Henry Ohlsson is a member of the Nordic Tax Research Council and of Skatteakademien. In addition, he is affiliated to the Uppsala Center for Fiscal Studies and the Uppsala Center for Labor Studies. Anna Breman is a member of the Swedish House of Finance advisory board.

## Operations and strategies

*The Riksbank continuously modernises and develops its activities in order to contribute to a strong and secure economy in Sweden. Its vision is to be an inventive, highly prepared and responsive central bank. Work in 2022 included preparing operations for the new Sveriges Riksbank Act (2022:1568), which entered into force on 1 January 2023. The Riksbank's assessment is that operations were conducted in a stable manner in accordance with an ambitious roadmap despite a rapidly changing environment.*

### The mission, tasks and role of the Riksbank

The Riksbank is Sweden's central bank and a public authority under the Riksdag (the Swedish parliament). The Riksbank is responsible for conducting monetary policy and thus for maintaining price stability and promoting a safe and efficient payment system. The Annual Report for 2022 is based on the mandate set out in the Sveriges Riksbank Act (1988:1385) in force at the time.

#### **Maintaining the value of money – price stability**

Under the Sveriges Riksbank Act, the Riksbank shall maintain price stability, which means that inflation should be low and stable. The Riksbank has specified an inflation target, according to which the annual change in the consumer price index with a fixed interest rate (CPIF) is to be 2 per cent.

The Riksbank's monetary policy is aimed at attaining the inflation target and, at the same time, supporting the objectives of general economic policy, whose aim is to achieve sustainable growth and high employment. The inflation target, however, takes precedence.

The Riksbank determines the level of its policy rate to influence inflation and economic developments. The Riksbank can also affect interest rates in other ways, for example, by purchasing various securities.

#### **A safe and efficient payment mechanism – financial stability**

The Sveriges Riksbank Act states that the Riksbank shall promote a safe and efficient payment system. The Riksbank does this by contributing to the stability of the financial system in various ways and by ensuring that payments can be made safely and efficiently. According to the Sveriges Riksbank Act, the Riksbank may supply a central payment system that banks and other agents can use to make payments. The Riksbank's ability to act as 'the banks' bank' is a precondition both for fulfilling the objective of price stability and for promoting financial stability.

The Riksbank can help to manage a financial crisis through monetary policy measures, by supplying extra liquidity to the financial system, by support to an individual bank in the form of lending against collateral, by communicating the Riksbank's assessments and by cooperating with other authorities and organisations in Sweden and abroad.

### *Safe and efficient cash provision*

The Riksbank has the exclusive right to issue banknotes and coins in Sweden and is responsible for the provision of cash. The objectives are to ensure that banknotes and coins are of high quality, that the Riksbank's provision of cash is safe and efficient, and that confidence in banknotes and coins and cash provision is high among the general public and companies that handle cash.

### *Secure and efficient financial transfers*

The Riksbank owns and runs the central payment system RIX, in which market participants make financial transfers without credit or liquidity risks. The Riksbank itself carries out monetary policy transactions through RIX.

RIX is of great significance to the monetary policy operational framework and the smooth functioning of the Swedish financial system. For this reason, the Riksbank has set high targets for its availability and functioning. In May 2022, the Riksbank launched a new settlement service, RIX-INST, which operates around the clock.

### *Preventive work and crisis management*

The Riksbank regularly analyses developments in the financial system and in the economy in other respects. The analysis focuses mainly on the major banks in Sweden (SEB, Swedbank, Handelsbanken, Nordea, and Danske Bank) and on the markets and infrastructure that are important for the Swedish financial system.

The Riksbank makes recommendations, not only to banks and other participants in the financial markets but also to legislators and other authorities, with the aim of getting them to understand and rectify the risks identified. The Riksbank is in a position to influence the framing of laws and regulations that relate to supervision and crisis management, among other things by actively participating in the work of international organisations.

Several authorities in Sweden are responsible for promoting financial stability. If a financial crisis occurs, the Riksbank, Finansinspektionen, the Ministry of Finance and the National Debt Office share the responsibility for dealing with the crisis so as to minimise the economic costs.

## **The Riksbank's independence**

The Executive Board of the Riksbank takes monetary policy decisions without seeking or taking instructions from any other party. By delegating the task of

maintaining price stability to the Riksbank, the Riksdag has ensured that monetary policy is based on a long-term perspective and has created the conditions for the credibility of the inflation target.

The Riksbank's independent status is also reflected in its financial independence, guaranteed, among other things, through the Riksbank having sufficient equity and the right to manage financial assets. The aim of asset management is to ensure that it can fulfil its statutory objective and perform its tasks, for example by implementing monetary policy, being prepared to intervene in the foreign exchange market and being able to provide temporary liquidity assistance to banks. The asset composition must be such that the Riksbank always has the preparedness and ability to perform its tasks.

At the same time, the independent status of the Riksbank places great demands on communications and the transparency of the Riksbank's activities so that these can be examined and evaluated by the general public and the Riksdag. The Riksbank attaches great importance to being open and clear about its activities. A wide range of external parties must be able to understand what the Riksbank does and why. By being open and clear about what forms the basis for the monetary policy decisions, the Riksbank increases confidence in the inflation target. Openness also creates confidence in how the Riksbank assesses and manages the conditions on the financial markets. The Riksbank's explanations of its assessments also help market participants to form their own opinion of economic developments and the risks in the financial system.

The Riksbank's website publishes regular interest rate forecasts, press releases, speeches and articles, the minutes of the Executive Board and the General Council, and reports on the Riksbank's activities and analysis work.

## **A review of the Sveriges Riksbank Act**

On 23 November 2022, the Riksdag adopted a new Sveriges Riksbank Act (2022:1568), along with revisions to the Instrument of Government and the Riksdag Act. The amendments entered into force on 1 January 2023.

The new Sveriges Riksbank Act specifies the objectives, tasks and powers of the Riksbank's various areas of activity. Although the Act is new, the main tasks of the Riksbank remain fundamentally the same. The Riksbank shall maintain permanently low and stable inflation and contribute to a stable and efficient financial system. It makes clear that the Riksbank must take real economic considerations into account within the framework of monetary policy, meaning that the flexible inflation targeting policy is established by law.

In some areas, however, the Riksbank has been given increased responsibility. One major change is that the Riksbank's responsibility for contingency planning has been extended, primarily by requiring the Riksbank to ensure that the public can make payments during peacetime crisis situations and times of elevated preparedness. Another change is that the Riksbank has been given more extensive responsibility for cash management, in particular by requiring the Riksbank to operate five banknote depots from 2026. The Act also contains

new provisions on the Riksbank's financial independence. Furthermore, scrutiny of the Riksbank will be strengthened and it has been made clear that the Riksdag Committee on Finance will monitor and evaluate the Riksbank's entire operations.

The Riksbank has prepared for the new Act by analysing the changes that need to be made to its operations from the beginning of the year, preparing for these and making certain organisational changes. The Riksbank has also reviewed its policy documents and prepared changes to routines and processes.

## The Riksbank's vision and strategic priorities

The Riksbank's objectives and tasks are set out in the Sveriges Riksbank Act (1988:1385). In 2022, the work of the Riksbank was governed by its formal work plan, its Instructions, its strategic plan, its annual business plan and its internal regulations in the form of policies, rules and procedures.

In December 2018, the Executive Board decided upon a strategic plan for the years 2019–2022. As the strategic plan was still considered relevant for the next couple of years, the Executive Board decided in 2021 to extend the strategic plan by one year, until the end of 2023.

**Figure 2 The Riksbank's objectives 2019–2023**



The plan is based on three overall objectives and tasks for operations:

- price stability
- safe and efficient payments
- a stable financial system.

To be able to achieve the goals even when the conditions for work change, the Riksbank needs to be an inventive, highly prepared and responsive central bank.

The strategic plan contains five prioritised development areas on which the annual operational planning is based: A payment market for the future, Communication in new forms, Updated and agile analysis, Strengthened preparedness, and a Developmental workplace. Within each of these development areas, the Riksbank is modernising and developing its operations to keep contributing to a strong and secure economy in Sweden. The role of cash as a means of payment needs to be strengthened and its role in a digital world analysed. The tools of monetary policy need to be analysed. Crisis preparedness in general requires more and more attention and resources. New ways of working and communicating digitally are needed.

The Riksbank's targets for daily operations are monitored using indicators. Every four months, the Executive Board receives follow-up reports summarising the status of daily operations, development work, budget, and operational and financial risks. In conjunction with the follow-up, there will be a discussion of whether the results justify new measures or reprioritisation.

The strategic plan is an ambitious roadmap. Over the year, priorities were continually updated to meet the challenges posed by various changes in the world around us.

## Maintaining the value of money – price stability

*After many years of low and stable inflation, consumer prices rose rapidly in 2022. Inflation reached the highest levels in over 30 years. The rise was largely due to lingering production and transport problems following the pandemic and the war in Ukraine, and the ensuing energy crisis in Europe. Strong demand in both Sweden and abroad also contributed to the rise in inflation. Throughout the year, price increases gradually spread to many different categories of goods and services. This led to a reorientation of monetary policy to prevent inflation from taking hold in price and wage formation. The inflation target was tested on the upside for the first time since its introduction, and the Riksbank judged that the monetary policy being pursued would bring inflation back to target within a reasonable period of time.*

## Economic developments and monetary policy discussion in 2022

Economic activity was high for most of 2022, despite Russia's invasion of Ukraine increasing geopolitical and economic uncertainty and creating major problems in the European energy market. At the start of the year, GDP had recovered from the sharp fall at the start of the pandemic and global growth prospects remained bright. Demand was strong, contributing to rising employment and increasingly high resource utilisation. Inflation rose rapidly over the year, reaching historically high levels both in Sweden and the rest of the world. Consumer prices were able to rise so much not only because of supply disruptions abroad but also because strong demand enabled companies to pass on their costs to consumers. The combination of hefty international cost increases, high energy prices that gradually spread to other goods and services and a strong Swedish economy pushed CPIF inflation up to around 10 per cent by the end of the year (see Chart 2).

Over the year, the monetary policy discussion was completely dominated by the question of how to curb the high inflation and return it to 2 per cent within a reasonable period of time. Among the issues specifically discussed were the economic consequences of the war in Ukraine, the extent and drivers of the inflationary upsurge and the monetary policy transmission in an environment of high household indebtedness. In 2022, the policy rate was raised overall by 2.5 percentage points to 2.50 per cent (see Chart 8). At the same time, asset purchases were reduced so that the holding started to decrease (see Chart 9).

## **Inflation rose to the highest levels in over 30 years**

The beginning of 2022 was characterised by the strong recovery from the pandemic. Growth prospects were good, both in Sweden and abroad. Demand for labour was high and unemployment fell. Although inflation had risen in most parts of the world, much of the increase could be explained by rapidly rising energy prices and persistent high prices for important input goods and transportation due to disruptions in global production and supply chains (see Chart 1). There were, however, differences between countries. For example, in the United States and United Kingdom, core inflation had also risen to relatively high levels, while it was still close to 2 per cent in Sweden and the euro area (see Chart 2).

The **February Monetary Policy Report** noted that the world economy had largely recovered from the sharp fall in GDP in the beginning of the coronavirus pandemic and that global growth prospects were good. The Riksbank assessed that activity in the Swedish economy would continue to increase, albeit at a slower pace. The Swedish inflation could fully be explained by the rapid increases in electricity and fuel prices. However, prices were not expected to continue rising and there were no signs yet that price increases had found their way into other parts of the economy. Inflation was therefore expected to fall back. The assessment was that continued support from monetary policy would be needed for inflation to approach the target in the slightly longer term.

At the **monetary policy meeting in February**, the Executive Board therefore decided to leave the policy rate unchanged at zero per cent. The forecast suggested that the policy rate would be raised in the second half of 2024, slightly earlier than the Riksbank had estimated in November 2021 (see Chart 8).

The Executive Board also decided to purchase bonds for SEK 37 billion in the second quarter of 2022 to compensate for maturing securities. As before, the forecast was for holdings to remain roughly unchanged in 2022 and gradually decrease thereafter. Deputy Governors Anna Breman, Martin Flodén and Henry Ohlsson entered reservations against the decision on and forecast for asset purchases.

Economic sentiment turned downward when Russia launched its war of invasion against Ukraine at the end of February and growth prospects deteriorated. After the February meeting, it became clear that a major shift in monetary policy would be needed in April, overturning the February forecasts. The change was tangible and was communicated in various speeches by Executive Board members. During the spring and summer, energy and food prices increased further due to uncertainty and disruptions in gas exports from Russia to the EU and food exports from Ukraine. In the United States and United Kingdom, where underlying inflation had been rising for some time, central banks started tightening monetary policy earlier than in the euro area and Sweden (Chart 3).

In the **April Monetary Policy Report**, the Riksbank noted that the economic consequences of Russia's invasion of Ukraine had caused new disruptions in global value chains, exacerbated supply problems and increased uncertainty about the availability of several important commodities. Higher prices for energy and food further pushed inflation up in a situation where the rate of price increase was already high in many countries. Since the monetary policy decision in February, inflation, even excluding energy prices, had become significantly higher than expected and outcomes suggested that the upturn was now broad. At the same time, the Swedish economy remained strong. Both labour force participation and employment rate had risen to historically high levels and labour shortages were high.

At the **April monetary policy meeting**, the Executive Board therefore considered it necessary to shift monetary policy in a significantly less expansionary direction in order to prevent inflation from becoming entrenched in price and wage formation. The Executive Board decided to raise the policy rate from zero to 0.25 per cent. The forecast was for a gradual increase thereafter, to slightly below 2 per cent in three years' time. This represented a very large change from the February assessment (see Chart 8). The Executive Board also decided to reduce the pace of the Riksbank's asset purchases in the second half of 2022 in order to reduce holdings and that the Riksbank would stop buying treasury bills as of 28 April 2022 (see Chart 9).

During the spring, core inflation in Sweden also rose and there were clear indications that price increases were becoming more widespread in the economy. In the **June Monetary Policy Report**, the Riksbank noted that price increases in Sweden, as in the rest of the world, had now become more widespread. Prices for goods, food and services had risen considerably more than expected since the beginning of the year. Companies' costs rose rapidly and strong demand enabled them to pass on cost increases to consumer prices. Russia's invasion of Ukraine, which is causing enormous human suffering and displacing millions of people, also caused an energy crisis in Europe as gas exports from Russia to the EU fell. Energy prices therefore rose further. Even though growth prospects deteriorated and uncertainty increased, economic activity and labour markets were remarkably strong in many countries. In some countries, notably the United States and United Kingdom, there were signs that wage expectations and actual wage increases were starting to rise. Swedish companies met with strong demand. In the Riksbank's Business Survey, companies reported strong economic activity and planned new hiring at record levels. In Sweden, employment grew rapidly in the first quarter and unemployment fell sharply. Employment was expected to continue rising at a relatively rapid pace in the short term and unemployment was expected to decline somewhat further.

At the **June Monetary Policy Meeting**, the Executive Board noted that inflation was continuing to rise rapidly and that price increases were becoming more widespread in the economy. The Executive Board therefore decided to raise the policy rate from 0.25 to 0.75 per cent, in order to ensure that inflation

would return to target and to help prevent the high inflation from taking hold in price and wage formation (see Chart 8). The forecast for the policy rate was also revised upwards. The Executive Board also decided that, in the second half of the year, the Riksbank's asset holdings should shrink faster than was decided in April. In addition, it decided that, as of 1 September 2022, the Riksbank would only purchase corporate bonds issued by companies that report their annual direct and indirect emissions of greenhouse gases (scope 1 and scope 2) in accordance with the recommendations of the Task Force on Climate-related Financial Disclosures.

Over the summer and autumn of 2022, price increases became more widespread in the economy, with goods, food and service prices rising significantly more than expected. In the **September Monetary Policy Report**, the Riksbank noted that inflation had risen rapidly and was high both in Sweden and abroad, and that several factors linked to the pandemic and Russia's war in Ukraine contributed to this development. Not least electricity and gas prices rose to very high levels in Europe. Despite the fact that the large price increases meant lower purchasing power, Swedish households consumed at a rapid pace during the second quarter. This was probably due to a pent-up desire to consume and live more like previously after two years of pandemic and restrictions. This was reflected in strong GDP growth, which was thus mainly driven by household consumption, but also by business investment. Employment growth was also strong.

At the **September Monetary Policy Meeting**, the Executive Board assessed that monetary policy needed to be tightened further to bring inflation back to target. The Executive Board therefore decided to raise the policy rate by 1 percentage point to 1.75 per cent. The forecast for the policy rate suggested that it would continue to be raised over the next six months to around 2.5 per cent (see Chart 8). The Executive Board noted that inflation developments ahead remained difficult to assess and that monetary policy would be adjusted as necessary to ensure that inflation returned to target within a reasonable period of time. In addition, the Executive Board noted that rising prices and higher interest expenditure were being felt by households and companies, but that it would be even more painful for the Swedish economy if inflation were to remain at high levels. A larger rate hike was assessed to reduce the risk of high inflation in the longer term and thereby also the need for greater monetary tightening further ahead.

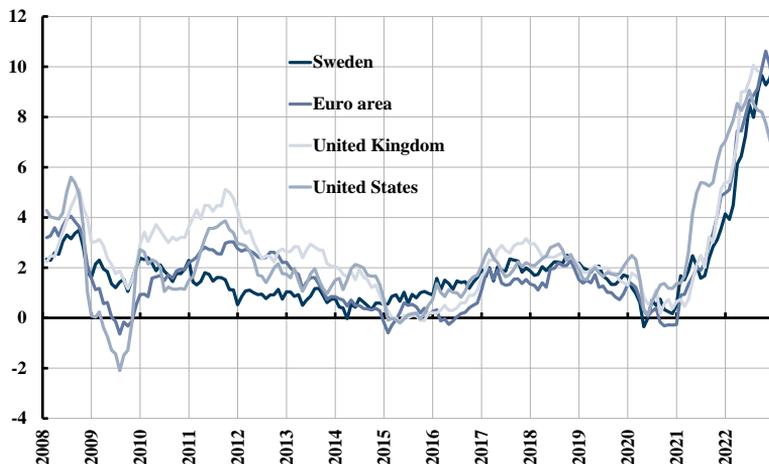
During the autumn, economic activity remained strong both in Sweden and in large parts of the rest of the world. However, forward-looking indicators suggested that economic activity was slowing down and that GDP would perform weakly in the near term. The **November Monetary Policy Report** noted that inflation remained high, despite the fact that electricity prices had fallen back thanks to mild weather and the fact that European gas stocks had been built up faster than expected. For Sweden, it was worrying that core inflation had continued to rise and was half a percentage point higher than the Riksbank had estimated in September, measured as the CPIF excluding energy. The

krona had also weakened and this contributed somewhat to the rise in inflation in Sweden. A weakening of the Swedish krona exchange rate tends to coincide with a reduction in risk appetite in the financial markets. Over the year, the turbulence on the financial markets and tightening monetary policy abroad, especially in the United States, contributed to an overall weakening of the krona by around 6 per cent in KIX-weighted terms (see Chart 4).

At the year's last **monetary policy meeting in November**, the Executive Board assessed that monetary policy needed to be tightened further to bring inflation back to target, compared with the assessment in September. The Executive Board therefore decided to raise the policy rate by 0.75 percentage points to 2.5 per cent. The forecast indicated that the policy rate would subsequently be raised further at the beginning of the next year to just under 3 per cent. According to the monetary policy decision in June, asset holdings would fall in line with maturities after the end of the year. This would also entail some tightening of monetary policy.

### Chart 1 Inflation in Sweden and abroad

*Annual percentage change*

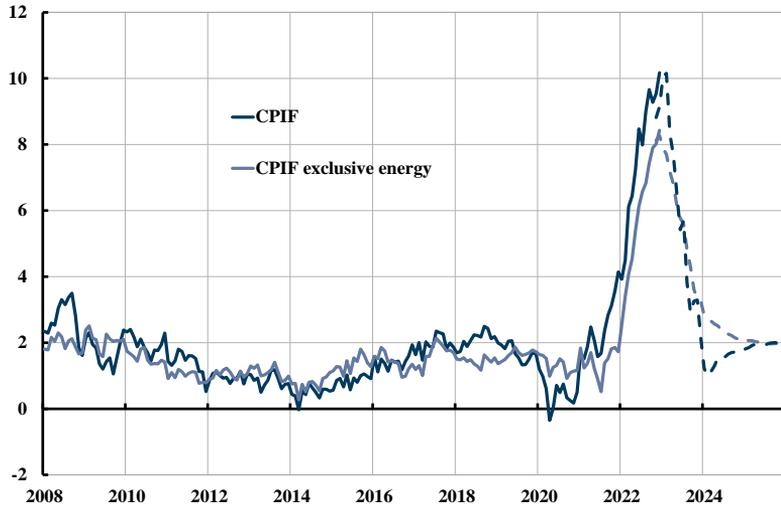


Note: Refers to the CPIF for Sweden, the HICP for the euro area and the CPI for the United States and United Kingdom.

Sources: Eurostat, Statistics Sweden, UK Office for National Statistics and US Bureau of Labor Statistics.

### Chart 2 CPIF and CPIF excluding energy

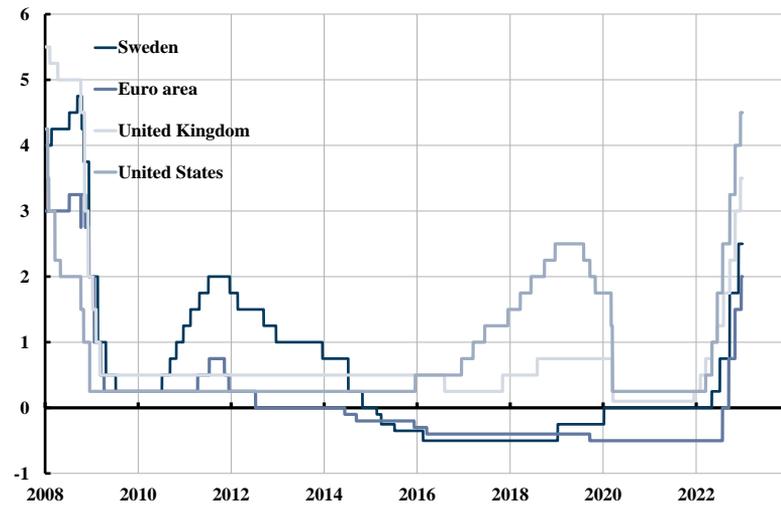
Per cent



Note: The CPIF is the consumer price index (CPI) with a fixed interest rate. The broken lines represent the Riksbank's forecast from November 2022.  
Sources: Statistics Sweden and the Riksbank.

### Chart 3 Policy rates in Sweden and abroad

Per cent



Sources: National sources and the Riksbank.

**Chart 4 GDP growth in Sweden and abroad**

*Annual percentage change*

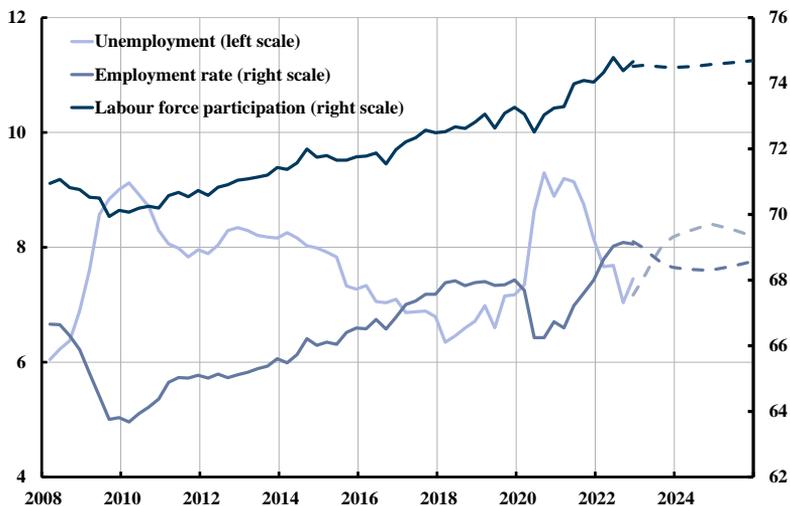


Note: Seasonally adjusted data. GDP abroad is weighted using the weights in the krona index (KIX). The broken lines represent the Riksbank's forecast from November 2022.

Sources: National sources, Statistics Sweden and the Riksbank.

**Chart 5 Labour force participation, the employment rate and unemployment**

*Per cent*



Note: Seasonally adjusted data. This data refers to persons aged 15–74. The labour force participation rate and employment rate are measured as a percentage of the population. Unemployment is measured as a percentage of the labour force. The broken lines represent the Riksbank's forecast from November 2022.

Sources: Statistics Sweden and the Riksbank.

**Chart 6 Nominal exchange rate of the Swedish krona***Index, 18 November 1992 = 100*

Note: The KIX (krona index) is a weighted average of the currencies in 32 countries that are important for Sweden's international trade. A higher value indicates a weaker exchange rate.

Sources: National sources and the Riksbank.

## Monetary policy decisions in 2022

The Executive Board of the Riksbank held five monetary policy meetings in 2022. In conjunction with these, a Monetary Policy Report was published containing forecasts for the policy rate, inflation and other economic variables.

**9 February.** The Executive Board decided to keep the policy rate unchanged at zero per cent and that this decision should apply with effect from Wednesday 16 February 2022. In addition, it was decided that, between 1 April and 30 June 2022, the Riksbank would

- a) purchase Swedish nominal and inflation-linked government bonds and the Swedish state's green bonds to a total nominal amount of SEK 12 billion
- b) purchase Swedish treasury bills to such a nominal total amount that the Riksbank's holdings of treasury bills could be maintained at a level around SEK 20 billion
- c) purchase bonds issued by Swedish municipalities and regions and by Kommuninvest i Sverige AB for a nominal amount of SEK 12 billion, which could also include purchases of green municipal bonds
- d) purchase covered bonds issued in Swedish krona by Swedish credit institutions to a nominal amount of SEK 12 billion
- e) purchase bonds issued in Swedish kronor by Swedish non-financial corporations for a nominal amount of SEK 1 billion, which could also include the purchase of green bonds.

Deputy Governors Anna Breman, Martin Flodén and Henry Ohlsson entered reservations against the decision on and forecast for asset purchases. They advocated purchases of government and municipal bonds as well as covered bonds in the second quarter of 2022 for SEK 9 billion per bond type and a gradual tapering of purchases during the second half of the year. They also advocated that the Riksbank's purchases of treasury bills should cease after the first quarter of 2022 and that purchases of corporate bonds should decrease to SEK 500 million in the second quarter and then be either further tapered or discontinued completely. In their view, such a tapering of purchases would be consistent with continued expansionary financial conditions, strong development of the real economy and attainment of the inflation target.

**27 April.** The Executive Board decided to increase the policy rate to 0.25 per cent and that this decision would apply from Wednesday 4 May 2022. In addition, the Executive Board decided to reduce the pace of the asset purchases during the second half of the year, so that the holdings would begin to decline. In detail, the decision meant that, between 1 July and 31 December 2022, the Riksbank would

- a) purchase Swedish government bonds for a nominal amount of SEK 12 billion, which could also include the purchase of the Swedish State's green bonds,
- b) purchase bonds issued by Swedish municipalities and regions and by Kommuninvest i Sverige AB for a nominal amount of SEK 12 billion, which could also include purchases of green municipal bonds,
- c) purchase covered bonds issued in Swedish krona by Swedish credit institutions to a nominal amount of SEK 12 billion,
- d) purchase bonds issued in Swedish kronor by Swedish non-financial corporations for a nominal amount of SEK 1 billion, which could also include the purchase of green bonds.

In addition, it decided that the Riksbank should cease buying Swedish treasury bills with effect from 28 April 2022.

**29 June.** The Executive Board decided to increase the policy rate to 0.75 per cent and that this decision would apply from Wednesday 6 July 2022. In addition, it decided that the Riksbank, within the framework of the purchase of securities for monetary policy purposes, between 1 July and 31 December 2022, would

- a) purchase Swedish government bonds for a nominal amount of SEK 6 billion, which could also include the purchase of the Swedish State's green bonds
- b) purchase bonds issued by Swedish municipalities and regions and by Kommuninvest i Sverige AB for a nominal amount of SEK 6 billion, which could also include purchases of green municipal bonds
- c) purchase covered bonds issued in Swedish krona by Swedish credit institutions to a nominal amount of SEK 6 billion

- d) purchase bonds issued in Swedish kronor by Swedish non-financial corporations for a nominal amount of SEK 500 billion, which could also include the purchase of green bonds.

Finally, it decided that, as of 1 September 2022, the Riksbank would only purchase corporate bonds issued by companies that report their annual direct and indirect emissions of greenhouse gases (scope 1 and scope 2) in accordance with the recommendations of the Task Force on Climate-related Financial Disclosures.

**19 September.** The Executive Board decided to increase the policy rate by 1 percentage point to 1.75 per cent and that this decision would apply from Wednesday 21 September 2022.

**23 November.** The Executive Board decided to raise the policy rate by 0.75 percentage points to 2.5 per cent and that this decision would apply from 30 November 2022.

## Target achievement

The Riksbank's monetary policy is evaluated by the Riksdag Committee on Finance. For this evaluation, the Riksbank compiles the report Account of Monetary Policy, which is published in March of the year following the one evaluated. Among other things, the report describes how inflation and the real economy have developed over the past year. The report for 2022 will be submitted to the Riksdag in March 2023.

The goal of the Riksbank's monetary policy is to stabilise inflation around the inflation target. In addition, without neglecting the objective of price stability, the Riksbank shall support the objectives of general economic policy: achieving sustainable growth and high employment.

A new Sveriges Riksbank Act entered into force on 1 January 2023. It makes it clear that the Riksbank must take real economic considerations into account within the framework of monetary policy. According to the new Act, the overriding objective of the Riksbank is to maintain permanently low and stable inflation (the price stability target). Without neglecting the price stability target, the Riksbank shall contribute to a balanced development of production and employment (consideration for the real economy).

An important precondition for the Riksbank to be able to take factors other than inflation into account is that confidence in the inflation target is maintained. However, inflation and economic activity are constantly exposed to unexpected shocks, which may take time to counteract. This means that deviations from the inflation target for individual years are the rule rather than the exception. In 2022, however, the deviation from the inflation target was exceptionally large due to large unexpected global disturbances to the economy combined with strong demand that allowed companies to pass on their costs to consumer prices.

## Inflation

In 2022, the inflation target was tested on the upside for the first time since it was first applied in 1995. The contrast with developments in previous years was stark. In 2020, average inflation (CPIF) was very low due to the pandemic and falling energy prices. The year 2021 was then marked by a strong economic recovery as pandemic-related restrictions were lifted and demand increased. Average inflation rose to 2.4 per cent, mainly due to a surge in energy prices (see Table 1). In 2022, inflation continued to rise rapidly, with price increases spreading to broad groups of goods and services. Prices for goods, food and services rose significantly more than expected, leading to continual upward revisions of the inflation forecast (see Chart 7). On average, CPIF inflation amounted to 7.7 per cent in 2022. Adjusted for energy prices, that is to say measured as the CPIF excluding energy, average inflation was, at 5.9 per cent, not as high but was nevertheless significantly above the inflation target.

**Table 1 Comparison of different measures of inflation**

*Annual percentage change, annual average*

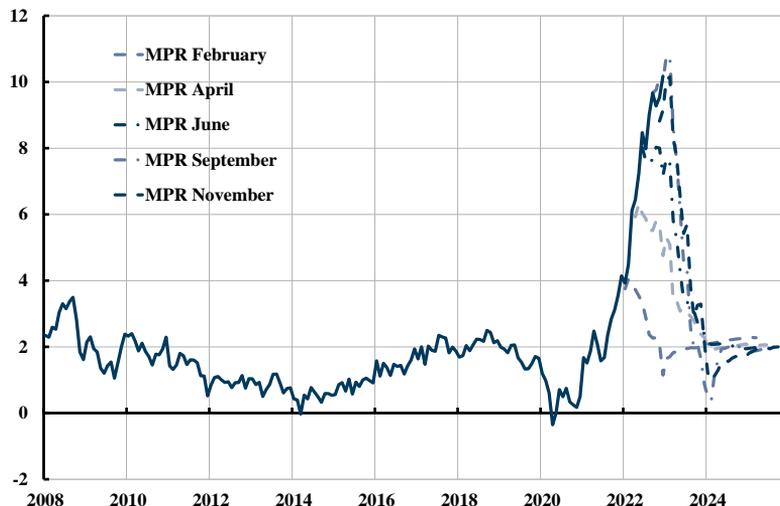
	2020	2021	2022
CPIF	0.5	2.4	7.7
CPIF excl. energy	1.3	1.4	5.9

Note: The CPIF is the consumer price index (CPI) with a fixed interest rate.

Source: Statistics Sweden.

**Chart 7 CPIF and forecasts 2022**

*Per cent*



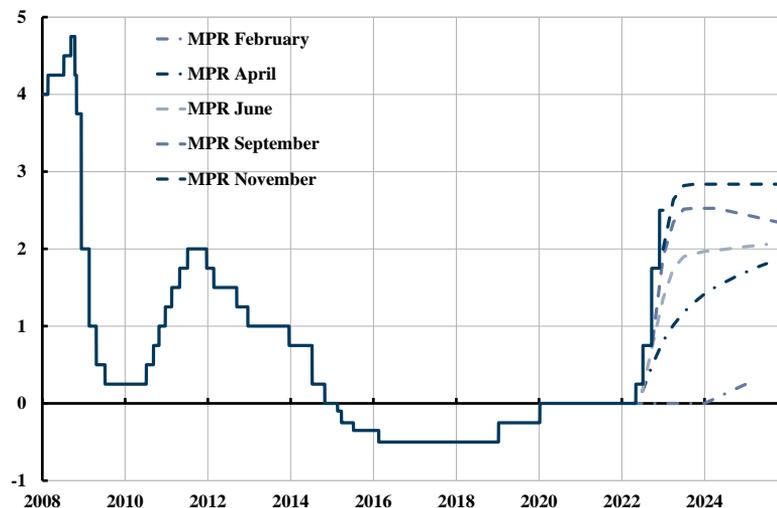
Note: The unbroken line represents outcome (monthly data) and the broken lines represent the Riksbank's forecasts.

Source: Statistics Sweden and the Riksbank.

The Riksbank successively reoriented monetary policy in a tighter direction to ensure that inflation returned to target and to counteract the high inflation taking hold in price and wage formation. The policy rate was raised faster than expected and asset holdings started to decrease (see Charts 8 and 9). Over the year, the policy rate was raised overall by 2.5 percentage points to 2.50 per cent. Monetary policy works with some lag, but the Riksbank deemed that the monetary policy pursued would return inflation to the target within a reasonable time. An important condition for this was that long-term inflation expectations were firmly anchored around the inflation target. According to surveys, long-term expectations in Sweden rose slightly in 2022 but stabilised at the end of the year at just above 2 per cent (see Chart 10). However, long-term inflation expectations according to more volatile market-based measures fell back rapidly in the second half of the year. Short-term expectations are typically more influenced by recent inflation outcomes. Consequently, short-term expectations also rose markedly in 2022.

**Chart 8 Policy rate and policy rate forecasts 2022**

*Per cent*

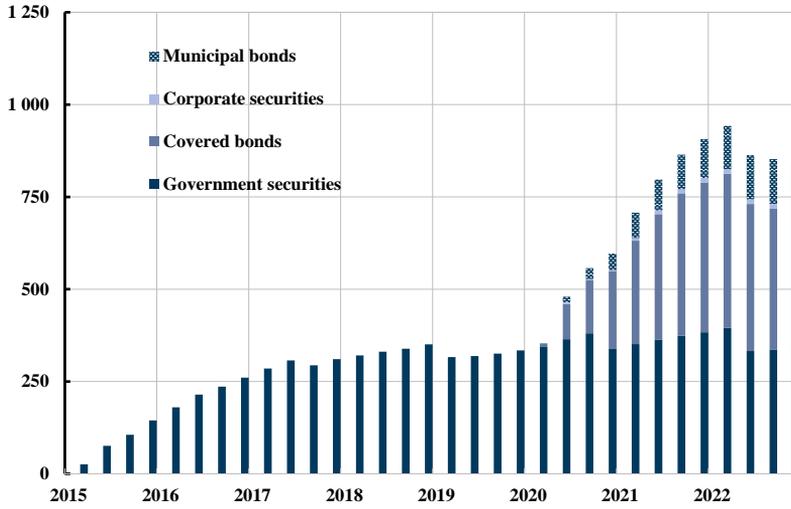


Note: The unbroken line represents outcome (daily data) and the broken lines represent the Riksbank's forecasts (quarterly averages).

Source: The Riksbank.

**Chart 9 The Riksbank’s asset holdings**

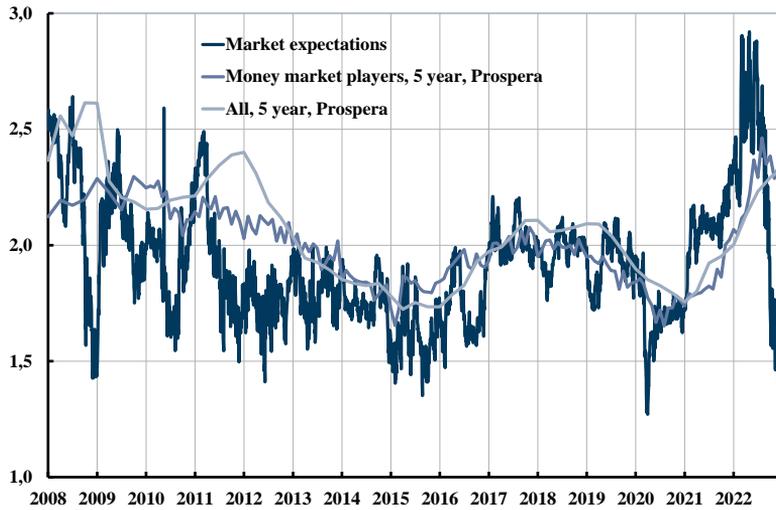
SEK billion



Note: Refers to the Riksbank’s SEK-denominated securities.  
Source: The Riksbank.

**Chart 10 long-term inflation expectations**

Per cent



Note: The market-based measure of inflation expectations refers to a 5-year period starting in 5 years’ time, calculated on the basis of bond yields. Both market expectations and expectations from Prospera refer to the CPI.  
Sources: Kantar Sifo Prospera and the Riksbank.

## Economic activity

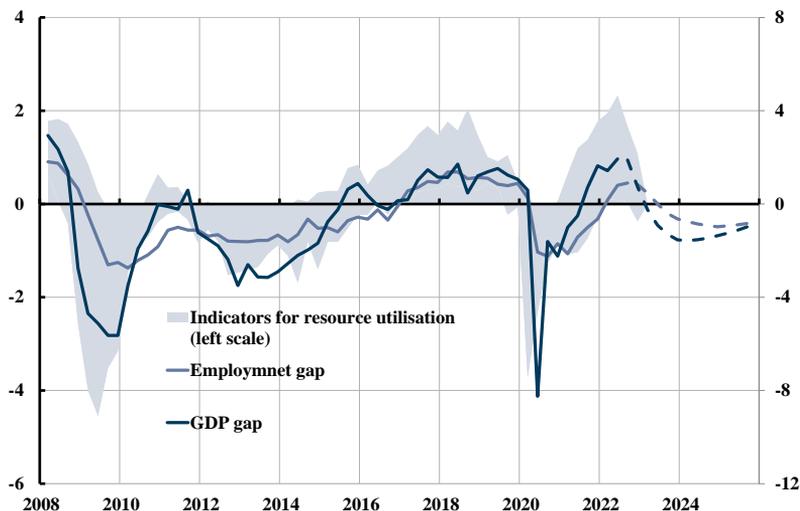
By early 2022, GDP had recovered from the sharp fall at the start of the pandemic and growth prospects were good. Demand in the Swedish economy was strong, contributing to a rise in employment and a fall in unemployment over the year. The employment rate, which is to say the number of employed people relative to the working age population, rose to a record high.

Flexible inflation targeting implies that the Riksbank, in addition to stabilising inflation at 2 per cent, also strives to support the objectives of general economic policy. In practice, this means trying to stabilise economic activity around long-term sustainable levels, in other words stabilising resource utilisation. However, there is no single measure that can perfectly capture resource utilisation in the economy. The Riksbank therefore makes an assessment on the basis of several different measures. The most important of these are the GDP gap and the employment gap, which show the deviations of GDP and employment from their respective trends.

According to these measures, economic activity was higher than normal for most of 2022 (see Chart 11). However, activity slowed towards the end of the year. One reason for this was that central banks around the world tightened monetary policy to cool down the economy and thus bring down the excessive inflation.

**Chart 11 Different measures of resource utilisation**

*Per cent*



Note: The field shows the highest and lowest outcomes for standardised indicators of resource utilisation. Included series are: Inverted unemployment according to LFS, and according to the Swedish Public Employment Service; Capacity utilisation in the industrial/manufacturing sector according to Statistics Sweden/the Economic Tendency Survey; Economic Tendency Survey series for the business sector on shortages, profitability assessment and demand. The gaps refer to the deviation in GDP and employment from the Riksbank's projected trends. The solid line refers to outcome and the broken line refers to the Riksbank's forecast in November 2022.

Sources: The National Institute of Economic Research, Statistics Sweden and the Riksbank.

## Monetary policy development work

In 2022, the focus of the Riksbank's monetary policy development work was on carefully investigating the drivers and spreading of the inflationary upswing, but development work was also carried out in many other areas. All monetary policy-related studies are summarised in Table 2. Numerous analyses were also made of the economic effects of the war and the escalating energy crisis in Europe. In addition, articles and in-depth studies were published highlighting the effects of monetary policy, including analyses of the sensitivity of households to interest rates in an environment with high levels of indebtedness. Climate change also places new demands on monetary policy that are expected to bring about structural changes that may have both short- and long-term effects on inflation, output and employment. The way in which monetary policy forecasting and analysis need to take account of climate change is therefore being analysed on an ongoing basis.

**Table 2 Monetary policy-related studies conducted in 2022**

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### Articles in Monetary Policy Reports

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High energy prices – how will other consumer prices be affected?, February  
 Economic consequences of the war in Ukraine, April  
 Many indications that inflation will be high this year and next year, April  
 Price rises are spreading in the economy, June  
 Labour shortages and higher wage pressures abroad, June  
 The economic-policy framework facilitates a return to the target, September  
 Higher sensitivity to interest rates in the Swedish economy, September  
 What indicates that inflation will fall back next year?, September  
 What effect can measures to dampen the electricity price have on inflation?, September  
 Why has the krona weakened this year?, November  
 Alternative scenarios for inflation and monetary policy, November

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### Economic Commentaries

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J. Ewertz, M. Klein and O. Tysklind, "Price changes in Sweden – insights from five million observations", no. 1  
 C. Flodberg, I. Häkkinen Skans and P. Wasén, "Long-term unemployment in the wake of the pandemic", no. 2,  
 M. Sjödin, "The path to a monetary policy decision", no. 3  
 M. Apel, "How does the climate transition affect inflation?", no. 5  
 D. Kjellberg and M. Åhl, "The Riksbank's financial result and capital are affected by higher interest rates", no. 8  
 P. Stockhammar, I. Strid and T. Tornese "How has the impact of the policy rate on consumption changed when the debt-to-income ratio has risen?", no. 9  
 J. Almenberg, M. Ankarhem, K. Blom and T. Jansson, "House prices and interest rate expectations", no. 10

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**Articles in Monetary Policy Reports**


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R. Emanuelsson, E. O. Andersson and T. Vasi, “The Riksbank’s purchases of covered bonds and the impact on mortgage rates”, no. 12

S. Laséen, J. Lindé and U. Söderström, “How much is inflation affected by monetary policy?”, no. 13

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**Sveriges Riksbank Economic Review**


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S. Ingves, “Sweden’s role in international economic cooperation – yesterday, today, tomorrow”, no. 1

A. Nordström, “Understanding the foreign exchange market”, no. 1

M. Apel and H. Ohlsson, “Monetary policy and inflation in times of war”, no. 2

M. Beechey Österholm, “The Riksbank’s bond purchases: who sold bonds to the Riksbank?”, no. 2

F. N. G. Andersson, E. Hjalmarsson and P. Österholm, “Inflation illiteracy – a micro-data analysis”, no. 2

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**Staff Memos**


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P. Gustafsson, “An event study of the effects of asset purchases on financial prices during the pandemic”, March

J. Johansson, M. Löf, P. Stockhammar and I. Strid, “What can explain the Riksbank’s forecasting error for inflation?”, June

K. Doherty, M. Eriksson and D. Hansson, “Välfungerande kreditförsörjning för flertalet företag under pandemin. En analys av mikrodata” [Well-functioning credit supply for most firms during the pandemic – An analysis of microdata], July

S. Laséen, “Hushållens skuldsättning och penningpolitik: ett regionalt perspektiv” [Household indebtedness and monetary policy: a regional perspective], September

C. Flodberg, M. Hesselman and M. Löf, “Can inflation forecasts be improved by using alternative measures of labour market slack?”, November

A.M. Ceh, “How much is priced in? Market expectations of monetary policy lift”, December

A. Nordström and A. Vredin, “Does central bank equity matter for monetary policy?”, December

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**Riksbank Studies**


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“Evaluation of the Riksbank’s forecasts”, no. 1

B. Andersson, M. Beechey and P. Gustafsson, “Riksbankens köp av värdepapper 2015–2022” [The Riksbank’s asset purchases 2015–2022], no. 2

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**Working Paper series**


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R. Billi and C. Walsh, “Seemingly Irresponsible but Welfare Improving Fiscal Policy at the Lower Bound”, no. 410

R. Billi, “Inflation Targeting or Fiscal Activism?”, no. 412

M. Carlsson, A. Clymo and K-E Joslin, “Dispersion over the Business Cycle: Passthrough, Productivity, and Demand”, no. 414

T. Broer, J. Kramer and K. Mitman, “The Curious Incidence of Monetary Policy Across the Income Distribution”, no. 416

C. Bertsch, I. Hull, R.L. Lumsdaine and X. Zhang, “Central Bank Mandates and Monetary Policy Stances: through the Lens of Federal Reserve Speeches”, no. 417

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Source: The Riksbank.

## Asset management

*In 2022, market rates rose rapidly, contributing to the Riksbank making a substantial loss on its holdings of Swedish bonds. The rise in interest rates also had a negative impact on the value of the bond holdings in the foreign currency reserves but, as the Swedish krona weakened, the overall return on the foreign currency reserves was positive. The weakening of the krona also helped to increase the value of the gold reserve. Overall for the year, the Riksbank's total return, which includes both realised and unrealised results, amounted to SEK –52.9 billion. The Riksbank's reported result amounted to SEK –80.7 billion.*

*Although the negative result will have an impact on equity, the Riksbank's ability to carry out its tasks during the year will not be affected. In the short term, the Riksbank can have little or negative equity and still function much as usual. In the longer term, however, the Riksbank's equity will need to increase in order for the Riksbank to have a satisfactory degree of financial independence.*

## Financial assets and liabilities

The Riksbank manages financial assets to ensure it can fulfil its statutory objectives and perform its tasks. Most of the assets consist of securities in Swedish kronor that the Riksbank has purchased for monetary policy purposes. In February 2015, the Riksbank began buying Swedish government bonds to counteract the then too low inflation. After the outbreak of the coronavirus pandemic, the Riksbank also bought Swedish treasury bills, covered bonds, municipal bonds and corporate securities to support the economy and counteract problems on the financial markets.

Another large part of these assets is made up of the gold and foreign currency reserves. These ensure that the Riksbank, if necessary, can supply temporary liquidity support in foreign currency and intervene on the foreign exchange market. The foreign currency reserves consist of debt securities in foreign currencies with high liquidity and low credit risk, primarily government bonds.

The Riksbank's assets also include receivables from the IMF, as the Riksbank is the authority in Sweden that is responsible for the obligations ensuing from Sweden's membership of the Fund. For many years, the Riksbank has stood prepared to use its gold and foreign currency reserves to lend money to the IMF, which, in turn, has lent money to countries with balance of payment problems, for example. From 1 January 2023, as a result of the new Sveriges Riksbank Act, the Riksbank will fund part of its lending to the IMF through

borrowing from the Swedish National Debt Office. The Riksbank will continue to fund Sweden's allocation of Special Drawing Rights with funds from the foreign currency reserves.

The Riksbank's financial liabilities mostly consist of deposits in Swedish kronor, which is to say the banking system's liquidity surplus in Swedish kronor in relation to the Riksbank. When the Riksbank adds liquidity to the banking system in Swedish kronor, a debt to the banks arises in the form of a liquidity surplus. The banks place the surplus as deposits with the Riksbank. The banking system has had a liquidity surplus in relation to the Riksbank since 2008.

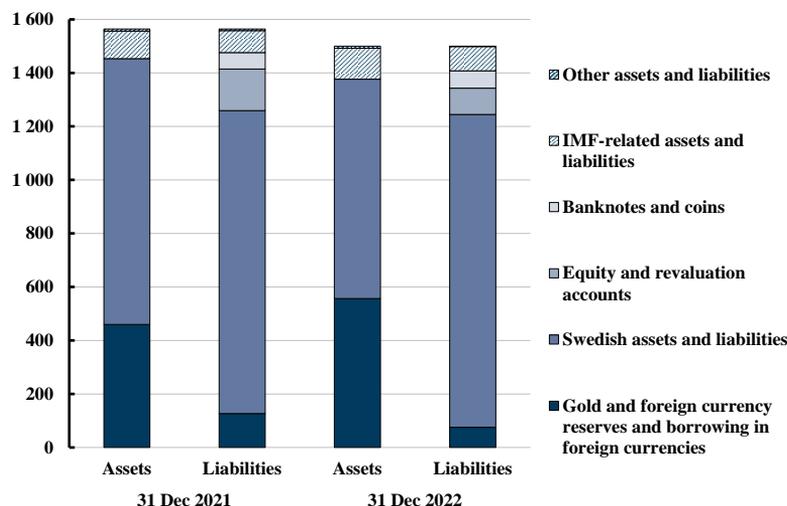
The Riksbank also has financial liabilities in foreign currency that it has borrowed via the Swedish National Debt Office in order to fund the foreign currency reserves. At the beginning of 2021, the Executive Board decided to replace the loans from the National Debt Office with deposits in Swedish kronor from banks. This meant that, during the period February 2021–December 2022, the Riksbank bought foreign currency on the foreign exchange market and paid for the purchases with Swedish kronor. The Riksbank repays the currency loans through the National Debt Office as they mature. The final loan matures in April 2023.

Over 2022, the balance sheet total decreased by SEK 64.3 billion to SEK 1,500.0 billion, primarily because the Riksbank reduced its holdings of assets in the form of securities denominated in Swedish kronor (see Chart 12). The items equity (including financial result for the year) and revaluation accounts decreased by SEK 56.8 billion to SEK 98.4 billion, mainly because the value of assets was negatively affected by the rise in Swedish and foreign market interest rates during the year. At the end of the year, the value of the Riksbank's financial assets amounted to SEK 1,498.6 billion (see Table 3).

The total return on the Riksbank's financial assets and liabilities amounted to SEK –57.0 billion.

**Chart 12 The Riksbank's balance sheet at the end of 2021 and 2022**

SEK billion



Source: The Riksbank.

**Table 3 The Riksbank's financial assets and liabilities at the end of 2022**

SEK million

	Assets	Liabilities	Return		
			Interest	Currency	Total
<b>Gold and foreign currency reserves</b>	<b>558,824</b>	–	–33,784	57,223	<b>23,439</b>
Gold reserve	76,488	–	–	9,808	9,808
Foreign currency reserves	482,336	–	–33,784	47,415	13,631
<b>Foreign currency loans</b>	–	<b>76,140</b>	–989	–13,122	<b>–14,111</b>
<b>IMF</b>	<b>116,053</b>	<b>90,833</b>	<b>435</b>	<b>2,398</b>	<b>2,833</b>
<b>Monetary policy instruments</b>	<b>823,744</b>	<b>1,158,141</b>	–69,130	–	<b>–69,130</b>
Securities in SEK	823,744	–	–60,975	–	–60,975
Deposits and lending	–	1,158,141	–8,155	–	–8,155
<b>Total</b>	<b>1,498,621</b>	<b>1,325,114</b>	<b>–103,468</b>	<b>46,499</b>	<b>–56,969</b>

Note: The table shows financial assets and liabilities in the Riksbank's balance sheet. The calculation of the return is based on both assets and liabilities and is reported in the table for the Riksbank's net receivables.

Source: The Riksbank.

## Monetary policy instruments

During the year, the Executive Board decided to reduce the pace of the Riksbank's purchases of Swedish securities (see the section Maintaining the value of money – price stability). This contributed to a reduction in the Riksbank's assets in Swedish kronor over the year. At the end of the year, the total market

value of the Riksbank's monetary policy assets and liabilities amounted to SEK 823.7 billion and SEK 1,158.1 billion respectively (see Table 4).

**Table 4 The Riksbank's monetary policy instruments at the end of 2022**

*SEK million*

	<b>Assets</b>	<b>Liabilities</b>	<b>Return</b>
<b>Securities in Swedish kronor</b>	<b>823,744</b>	–	<b>–60,975</b>
Government bonds	341,827	–	–34,131
Treasury bills	2,490	–	–52
Covered bonds	349,673	–	–20,641
Municipal bonds	119,129	–	–5,961
Corporate bonds	10,625	–	–190
<b>Deposits and lending for monetary policy purposes</b>	–	<b>1,158,141</b>	<b>–8,155</b>
Loans for onward lending to companies	–	–	3
Standing facilities	–	574,293	–3,772
Riksbank certificates	–	583,848	–4,386
<b>Total</b>	<b>823,744</b>	<b>1,158,141</b>	<b>–69,130</b>

Note: The table shows monetary policy assets and liabilities in the Riksbank's balance sheet. The calculation of the return is based on both assets and liabilities and is reported in the table for the Riksbank's net receivables.

Source: The Riksbank.

### **Decreased asset holdings in Swedish kronor**

Since February 2015, the Riksbank has used purchases of Swedish government bonds as a tool to make monetary policy more expansionary. To mitigate the economic effects of the coronavirus pandemic, the Riksbank increased its purchases of Swedish securities. Following 31 December 2021, when the Riksbank's programme for asset purchases expired, purchases during the first half of 2022 were aimed at keeping the holdings of Swedish securities roughly unchanged. During the second half of the year, the Riksbank gradually reduced the pace of purchases so that holdings began to decrease. Holdings decreased because the total maturities of the Riksbank's holdings were greater than the purchases. Overall for the year, holdings of Swedish securities decreased by a nominal value of SEK 82.2 billion (see Table 5).

**Table 5 The Riksbank's holdings of Swedish securities at the end of 2021 and 2022 respectively and changes in holdings during 2022**

SEK million

	<b>Holdings 31 Dec 2021</b>	<b>Purchases 2022</b>	<b>Maturities 2022</b>	<b>Holdings 31 Dec 2022</b>
Government bonds	383,434	30,000	75,069	338,365
Treasury bills	19,950	16,650	34,100	2,500
Covered bonds	405,600	28,800	66,900	367,500
Municipal bonds	105,375	28,400	8,621	125,154
Corporate bonds	12,184	2,500	3,821	10,863
<b>Total</b>	<b>926,543</b>	<b>106,350</b>	<b>188,511</b>	<b>844,382</b>

Note: The table shows the nominal value of purchases, maturities and holdings of Swedish securities.

The figure for maturities in 2022 also includes a bond sale with a nominal value of SEK 22 million.

Source: The Riksbank.

### *The largest holding consisted of Swedish covered bonds*

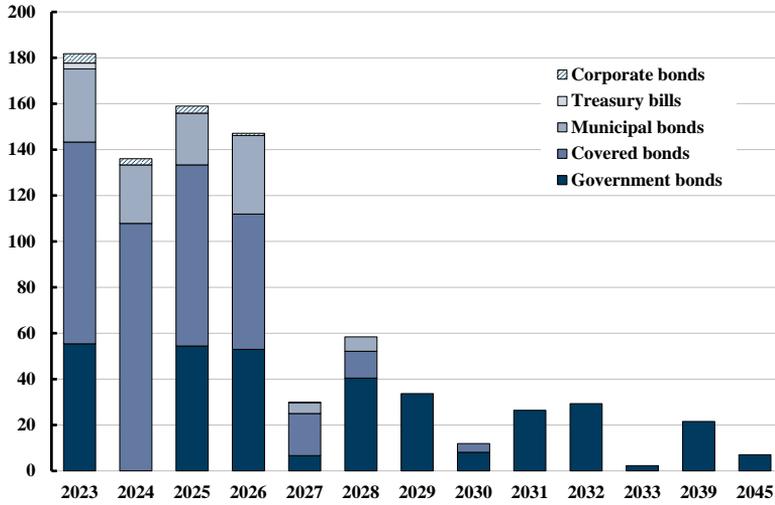
The total market value of the Riksbank's holdings of Swedish securities amounted to SEK 823.7 billion at the end of the year. At that point, the average remaining maturity of the securities was 3.7 years, with remaining maturities ranging from 18 days to almost 23 years (see Chart 13). As market interest rates were rising rapidly, the Riksbank made a substantial loss on the securities. Over the year, the return on the securities amounted to SEK –61.0 billion or –6.1 per cent.

At the end of the year, the largest part of the securities holdings consisted of covered bonds issued by seven different institutions. Another large part of the holdings consisted of nominal and inflation-linked government bonds, with 86.7 per cent of the nominal amount being made up of nominal government bonds. The holding of Swedish government securities also consisted of a treasury bill.

The municipal bonds held by the Riksbank at the end of the year were issued by 20 different Swedish municipalities and regions and by Kommuninvest i Sverige AB. 91.2 per cent of the nominal value of the holding of municipal bonds was made up of bonds issued by Kommuninvest i Sverige AB. The Riksbank also held corporate bonds issued by 52 different Swedish non-financial corporations. Most of this holding, 52.3 per cent, consisted of bonds issued by Swedish property companies (see Chart 14).

**Chart 13 The Riksbank’s holdings of Swedish securities at the end of 2022 and maturity date**

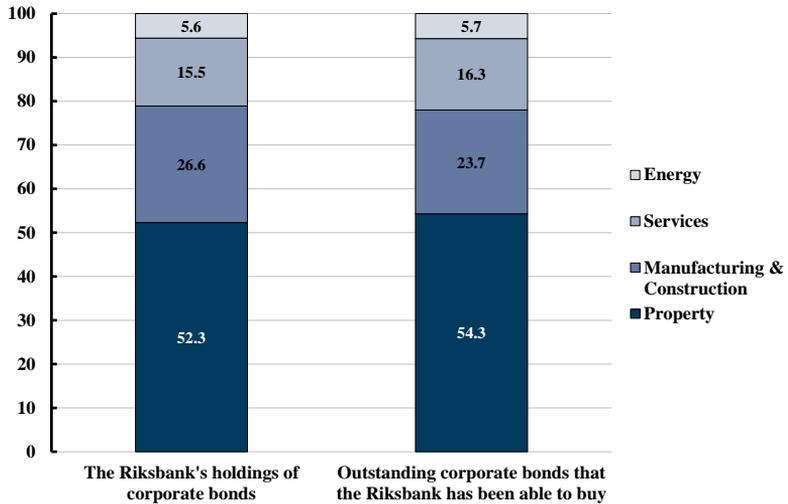
SEK billion



Note: The chart shows the nominal value of the Riksbank’s holdings of Swedish securities, together with when the various types of securities mature.  
 Source: The Riksbank.

**Chart 14 The Riksbank’s holdings of corporate bonds at the end of 2022**

Per cent



Note: The chart shows a sector-divided comparison of the Riksbank’s holdings of corporate bonds and corporate bonds that the Riksbank has been able to buy since purchases started in September 2020 and which were still outstanding at the end of 2022.  
 Source: The Riksbank.

### *Increased focus on sustainability in corporate bond purchases*

Just like other central banks, the Riksbank has an obligation to manage financial risks arising from its monetary policy measures. As sustainability and climate risks can entail financial risks, the Riksbank applied so-called norm-based negative screening to purchases of corporate bonds. This meant that the Riksbank only bought bonds issued by companies complying with international standards and norms for sustainability. In 2022, the Riksbank introduced an additional sustainability-related criterion for purchases. According to this, purchases would only include bonds issued by companies that reported their annual direct and indirect emissions of greenhouse gases (scope 1 and scope 2) in accordance with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).

Since 2021, the Riksbank also calculates and publishes the carbon footprint of its holdings of corporate bonds. As at 31 December 2022, the carbon footprint of the corporate bond portfolio amounted to 99 tonnes of carbon dioxide equivalents per million dollars of income. By reporting this, the Riksbank wishes to help promote transparency concerning climate-related information. The method used to calculate the carbon footprint is described in more detail in Economic Commentary no. 4 2021.

### **The final extraordinary loans were repaid during the year**

In 2020, at the start of the coronavirus pandemic, the Riksbank introduced various lending programmes to ensure the availability of liquidity in the financial system. All lending programmes were concluded in 2021 and, in 2022, the last loans granted by the Riksbank under the programmes matured and were repaid. The Riksbank's interest income from the lending amounted to SEK 3 million during the year.

### **Deposits increased slightly**

The Swedish banking system has a liquidity surplus against the Riksbank, which was mainly created by the purchase by the Riksbank of Swedish securities from the banks. In recent years, the liquidity surplus also increased when the Riksbank purchased foreign currency in 2021 and 2022 to transition to self-financed foreign currency reserves and when the Riksbank transferred dividends to the Treasury. This was because both the currency purchases and the transfers were financed by the Riksbank providing liquidity to the banking system in Swedish kronor.

In the same way as the Riksbank's purchases of Swedish securities increase the liquidity surplus in the banking system, the surplus decreases when the Riksbank's holdings of Swedish securities mature and are not reinvested. Such maturities made a negative contribution to the liquidity surplus in 2022, while purchases of foreign currency made a positive contribution, which, taken together, increased the liquidity surplus slightly.

Banks that are monetary policy counterparties to the Riksbank may deposit liquidity surpluses with the Riksbank via monetary policy instruments in the form of standing deposit facilities overnight and Riksbank Certificates with a maturity of one week. At the end of the year, total deposits from the banking system amounted to SEK 1,158.1 billion, which is an increase of SEK 35.1 billion from the previous year. Deposits constitute an interest-bearing liability for the Riksbank and, as a result of higher policy rates and positive deposit rates, the Riksbank's interest expense for total deposits amounted to SEK 8.2 billion.

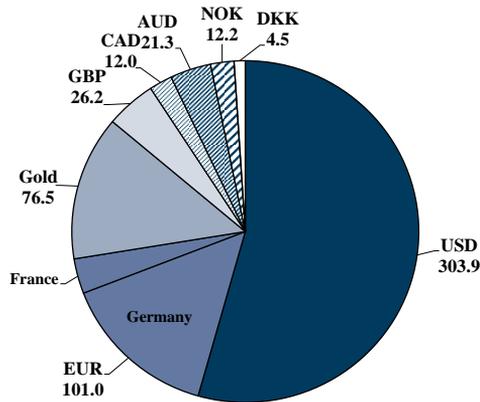
## Gold and foreign currency reserves

The gold and foreign currency reserves shall be managed so that the Riksbank is always ready to fulfil its commitments. The reserves must therefore be composed so that they can be used to provide temporary liquidity support to banks active in Sweden, to fulfil Sweden's part in the IMF's international lending and to intervene on the foreign exchange market. In addition, the reserves are designed to diversify the Riksbank's financial risks and provide a long-term return that contributes to safeguarding the Riksbank's financial independence.

The Riksbank's preparedness to provide temporary liquidity assistance in foreign currency at short notice places heavy demands on the composition of the gold and foreign currency reserves. Consequently, the foreign currency reserves are mostly composed of assets in the currencies demanded by the banks when they need liquidity support and such assets as can rapidly be converted into liquid funds, primarily government bonds in US dollars and euros (See Chart 15).

### Chart 15 Composition of the gold and foreign currency reserves at the end of 2022

SEK billion



Note: The chart shows the market value of the gold and foreign currency reserves, including accrued interest.

Source: The Riksbank.

### No major changes to foreign currency reserves over the year

The Executive Board of the Riksbank decides on a financial risk and investment policy that establishes the principles for the Riksbank's investments in the gold and foreign currency reserves. The policy specifies the limitations that apply to this management. These are applied on the basis of the contingency requirements that indicate which currencies the Riksbank needs to hold in the foreign currency reserves for contingency reasons. The Riksbank also takes return and risk into account when deciding the composition of the foreign currency reserves. Furthermore, the Riksbank takes sustainability into account in the selection of assets, for example, by assessing factors such as climate, social responsibility and governance before new assets are included in the foreign currency reserves. In addition, as far as is possible, the Riksbank chooses a composition of assets that limits the total carbon footprint of the foreign currency reserves, without this having an excessively negative effect on return. During the year, the Riksbank also began to publish the carbon footprint of the foreign currency reserves. As at 31 December 2022, the carbon footprint of the foreign currency reserves amounted to 264 tonnes of carbon dioxide equivalents per million dollars of GDP. The calculation of the carbon footprint is described in more detail in Economic Commentary no. 4 2022.

During the coronavirus pandemic, the Riksbank chose to invest a larger proportion of its assets in central bank accounts and in interest-bearing securities with short maturities issued by the Bank for International Settlements (BIS) in order to be able to quickly finance any lending of US

dollars with the foreign currency reserves. These short-term investments reduced the interest rate sensitivity of the foreign currency reserves. In 2022, the Riksbank reduced these short-term investments, which meant that interest rate sensitivity increased again. However, the Riksbank chose to increase to a lower interest rate sensitivity than before the pandemic. No major changes to the currency composition were made in 2022.

### **The Riksbank completed the currency exchanges for self-financed foreign currency reserves**

The foreign currency reserves are currently financed in two different ways: partly through the Riksbank's own financing, which comprises of equity, banknotes and coins issued and deposits from the banks, and partly through loans in foreign currency on the international capital market via the Swedish National Debt Office. In January 2021, the Executive Board decided that the Riksbank should replace the borrowed part of the foreign currency reserves with self-financing via deposits in Swedish kronor from banks. This meant that the Riksbank would exchange SEK for USD 14.5 billion and EUR 5.5 billion.

The exchanges started on 1 February 2021 and were implemented in relatively small amounts, spread out evenly over time. The purpose of spreading out the exchanges like this was to minimise their effect on the foreign exchange market and the krona exchange rate. This was important because the exchanges fulfilled no monetary policy purpose and thus were not conducted to affect the krona exchange rate. Initially, the exchanges were intended to be carried out until 31 December 2023. However, in February 2022, the Executive Board decided to bring forward the date of completion of the exchanges to 31 December 2022. This would avoid the foreign currency reserves from becoming smaller than desired from a preparedness perspective until the end of 2023.

Overall over the year, the Riksbank purchased foreign currency for the equivalent of SEK 141.1 billion. By the end of the year, the Riksbank had thus purchased the total amounts of dollars and euros previously announced.

During the year, foreign currency loans from the Swedish National Debt Office totalling USD 6.5 billion matured. The foreign currency loans are repaid when they mature. When the last loan matures in April 2023, the Riksbank will have switched to fully self-financed foreign currency reserves.

### **The gold reserve to be held unchanged**

The Riksbank has a gold reserve that amounts to 125.7 tonnes of gold. The Riksbank owns gold largely due to gold's historical link to banknotes and coins. For example, during the days of the gold standard, the Riksbank was obliged to redeem banknotes for gold. Nowadays, however, gold is a financial asset that, like the foreign currency reserves, aims to ensure that the Riksbank can carry out its tasks. The Riksbank's gold reserve is stored by the central

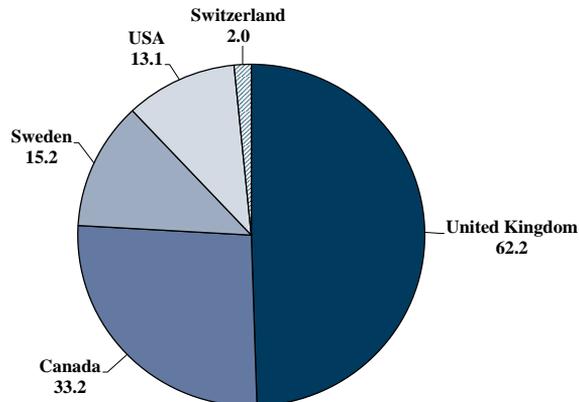
banks in the United Kingdom (the Bank of England), Canada (the Bank of Canada), the United States (the Federal Reserve Bank of New York) and Switzerland (the Swiss National Bank), as well as at the Riksbank's own depot in Sweden (see Chart 16).

Storing all of the gold in the same place would entail too much of a security risk, so the Riksbank stores the gold in different locations around the world. Almost half of the gold reserve is stored in the United Kingdom, where the world's largest commercial gold market, the London Bullion Market, is based. This market is the most liquid and central marketplace for trading bullion. Holding it at the Bank of England allows a large part of the Riksbank's gold to be converted at very short notice, if necessary. In this way, it can be considered a liquid asset.

As in previous years, the Riksbank also stored gold on behalf of one other central bank in 2022.

**Chart 16 Storage of the gold reserve at the end of 2022**

*Tonnes*



Source: The Riksbank.

### **Positive return on the gold and foreign currency reserves**

Over the year, the interest return on the foreign currency reserves, including price effects, amounted to SEK –33.8 billion or –7.4 per cent. As the currencies in the reserves strengthened against the Swedish krona, the return on foreign exchange was positive and amounted to SEK 47.4 billion or 12.1 per cent. The return on the foreign currency reserves thereby amounted to SEK 13.6 billion.

Gold is traded and priced in US dollars and, over the year, the price of gold expressed in dollars decreased by 0.5 per cent. However, as the dollar strengthened against the Swedish krona, the price of gold in kronor increased by 14.7

per cent. The return on the Riksbank's holdings of gold thereby amounted to SEK 9.8 billion.

## The Riksbank's financial commitment to the IMF

The Riksbank contributes towards the funding of the IMF via capital contributions and arrangements to borrow, meaning that, until 31 December 2022, the Riksbank stood prepared to use the gold and foreign currency reserves to fulfil its commitments in relation to the Fund (see Table 6). Since the new Sveriges Riksbank Act entered into force on 1 January 2023, part of the lending to the IMF is to be financed by borrowing from the Swedish National Debt Office. The Riksbank's commitments in relation to the Fund are described in more detail in the sections International cooperation and Balance sheet and profit and loss account.

**Table 6 The Riksbank's remaining financial commitment to the IMF**

*SDR and SEK, million*

	31 Dec 2022		31 Dec 2021	
	SDR	SEK	SDR	SEK
Special Drawing Rights (SDR)	12,785	177,978	12,794	162,078
Capital contribution (quota)	3,145	43,785	3,283	41,585
New Arrangements to Borrow	4,490	62,502	4,458	56,481
Credit agreement	3,188	44,381	3,188	40,387
Poverty Reduction and Growth Trust	708	9,851	777	9,843
<b>Total remaining commitment</b>	<b>24,316</b>	<b>338,497</b>	<b>24,500</b>	<b>310,374</b>

Note: The Special Drawing Rights (SDR) commitment is calculated as an allocated amount plus twice the allocated amount less the Riksbank's holding of SDR. According to the IMF's Articles of Agreement, the Riksbank may be required to purchase SDR for foreign currency at an amount that means that the Riksbank's total holding of SDR amounts to a maximum of 300 per cent of the ordinary allocation. See also Notes 2, 22 and 41 in the section Balance sheet and profit and loss account for a more detailed account of the commitment to the IMF.

Source: The Riksbank.

Over the year, the Riksbank's receivables from the IMF increased by SEK 13.2 billion to SEK 116.1 billion (see Table 3). This was mainly due to the weakening of the krona against the basket of currencies on which the valuation of Special Drawing Rights (SDR) is based. In the same way, the Riksbank's liabilities to the IMF increased by SEK 8.5 billion and amounted to SEK 90.8 billion at the end of the year. The interest return on net receivables amounted to SEK 435 million over the year.

## Reported result and equity

The Riksbank's interest-bearing assets need to yield, and have so far yielded, sufficient returns to cover the Bank's costs and thereby contribute to the Riksbank being a financially independent authority. Although it is not part of the Riksbank's mission, its activities have long generated profits, which have

largely been distributed to the government. This century, the Riksbank has distributed a total of SEK 156 billion to the government. From this perspective, 2022 is an unusual year, as the Riksbank is reporting a loss of SEK 80.7 billion (see Chart 17 and the section on Performance measures and seigniorage). The loss is due to the decline in market value of the holdings of interest-bearing securities when interest rates in Sweden and abroad rose sharply during the year.

### **A reported loss due to falling market values**

The Riksbank's result can be divided into two parts: the underlying result and changes in the value of the Riksbank's holdings of foreign and Swedish interest-bearing securities.

The underlying result includes interest income on assets, interest expense on liabilities (the difference between these is usually called net interest income), other income such as fees and charges, and the cost of running the Bank's operations. Net interest income benefits from the fact that part of the Riksbank's liabilities is interest-free. Banknotes and coins in circulation are an interest-free liability for the Riksbank that is associated with very low costs and contributes to the part of net interest income that is usually referred to as seigniorage (see section on Performance measures and seigniorage). The Riksbank's capital can also be regarded as an interest-free liability and benefits net interest income.

As the underlying result is not directly affected by changes in value, it is more stable and thus constitutes a better indicator of the Riksbank's long-term financial earnings. The underlying part of the result has averaged just under SEK 3 billion over the past ten years, with a small profit of SEK 0.2 billion in 2022 (see Chart 18). A major reason for the relatively low underlying result in 2022 is rising interest expenditure on the Riksbank's Swedish krona deposits, which is due to the higher policy rate.

The value of the Riksbank's assets is affected by changes in market prices, such as exchange rates and interest rates. Higher bond yields cause the market price of bonds to fall and vice versa. A weakening of the krona makes foreign assets more valuable in krona terms and vice versa.

Changes in the value of the Riksbank's assets may be realised or unrealised. Realised changes in value occur when assets are sold and result in a cash flow. Unrealised changes in value show what the realised profit or loss on an asset would be if it were sold at the current market price. However, as long as the Riksbank does not sell the asset, the change in value is not associated with any cash flow.

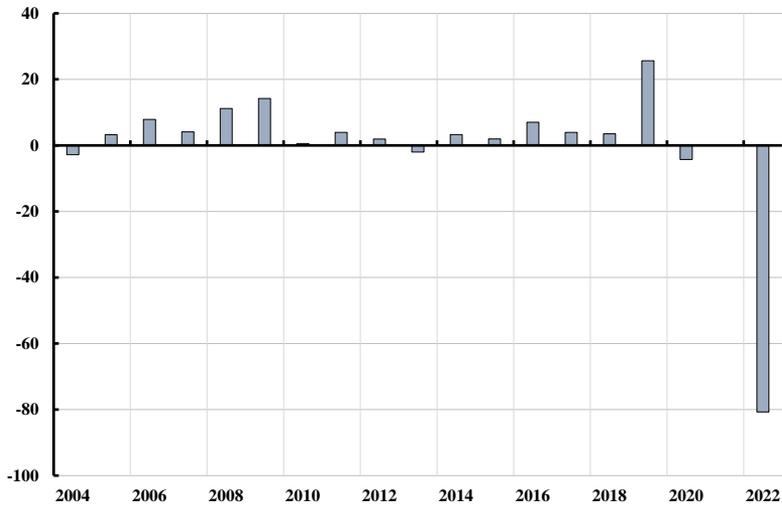
The total changes in value were SEK –58.1 billion in 2022 (see Chart 19). The Riksbank made a price loss on its holdings of interest-bearing securities in kronor of SEK 64.6 billion as a result of the sharp rise in interest rates over the year. Virtually all of this loss is unrealised. The Riksbank made a gain in value of SEK 6.5 billion on its gold and foreign currency reserves, including

IMF-related items. The krona depreciation contributed to gold and foreign exchange gains totalling SEK 46.5 billion, while higher interest rates on foreign bonds contributed to offsetting price losses of SEK 40.0 billion.

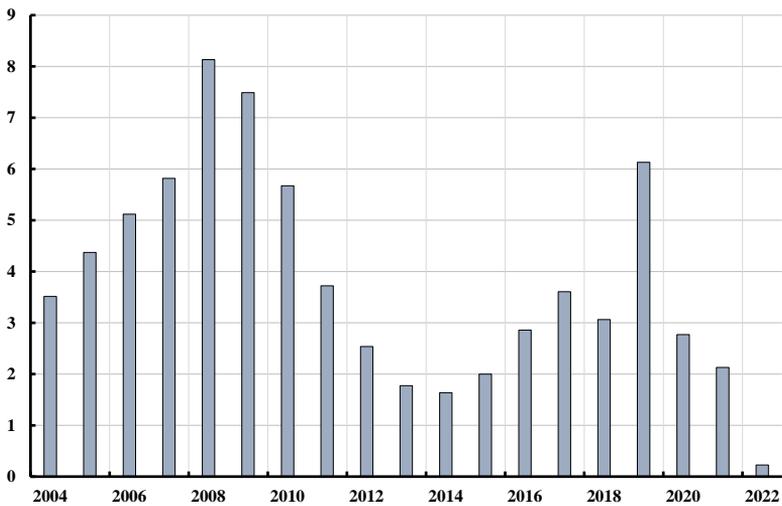
However, only changes in value in the form of realised gains and losses and unrealised losses leading to write-downs are included in the reported result. Other changes in value during the year are booked against the revaluation accounts. The revaluation account for an individual asset shows the difference between its market value and its acquisition value. If the value is positive, the Riksbank has an unrealised gain, which has not yet been reported in the profit and loss account. If the value is negative, the Riksbank has an unrealised loss on the asset in question. At year-end, the Riksbank writes down the acquisition value (to the current market value) of all assets with a negative revaluation account. A write-down can be likened to the Riksbank selling the asset and then buying it back at current market value. In practice, a write-down means that the unrealised loss is transferred to the profit and loss account and the revaluation account for the asset is reset to zero. At the same time, for the interest-bearing assets, it means that the future reported interest income increases in parity with the write-down if the assets are held to maturity. This is because, at maturity, the assets are worth their pre-determined nominal amount.

The changes in value affecting the reported result in 2022 totalled SEK –86.0 billion and are largely due to unrealised losses that led to write-downs (see Chart 19). Write-downs due to interest-related price losses on holdings of Swedish securities contributed SEK –59.1 billion. Realised and written-down price losses on foreign securities were SEK –36.7 billion. The unrealised foreign exchange and gold price gains are not included in the reported result, but the realised foreign exchange gains of SEK 9.6 billion are.

The total reported result, before provisions or reversals, is the sum of the underlying result (SEK 0.2 billion) and changes in value transferred to the result (SEK –86.0 billion). Due to the large losses in value in 2022, the Executive Board decided to reverse all previously allocated funds for financial risks, increasing the reported result by SEK 5.0 billion. The reported loss after the reversal was thus SEK 80.7 billion.

**Chart 17 Reported result***SEK billion*

Source: The Riksbank.

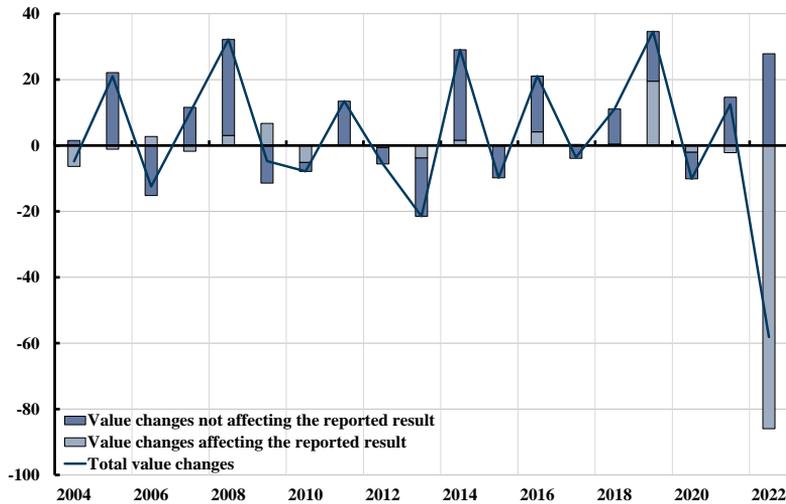
**Chart 18 Underlying result***SEK billion*

Note: The underlying result includes net interest income, other income such as fees and charges, and costs of running the Bank's operations.

Source: The Riksbank.

**Chart 19 Changes in the value of the Riksbank's assets**

SEK billion



Note: Changes in value that are realised or lead to write-downs affect the Riksbank's reported result. Un-realised changes in value that do not lead to write-downs affect the Riksbank's overall result but not its reported result.

Source: The Riksbank.

### Different accounting policies produce different results in the short term

Other central banks are also incurring losses due to large securities holdings and increased interest-bearing deposits (central bank reserves) in a rising interest rate environment. However, comparing the size of losses across central banks is complicated by the different ways in which results are reported and allocated. There are two main types of accounting policies used by central banks in the valuation of assets and liabilities: amortised cost and market valuation. In addition, several central banks combine these two principles, where, for example, only certain parts of the balance sheet are reported at market value. For example, the accounting guidelines of the ESCB, which the Riksbank also follows, provide for the possibility of choosing whether monetary policy-based asset holdings should be reported at market value or at amortized cost. Here we can note that the ECB reports its monetary policy-based holdings at amortised cost, while the Riksbank reports its monetary policy-based holdings at market value in the same way as other asset holdings.

The advantage of reporting asset holdings at market value is that it provides a transparent picture of what the realised result would be if the holdings were to be sold before maturity. For interest-bearing securities, it also provides an up-to-date picture of the expected future return. The disadvantage is that the result varies with market prices, which can be volatile. Using amortised cost instead makes the result less volatile. However, this only applies as long as the

asset holdings are not sold before maturity and any changes in value are realised.

The accounting policies used by the Riksbank are largely based on market valuation. The basic principle is that changes in value due to fluctuations in market prices are accounted in special revaluation accounts. Realised changes in value and write-downs (unrealised losses) affect the reported result, while unrealised gains do not. For example, the 2022 result is not affected by the (unrealised) gains arising from the weakening of the krona. On the other hand, the reported result is affected by the (unrealised) losses due to the rise in interest rates. The use of revaluation accounts normally dampens the variation in the reported result, which may also reduce the variation in any profit distribution to the government. It can also be seen as a precautionary principle only to allow unrealised losses (and not unrealised gains) to affect the reported result and equity.

The Riksbank and other central banks using some form of market valuation are reporting large losses for 2022. If interest rates develop in line with the expectations reflected in the current level of interest rates, next year's results will quickly return to somewhat more normal levels. Both reported interest income and interest expenditure will be adjusted upward with the higher level of interest rates. As a result, the impact on net interest income will not be so great in the coming years, although net interest income will be weakened by interest-free capital being reduced by the loss.

For central banks using amortised cost instead, the current situation implies that the reported loss for 2022 will be lower but also that losses are expected to recur in the coming years. This is a consequence of higher policy rates in the coming years leading to a higher interest cost for deposits (central bank reserves). With amortised cost, the reported interest income is not adjusted upwards to reflect market rates, leading to negative net interest income in the coming years. Several other central banks are now warning of large losses over the next few years

The different accounting policies mainly concern different ways of allocating profits and losses over time. However, over a longer period of time, the overall result is approximately the same regardless of the accounting policy chosen by the central bank. Read more about the Riksbank's accounting policies in the section Accounting policies.

### **This year's loss reduces the Riksbank's capital**

The Riksbank's capital consists of equity, unrealised gains on revaluation accounts and previous provisions for financial risks. One purpose of this capital is that, together with banknotes and coins, it shall provide the interest-free funding needed for the Riksbank's earnings. Another purpose of the capital is to provide a buffer against future losses.

Since 2015, the Riksbank, like several other central banks, has initiated new purchases of securities in two episodes to make monetary policy more expansionary and, later, during the pandemic years, also to promote the efficiency and stability of the financial system. The securities purchases were justified by the Riksbank's objectives and tasks. The Riksbank has been aware that they have also entailed higher financial risks on the balance sheet. Although the Riksbank's financial assets are of good credit quality and associated with low credit risk, the Riksbank's results become more sensitive to changes in interest rates as the holdings of long-term interest-bearing securities grow. This risk was amplified by the Riksbank purchasing securities at a time when market rates were historically low. In 2022, interest rates rose sharply, materialising these risks and leading to losses for the Riksbank. The transition to self-financed foreign currency reserves, which was initiated in 2021, also contributed to increasing the risks on the balance sheet.

When the financial risks are higher, the Riksbank's financial result may vary more than previously. This means that, in recent years, the Riksbank has needed to increase its capital to strengthen its buffer against future losses. For the 2020 financial year, the Executive Board decided to make a provision of SEK 5 billion to increase the Riksbank's buffer. The need to increase capital also existed in 2021 but the Executive Board decided that it was not appropriate to make a risk provision at that point as the Riksbank did not make any profit that year. For 2022, the Executive Board has decided to reverse previous provisions to reduce the reported loss for the year.

With this year's large and interest-related losses in value, the Riksbank's capital has decreased. Unrealised interest-related gains from previous years have been turned into losses. This has had a negative impact on the revaluation accounts for price effects, the balances of which have been reduced. However, as the reduction in value was larger than the unrealised gains in the revaluation accounts at the beginning of 2022, the excess fall in value reduces the reported result via write-downs. The revaluation accounts for price effects decreased by SEK 9.0 billion to SEK 3.5 billion.

The Riksbank's unrealised gold and foreign exchange gains in 2022 are not included in the reported result and are instead booked directly to the revaluation accounts, which increased by SEK 36.9 billion to SEK 113.1 billion.

Equity was SEK 62.6 billion at the end of 2022 and, with this year's reported loss of SEK 80.7 billion, equity is expected to be negative after this year's profit allocation. The Riksbank's total capital, including financial result for the year, revaluation accounts and allocated funds, was SEK 98.8 billion at the end of 2022, which means that the Riksbank's total capital has decreased by a total of SEK 61.8 billion since the end of 2021.

### **The Riksbank's capital and the new Sveriges Riksbank Act**

Even if the Riksbank's capital decreases and equity becomes negative, the Riksbank's ability to carry out its tasks in the near future will not be affected.

A central bank can always pay for itself in its own currency and the central bank can have negative equity for a period and still function as usual. In the long run, however, the Riksbank's capital must increase to ensure its financial independence.

The Riksbank can strengthen its capital by accumulating profits or by receiving capital injections from the government. A lower level of capital, combined with a small amount of banknotes and coins, and thus, a small seigniorage, means that the Riksbank's earnings and ability to be self-financing have deteriorated.

The new Sveriges Riksbank Act, which will come into force in the financial year 2023, contains a new framework for equity. This includes an inflation-indexed target level for equity of SEK 60 billion initially. When equity is at the target level, any profits will be distributed to the state. When the Riksbank makes a loss and the reported equity (according to the annual accounts) is less than one third of the target level, the Riksbank *must* petition the Riksdag for a capital injection to restore the equity level.

After this year's large loss and the profit allocation decided by the Riksdag in 2023, equity will fall below one third of the target level. The Riksbank will therefore need to make a petition to restore equity no later than in connection with the annual accounts for 2023, which is the first year the new law applies. The petitioned amount will depend on several factors, many of which can only be determined in conjunction with the preparation of the petition. Examples of important factors are: (i) the level of the Riksbank's equity; (ii) expected future earning capacity; (iii) expected future costs; and (iv) how revaluation accounts will be taken into account. On the basis of the provisions of the new Sveriges Riksbank Act, the above factors are important components of a balanced and reasonable assessment of the amount to be included in the petition.

## Result measures and seigniorage

The Riksbank's financial result is determined by the return on the Bank's assets, the costs of its liabilities and its operating costs. However, there are several ways of calculating the result.

The broadest measure of the result can be termed *total result* and describes how the Riksbank's equity (including the financial result for the year and the revaluation accounts) has changed over the year. The total result for 2022 amounted to SEK –52,878 million. The result includes interest income and interest expenditure as well as realised and unrealised changes in value due to changes in interest rates, exchange rates and the price of gold. It also includes risk provisions and the item 'Other income', which largely consists of dividends on the Riksbank's shares in the BIS and fees from users of the RIX payment system. To this can be added costs for personnel, administration and depreciation.

The Riksbank's *reported result*, which is to say what is included in the Riksbank's profit and loss account, comprises interest income and interest expenditure, all realised changes in value and unrealised losses leading to write-downs. Also included are risk provisions and the item 'Other income', as well as personnel, administration and depreciation costs. In 2022, the Riksbank's reported result amounted to SEK –80,734 million.

The *result on which the dividend* to the government is based comprises both interest income and interest expenditure, as well as realised and unrealised changes in value linked to interest rates and securities, but excludes the result of SEK 46,499 billion relating to gold and currency. Also included are risk provisions and the item 'Other income', as well as personnel, administration and depreciation costs. The dividend-qualifying result for 2022 thus amounted to SEK –99,377 million. The size of the dividend itself is derived by calculating the average of the result over the past five years and multiplying it by 80 per cent. A compilation of how the different results relate to each other is presented in Table 7.

**Table 7 Result measures 2022**

SEK million

	Total	Reported	Dividend-qualifying
<b>Interest income</b>	<b>11,661</b>	<b>11,661</b>	<b>11,661</b>
<b>Interest expenses</b>	<b>-10,503</b>	<b>-10,503</b>	<b>-10,503</b>
<b>Net result of financial transactions and write-downs</b>	<b>-85,961</b>	<b>-85,961</b>	<b>-95,607</b>
of which, sale of securities	-15,979	-15,979	-15,979
and gold and foreign currency respectively	9,646	9,646	–
of which, write-downs of securities	-79,628	-79,628	-79,628
and gold and foreign currency respectively	–	–	–
<b>Net result of other changes in value other than write-downs</b>	<b>27,856</b>	<b>–</b>	<b>-8,997</b>
of which, changes in value of securities	-8,997	–	-8,997
and gold and foreign currency respectively	36,853	–	–
<b>Financial risk provision</b>	<b>5,000</b>	<b>5,000</b>	<b>5,000</b>
<b>Other income</b>	<b>210</b>	<b>210</b>	<b>210</b>
<b>Total net income</b>	<b>-51,737</b>	<b>-79,593</b>	<b>-98,236</b>
<b>Personnel and administration costs and depreciation</b>	<b>-1,141</b>	<b>-1,141</b>	<b>-1,141</b>
of which, costs for managing banknotes and coins	-164	-164	-164
other costs	-977	-977	-977
<b>Result for the year</b>	<b>-52,878</b>	<b>-80,734</b>	<b>-99,377</b>

Source: The Riksbank

## What is seigniorage?

The Riksbank's *seigniorage* is the part of the Bank's reported result that arises from the right to issue banknotes and coins. The value of all banknotes and coins in circulation is reported as a liability on the Riksbank's balance sheet. At year-end 2022, this value amounted to SEK 64,956 million. The Riksbank does not pay interest on this liability but incurs costs for managing banknotes and coins. Of the Riksbank's total costs for personnel, administration and depreciation of SEK 1,141 million, SEK 164 million were calculated costs for cash provision, that is to say managing banknotes and coins (see the section The profit and loss account and balance sheet by function).

By issuing banknotes and coins, the Riksbank can finance assets of the same value, but the Riksbank has no earmarked assets that exactly correspond to the item banknotes and coins. A standard calculation is therefore used when estimating the earnings from these assets. As the stock of banknotes and coins averaged 4.21 per cent of the balance sheet, it is assumed that 4.21 per cent of the earnings come from the assets corresponding to banknotes and coins. Calculated in this way, SEK 481 million of the Riksbank's total interest income from assets of SEK 11,417 million (SEK 11,661 minus SEK 37 million in negative interest, excluding interest income referring to deposits from the Riksbank's counterparties of SEK 207 million) can be said to come from these assets. Similarly, SEK -267 million of the total net result of financial transactions, excluding write-downs and financial risk provision, of SEK -6,333 million can be said to come from the assets corresponding to banknotes and coins. The net amount of the Riksbank's earnings and costs that can be related to banknotes and coins thus amounted to  $481 - 267 - 164 = \text{SEK } 50$  million. It is this sum that is called the Riksbank's seigniorage.

The size of the Riksbank's seigniorage has decreased in recent decades, due both to the level of interest rates having been low and to the fact that the total value of banknotes and coins in circulation has decreased. Seigniorage for the year was SEK 100 million lower than the corresponding value for the financial year 2021, primarily because the net result of financial transactions was lower than in 2022. The seigniorage for 2022 was also smaller than the Riksbank's administrative expenses. This comparison is important, as one condition for the Riksbank to be considered financially independent is that the Riksbank is able to take responsibility for its own costs.

## A stable financial system

*Russia's invasion of Ukraine and the consequences of the coronavirus pandemic characterised the Riksbank's work on financial stability in 2022. The increased geopolitical uncertainty, rising inflation and interest rates, falling asset prices and difficulties for some companies to obtain funding on the corporate bond market led the Riksbank to assess that the threats to financial stability had increased. The Riksbank's assessment of the threats in the financial system and the system's resilience to them is published twice a year in the Financial Stability Reports. By publishing the results of its analysis, the Riksbank wishes to draw attention to, and warn of, risks and events that might pose a threat to the financial system, and to contribute to the debate on this subject.*

*The Riksbank continued its work on financial stability, analysing key areas such as the Swedish banking system, indebtedness among commercial property companies and households, risks related to the climate transition and increasing cyber threats. The Riksbank also continued its cooperation with authorities in Sweden and internationally.*

## The Riksbank's work to strengthen the financial system

It is necessary to have a stable and smoothly running financial system for the economy to function and grow. A serious crisis in the financial system risks leading to considerable economic and social costs. Consequently, the Riksbank regularly analyses the stability of the financial system so that changes and vulnerabilities that could lead to the financial system functioning less efficiently can be detected at an early stage. In some cases, the Riksbank suggests measures to counter risks and increase resilience.

### **Threats to financial stability increased**

Over the year, the Riksbank published two Financial Stability Reports. Among other things, these noted that the major Swedish banks had had access to funding on the capital markets, that the supply of credit had been maintained and that the banking sector had been profitable. The availability of the Swedish financial infrastructure systems was also good.

Although the financial system was deemed to be functioning, stresses became evident during the year and risks to financial stability increased. Households and companies were strongly affected by higher costs, not least by the high electricity prices. Housing prices fell. It became significantly more expensive and more difficult for property companies to issue new securities. High and volatile electricity prices created liquidity risks for participants in

the electricity derivatives market that had to be addressed using government credit guarantees.

The risk outlook was characterised by great difficulty in knowing how much central banks would need to raise policy rates to tame the high inflation. After many years of low inflation and very low interest rates, increasing asset prices and rising debt, it was also uncertain how economic agents would be able to cope with a rapid rise in inflation and interest rates. The Riksbank considered that the two most significant vulnerabilities were the banks' exposure to highly indebted commercial property companies and the high level of indebtedness among households.

Recently, extreme weather events have become more frequent. This could ultimately have an impact on financial stability. The Riksbank considered that, taken together, this demonstrates the need for an orderly green transition. The geopolitical and security situation also meant that cyber risks were deemed to be elevated.

### **Companies faced several challenges**

Developments in the Swedish economy in the early part of 2022 contributed to an increase in corporate investment and profitability. However, companies continued to face several challenges, such as component shortages and disruptions in shipping and supply chains. Over the year, energy prices, inflation and interest rates continued to rise. However, many companies could compensate for higher costs by charging higher prices. A further challenge was the gradual deterioration in financial conditions as it became both more expensive and more difficult for companies, particularly property companies, to issue new certificates and bonds. This contributed to some companies finding it more difficult to finance their operations. As a result, many companies turned to the banks to refinance their loans, which contributed to a sharp increase in bank lending to companies over the year. Rising interest rates weakened the ability of companies to pay interest and amortisations over the year, which partly contributed to a slight increase in corporate bankruptcies, albeit from a low level.

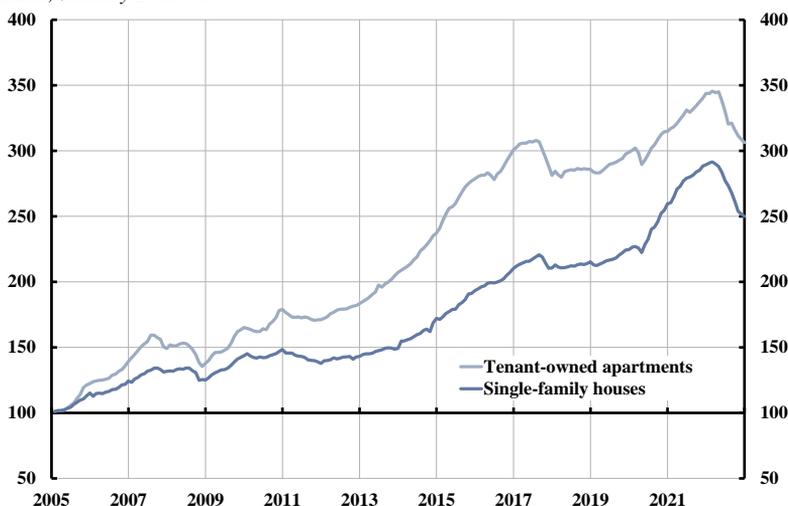
Property companies have been borrowing more and more for a long time and this trend continued in 2022. These loans were responsible for about half of the banks' exposure to non-financial corporations and about half of the outstanding volume of corporate bonds in Swedish kronor. The large loans are making real estate companies increasingly sensitive to interest rates. The Riksbank deemed that reduced access to wholesale funding and higher funding costs, combined with a weaker economy, would lead to lower property values. It also assessed that this could have consequences for both individual property companies and lenders and, by extension, for financial stability, as the property sector is closely interlinked with many other financial actors. The Riksbank examined these issues in an article in the second Financial Stability Report of the year.

## Household resilience put to the test

Sentiment in the household sector deteriorated sharply over the year. High inflation reduced the purchasing power of households and contributed to a fall in real incomes. Households came under pressure from the rapid rise in prices for electricity, fuel and food, among other things, over the year. In addition, mortgage rates rose and household expectations of higher interest rates in the future were also revised upwards. Housing prices fell widely in Sweden during the year. From the beginning of March 2022 to the end of 2022, overall prices fell by 13 per cent, for single-family houses by 14 per cent and for tenant-owned apartments by 11 per cent (see Chart 20). The value of households' financial assets was also weak during the year and it is uncertain how this will develop going forward.

### Chart 20 Housing prices in Sweden

Index, January 2005 = 100



Note: Seasonally adjusted prices.

Sources: Valueguard and the Riksbank.

As mortgage rates rose and housing prices fell, household debt grew at a slower pace during the year. However, the ratio of household debt to disposable income (the debt-to-income ratio) continued to rise and, by the end of the year, reached just over 200 per cent, which is high from both historical and international perspectives. Behind the overall debt-to-income ratio, there are large differences between households, depending, among other things, on geographical location and ownership status. For some time, the Riksbank has been emphasising that the high level of indebtedness in the household sector could become particularly problematic if economic developments were to be much worse than expected, particularly if housing prices were to fall or interest rates to rise. This scenario manifested during the year, forcing many households to make some kind of adjustment in their personal finances. A large

share of the mortgage stock in Sweden is tied to variable interest rates, which means that the rise in interest rates has a rapid impact on interest expenditure and thus on households' scope for consumption. The proportion of households with variable interest rates increased towards the end of the year, probably because mortgage rates with longer fixed periods rose both faster and more, in percentage terms, than the variable rates. Higher debt combined with higher interest rates and shorter fixation periods made households even more sensitive to interest rate changes.

The vast majority of mortgagors were able to manage their debt payments, but the risk of payment problems increased, especially among households with consumer loans, as these households generally have a lower debt-servicing ability than mortgagors. Households had to adjust their consumption to cope with the deteriorating economic situation, which affected both companies and the economy as a whole. The Riksbank has previously assessed that the vulnerabilities in the Swedish household sector are large. If the risks were to materialise in full, the consequences could be significant.

### **The banking sector**

Market tensions and volatility increased as a consequence of Russia's invasion of Ukraine. The sanctions against Russia did not affect the major banks in Sweden to any great extent, as their exposures to Russia and Ukraine were small. On the other hand, the major banks' operations are cross-border, with some banks having operations in the Baltic countries, which, in turn, have greater trade and contacts with Russia.

The structural risks in the Swedish banking sector persist because the banking system is large, concentrated and interconnected. The similar sectoral exposures and a large exposure to the highly indebted commercial real estate companies are contributing to rising vulnerabilities and posing credit risks to the banks. Despite the deterioration in macroeconomic developments, the major banks were able to report a good liquidity position, relatively large capital buffers and relatively good profitability. The higher level of interest rates boosted net interest income. At the beginning of the year, the banks recorded small loan losses. However, as the banks' credit risks increased when interest rates rose and macroeconomic prospects deteriorated, the banks increased their loan loss provisions towards the end of the year.

In 2022, the countercyclical capital buffer requirement for banks was raised, which the Riksbank considered important as it contributed to increased resilience in the sector. The Riksbank has also assisted the Ministry of Finance with its views on the work within the EU on the so-called Banking Package (Basel III). The Banking Package is to be implemented in Swedish legislation by 2025, where it will strengthen the resilience of banks and financial stability through stricter regulation and tighter supervision.

The Riksbank continued to develop its analysis of risks in the banking system. Among other things, it published an Economic Commentary that examined the banks' resilience to liquidity risks using a new liquidity measure. The Riksbank also broadened its framework for capital stress testing by using microdata on Swedish non-financial corporations and their loans with Swedish banks.

### **The financial infrastructure is changing**

Overall, the financial infrastructure systems worked well in 2022. The Riksbank called attention to the importance of having a high level of preparedness and proactive risk management in response to the Russian invasion of Ukraine. The area of payments and securities in Sweden continues to be in a state of flux, affecting both infrastructure firms and their participants. The Riksbank noted that it was important for both infrastructure companies and their participants to plan carefully and realistically to ensure that the functionality and availability of existing systems were maintained during the change process.

For central counterparties (CCPs), the question of what the CCP landscape in Europe will look like after Brexit remained in focus. The Riksbank considered that clearing at CCPs from third countries should be permitted under the same conditions as those of CCPs in the EU, provided that both supervision and legislation are judged to be equivalent to those of the EU.

Prices in the Nordic and European electricity and energy markets were high and volatile over the year, affecting some participants in the Swedish CCP Nasdaq Clearing. High margin calls for the participants led to a risk that they would not have sufficient liquid assets to meet these requirements. In this case, one or more participants could default. In early September, the Riksdag decided to provide support in the form of a government credit guarantee to electricity producers. However, prices on the electricity derivatives market fell soon afterwards, reducing the margin calls and the need for this support. The Riksbank pointed out that it was important that the participants continued to have access to liquid assets in order to meet the margin calls.

### **Cyber risks continued to increase**

The Riksbank continued to deem cyber risks one of the greatest threats to financial stability. As a result of Russia's invasion of Ukraine, the general cyber threat level increased abroad and in Sweden. Furthermore, the Riksbank pointed out that financial sector participants need to be alert to potential cyberattacks and to continue to strengthen their resilience, as the financial sector is largely digitalised and often uses third-party providers. In addition, participants are dependent on electricity and telecommunications, which can be subjected to cyberattacks. As financial sector participants are closely interconnected, a cyberattack against one participant can quickly spread and, in the worst case, affect financial stability. However, the Riksbank noted that it is a

challenge to get an overall picture of the extent of the cyber threat level, as many incidents go unreported.

During the year, the Riksbank continued to work on strengthening resilience to cyber risks in the financial sector through the TIBER-SE framework, in which the Riksbank has a coordinating role. The framework enables participants in the financial system to test their resilience to cyber risks in a standardised manner. The Riksbank pointed out the importance of continued work on sharing responsibilities and collaboration between the authorities involved in the work on cyber risks in the financial sector and noted the progress made during the year.

### **Climate risks may threaten financial stability**

The financial sector can contribute to the achievement of climate targets. A failure to reflect climate risks in asset prices may lead to capital not being allocated to sustainable activities and to major and rapid changes in prices that may cause concern in regional and global financial markets should these risks materialise.

In order to measure and price climate-related risks, access to relevant, transparent and verifiable data is needed. The Riksbank therefore continued to monitor and support international efforts to promote climate-related reporting over the year.

During the year, the Riksbank conducted a study of the carbon footprint and trading activity of Swedish mutual funds. The study compared mutual funds that are linked to initiatives to achieve zero emissions in the long term with those that are not linked to any climate initiatives. The Riksbank also analysed, in cooperation with Finansinspektionen, how the climate exposures of the three major Swedish banks can be expected to develop under different climate scenarios. In addition, the Riksbank explored further alternative scenarios to test the resilience of the Swedish banking system to climate-related risks. The Riksbank also published an economic commentary on the importance of a uniform framework for reporting climate-related risks and of the banks improving their transparency in reporting these risks.

### **Transaction-based reference rate – SWESTR**

The Riksbank is the administrator of the fully transaction-based reference interest rate SWESTR and provides average rates and an index based on the determined SWESTR values.

The International Organization of Securities Commissions (IOSCO) has developed 19 principles for financial benchmarks, which represent the international best practice for how work on benchmarks should be conducted. Like many other central banks that provide transaction-based reference rates, the Riksbank is committed to complying with these principles where applicable and relevant. The Riksbank certified during the year that it does so.

SWESTR, average rates and index were determined and published in good order every business day during the year. The normal SWESTR calculation method was used throughout. During the year, SWESTR values were based on an average of SEK 54 billion spread over 56 transactions. Typically, 5 banks per day contributed transactions.

During the autumn, the Riksbank launched a sector-wide forum aimed at increasing the financial sector's use of fully transaction-based reference rates. The focus of these meetings has been to promote a transition to such reference rates. During the autumn, SWESTR started to be used in financial contracts in the form of so-called overnight index swaps (OIS).

## **Financial Stability Council**

Together with the Government, Finansinspektionen and the Swedish National Debt Office, the Riksbank is a member of the Financial Stability Council. The Council's task is to discuss measures that may be needed to counteract the build-up of financial imbalances. The authorities then take independent decisions within their own areas of responsibility.

The Council met four times in 2022, two of which were extraordinary meetings. At the beginning of the year, the authorities discussed the high coronavirus infection rate and its impact on essential public services provided by financial markets. The authorities concluded that the risks were limited and that financial markets were functioning relatively well.

During the year, the Council discussed the impact on financial stability of the tense security situation in Europe following Russia's invasion of Ukraine. The Council closely monitored developments and maintained close contacts between the Stability Council authorities, other authorities and financial sector participants. The Council noted that Sweden's direct exposures to Russia and Ukraine through trade, for example, are small but that we are indirectly affected by rising world market prices for oil and other commodities. The Council noted that the rising interest rates have exacerbated threats to financial stability.

The authorities also discussed cybersecurity issues, such as efforts to strengthen preparedness in various ways, not least through improved communication and information sharing. In the autumn of 2022, the authorities in the Council conducted a scenario exercise linked to central counterparties.

## **The Riksbank's Financial Markets Survey**

Twice per year, the Riksbank sends out a Financial Markets Survey to participants active in the Swedish fixed income and foreign exchange markets. The purpose of the survey is to gain an overall picture of participants' views on the functioning of the Swedish financial markets – how they work, what market activity looks like and which risks market participants consider will exist in

the Swedish financial system in the period ahead. The report is only an account of participants' responses and does not present the Riksbank's assessments.

In the spring survey, four out of ten respondents described their risk-taking as low or very low, compared to six out of ten in the autumn survey. The foreign exchange market for Swedish kronor was perceived to work well by a majority of respondents in the spring survey. In the autumn survey, however, only four out of ten respondents said it was working well. The proportion of respondents who considered that the Swedish fixed income market was functioning poorly or very poorly was six in ten in the spring survey, compared with eight in ten in the autumn. The autumn survey also showed that the majority considered that liquidity in the corporate bond market was poor or very poor.

## Safe and efficient payments

*Payments in Sweden are, on the whole, safe and efficient. There have been few disruptions in the Riksbank's RIX settlement system and cash provision has functioned well. Demand for cash increased rapidly after Russia's invasion of Ukraine, but cash use remains low and most people use digital payment methods.*

*To meet the challenges of digitalisation, the Riksbank is investigating how a possible e-krona could function as a digital complement to cash. During the year, the Riksbank also launched a new settlement service for instant payments – RIX-INST.*

### Swedish payments in a changed international situation

Russia's war of invasion against Ukraine has increased the risk of cyberattacks throughout society. Swedish payments are generally secure, but the general threat outlook shows how important it is to continue working towards a resilient payment system. In 2022, the Riksbank has therefore run and participated in various collaboration groups, including the forum for Crisis Cooperation in the Central Payment System and the group for private-public co-operation in the financial sector (FSPOS). The Riksbank has also prepared for the expanded mandate in contingency planning that the Riksbank was granted by the Riksdag through the new Sveriges Riksbank Act.

#### **The payment market is being digitalised**

The digitalisation of the payment market continues. More people are choosing to use digital payment methods while fewer are choosing to pay with cash. Mobile phones have taken on a more prominent role as instrument of payment. This is illustrated by the fact that Swish reached 8 million users in 2022. Other services that integrate bank cards into mobile phones are also becoming more common, such as Apple Pay and Samsung Pay.

#### *The e-krona project*

At present, the public has access to Swedish kronor in two forms – government-issued money in the form of cash and digital money issued by private actors. As cash is used less and less, there is a risk that the general public will, in future, not have access to, or be able to pay with, state-issued money. Businesses and individuals would then become wholly dependent on private operators to make payments.

The Riksbank is therefore investigating the possibility of issuing a digital supplement to cash, known as the e-krona. Since 2020, the Riksbank has been conducting a pilot project to learn more about what a technical solution for an

e-krona could look like. In 2022, the work was organised into various sub-areas. In addition to its internal work, the Riksbank participated in several international collaborations on central bank digital currency during the year.

During the spring, the project focused on testing programmable payments and investigating collaborative models for a potential central bank digital currency. The Riksbank is running Project Icebreaker together with the central banks of Israel and Norway and the Bank for International Settlements (BIS) to investigate how central bank digital currency, such as the e-krona, could be used for international payments and transfers. The model is expected to enable instant payments in central bank digital currency between countries at significantly lower costs than with existing systems.

During the year, the Riksbank also set up a forum for regular meetings with representatives from the banking sector, fintech companies, the retail sector and universities, among others. This will discuss different ways of using the e-krona and what the division of roles in the e-krona system could look like.

The project also gathered information on central bank digital currency solutions to learn more about different technical solutions available on the market that could be relevant for an e-krona. In addition, the Riksbank held meetings with suppliers to test different technical solutions. The Riksbank also investigated how private persons perceive different payment situations in order to better understand how an e-krona should be designed to meet the public's needs.

During the year, the project developed a proposal for the legal design of the e-krona. The starting point is that the e-krona should be seen as a digital form of cash that acts as a complement to physical cash. The analysis is now moving forward with the aim of investigating the conditions for an issuable e-krona.

In the spring of 2023, the Payments Inquiry will submit its report on the role of the state in the payments market. This will be an important starting point for the Riksbank's continued work on a central bank digital currency.

### **The Riksbank's cost study measures the efficiency of payments**

The Riksbank leads the Retail Payments Council, which is a forum for dialogue with actors in the payment market. The Council consists of representatives of public authorities, financial market infrastructures, payment service providers, the business sector and consumers. In consultation with the Retail Payments Council, the Riksbank decided in 2021 to carry out a cost study for payments. Its aim is to measure the costs for society of various types of payments in Sweden. The results are important for the evaluation of how efficient Swedish payments are and how they relate to those in other countries. Over the year, the Riksbank collected data from households, companies, the public sector, banks, other payment service providers and other sources. The cost study will be published in early 2023.

## The Payments Report 2022 describes the Riksbank's work with payments

In December 2022, the Riksbank published its Payments Report. In it, the Riksbank presents the results of its regular survey of the Swedish population's payment habits. The report aims to make it easier for third parties to follow, understand and evaluate the Riksbank's work in the payment market. The 2022 survey showed that the trend towards digitalisation in the payments market continued. The Riksbank considers that payments in Sweden are generally safe and efficient.

## Cash provision

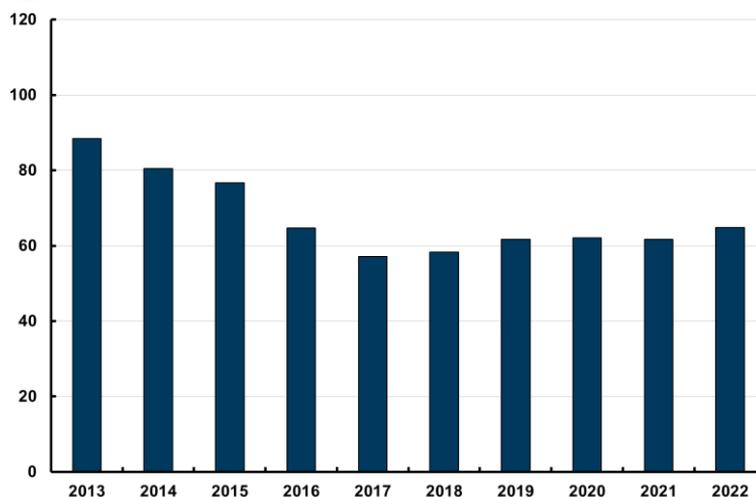
In 2022, the Riksbank provided banknotes and coins to the banks and followed the value of cash in circulation.

Cash volumes have increased every year since the banknote changeover but levelled out in 2020 and even decreased slightly in 2021. In 2022, the outbreak of war in Ukraine led to an increased demand for cash and overall cash volumes have thus increased during the year.

The value of the cash in circulation is governed by the demand for banknotes and coins, which varies over the course of a year. One way of describing the amount of cash in circulation over a year is to calculate an average for the value on the final day of every month. This average value amounted to SEK 65 billion in 2022, of which the value of banknotes amounted to SEK 62 billion and the value of coins to SEK 3 billion (see Chart 21 and Table 8).

**Chart 21 Average value of banknotes and coins in circulation**

*SEK billion*



Note: The figures in the chart do not include the value of commemorative coins.

Source: The Riksbank.

The volume of cash amounted to SEK 65 billion at the end of 2022, of which the value of banknotes amounted to SEK 62 billion and the value of coins amounted to SEK 3 billion (see Table 8). This is an increase of no less than EUR 4 billion compared with the corresponding period of 2021.

**Table 8 Value of banknotes and coins in circulation**

*SEK billion*

	2018	2019	2020	2021	2022
Total value at 31 December	62	63	63	61	65
Banknotes	59	60	60	58	62
Coins	3	3	3	3	3
Total value, average during the year	58	62	62	62	65
Banknotes	55	59	59	59	62
Coins (excluding commemorative coins)	3	3	3	3	3

Note: The data in the table have been rounded off.

Source: The Riksbank.

Normally, Swedish banknotes are counterfeited to a minor extent, but we saw a sharp increase in 2020 and 2021. The level was slightly lower in 2022. The counterfeits continue not to be particularly sophisticated but still manage to enter into circulation as people are not used to using banknotes. The Riksbank continued its communication initiatives about this in social media and elsewhere. The value of counterfeit banknotes removed from circulation during the year amounted to SEK 2,008,520. The number of counterfeit banknotes amounted to 4,166. About 94 per cent of these were 500-krona banknotes.

**Table 9 Number of banknotes and coins**

	2018	2019	2020	2021	2022
Number of banknotes in circulation (millions)	262	266	262	256	265
Number of coins in circulation (millions)	552	624	662	686	705
Number of counterfeited banknotes	453	1,703	6,629	4,655	4,166

Note: The information on the number of banknotes and coins in circulation refers to the average over the year and is rounded off. The information on number of coins in circulation does not include commemorative coins.

Source: The Riksbank and the Swedish Police Authority.

## The RIX payment system

The Riksbank provides the payment system RIX, which has two services, RIX-RTGS and RIX-INST. RIX-RTGS handles large-value payments in Swedish kronor between banks and other actors. Payments are made in the form

of transfers between accounts held by the different participants in the RIX system. In May 2022, the Riksbank launched a new settlement service, RIX-INST, which enables connected banks to settle payments in central bank money around the clock. RIX-INST uses the Eurosystem's settlement platform for instant payments – Target Instant Payment Settlement (TIPS). Together with market participants, the Riksbank took part during the year in the preparatory work for moving Swish payments to RIX-INST.

### **Number of participants, transactions and turnover**

In 2022, four new participants joined RIX-RTGS. At the end of the year, the system had a total of 42 participants. On average, the system handled 30,294 transactions per day. This is an increase of 18.3 per cent compared with the previous year. Daily turnover averaged about SEK 553 billion, which was an increase of 5.6 per cent compared with the previous year. The average transaction amounted to about SEK 18 million, while the corresponding figure for 2021 was SEK 20.4 million. During the year, the Riksbank approved 11 participants' applications for RIX-INST; all intend to start using the service in 2023.

### **Follow-up**

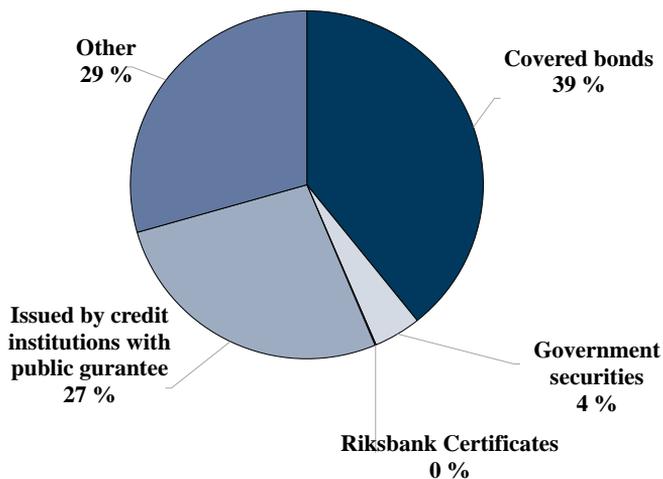
RIX-RTGS is evaluated on the basis of two operational targets: technical availability and cost coverage. The target for technical availability is defined as the time that the system functions and payments are settled. The target value for this is 99.85 per cent. The Riksbank's assessment is that RIX-RTGS has worked well in 2022. The outcome for 2022 was 99.90 per cent. One disruption occurred that meant that the system could not conduct payments for a total period of 170 minutes. All costs relating to the provision of services in RIX are to be covered by fees paid by the participants. In 2022, these costs amounted to SEK 136 million, 104 per cent of which was covered by fees. Over a three-year period (2020–2022), cost coverage was 107 per cent. The requirement for full cost coverage is measured over a three year period, in which revenues are to correspond to 100 per cent of costs  $\pm 10$  percentage points. The monthly total additional fee for RIX-RTGS was increased on 1 March 2022 from SEK 5 million to SEK 6 million. The total additional fee is distributed among institutions whose domestic revenues exceed SEK 1 billion. The increase in the fee is due to increased resource requirements and costs resulting from upcoming changes in the payment market and increased security requirements. The Riksbank has also introduced a price list for the RIX-INST service, which also requires full cost coverage. However, fees will only be charged from 2023.

## Management of collateral and credit limits

To avoid transfers in RIX failing because participants lack liquidity, the Riksbank can grant credit to the participants against collateral during the day. This means that transfers can be made more quickly, thus increasing the efficiency of the payment system. The collateral accepted by the Riksbank mainly consists of bonds or other debt instruments with a high credit rating. Combined, the RIX participants had credit facilities of SEK 109 billion per day on average in 2022. On average, 29.8 per cent of this facility was utilised. At the close of 2022, covered bonds stood for 39 per cent of the value of all collateral pledged to the Riksbank (see Chart 22).

**Chart 22 Collateral value pledged for credit per 30 December 2022**

*By type of security*



Source: The Riksbank.

## Crisis management in the payment system

Ensuring that RIX can continue to fulfil its function even in the event of disruptions and operational interruptions requires efficient contingency routines and that both the Riksbank and the participants continually exercise risk management. In 2022, the Riksbank carried out about 30 exercises of varying scope, both independently and with the RIX participants. For example, two joint exercises were carried out with all RIX participants, in which the scenario involved a total stop in the RIX system with subsequent transition to manual routines. The Riksbank considered that the exercises worked well.

## Bank-wide areas

*The Riksbank cooperates with other central banks, Swedish authorities and international organisations to conduct research, develop statistics and discuss global financial issues. Much of the focus of international cooperation during the year was on the effects of Russia's invasion of Ukraine on the macroeconomic outlook and financial stability. All permanent staff were placed on war-time deployment in 2022. We launched *The Riksbank Explains*, a digital video initiative that explains various concepts. The Riksbank also created and purchased databases containing information on financial variables and companies' prices, among other things.*

## Sustainability and the environment

In recent years, the Riksbank's work on promoting long-term sustainability has become an increasingly integrated part of its policy work. Climate change in particular has been in focus, as it may affect the conditions for the Riksbank to fulfil its mandate. How the Riksbank is working with this is described in the Riksbank's Climate Report.

An internal sustainability committee coordinates and develops the Riksbank's sustainability work, and a sustainability strategy was adopted in 2020. This strategy consists partly of strengthening sustainability work in the Riksbank's internal operations and partly of adapting the Riksbank's policy work in favour of more sustainable development, within the Riksbank's mandate and without prejudicing the Riksbank's objectives. This latter concerns monetary policy analysis, work on payments and financial stability, as well as external monitoring and asset management. These different aspects of the Riksbank's sustainability work are presented in their respective sections in the Annual Report and are presented together in the Riksbank's Climate Report.

In 2022, the Riksbank hired a consultancy firm to review the Riksbank's governing documents in the area of the environment and to propose changes. This assignment included proposing appropriate objectives for the Riksbank's internal environmental work, suggesting how the internal environmental work could best be organised and conducted, and evaluating whether the Riksbank should conduct a new environmental review.

During the year, the Riksbank lowered the heating in its premises to save energy. Measures of the Riksbank's environmental work over the past three years are shown in Table 10. The low figures for carbon dioxide emissions from official travel in 2020 and 2021 were due to the fact that little official travel was carried out as a result of the pandemic.

**Table 10 Measures used to monitor environmentally sustainable development**

	2020	2021	2022
Carbon dioxide emissions from official travel (tonnes), total per employee	0.23	0.08	1.15
Energy usage, total (MWh)	5,408	5,785	5,549
Energy usage, total per employee (MWh per square metre)	15.0 (0.21)	14.6 (0.22)	13.1 (0.21)

Note: 'Employee' refers here to the average number of full-time employees. Since the second half of 2021, emissions of carbon dioxide from official travel also include emissions from rail travel.

Source: The Riksbank.

## Research, statistics and the supply of information

### Research provides a scientific basis for policy decisions

The aim of the Riksbank's research is to provide a better basis for the Riksbank's policy decisions and to act as a link between the Riksbank and the academic world, including through formal collaboration with the Center for Monetary Policy and Financial Stability (CeMoF) at Stockholm University. Research results are published in the Riksbank's Working Paper Series, in international scientific journals and in the Riksbank's publications Economic Review, Staff Memos and Economic Commentaries. One example from 2022 is a study analysing whether the relatively large variation in indebtedness at the regional level has any relevance for how disposable income, unemployment and housing prices are affected by monetary policy.

In order to strengthen cooperation with the academic world, and in particular with young researchers, a workshop for doctoral students was organised at the Riksbank in cooperation with CeMoF, with the participation of doctoral students from the University of Oxford, Pompeu Fabra University of Barcelona, Universidad Carlos III de Madrid and the Wharton School of the University of Philadelphia, among others. The Riksbank also organised several international conferences during the year, including on the various monetary policy tools used by central banks and on how non-traditional data sources, language technology and machine learning can be used in macroeconomic research and policy analysis.

Researchers who are specialised in financial stability study Swedish households and companies with the aim of understanding their economic behaviour. Among other things, they use large amounts of data that make it possible to investigate the risk of corporate bankruptcies and to see how a low level of interest rates affects the banks' profitability. The researchers who focus on monetary policy and macroeconomics analyse the manner in which monetary policy measures affect economic activity and inflation, the way the labour market functions and the interplay between monetary policy and fiscal policy, among other things. In this area too, the possibility of using microdata has increased in recent years, since the Riksbank has both created and purchased

databases containing information on financial variables and companies' prices, for example.

### **Statistics and the supply of information**

The Riksbank publishes statistical data concerning foreign exchange and credit conditions. Statistics on the financial market, securities issues and the balance of payments are produced and published on behalf of the Riksbank by Statistics Sweden. However, the Riksbank is ultimately responsible for the quality, content and development of the statistics. When developing the statistics, the Riksbank works together with several international institutions, such as the European System of Central Banks (ESCB), the International Monetary Fund (IMF) and the Bank for International Settlements (BIS). The Riksbank compiles and publishes daily turnover statistics on the fixed-income and foreign exchange markets and daily values for the reference rate SWESTR.

#### *Analysis of corporate loans during the pandemic*

During the year, the Statistics Division published an article analysing the supply of credit to companies during the pandemic. Its conclusion was that credit supply worked well for the majority of companies. The major changes in bank lending to companies were largely due to a few large companies shifting their borrowing from securities to bank loans. The analysis found no evidence of a general credit crunch.

The Riksbank's business survey and various other surveys showed that companies in sectors that were severely affected by the pandemic reported that it was more difficult than usual to obtain loans during the pandemic. It is likely that some companies in need of external funding chose not to apply for bank loans. One reason for this may be that they instead took advantage of the government support measures put in place during the pandemic.

#### *The Riksbank's business survey shows increased cost and price pressures during the year*

During the year, four rounds of company interviews were conducted, three of which were published in reports. In April, a smaller and shorter survey was conducted, focusing on the impact of Russia's invasion of Ukraine on companies' operations. The results of this survey were presented in an article in the report in May.

Business surveys in the spring indicated that economic activity remained strong, especially in the manufacturing sector. Various types of disruption, such as the shortage of semiconductors, had a significant negative impact on companies' output. In turn, generally strong demand exacerbated logistical problems and shortages of input goods. During the spring, expectations of economic development were tempered and there were concerns, particularly in

the trade sector, that economic activity and sales would slow down. Supply shocks and higher energy prices put increased cost pressures on companies.

The September 2022 business survey found, among other things, that companies' costs were rising rapidly while the economic outlook was deteriorating. Wages have also risen more than the prevailing collective agreements specify but these increases are still relatively small compared to other cost increases.

### *Increased publication of data*

Following the transposition of Directive (EU) 2019/1024 on open data and the reuse of public-sector information into Swedish law (act [2022:818] on public sector access to data), over the year the Riksbank began to link the datasets published to a central data portal where they can be reused. To facilitate public access to the Riksbank's data, a selection of published forecasts was made available on its website and structured so that they can be more easily accessed in different ways.

## International cooperation

Sweden is a small, open economy that is highly affected by events in the global economy. By participating in international work, the Riksbank strives to the best of its ability to contribute to price stability and financial stability in the global economy.

In 2022, the Riksbank's international work was partly focused on factual issues such as the economic consequences of Russia's invasion of Ukraine and the implications of rising inflation and the situation on the energy market for monetary policy and financial stability.

The Riksbank participated in decision-making on the formulation of standards and regulations as well as in supervision within the EU and at a global level. In many of these issues, the Riksbank cooperated with Finansinspektionen, the Swedish National Debt Office and the Ministry of Finance. International work was conducted as part of the BIS, the European System of Central Banks (ESCB) and other EU bodies, among other institutions.

### **Bank for International Settlements**

The BIS was set up in 1930 as the first international financial institution, with tasks including acting as a forum for central banks around the world. At present, 63 central banks are shareholders in the BIS. The Riksbank has been involved since the start and is the seventh largest shareholder.

Stefan Ingves and Per Jansson participated in six bimonthly meetings in 2022. Among other things, discussions concerned the monetary policy implications of rising inflation and subdued growth, volatile market conditions, cryptocurrencies and the future monetary system.

### *BIS Innovation Hub Nordic Centre in Stockholm*

The BIS established this innovation centre in Stockholm in 2021 in cooperation with the Riksbank and the central banks of Denmark, Iceland and Norway. Over the year, the centre worked on financial technology innovations significant to central banks. These included projects to develop systems for analysing payment data, to investigate how central bank digital currency can become resilient and operate in an offline mode, and to test how central bank digital currency can work across national borders. Over the year, four employees of the Riksbank worked at the Nordic Centre. In September, Cecilia Skingsley, former First Deputy Governor of the Riksbank, took up the post of Global Head of the BIS Innovation Hub.

### **Global cooperation on banks**

The Basel Committee on Banking Supervision (BCBS) promotes global financial stability by developing minimum standards, guidelines and recommendations for minimum requirements for the regulation and supervision of internationally active banks.

In December 2022, the Committee published global standards on the prudential treatment of banks' exposures to cryptoassets as well as guidelines for proportionate regulatory regimes. Together with the CPMI and IOSCO, the Committee also published an analysis of margin calls during the global market turmoil in March and April 2020.

Another important area concerns the evaluations of the Basel III regulatory framework that have been carried out over the last two years. This work resulted in two reports in 2022: an evaluation of the functioning of the regulatory buffers during the pandemic and a report on the impact of the implementation of Basel III.

### **Global cooperation on payments and financial infrastructure**

The Riksbank cooperates with several other central banks and international organisations to investigate the conditions for the issuance of central bank digital currency, the simplification of international payments and the oversight of financial infrastructures.

The Riksbank participates in an international working group that shares lessons learned and discusses the way forward for central bank digital currencies that are available to the public. In addition to the Riksbank, this group includes the European Central Bank (ECB) and the central banks of Canada, Japan, Switzerland, the United Kingdom and the United States. The group is also collaborating with the BIS Innovation Hub.

In 2022, the Riksbank contributed to the G20 countries' efforts to improve and simplify international payments. During the year, the Riksbank led the

Future of Payments working group, which examined the possibility of simplifying international payments with new payment infrastructure, central bank digital currencies and so-called stablecoins, a type of crypto-asset.

During the year, the Riksbank launched a joint project with the central banks of Israel and Norway and the BIS.

In addition, the Riksbank participated in the international oversight of several foreign financial infrastructures with relevance to financial stability in Sweden. The Riksbank also participated in the oversight of SWIFT, which is an organisation providing secure financial messaging services to central banks, banks and other parties around the world.

## **International Monetary Fund**

The pandemic led to a large increase in demand for IMF crisis financing in the form of special loan programmes with less stringent loan conditions. In 2022, most of the loan programmes introduced during the pandemic were phased out, with the aim being to return as soon as possible to traditional IMF programmes requiring deeper and longer-term economic reforms.

Russia's invasion of Ukraine shifted the focus to challenges related to high inflation, particularly in energy and food prices. Low-income countries and emerging market economies are considered to be particularly vulnerable and the IMF launched a new type of loan facility in the autumn to assist countries experiencing balance of payments problems linked to energy and food prices. During the year, the IMF requested additional financing for its fund for loans to low-income countries, the Poverty Reduction and Growth Trust (PRGT), and, in November, the Riksdag gave its consent for the Riksbank to contribute an additional SDR 150 million to the fund. Overall, demand for IMF resources increased over the year, mostly in the context of the IMF's traditional lending arrangements. In total, over 2022, the IMF's Board approved loans to 28 countries worth more than USD 98 billion. Much of this lending consisted of precautionary credit lines for countries with relatively strong and stable economies such as Chile and Peru.

Furthermore, in 2022, the IMF worked to establish a new sustainability fund, the Resilience and Sustainability Trust (RST), for lending to low- and middle-income countries, with the aim of financing climate change adaptation and pandemic preparedness. The Riksbank contributed to the design of the fund through active discussions with the IMF and through the Nordic-Baltic constituency. In November, the Riksdag decided to approve the Riksbank's lending contribution to the RST. The Riksbank's lending to the RST is conditional on the Government contributing 2 per cent of the loan amount to the reserve buffer in the fund.

At the IMF's Spring and Annual Meetings, held on-site in Washington D.C., the Riksbank was represented by Stefan Ingves, while Anna Breman represented the Riksbank in the IMF cooperation between Sweden, the Neth-

erlands, Belgium and Switzerland (G4). At the Annual Meeting, Sweden represented the Nordic-Baltic constituency on the IMF's advisory committee, the International Monetary and Financial Committee (IMFC). At the beginning of the year, Anna Breman was elected to chair the Nordic-Baltic Monetary and Financial Committee (NBMFC), where representatives from central banks and finance ministries from the eight countries of the Nordic-Baltic constituency jointly develop positions on key IMF issues.

The Riksbank contributes towards the IMF's funding through member capital, known as quotas, to which all members contribute, and through voluntary arrangements to borrow, to which about forty countries contribute. A possible increase in quotas has long been discussed and members have undertaken to finalise these discussions in December 2023 at latest.

### *The IMF assessed the financial sector in Sweden*

Over 2022, the IMF carried out a special assessment of the financial sector in Sweden, a so-called FSAP (Financial Sector Assessment Program). This assessment, which is conducted every five years, was last conducted in 2016. The review included analysis of the financial sector, the work of the authorities, legislation and supervision. The IMF focused on issues related to banking supervision, macroprudential policy, payments and the e-krona, capital and liquidity stress testing, financial crisis management by authorities and cyber issues. The results of the IMF assessment will be published in 2023.

### **European cooperation**

In 2022, the Riksbank participated in the Economic and Financial Committee (EFC), which prepares meetings of the Economic and Financial Affairs Council (ECOFIN). Per Jansson is the Riksbank's representative in the EFC. Among other things, the Committee discussed issues related to the Russian invasion of Ukraine. These included sanctions against Russia and measures to facilitate the exchange of Ukrainian cash into EU currencies. Issues linked less directly included the rapid rise in energy prices and its implications for electricity derivatives markets, and the development of growth and inflation. In addition, the financing of the EU's Next Generation EU support package, issues of common interest in the context of the IMF and the G20, and macroeconomic and financial implications of climate change were discussed.

Stefan Ingves participated in two informal Ecofin meetings. These meetings discussed issues related to European growth and Russia's invasion of Ukraine.

Over the year, the Riksbank took part in working groups of the ESCB. Among other things, these discussed international issues, issues concerning cybersecurity in the financial infrastructure, payment market developments and the establishment of a dialogue between central banks and the fintech sector. Russia's invasion of Ukraine was also the subject of special discussions.

The Riksbank is an observer in the European Securities and Markets Authority's (ESMA) CCP Supervisory Committee, which aims to improve the security and efficiency of central counterparties in the EU and third countries. This work consisted of assessing whether central counterparties (CCPs) outside the EU should be authorised to offer their services in the EU. The focus in 2022 was on monitoring how CCPs are affected by changes in electricity prices in the contracts that CCPs clear and by the invasion of Ukraine.

### *European cooperation on macroprudential policy*

The European Systemic Risk Board (ESRB) identifies, analyses and mitigates financial systemic risks in the EU. Since the beginning of 2020, Stefan Ingves has been First Vice-Chair of the ESRB and, in this capacity, participates in the ESRB's Steering Committee and General Board and represents the ESRB in other contexts, such as presentations at the EFC. In first half of 2022, Cecilia Skingsley represented the Riksbank on the ESRB's General Board and Advisory Technical Committee. She was replaced on the General Board by Per Jansson followed by Anna Breman. Among other things, in 2022, the Riksbank contributed to the ESRB's regular risk and policy assessments, the design of macroeconomic scenarios forming the basis of stress tests of European banks, pension funds and money market funds, and the analysis of macroprudential policy issues concerning central counterparties and the clearing of securities transactions in the EU. Other areas to which the Riksbank contributed were in the ESRB's work on climate-related risks and on the link between inflation and financial stability.

In February 2022, the ESRB followed up on the 2019- recommendations to Sweden and five other member countries on vulnerabilities related to the housing market. For Sweden, the ESRB found that vulnerabilities linked to the housing market and indebtedness have continued to increase since 2019, despite the macroprudential measures in place. Among other things, the ESRB highlighted the need for structural measures to address these vulnerabilities, but also discussed other measures to limit lending to over-indebted households.

### **Nordic-Baltic cooperation**

Two meetings of the Nordic-Baltic Macroprudential Forum (NBMF) were held in 2022. This is a forum for cooperation between central banks and financial supervisory authorities. The Riksbank was represented by Stefan Ingves. The forum focuses on financial stability risks and cross-border banking operations in the region. At this year's meetings, the focus was on discussing the impact of Russia's invasion of Ukraine on the macroeconomic outlook and financial stability. Among the issues discussed were measures to address structural risks that have built up in the property sector in many countries in the region.

The Riksbank also continued its work in the Nordic-Baltic Stability Group (NBSG), a forum for ministries of finance, central banks and financial supervisory and resolution authorities in the Nordic and Baltic countries. The stability group has the task of strengthening preparedness and managing cross-border financial stability issues in the Nordic-Baltic region. In 2022, work continued on identifying what is needed to ensure effective communication in a crisis. Latvia chaired the NBSG in 2022.

### **Cooperation in the area of climate change**

Climate change and its impact on the financial system have increasingly come up on the agendas of central banks both nationally and internationally.

In addition to the work carried out in the area of climate change through the IMF and the ESRB, the Riksbank has participated since 2018 in the Network for Greening the Financial System (NGFS), a global network of central banks and supervisory authorities with a focus on climate aspects in the work of these authorities. Anna Breman is the Riksbank's representative in the NGFS.

The Riksbank contributes to the work of three of the NGFS working groups and one expert network. Among other things, these working groups look at issues surrounding the design and analysis of climate scenarios, the impact of climate change on monetary policy, and approaches for central banks to work on sustainable investment, climate-related reporting and sustainable central banking. The Riksbank also participates in the NGFS expert network for legal issues.

The Riksbank also participates in the Basel Committee's Task Force on Climate-related Financial Risks, where the focus is on analysing climate-related risks as a source of financial risks, developing methods for quantifying climate-related risks (such as scenario analyses and stress tests) and investigating possible policy measures to counteract such risks at a European level. In 2022, the Task Force published principles for improving the management and supervision of banks' climate-related financial risks, and a number of clarifications of how banks should treat climate-related financial risks using the global minimum standards.

### **The Riksbank's technical assistance**

The Riksbank cooperates with central banks in developing countries. The aim is to provide advice, so-called technical assistance (TA), using the partner country's definition of problems, for example on issues relating to payment systems, evaluation, communication and the development of monetary policy. The activities are financed by funds from the Swedish International Development Cooperation Agency (Sida). During the year, the Riksbank cooperated with the Palestinian Monetary Authority (PMA) and with the central banks of Rwanda and Ukraine.

Cooperation with the National Bank of Rwanda and the PMA returned to normal during the year, with both digital and face-to-face meetings. During the autumn, the Riksbank had a close exchange of knowledge with Ukraine on payment systems in the event of crisis and war, among other things. At the end of the year, introductory meetings were held with the National Bank of Ethiopia on TA cooperation. The Riksbank considers that this cooperation provides an exchange of knowledge on many issues and contributes to the professional development of the Riksbank's staff.

## Communication

Inflation and increases in the policy rate marked the Riksbank's communication work in 2022. This was most evident in monetary policy communication, where the focus was on explaining the Riksbank's monetary policy decisions and forecasts in a context where news reporting on topics such as price increases and private finances was increasing sharply.

Overall, communication on financial stability focused on the increasing threats to financial stability. This included the risks of high inflation and rising interest rates and the importance of strengthening the resilience of the financial system as a whole.

Communication on the Riksbank's management had an unusually strong focus as the Riksbank's Executive Board was the subject of several decisions by the Riksbank's General Council during the year. The decision that Erik Thedéen would succeed Stefan Ingves on 1 January 2023 attracted the most attention.

Over the year, the Riksbank also continued to publish the Bank's analyses in various forms. All the Riksbank's publications are available in full text on its website ([www.riksbank.se](http://www.riksbank.se)). The majority of them are published in both Swedish and English. The Riksbank also publishes press releases, speeches and articles, as well as minutes from the meetings of the Executive Board and the General Council on its website.

Communication in new forms is one of the five priorities of the Riksbank's strategic plan. The strategy focuses on developing meetings and communication with the general public, particularly in dialogue with young adults. The Riksbank's strategy to develop the content of digital channels resulted, among other things, in a new video initiative, The Riksbank Explains, in which both experts and members of the Executive Board of the Riksbank briefly explain various concepts or conclusions. This initiative is deemed to have contributed to continued large interest in the Riksbank's official accounts in social media, such as LinkedIn, Twitter and Facebook.

### **Confidence in the Riksbank fell slightly**

To monitor how confidence in the Riksbank is developing among various target groups and the general public, the Riksbank uses regular external surveys.

Every year, Kantar Sifo measures the reputations of Swedish authorities. MedieAkademin's confidence barometer, together with the SOM Institute, measures and compares confidence in a number of different institutions and organisations in Sweden.

At the start of 2022, a survey by MedieAkademin showed that the general public had a record-high level of confidence in the Riksbank. Almost two respondents out of three replied that they had high or very high confidence in the Riksbank when the survey was conducted at the end of February. Kantar Sifo's Reputation Index, conducted in May, also showed a higher rating for the Riksbank than in the previous year. The Riksbank also has Kantar Sifo measure confidence every four months through questions to an online panel representative of the public. This fell slightly during the year, albeit from very high levels. The average percentage of respondents who replied that they had very or fairly high confidence in the Riksbank's way of conducting its work decreased to 52 per cent.

Media coverage of the Riksbank increased to record levels in 2022. Media impact for the messages in the Monetary Policy Reports reached the target level over the year.

## Corporate services and IT

In January, the Executive Board of the Riksbank decided to open depots at various locations in Sweden for the storage, issue and return of banknotes to and from banks. The reason for this is the increased responsibility for cash handling that the Riksbank is given in the new Sveriges Riksbank Act. The plan is to open at least five depots, which will be situated in Stockholm, Jönköping, lower and upper Norrland and one further location in southern or central Sweden. Three of the depots will be opened in 2023 and the others will become operational later. During the year, work was ongoing to find and finalise suitable premises for these operations. The year also saw the adaptation and maintenance of the Riksbank's premises at Brunkebergstorg.

During the autumn, training in information management was provided to all employees at the Riksbank. An upgraded document registration system was presented at the training. A review of the organisation of procurement and contract management was also carried out in the autumn. The final report from the review is intended to serve as a basis for continued work and development to promote the procurement process and contract management within the Riksbank. During the year, the Riksbank also introduced a new digital solution for electronically signing documents such as decisions and agreements.

As IT-supported operational development is becoming increasingly central to the Riksbank, the Executive Board decided to establish a new Department for IT and Digitalisation (AID) on 1 January 2022. IT operations were further developed during the year, adding new expertise in key areas and focusing on strengthening capabilities and protection in cybersecurity and contingency planning. In 2022, the Riksbank participated for the first time in the ESCB's

cybersecurity competition. The aim is to practice together with other central banks to increase their competence in dealing with cyber threats and breaches. One of the Riksbank's participants received the highest individual score in the competition and overall the Riksbank's team came fourth in the competition.

The international situation made it particularly important to ensure cooperation and continuity. As the pandemic led to rapid digitalisation, work continued to establish better solutions for hybrid working and more customised digital communication solutions. The contract with the Riksbank's IT service provider was extended for a further four years until December 2026. This provides the conditions for continued streamlining and development within the framework of the contracted services.

With regard to IT support, the Riksbank's employees show in the annual survey that they are more satisfied with it than in the previous year. The result of the survey is 78 per cent, which is higher than the target of 75 per cent. 82 per cent consider that AID is succeeding well or very well in its task of driving the Riksbank's digital development and delivering a robust and secure administration of high quality.

### **Analysis Programme**

The ability to carry out rapid and accurate analyses based on large amounts of data is one of the Riksbank's most important capabilities and a vital part of its daily operations. In order to implement a strategic shift in the field of analysis, the establishment of the Analysis Programme was therefore initiated during the year.

The Programme will run over several years in order to gradually build up the Riksbank's new data and analysis environment and establish new working methods. The work will be carried out using innovation methodology in collaboration with several departments. In addition to introducing new solutions, the focus is on establishing agile ways of working in cross-functional teams and increasing code-driven analysis. The aim is to improve efficiency, shorten lead times and increase the quality of the Riksbank's data and analysis work.

During the year, pilot studies were carried out, giving us more knowledge about technical choices and ways to use cloud-based solutions, together with a better understanding of the current level of knowledge of our employees.

## **Workplace and employees**

The Riksbank continued to recruit new employees in 2022 and employed 479 employees (422 full-time equivalents) at the end of the year, compared with 444 employees (416 full-time equivalents) at the end of 2021. The average age was 46 years and the proportion of women was 45 per cent and men 55 per cent. Among managers, the proportion of women and men is 51 and 49 per cent, respectively.

The Sustainable Working Methods project, which aims to investigate how we can perform our tasks sustainably over time, including the design of our future offices, submitted its preliminary study to the Executive Board in autumn 2022. The focus of the proposal was the future premises concept for the Riksbank building with concrete proposals. In December, the Executive Board decided to go ahead with a slightly larger refurbishment of the Riksbank building, which we are combining with maintenance work. In the meantime, we will use a replacement building.

The digital working methods that became a natural part of working life and everyday life with the coronavirus pandemic meant that the Riksbank's employees were given the opportunity to continue teleworking for a trial period. An evaluation was carried out as part of the annual work environment surveys and an Executive Board decision resulted in the permanent introduction of teleworking.

The sickness absence rate at the Riksbank during the year was 1.46 per cent. In order to maintain the low level of sickness absence, the Riksbank continued to work on preventive health measures, including the opportunity to participate in digital instructor-led training sessions. The employee fitness allowance was also increased during the year to SEK 5,000 for 2023 in view of the upcoming renovation of the Riksbank building, which will affect its gym facilities. In the latest work environment survey, the results for how satisfied the Riksbank's employees are with their work situation remained high. The total index rose from 72 to 75.

Based on our vision of being an inventive, highly prepared and responsive central bank, compulsory training courses for all employees and managers on the theme of change management were held in the autumn. The aim was to develop our ability to act and think in new ways and to face and manage the changes we encounter in our daily work and in the world around us. Employees have also undergone mandatory training in the Riksbank's new ethical rules, which entered into force on 1 November 2022. The work on developing the new ethical rules began during the pandemic, when the Riksbank started buying corporate bonds for monetary policy purposes. The aim of the updated rules was to have clearer and more appropriate ethical rules and to reduce the scope for interpretations that could increase the risk of rule violations. During the initial work, the main objective was to reduce the risks of misuse of inside information. In the autumn of 2022, this revision was extended to include issues of conflict of interest.

Several reorganisations were carried out in 2022 when the General Secretariat (STA) was reduced in order to focus more on the coordination of Bank-wide issues. The Corporate Services Department (AVS) was given a broader remit, which meant that the Riksbank's information security and risk work moved from STA to AVS, and that the Preparedness and Collaboration Division moved from the Payments Department (AFB) to AVS. The E-krona Division was also moved from STA to AFB. In addition, IT operations were organised into a separate Department for IT and Digitalisation (AID), as IT-

supported operational development is becoming increasingly important for the Riksbank.

## **Recruitment and competence supply**

During the year, 89 recruitments were carried out and 59 people chose to leave the Riksbank, 7 of whom were natural retirements. Total staff turnover was 13 per cent.

Access to skills is good for the majority of recruitments, with the exception of some specialised skills such as IT and payments where recruitments take longer to complete.

We continued to digitalise the recruitment process, for example through the use of digital references.

The Riksbank's assessment is that the implementation of the Sustainable Workplaces project, management development with 360-degree assessments of all managers at the Riksbank and skills and supply analyses entailed important shifts providing a more long-term approach to strategic competence supply.

## **Internal control and risk management**

The Executive Board is ultimately responsible for internal control and thus establishes overall policies and certain rules that govern the Riksbank's activities. In accordance with the provisions of the Sveriges Riksbank Act, internal control is a process that includes risk analysis, control measures, follow-up and documentation. Moreover, the Executive Board presents its assessment of the adequacy of internal control in the Annual Report.

A key element of sound internal control is that operations have appropriate risk management. Risk management shall ensure that operations are conducted efficiently and in accordance with applicable laws, that they are reported in a reliable and fair manner and that the Riksbank is economical with public finances.

The division of responsibility for risk management follows the principle of three lines of responsibility. This means that, in the first line of responsibility, the operations are responsible for day-to-day risk management. The second line of responsibility consists of an independent risk division that is responsible for defining the frameworks and methods for risk management. The risk division is also responsible for monitoring and verifying that operations in the first line comply with these and manage their risks appropriately. The third line of responsibility consists of an independent internal audit function, reporting directly to the Executive Board, which carries out examinations of selected areas of the Riksbank's internal control, including the work of the control functions and the Riksbank's risk management.

## Operational risks

Operational risk refers to the risk of loss arising from inadequate or failed internal processes or routines, human error, defective systems or external events. Work on operational risks follows the five steps of the risk management process: identify, assess, manage, monitor and report.

In 2022, a preparatory process was introduced to ensure that all operational risks associated with a significant change in operations are identified, assessed and, if necessary, addressed before the change is implemented.

The overall level of operational risks was estimated to have increased slightly in 2022, among other things due to increased risks related to information management and challenges related to overdependence on key personnel and supplier management.

## Financial risks

The Riksbank's financial risk and investment policy is determined by the Executive Board every year and sets the outer frameworks for dealing with the financial risks arising in the management of the Riksbank's assets and liabilities.

The financial risks consist of market risk, credit risk and liquidity risk. These risks are mainly followed up by the Markets Department, which is responsible for day-to-day risk control, while the Risk Division is responsible for the overall and independent risk control.

The Riksbank regularly conducts stress tests to measure the sensitivity of the Riksbank's financial assets and liabilities to unexpected market events. The stress tests show how much the value of assets and liabilities might change if a particular scenario, hypothetical or historical, were to occur.

The year's developments in interest rates and exchange rates, to which the Riksbank is exposed, led to an increase in financial risks. It was mainly market risk that increased during the year. This is mainly influenced by two factors.

The first factor is the market value (exposure) of the assets owned by the Riksbank. This exposure is affected when the Riksbank buys or sells assets and when asset prices change. Both in Sweden and abroad, bond yields have risen, contributing to a fall in the value of the Riksbank's assets. On the other hand, the Riksbank's foreign assets have become more valuable, calculated in kronor, as the krona has weakened. Overall, the Riksbank's exposure to financial risks is virtually unchanged compared with the previous year.

The second factor is the variation (volatility) in the prices of the assets owned by the Riksbank and the covariation (correlation) between these prices. Volatility on the financial markets increased during the year, particularly on the bond market. The increase in both volatility and correlation was due to the rapid and synchronised rise in interest rates in Sweden and abroad.

This year's increase in market risk is thus primarily a consequence of the Riksbank's exposure to financial risks being more or less unchanged and both the variation and covariation in interest rates being higher now than in the past.

## **Data protection**

Work on establishing a basic level of data protection in operations continued in 2022. The focus this year was again on preventive measures, including monitoring and evaluation of procedures and processes, as well as training and knowledge dissemination to increase employee awareness of data protection issues.

The Executive Board decided on a new data protection policy clarifying roles and responsibilities. The Riksbank's data protection network, which includes Data Protection Officer, Data Protection Coordinator and Data Protection Ambassadors, was strengthened with a new position in the form of a Data Protection Lawyer.

## **Crisis management and preparedness**

Strengthened preparedness is one of the Riksbank's five strategic priorities. Within the Riksbank, the concept encompasses both crisis preparedness and civil defence. Crisis preparedness consists of incident management, business continuity and crisis management, while civil defence is the preparations made to ensure that society can function in the event of war and the threat of war, as well as in support of the Swedish Armed Forces. The Riksbank's preparedness and protective security work safeguards our ability to deal with peacetime crisis situations, a heightened state of alert and war.

### **Crisis management**

The year began with the Riksbank's crisis management team once again being activated in response to the coronavirus pandemic. Russia's invasion of Ukraine shifted the focus of the crisis management team from the pandemic to the security policy situation. The Riksbank took measures to strengthen its preparedness to deal with potential disruptions in its own operations, while closely monitoring developments in the financial markets and the economy and maintaining an ongoing dialogue with other authorities, private actors and other central banks. Several employees at the Riksbank had to give lower priority to their regular tasks and focus on issues related to international monitoring and cooperation.

### **Strengthened preparedness**

Over the year, the Riksbank continued the work of strengthening its ability to ensure that there is functionality and continuity for vital societal functions, both during peacetime crisis situations (crisis preparedness) and during states of heightened alert or war (civil defence). The Riksbank forms part of Sweden's total defence and participates actively, together with other authorities in the financial area, in planning for civil defence. For example, one condition

that was put into place during the year was that all permanent staff were placed on wartime deployment.

During the year, the Riksbank participated in several exercises to increase its ability to handle a peacetime crisis situation or a state of heightened alert, for example within the group for private-public cooperation in the financial sector (FSPOS) together with 60 other actors.

### **Changed mandate**

Since 1 October 2022, the Riksbank has been included in the preparedness sector Financial Services on a voluntary basis. Finansinspektionen, as the lead authority, heads up the sector's work on coordinating measures prior to and during peacetime crisis situations and states of heightened alert. The sector consists of four socially important functions:

- payment services
- financing and savings
- financial stability
- Insurance.

Preparations for the Riksbank's increased responsibility for preparedness under the new Sveriges Riksbank Act continued in 2022. Under the new Act, the Riksbank must ensure that the public is able to make payments both in crisis situations that occur during peacetime and in states of heightened alert. This responsibility means, among other things, that the Riksbank may define which companies are of particular importance for payments to function and are thus subject to requirements for planning, training, exercises and participation in the work led by the Riksbank.

### **Organisation**

Lessons learned from the coronavirus pandemic led to some organisational changes in late 2021, with the Chief of Staff receiving an expanded mandate in crisis management and a permanent crisis management team being established in the General Secretariat. The new organisation was tested by managing the consequences of Russia's invasion of Ukraine. A number of decisions were taken and experience so far shows that coordination within the Riksbank has become more effective.

Russia's war in Ukraine also highlighted the need to strengthen, over the long term, the Riksbank's ability to operate in peacetime crisis situations and during times of heightened alert. On 1 November 2022, most of the resources working on preparedness were therefore transferred to the Corporate Services Department.

# BALANCE SHEET AND PROFIT AND LOSS ACCOUNT

## Summary

### Balance sheet

In 2022 the Riksbank's balance sheet total decreased by SEK 64,288 million. The securities holding in Swedish kronor decreased by SEK 156,354 million, mainly due to the Executive Board's decision to design purchases in the second half of the year to reduce the holding. The aim was to put monetary policy on a less expansionary path. Also, higher bond yields have resulted in a drop in the market price of the securities holding.

The foreign currency reserve increased by SEK 88,035 million, mainly as a result of the Executive Board's decision to buy, already in 2022, foreign currency from banks equalling the foreign currency loans that had been borrowed from the Debt Office and which mature in the spring of 2023. In addition, the weakening of the Swedish krona has caused the value of foreign assets in Swedish kronor to increase.

During the period, the item 'Equity' decreased by SEK 3,936 million due to profit allocation of SEK 3,900 million and reposting of the result of the prior year in accordance with the decided allocation of profit. Since the Riksbank reports a loss of SEK 80,734 million for 2022, the item 'Equity' will be negative when the Riksdag has decided on the Riksbank's allocation of profit for 2022.

In the table below, a summary of the Riksbank's balance sheet is presented and how it has changed from the prior year. To avoid discrepancies when comparing with the balance sheet items presented in the section 'Asset management', accrued interest has been allotted to the relevant asset and liability item.

### The Riksbank's assets and liabilities

*SEK million*

	2022	2021	Change
<b>Assets</b>			
Gold	76,488	66,680	9,808
Receivables from the IMF	116,053	102,804	13,249
Foreign currency reserve <sup>1</sup>	482,336	394,301	88,035
Structural operations	–	19,000	–19,000
Marginal lending facility	–	68	–68
Securities denominated in Swedish kronor	823,744	980,098	–156,354
Other assets	1,340	1,298	42

	2022	2021	Change
<b>Total assets</b>	<b>1,499,961</b>	<b>1,564,249</b>	<b>-64,288</b>
<b>Liabilities</b>			
Banknotes and coins in circulation	64,956	61,462	3,494
Deposit facility	574,293	588,068	-13,775
Debt certificates issued	583,848	535,007	48,841
Liability to the Debt Office in foreign currency <sup>2</sup>	76,140	127,408	-51,268
Counterpart of Special Drawing Rights	90,833	82,288	8,545
Other liabilities	11,087	9,422	1,665
Provisions	423	5,435	-5,012
Revaluation account	116,563	88,707	27,856
Equity	62,552	66,488	-3,936
Reported result	-80,734	-36	-80,698
<b>Total liabilities</b>	<b>1,499,961</b>	<b>1,564,249</b>	<b>-64,288</b>

<sup>1</sup> The item 'Foreign currency reserve' consists of balances with banks, loans and security investments which, in the balance sheet, are reported under the heading 'Claims on residents outside Sweden denominated in foreign currency'.

<sup>2</sup> The liability to the Debt Office is reported in the balance sheet under the item 'Liabilities to residents in Sweden denominated in foreign currency'.

## Profit and loss account

The Riksbank's result, according to the profit and loss account for 2022, was SEK -80,734 million, which is a SEK 80,698 million poorer result than the previous year. The poorer result is mainly due to a write-down of the Riksbank's securities holding by SEK 79,628 million as a result of a rise in bond yields in 2022. The write-down of the securities holding is an unrealised loss that will lead to higher future interest income from the date of the write-down until such time as the written-down security in question is sold or matures.

Total return from asset management was SEK -56,969 million, which is SEK 72,336 million lower than the same period of the prior year. The main reason for this is that the Riksbank's securities holding has been written down due to rising bond yields; a more detailed explanation of the outcome of asset management is provided in the 'Asset management' section. The table below shows the Riksbank's result broken down by the Riksbank's main asset classes – Gold, Foreign currency reserve and Securities denominated in Swedish kronor.

The result for each asset class includes unrealised gains and losses reported in the revaluation account in the balance sheet. After reversal of this unrealised result, the result of the table corresponds to that reported in the Riksbank's profit and loss account.

Administrative expenses amounted to SEK -1,141 million, which is 87 per cent of the annual budget.

**The Riksbank's result***SEK million*

	2022	2021	Change
<b>Gold</b>	<b>9,808</b>	<b>3,783</b>	<b>6,025</b>
<i>Unrealised result due to change in price of gold</i>	9,808	3,783	6,025
<b>Foreign currency reserve<sup>3</sup></b>	<b>13,631</b>	<b>23,048</b>	<b>-9,417</b>
Net interest income	6,292	2,339	3,953
<i>Realised result due to change in interest rates</i>	-16,226	1,488	-17,714
<i>Unrealised result due to change in interest rates</i>	-3,300	-6,196	2,896
<i>Write-down due to change in interest rates</i>	-20,522	-2,049	-18,473
<i>Realised result due to change in exchange rate</i>	9,594	1,264	8,330
<i>Unrealised result due to change in exchange rate</i>	37,821	26,255	11,596
<i>Fees</i>	-28	-23	-5
<b>Securities denominated in Swedish kronor</b>	<b>-60,975</b>	<b>-3,613</b>	<b>-57,362</b>
Net interest income	3,581	1,488	2,093
<i>Realised result due to change in interest rates</i>	247	-	247
<i>Unrealised result due to change in interest rates</i>	-5,697	-2,204	-3,493
<i>Write-down due to change in interest rates</i>	-59,106	-2,897	-56,209
<b>Lending in Swedish kronor<sup>4</sup></b>	<b>3</b>	<b>57</b>	<b>-54</b>
<b>Deposits in Swedish kronor<sup>5</sup></b>	<b>-8,158</b>	<b>541</b>	<b>-8,699</b>
<b>Liability to the Debt Office in foreign currency</b>	<b>-14,111</b>	<b>-9,915</b>	<b>-4,196</b>
<i>Interest expense</i>	-989	-1,525	536
<i>Unrealised result due to change in exchange rate</i>	-13,122	-8,390	-4,732
<b>IMF assets and liabilities</b>	<b>2,833</b>	<b>1,466</b>	<b>1,367</b>
Net interest income	435	9	426
<i>Realised result due to change in exchange rate</i>	52	29	23
<i>Unrealised result due to change in exchange rate</i>	2,346	1,428	918
<b>Total return, asset management</b>	<b>-56,969</b>	<b>15,367</b>	<b>-72,336</b>
<b>Change in financial risk provision</b>	<b>5,000</b>	<b>-</b>	<b>5,000</b>
<b>Net interest earnings on administration and income from administration</b>	<b>232</b>	<b>301</b>	<b>-69</b>
<b>Cost of administration</b>	<b>-1,141</b>	<b>-1,058</b>	<b>-83</b>
<b>Total result</b>	<b>-52,878</b>	<b>14,610</b>	<b>-67,488</b>
<b>Reversal of unrealised result above<sup>6</sup></b>	<b>-27,856</b>	<b>-14,646</b>	<b>-13,210</b>
<b>Result recorded in the profit and loss account</b>	<b>-80,734</b>	<b>-36</b>	<b>-80,698</b>

<sup>3</sup> The result of the foreign currency reserve includes the return from deposit repos in foreign currency.

<sup>4</sup> 'Lending in Swedish kronor' refers to net interest income for the balance sheet items 'Structural operations' and 'Marginal lending facility'.

<sup>5</sup> 'Deposits in Swedish kronor' refers to net interest income for the balance sheet items 'Deposit facility' and 'Debt certificates issued'.

<sup>6</sup> The reversal corresponds to change in the revaluation account. 'Unrealised result' refers to existing holdings, and also reversal of unrealised gains with respect to holdings sold during the year.

## Accounting policies

The balance sheet and the profit and loss account for the Riksbank have been prepared in accordance with the Sveriges Riksbank Act and in accordance with the Rules for Bookkeeping and Annual Accounts at Sveriges Riksbank, last updated by the Executive Board on 8 June 2022 (Ref. no. 2022-00572), which came into force on the same date. The update merely entailed adapting to a new document template and also a few clarifications were made.

The rules for current recording of transactions refer to the Bookkeeping Ordinance (2000:606) and the rules for annual accounts refer to the Guideline of the European Central Bank on the Legal Framework for Accounting and Financial Reporting in the European System of Central Banks (ESCB), (EU) 2016/2249 (ECB/2016/34) amended according to (EU) 2019/2217 (ECB/2019/34) as well as (EU) 2021/2041 (ECB/2021/51).

Under Chapter 10, section 3 of the Sveriges Riksbank Act the Riksbank shall apply the ESCB accounting guideline where relevant.

It is the Governing Council at the ECB that decides on the ESCB accounting guideline, and the Accounting and Monetary Income Committee (AMICO) reports to the Governing Council in terms of the development, application and implementation of this guideline. In the interpretation of the accounting guideline, consideration shall be given to the guideline's preparatory works, general accounting policies and accepted accounting practice.

The Riksbank deviates from the ESCB accounting guideline on the following points:

- In the presentation format for the balance sheet, the terms “euro” and “euro area” have been replaced with “Swedish kronor” and “Sweden”, because Sweden has not introduced the euro as a means of payment.
- The depreciation period for buildings is 50 years instead of 25 years, because 50 years is considered to better reflect the actual lifetime of the Riksbank's buildings. There are also slight deviations for other fixed assets.
- The Riksbank's threshold for capitalising fixed assets is SEK 20,000 instead of EUR 10,000, justified by the fact that a lower capitalisation limit is considered to give greater control of the Riksbank's fixed assets.
- Discounts on discount securities with maturities of over a year at the time of acquisition are amortised on a straight-line basis instead of according to the internal rate of return method. The deviation is justified by the consideration that it provides more transparent reporting of the amortisations, and also means that amortisations for all securities are reported in the same way.

The deviations from the ESCB accounting guideline are set out in the Rules for Bookkeeping and Annual Accounts at Sveriges Riksbank.

The cash flow statement is presented as part of the Annual Report, which is not a requirement under the ESCB's accounting guideline. The statement has been prepared guided by the international accounting standard IAS 7. The deviation is justified by the fact that the cash flow statement provides valuable information regarding primarily the result and change in cash and cash equivalents.

## Changes in accounting policies

No changes in accounting policies were made in 2022.

## Fundamental accounting policies

The following fundamental accounting policies have been applied:

- The accounting shall reflect financial reality and be characterised by transparency.
- The valuation of assets and liabilities and for income recognition shall be carried out prudently.
- Deviations from the accounting policies may only occur if such deviations can reasonably be considered immaterial on the whole in light of the Riksbank's year-end accounts.
- The criteria for measuring balance sheet items and for income recognition must be applied consistently.
- Assessment of assets and liabilities must be made on the assumption of a going concern.
- Income and expenditure shall be recognised as income and expenditure during the accounting period in which they were earned or arose, regardless of when payment is made.
- Assets and liabilities shall be adjusted to take into account events that occur between the end of the financial year and the date the annual accounts are adopted by the Executive Board, provided that these events have affected the value of the assets or liabilities on the closing date.

## Recognition of assets and liabilities

Assets and liabilities are only reported in the balance sheet if it is probable that any future financial results connected to the asset or liability will comprise a flow to or from the Riksbank and if essentially all risks and rights related to the asset or liability have been transferred to or from the Riksbank.

Trade date accounting Foreign exchange transactions and securities transactions are recognised in the balance sheet on the settlement date. Realised gains and losses from net sales are registered on the trade date.

## Provision for financial risks

A provision for market, liquidity and credit risk may be made on the basis of a justified estimation of the risk exposure.

## Balance sheet valuation rules

Gold and securities are recorded at the market exchange rates and market prices applying on the closing date. According to the accounting rules, it is possible, based on monetary policy considerations, to measure securities held for monetary policy purposes at amortised cost less any decrease in value. The Riksbank has not chosen to apply this valuation approach. The exchange rates below are used for revaluation at year-end. In the table below the exchange rates have been rounded off to four decimal places.

### Exchange rates

	31/12/2022	31/12/2021
EUR/SEK	11.1450	10.2857
USD/SEK	10.4177	9.0400
GBP/SEK	12.5817	12.2426
AUD/SEK	7.0897	6.5707
CAD/SEK	7.6985	7.1435
SDR/SEK	13.9212	12.6684
NOK/SEK	1.0589	1.0260
JPY/SEK	0.0790	0.0785
DKK/SEK	1.4989	1.3825

Source: Bloomberg.

Receivables, balances and liabilities are recorded at their nominal amount. Amounts in foreign currency are translated at the closing rate with the exception of receivables and payables reported under the items 'Other assets' and 'Other liabilities'. These are recorded at the exchange rate on the trade date.

Shares and participations are recorded at cost of acquisition.

Tangible and intangible assets are recorded at cost of acquisition and depreciated according to plan. Buildings are depreciated over a period of 50 years, other fixed assets over 5–25 years. Machinery and equipment, including computers, are depreciated over 3–7 years. Land and art are not depreciated. For IT systems developed in-house at the Riksbank, payroll expenses for certain IT staff are included in the asset's cost of acquisition.

## Repurchase agreements

Repurchase agreements are reported as loan transactions and therefore do not affect the holdings of securities and gold. A repurchase agreement is an agree-

ment to sell assets, such as securities or gold, whereby the seller simultaneously undertakes to repurchase the assets at a specified price on a specific date in the future.

Assets pledged by the Riksbank as collateral for deposit repos continue to be reported in the balance sheet and are recorded in accordance with the applicable rules for the Riksbank's other holdings of securities and gold. An amount equivalent to the purchase sum is reported as a liability, while the transferred assets are reported as memorandum items.

Assets obtained by the Riksbank under reverse repurchase agreements are not reported in the balance sheet because they constitute loan collateral. An amount equivalent to the purchase sum is reported as a receivable. The difference between the two payments in a repurchase agreement (spot and forward) is allocated over the term of the agreement.

Transactions carried out within the framework of agreements on automatic repurchase agreements are only reported in the balance sheet if the collateral is pledged in the form of cash paid into an account at the Riksbank.

## Banknotes and coins

The balance sheet item 'Banknotes and coins in circulation' is equivalent to the nominal value and calculated by deducting, from the value of the banknotes and coins received by the Riksbank from the manufacturers, both the value of the banknotes and coins included in the Riksbank's depots and the value of the banknotes and coins the Riksbank has destroyed and cancelled. Banknotes and coins in circulation that are no longer legal tender are recognised in the profit and loss account at the latest when they are no longer redeemed by the Riksbank. However, they must be recognised in the profit and loss account earlier if only a small amount is expected to remain to be redeemed and the Riksbank makes a provision at the same time for this amount. Commemorative coins and commemorative banknotes in circulation must be recognised in profit or loss when the issue has been in circulation for more than ten years.

## Recognition of income

Realised gains and losses are transferred to the profit and loss account.

Unrealised gains are transferred to a revaluation account in the balance sheet.

Unrealised losses are recognised in the profit and loss account if they exceed unrealised gains that may have been previously posted in the corresponding revaluation account. Unrealised losses recognised in profit and loss may not be reversed in later years to offset new unrealised gains. Unrealised losses in a particular security, a particular currency or gold are not netted against unrealised gains in other securities, currencies or gold.

Premiums and discounts on securities purchased are calculated and reported as part of interest income and are written off during the security's remaining time to maturity.

The value adjustments of the IMF's holdings in Swedish kronor are offset against the exchange-rate revaluations that are attributable to the Riksbank's quota in the IMF. The account balance in Swedish kronor has been hedged by the IMF against SDR, which causes exchange-rate conversion. This principle means that the balance of the krona account is measured as if it were in SDR instead of Swedish kronor.

## Cost of transactions

With regard to gold, instruments in foreign currencies and securities, the average method is used daily to establish the cost of acquisition of items sold when calculating effects of exchange rates and prices. When acquisitions of currencies and gold are netted, the average cost of acquisition for the day's acquisition of each individual currency and gold is added to the previous day's holdings in order to obtain a new weighted average of the exchange rate or the gold price, respectively. To calculate net sales, the realised gain/loss is calculated on the basis of the average cost of acquisition on the previous day for the holding in question.

## Derivative instruments

Derivative instruments are recorded contract by contract within each group of derivative instruments. Groups with a positive value are recorded as an asset and groups with a negative value as a liability.

FX forwards are recorded in the amount corresponding to the contract's forward amount multiplied by the difference between closing day rates and trade date rates (spot). The difference between the trade date exchange rate (spot) and the contracted forward exchange rate is allocated as interest over the term of the contract. The currency sold is booked on the trade date, multiplied by the difference between the trade date exchange rate (spot) and the average acquisition rate, as realised gains/losses.

The spot legs of FX swaps are booked on the settlement date at the trade date rate (spot). The forward legs of FX swaps are booked the same way as FX forwards; that is, at a value corresponding to the contract's forward amount multiplied by the difference between the closing day rate and the trade day rate (spot). The difference between the trade date exchange rate (spot) and the contracted forward exchange rate is allocated as interest over the term of the contract. Unlike foreign exchange forwards, no net foreign exchange gains/losses arise when recording FX swaps.

Futures contracts are booked daily as realised gains/losses in an amount corresponding to the value calculated in the daily settlement.

# Balance sheet

*SEK million*

Assets		31/12/2022	31/12/2021
<b>Gold</b>	Note 1	76,488	66,680
<b>Claims on residents outside Sweden denominated in foreign currency</b>			
Receivables from the IMF	Note 2	115,530	102,794
Balances with banks, loans and security investments	Note 3	480,274	392,994
		595,804	495,788
<b>Lending to credit institutions in Sweden related to monetary policy operations denominated in Swedish kronor</b>			
Structural operations	Note 4	–	19,000
Marginal lending facility	Note 5	–	68
		–	19,068
<b>Securities of residents in Sweden denominated in Swedish kronor</b>	Note 6	819,664	974,712
<b>Other assets</b>			
Tangible and intangible fixed assets	Note 7	600	576
Financial assets	Note 8	554	554
Derivative instruments	Note 9	–	–
Prepaid expenses and accrued income	Note 10	6,721	6,725
Other assets	Note 11	130	146
		8,005	8,001
<b>Total assets</b>		<b>1,499,961</b>	<b>1,564,249</b>

<b>Liabilities and equity</b>		<b>31/12/2022</b>	<b>31/12/2021</b>
<b>Banknotes and coins in circulation</b>			
Banknotes	Note 12	61,798	58,315
Coins	Note 13	3,158	3,147
		64,956	61,462
<b>Liabilities to credit institutions in Sweden related to monetary policy operations denominated in Swedish kronor</b>			
Deposit facility	Note 14	574,293	588,068
Fine-tuning operations	Note 15	–	–
		574,293	588,068
<b>Other liabilities to credit institutions in Sweden denominated in Swedish kronor</b>			
	Note 16	268	108
<b>Debt certificates issued</b>			
	Note 17	583,726	535,007
<b>Liabilities to other residents in Sweden denominated in Swedish kronor</b>			
	Note 18	2,436	806
<b>Liabilities to residents outside Sweden denominated in Swedish kronor</b>			
	Note 19	8,230	8,363
<b>Liabilities to residents in Sweden denominated in foreign currency</b>			
	Note 20	75,586	126,651
<b>Liabilities to residents outside Sweden denominated in foreign currency</b>			
	Note 21	–	–
<b>Counterpart of Special Drawing Rights allocated by the IMF</b>			
	Note 22	90,417	82,280
<b>Other liabilities</b>			
Derivative instruments	Note 23	–	–
Accrued expenses and prepaid income	Note 24	1,174	845
Other liabilities	Note 25	71	65
		1,245	910
<b>Provisions</b>			
	Note 26	423	5,435
<b>Revaluation accounts</b>			
	Note 27	116,563	88,707

*The table continues on the next page.*

<b>Liabilities and equity</b>		<b>31/12/2022</b>	<b>31/12/2021</b>
<b>Equity</b>			
Capital	Note 28	1,000	1,000
Reserves	Note 29	61,552	65,488
		62,552	66,488
<b>Result for the year</b>		-80,734	-36
<b>Total liabilities and equity</b>		<b>1,499,961</b>	<b>1,564,249</b>

## Profit and loss account

<i>SEK million</i>		<b>2022</b>	<b>2021</b>
Interest income	Note 30	11,661	4,557
Interest expense	Note 31	-10,503	-1,645
Net result of financial transactions, write-downs and risk provisions	Note 32	-80,961	-2,165
Fees and commissions income	Note 33	143	129
Fees and commissions expenses	Note 34	-28	-23
Dividends received	Note 35	64	110
Other income	Note 36	31	59
<b>Total net income</b>		<b>-79,593</b>	<b>1,022</b>
Staff costs	Note 37	-589	-546
Administrative expenses	Note 38	-471	-441
Depreciation of tangible and intangible fixed as- sets	Note 39	-66	-65
Banknote and coin expenses	Note 40	-15	-6
<b>Total expenses</b>		<b>-1,141</b>	<b>-1,058</b>
<b>Result for the year</b>		<b>-80,734</b>	<b>-36</b>

# Cash flow statement

SEK million

	31/12/2022	31/12/2021
<b>OPERATING ACTIVITIES</b>		
<i>Cash flow from operating activities, profit and loss</i>		
Interest received	11,816	3,184
Interest paid	-10,179	-1,984
Net received from financial transactions	-6,333	2,781
Fees and commissions received	143	129
Fees and commissions paid	-28	-23
Other income	31	42
Administrative expenses paid	-1,116	-1,007
	-5,666	3,122
<i>Cash flow from operating activities, assets</i>		
Receivables from the IMF	1,571	-51,902
Securities denominated in foreign currency	-82,877	3,722
Structural operations	19,000	148,500
Securities denominated in Swedish kronor	82,129	-348,792
Other assets	-102	-71
	19,721	-248,543
<i>Cash flow from operating activities, liabilities</i>		
Banknotes and coins in circulation	3,494	-1,374
Liabilities to credit institutions in Sweden related to monetary policy operations denominated in Swedish kronor	-13,775	93,494
Debt certificates issued	48,719	155,005
Liabilities to residents outside Sweden denominated in Swedish kronor	-133	6,715
Liabilities to residents in Sweden denominated in foreign currency	-65,398	-57,160
Liabilities to residents outside Sweden denominated in foreign currency	-	-
Other liabilities	-32,387	56,199
	-59,480	252,879
<b>Cash flow from operating activities</b>	-45,425	7,458

	31/12/2022	31/12/2021
<i>The table continues on the next page</i>		
<b>INVESTING ACTIVITIES</b>		
Acquisition and disposal of tangible and intangible fixed assets	-90	-45
Acquisition and disposal of financial assets	-	-2
Dividends received	64	110
<b>Cash flow from investing activities</b>	<b>-26</b>	<b>63</b>
<b>FINANCING ACTIVITIES</b>		
Transfer to the Treasury	-3,900	-6,800
<b>Cash flow from financing activities</b>	<b>-3,900</b>	<b>-6,800</b>
<b>Cash flow for the period</b>	<b>-49,351</b>	<b>721</b>
<b>Cash and cash equivalents at beginning of period</b>	<b>96,478</b>	<b>87,673</b>
Cash flow from operating activities	-45,425	7,458
Cash flow from investing activities	-26	63
Cash flow from financing activities	-3,900	-6,800
Exchange rate difference on cash and cash equivalents	10,685	8,084
<b>Cash and cash equivalents at end of period</b>	<b>57,812</b>	<b>96,478</b>
<b>Specification of cash and cash equivalents</b>		
Bank accounts, bank lending and reverse repurchase agreements denominated in foreign currency, see Note 3	57,812	96,410
Marginal lending facility	-	68
<b>Total cash and cash equivalents</b>	<b>57,812</b>	<b>96,478</b>

The cash flow statement shows incoming and outgoing payments during the period as well as cash and cash equivalents at the beginning and end of the period. The statement is divided into payments from operating activities, investing activities and financing activities.

Theoretically, the Riksbank can create an unlimited volume of liquidity in the national currency. In practice, this capacity is limited by the volume of assets accepted by the Riksbank as collateral in its lending, and the volume of assets that the Riksbank can purchase or invest in.

## Operating activities

Cash flows attributable to operating activities come from the Riksbank's core operations. Cash flow from operating activities, profit and loss, is based on the Riksbank's recorded result. Adjustments are made for items that do not affect cash flow or do not belong to operating activities. In addition, it includes changes that affect cash flow from such balance sheet items as those which are included in operating activities.

## Investing activities

Investing activities consist of the purchase and sale of tangible and intangible fixed assets, as well as those shares and participations that are reported under the item 'Financial assets'. Dividends from holdings of shares and participations are also included.

## Financing activities

Financing activities consist of changes in equity that usually occur through dividends, also known as transfer to the Treasury.

# Notes

*SEK million*

Figures in brackets refer to 2021.

## Note 1 Gold

	31/12/2022	31/12/2021
Quantity		
Troy ounces (million)	4.0421	4.0421
Price		
USD/troy ounce	1,816.4217	1,824.8460
SEK/USD	10.4177	9.0400
<b>Book value</b>	<b>76,488</b>	<b>66,680</b>

As of 31 December 2022 the Riksbank holds 4 million troy ounces (troy/oz.) of gold (4), which is equivalent to 125.7 tonnes. No gold was sold in 2022.

## Note 2 Receivables from the IMF

	31/12/2022	31/12/2021
Special Drawing Rights	93,273	84,762
Reserve position in the IMF		
Capital contribution (quota)	61,671	56,121
IMF krona account	-43,785	-41,585
	17,886	14,536
PRGT (Poverty Reduction and Growth Trust)	4,070	2,825
NAB (New Arrangements to Borrow)	301	671
<b>Total</b>	<b>115,530</b>	<b>102,794</b>

The Riksbank's holding of Special Drawing Rights amounts to SDR 6,700 million (6,691). An amount corresponding to the total SDR allocated by the IMF is reported as a liability (see Note 22). At the end of 2022, the SDR holding was 206 million higher than the allocation, which equals SEK 2,856 million.

The Riksbank's capital contribution (quota) to the IMF amounts to SDR 4,430 million and is booked net of the IMF's account for Swedish kronor under the item 'Reserve position in the IMF'. The IMF's account in Swedish kronor is a liabilities account that shows how large a share of capital contribution the Riksbank has paid into the IMF in Swedish kronor. Because these items are reported net, only the part of the capital contribution used by the IMF for lending to member countries is reported as a receivable from the IMF. The account balance in Swedish kronor has been hedged by the IMF against SDR, which causes exchange-rate conversion.

At the close of 2022 the Riksbank's PRGT lending was SDR 292 million (223) and NAB lending SDR 22 million (53).

On 23 December 2022, the IMF repaid the funds accumulated by the IMF in previous years as a buffer by means of, for instance, making deductions from interest payments relating to the Riksbank's reserve position in the IMF. The repayment amounted to SDR 11.3 million and was made to the Riksbank's SDR account. Since the deduction from prior years' interest payments has reduced the Riksbank's interest income, the repayment is reported as interest income from the Riksbank's reserve position in the IMF. The IMF has previously proposed that the Riksbank remit the funds to fund debt relief for heavily indebted countries. However, since the ECB considers that this form of participation in writing down debt by national central banks is incompatible with the ban on monetary financing, the Riksbank chose for the funds to be repaid instead. The Riksbank has informed the Riksdag of the ECB's view.

### Note 3 Balances with banks, loans and security investments

	31/12/2022	31/12/2021
Bank accounts	2,350	15,961
Bank lending	55,462	80,449
Reverse repurchase agreements	–	–
Bonds	422,462	296,584
Short-term securities	–	–
<b>Total</b>	<b>480,274</b>	<b>392,994</b>

Bank deposits and securities are issued in euro, US dollars, Pounds sterling, Australian dollars, Canadian dollars, Norwegian kroner, Danish kroner and Japanese yen. The distribution is shown in the table below. The securities have been recorded at quoted prices.

### Currency breakdown, balances with banks, loans and security investments

	31/12/2022	31/12/2021
Euro	100,844	76,356
US dollars	303,855	252,452
Pounds sterling	25,283	17,511
Australian dollars	20,552	16,496
Canadian dollars	12,088	16,991
Norwegian kroner	11,937	8,690
Danish kroner	5,714	4,498
Japanese yen	0	0
<b>Total</b>	<b>480,274</b>	<b>392,994</b>

The distribution of balances with banks, loans and security investments by maturity is shown in the table below.

**Maturity, balances with banks, loans and security investments**

<b>Maturity</b>	<b>Bal. w. banks and loans</b>	<b>Securities</b>
Up to 1 month	47,614	1,470
Over 1 month, up to 3 months	–	8,323
Over 3 months, up to 1 year	10,198	39,124
Over 1 year, up to 5 years	–	254,130
More than 5 years	–	119,415
<b>Total</b>	<b>57,812</b>	<b>422,462</b>

The Riksbank did not participate in any automatic securities lending programmes in 2022.

**Note 4 Structural operations**

Under this item, the Riksbank's lending to banks as a result of the covid-19 pandemic was reported. During the year, loans to banks for onward lending to businesses matured to a value of SEK 19,000 million matured and were not renewed. The interest rate for onward lending to businesses corresponded to the Riksbank's policy rate.

**Note 5 Marginal lending facility**

This item is used to report overnight loans to banks on their RIX accounts at the Riksbank. Loans are provided against collateral and the interest rate on the lending facility interest rate equals the Riksbank's policy rate plus 0.10 percentage points.

**Note 6 Securities of residents in Sweden denominated in Swedish kronor**

In 2012 the Riksbank started to acquire SEK-denominated securities as a contingency plan to enable future purchases of Swedish securities at short notice, either to secure financial stability or to contribute to a better-functioning transmission mechanism, in the event of a crisis in the financial system.

From 2015, the Riksbank increased the securities holding to make monetary policy more expansionary. During 2020–2021, the Riksbank continued to buy securities to alleviate the economic effects of the pandemic. At the beginning of 2022, the Riksbank focused the purchases on compensating for securities reaching maturity and in June 2022 the Executive Board decided that purchases in the second half of the year would be designed to reduce the holding. In November 2022, the Executive Board signalled that the securities holding will decrease as it matures after the turn of the year.

The securities have been recorded at quoted prices.

**Breakdown of SEK-denominated securities**

	<b>31/12/2022</b>	<b>31/12/2021</b>
Treasury bills	2,490	19,972
Government bonds	339,747	422,368
Covered bonds (mortgage bonds)	348,205	413,137
Municipal bonds	118,641	106,955
Corporate bonds	10,581	12,280
Commercial paper	–	–
<b>Total</b>	<b>819,664</b>	<b>974,712</b>

The breakdown of SEK-denominated securities by time to maturity is shown in the table below.

**Maturity for SEK-denominated securities**

<b>Maturity</b>	<b>Securities</b>	
Up to 1 month	289	1,060
Over 1 month, up to 3 months	32,178	12,672
Over 3 months, up to 1 year	147,312	163,665
Over 1 year, up to 5 years	453,203	593,997
More than 5 years	186,682	203,318
<b>Total</b>	<b>819,664</b>	<b>974,712</b>

**Note 7 Tangible and intangible fixed assets**

	31/12/2022	31/12/2021
<b>Land and buildings</b>		
Cost of acquisition, 1 January	618	616
Acquisitions during the year	22	2
Divestments during the year	–	–
Cost of acquisition, 31 December	640	618
Acc. depreciation, 1 January	–323	–304
Depreciation for the year	–19	–19
Divestments during the year	–	–
Acc. depreciation, 31 December	–342	–323
Book value	298	295
<b>Machinery and equipment</b>		
Cost of acquisition, 1 January	773	736
Acquisitions during the year	68	42
Divestments during the year	–9	–5
Cost of acquisition, 31 December	832	773
Acc. depreciation, 1 January	–492	–452
Depreciation for the year	–47	–45
Divestments during the year	9	5
Write-down for the year	–	–
Acc. depreciation, 31 December	–530	–492
Book value	302	281
<b>Total book value</b>	<b>600</b>	<b>576</b>
<b>Tax assessment value</b>		
Buildings	7	–
Land	2	–

The item ‘Land and buildings’ includes three properties: the headquarters in Stockholm as well as the cash provision offices in the municipality of Sigtuna (Broby) and Falun. The headquarters and the office in Broby are classified as special units and are therefore not taxable. The Falun office was acquired in December 2022 and an application to classify the office as a special unit has been submitted.

Acquisitions for the year in 2022 include the property in Falun to a value of SEK 40 million and IT applications to a value of SEK 16 million (18). The item ‘Book value, machinery and equipment’ includes intangible fixed assets in the form of application systems worth SEK 127 million (138).

**Note 8 Financial assets**

	31/12/2022	31/12/2021
<b>Shares and participations</b>		
Bank for International Settlements 17,244 shares at a par value of SDR 5,000, of which 25% are paid up	441	441
European Central Bank Value of participation EUR 12,092,886.02	110	110
Swift 43 shares (16)	3	3
<b>Total</b>	<b>554</b>	<b>554</b>

Central banks in the European System of Central Banks (ESCB) that are not part of the euro system are obliged to pay in 3.75 per cent of their capital subscription to the ECB. The Riksbank's capital subscription on 31 December 2022 amounted to 2.9790 per cent and the ECB's total subscribed capital to EUR 10,825,007,069.61. The capital subscription is based on the respective country's GDP and number of inhabitants and is calculated every fifth year. The subscription paid is to cover some administration costs of participation in the ESCB. Central banks in the ESCB that are not included in the euro system are not entitled to any allocation of profit from the ECB, and neither do they have an obligation to cover any losses in the ECB.

**Note 9 Derivative instruments**

Derivative instrument groups with a positive value are reported under this item.

**Note 10 Prepaid expenses and accrued income**

	31/12/2022	31/12/2021
Receivables from the IMF	523	10
Bonds in foreign currency	2,062	1,307
Derivative instruments	0	–
Government bonds denominated in Swedish kronor	2,080	3,240
Covered bonds denominated in Swedish kronor	1,468	1,725
Municipal bonds denominated in Swedish kronor	488	394
Corporate bonds denominated in Swedish kronor	44	27
Other	56	22
<b>Total</b>	<b>6,721</b>	<b>6,725</b>

**Note 11 Other assets**

	<b>31/12/2022</b>	<b>31/12/2021</b>
Staff loans	96	108
Accounts receivable	0	1
VAT recoverable	11	7
Balances with banks	23	30
Other	0	0
<b>Total</b>	<b>130</b>	<b>146</b>

**Note 12 Banknotes**

	<b>31/12/2022</b>	<b>31/12/2021</b>
1,000 krona	2,048	2,276
500 krona	45,548	42,049
200 krona	4,444	4,308
100 krona	2,706	2,583
50 krona	834	803
20 krona	986	969
Invalid banknotes	5,232	5,327
<b>Total</b>	<b>61,798</b>	<b>58,315</b>

Banknotes in circulation are broken down by the above denominations. The item 'Invalid banknotes' contains banknotes in circulation that ceased to be legal tender at the end of 2013, in June 2016 and in June 2017. Banknotes that have been invalid for more than ten years are normally written off from the liability for banknotes in circulation. At the same time, a provision is then made for the outstanding amount that is expected to be redeemed, and the remainder is recognised as income. The Riksbank may redeem invalid banknotes if there are particular grounds. At the end of 2022, the value of the banknotes that the Riksbank had received but which it had not yet decided to redeem was SEK 24 million (22).

**Note 13 Coins**

	<b>31/12/2022</b>	<b>31/12/2021</b>
10 krona	2,045	2,071
5 krona	511	502
2 krona	390	370
1 krona	212	204
Commemorative coins	–	–
<b>Total</b>	<b>3,158</b>	<b>3,147</b>

Coins in circulation are broken down by the above denominations.

**Note 14 Deposit facility**

Overnight deposits from the Riksbank's monetary policy counterparties in their RIX accounts at the Riksbank are reported here. The interest rate on the deposit facility equalled during the year the Riksbank's policy rate minus 0.10 percentage points.

**Note 15 Fine-tuning operations**

This item was used to report deposits for the purpose of fine-tuning liquidity in the financial system. The fine-tuning operations ended on 9 October 2019.

**Note 16 Other liabilities to credit institutions in Sweden denominated in Swedish kronor**

This item is used to report overnight deposits in RIX accounts from credit institutions that have their headquarters or a branch in Sweden, but that are not monetary policy counterparties. The deposit rate, during the year, equalled the Riksbank's policy rate minus 0.10 percentage points.

**Note 17 Debt certificates issued**

This item is used to report the Riksbank's issuance of debt certificates, done in order to absorb liquidity from the financial system. These deposits are done at the policy rate, as a rule with a maturity of one week. The volume of outstanding Riksbank certificates is governed by the banks' demand up to a cap determined by the Riksbank in order to adapt liquidity in the payment system to current monetary policy decisions. Throughout most of 2020, the Riksbank chose to limit the volume of Riksbank certificates to SEK 380,000 million, to allow reserves in the payment system to grow in line with the Riksbank's lending and purchases of securities in Swedish kronor. On 4 May 2021, the issuance volume was limited to half of the outstanding liquidity surplus in RIX, to ensure that there is ample scope for additional daily liquidity in RIX during the pandemic crisis, while at the same time market overnight rates can be kept close to the Riksbank's policy rate. During the year, the item increased mainly as a result of the decision to replace funding of the foreign currency reserve from the Debt Office with deposits in Swedish kronor from banks.

**Note 18 Liabilities to other residents in Sweden denominated in Swedish kronor**

This item is used to report overnight deposits in RIX accounts from central counterparties or clearing institutions that have their headquarters or a branch in Sweden, but that are not monetary policy counterparties and credit institutions. The deposit rate, during the year, equalled the Riksbank's policy rate minus 0.10 percentage points.

**Note 19 Liabilities to residents outside Sweden denominated in Swedish kronor**

Accounts in Swedish kronor that the Riksbank holds on behalf of other central banks and international organisations are reported here. In addition, RIX account balances of SEK 120.4 (0.1) million are reported for participants that have their headquarters or a branch outside of Sweden and that are not monetary policy counterparties.

**Note 20 Liabilities to residents in Sweden denominated in foreign currency**

Since 2009 deposits of foreign currency from the Debt Office have been reported under this item. The deposits have had the purpose of strengthening the foreign currency reserve. In January 2021, the Riksbank decided to replace foreign currency deposits from the Debt Office with deposits in Swedish kronor from banks. Deposits in Swedish kronor are reported under the liability items ‘Deposit facility’ and ‘Debt certificates issued’. The changeover has been carried out gradually by purchasing an even distribution of foreign currency during the period February 2021 to 31 December 2022. During the year, three loans totalling USD 6,500 million (nominal) matured. The distribution of foreign currency deposits is shown in the following table.

**Deposits of foreign currency**

	31/12/2022	31/12/2021
Euro from the Swedish National Debt Office	44,482	41,052
US dollars from the Swedish National Debt Office	31,099	85,599
Account deposits from authorities	5	0
<b>Total</b>	<b>75,586</b>	<b>126,651</b>

**Note 21 Liabilities to residents outside Sweden denominated in foreign currency**

This item was used to report amounts equalling purchase sums received in foreign currency for deposit repos.

**Note 22 Counterpart of Special Drawing Rights allocated by the IMF**

The Riksbank’s liability corresponding to the Special Drawing Rights (SDR) allocated by the IMF is reported here. The total allocation is SDR 6,495 million (6,495). The current holding of SDR amounts to SDR 6,700 million (6,691) and is reported under the item ‘Receivables from the IMF’ (see Note 2). At the end of 2022, the SDR allocation was 206 million lower than the holding, which equals SEK 2,856 million.

**Note 23 Derivative instruments**

Derivative instruments with a negative value are reported here.

**Note 24 Accrued expenses and prepaid income**

	<b>31/12/2022</b>	<b>31/12/2021</b>
Deposit repos	–	–
Derivative instruments	–	–
Deposits, Swedish National Debt Office	559	757
Debt certificates issued	122	–
Counterpart of Special Drawing Rights	416	8
Other	77	80
<b>Total</b>	<b>1,174</b>	<b>845</b>

**Note 25 Other liabilities**

	<b>31/12/2022</b>	<b>31/12/2021</b>
Accounts payable – trade	49	43
Other	22	22
<b>Total</b>	<b>71</b>	<b>65</b>

**Note 26 Provisions**

	<b>31/12/2022</b>	<b>31/12/2021</b>
Pension provision	53	59
Commemorative banknotes and coins written off	364	371
Job Security Foundation	6	5
Financial risk provision	–	5,000
<b>Total</b>	<b>423</b>	<b>5,435</b>

The pension provision has been calculated by the National Government Employee Pensions Board (SPV). Out of the pension liability, including special payroll tax, SEK 52 million (58) refers to PA-91 pensioners with a date of retirement prior to 2003, and SEK 1 million (1) refers to persons who have been granted a partial pension since 2003 or pension compensation prior to the age of 65. On 31 December 2002 the Riksbank redeemed its pension provision for those persons who on that date were employed by or were entitled to annuity from the Riksbank. The effect of the technical revaluations is reported as an increase in the pension liability. The effect of the technical revaluations was SEK –0.1 million for 2022 (–), and has been reported as a decrease in the pension liability.

The item ‘Banknotes and commemorative coins’ refers to the estimated future cost of banknotes and commemorative coins written off that the Riksbank may still redeem.

The item ‘Job Security Foundation’ refers to provisions for professional development and competence exchange in accordance with an agreement with the Job Security Foundation.

The item ‘Financial risk provision’ has been reversed to the result by reason of the reported loss.

**Note 27 Revaluation accounts**

	<b>31/12/2022</b>	<b>31/12/2021</b>
Price effect	3,451	12,448
Exchange rate effect	48,421	21,376
Gold value effect	64,691	54,883
<b>Total</b>	<b>116,563</b>	<b>88,707</b>

In special revaluation accounts, since 2004 unrealised gains and losses have been reported that consist of the difference between the cost of acquisition values and the market values. At the transition to 2004 it was decided that the cost of acquisition values should correspond to the market values as at 31 December 2003. If the unrealised losses exceed the unrealised gains at the end of the year, the difference is reported in the profit and loss account. This calculation is made security by security and currency by currency.

The price effect consists mainly of unrealised gains on securities. When calculating the Riksbank's allocation of profit, the reported profit is adjusted by the difference between the opening and closing value in the price effect.

**Price effect**

	<b>31/12/2022</b>	<b>31/12/2021</b>
Foreign securities	57	3,357
Treasury bills denominated in Swedish kronor	0	3
Government bonds denominated in Swedish kronor	3,394	8,966
Covered bonds denominated in Swedish kronor	0	96
Municipal bonds denominated in Swedish kronor	0	17
Corporate bonds denominated in Swedish kronor	0	9
<b>Total</b>	<b>3,451</b>	<b>12,448</b>

**Exchange rate effect**

	<b>31/12/2022</b>	<b>31/12/2021</b>
US dollars	33,042	13,080
Euro	3,667	553
Pounds sterling	1,811	1,447
Japanese yen	–	–
Australian dollars	2,252	1,410
Canadian dollars	1,451	1,643
Special Drawing Rights	4,920	2,574
Norwegian kroner	783	561
Danish kroner	495	108
<b>Total</b>	<b>48,421</b>	<b>21,376</b>

**Note 28 Capital**

The old Sveriges Riksbank Act stipulates that the Riksbank shall have capital in an amount of SEK 1,000 million. According to the new Sveriges Riksbank Act, the Riksbank's capital shall amount to SEK 40,000 million at 1 January 2023.

**Note 29 Reserves**

	31/12/2022	31/12/2021
Reserve fund	500	500
Contingency fund	41,638	40,345
Balancing fund	19,414	24,643
<b>Total</b>	<b>61,552</b>	<b>65,488</b>

The old Sveriges Riksbank Act stipulates that the Riksbank shall have a reserve fund amounting to SEK 500 million and a contingency fund that does not have a determined amount. The contingency fund has, together with the non-statutory balancing fund, been used since 1988 according to the guidelines for the allocation of the Riksbank's profit adopted that year. In addition, the contingency fund has been used to book write-ups of fixed assets in 1994, shares in BIS in 1996 and the gold holding in 1998. At the end of 2022, the written-up value corresponding to the current gold holding amounted to SEK 8,604 million and the current shareholding in BIS to SEK 235 million. The residual value of the fixed assets written up in 1994 amounted to SEK 41 million at the end of 2022.

According to the new Sveriges Riksbank Act, the Riksbank shall no longer have a balancing fund and the contingency fund is to be renamed 'retained profits'. The reserve fund shall remain in place, but no funds shall be assigned as of 1 January 2023. This means that 'Retained profits' amount to SEK 22,552 million at 1 January 2023.

The reposting performed between the Riksbank's equity items as at 1 January 2023 in accordance with the new Sveriges Riksbank Act are shown in the table below.

**Changes in the items 'Capital', 'Reserves' and 'Result for the year' according to the new Sveriges Riksbank Act**

	Capital	Reserve fund	Retained profits	Balancing fund
Balance, 31 December 2022	1,000	500	41,638	19,414
Reposting within equity	39,000	-500	-19,086	-19,414
<b>Balance, 1 January 2023</b>	<b>40,000</b>	<b>-</b>	<b>22,552</b>	<b>-</b>

The change in the items 'Capital', 'Reserves' and 'Result for the year' is explained in the table below:

**Change in the items 'Capital', 'Reserves' and 'Result for the year'**

	<b>Capital</b>	<b>Reserves</b>	<b>Result for the year</b>
Balance, 31 December 2020	1,000	76,561	-4,273
Transfer to the Treasury	-	-	-6,800
<i>Transfer to/from:</i>			
Balancing fund	-	2,264	-2,264
Contingency fund	-	-13,337	13,337
<b>Result for the year</b>	-	-	-36
Balance, 31 December 2021	1,000	65,488	-36
Transfer to the Treasury	-	-	-3,900
<i>Transfer to/from:</i>			
Balancing fund	-	1,293	-1,293
Contingency fund	-	-5,229	5,229
<b>Result for the year</b>	-	-	-80,734
<b>Balance, 31 December 2022</b>	<b>1,000</b>	<b>61,552</b>	<b>-80,734</b>

**Note 30 Interest income**

	<b>2022</b>	<b>2021</b>
<i>From foreign assets:</i>		
SDR	1,125	25
Reserve position in the IMF	357	7
PRGT (Poverty Reduction and Growth Trust)	40	2
NAB (New Arrangements to Borrow)	4	0
Bank accounts	52	-
Bank lending	137	53
Reverse repurchase agreements	17	-
Bonds	6,100	2,346
Short-term securities	-	0
Derivative instruments	0	0
	7,832	2,433
<i>From domestic assets and liabilities:</i>		
Structural operations	3	57
Government bonds denominated in Swedish kronor	1,416	912
Covered bonds denominated in Swedish kronor	1,508	480
Municipal bonds denominated in Swedish kronor	561	89
Corporate bonds denominated in Swedish kronor	133	41
Commercial paper denominated in Swedish kronor	-	1
Negative interest deposit facility	206	541
Negative interest debt certificates issued	-	0

Staff loans	1	1
Correspondent accounts (Loro)	1	2
	3,829	2,124
<b>Total</b>	<b>11,661</b>	<b>4,557</b>

### Note 31 Interest expense

	2022	2021
<i>From foreign liabilities and assets:</i>		
Deposits, Swedish National Debt Office	-989	-1,525
Deposit repos	-14	-
Counterpart of Special Drawing Rights	-1,091	-25
Derivative instruments	0	-
Bank accounts	-	-60
Other	0	-
	-2,094	-1,645
<i>From domestic assets:</i>		
Treasury bills	-37	-35
Debt certificates issued	-4,386	-
Deposit facility (RIX)	-3,978	-
Cash depots	-8	-
	-8,409	-35
<b>Total</b>	<b>-10,503</b>	<b>-1,645</b>

### Note 32 Net result of financial transactions, write-downs and risk provisions

	2022	2021
<i>Price effect:</i>		
Realised result from foreign securities	-16,226	1,488
Write-down of foreign securities prices	-20,522	-2,049
Realised result from domestic securities	247	-
Write-down of domestic securities prices	-59,106	-2,897
	-95,607	-3,458
<i>Exchange rate effect:</i>		
Realised exchange rate effects	9,646	1,293
Write-down of currencies	-	-
	9,646	1,293
<i>Gold value effect:</i>		
Realised gold value effects	-	-
Write-down of gold	-	-
	-	-
<i>Financial risk provision:</i>		
Financial risk provision	5,000	-
	5,000	-

	2022	2021
<b>Total</b>	<b>-80,961</b>	<b>-2,165</b>

At the end of the year, price write-downs were made of the bond holdings with a market price at the end of the year that was below the acquisition price. At the end of the year, there was no write-down requirement as regards the Riksbank's gold and currency holdings.

The item 'Financial risk provision' refers to the income for reversing the Riksbank's financial risk provision. This risk buffer was intended to bolster resilience for future losses and was reversed to alleviate the loss for 2022.

When calculating the Riksbank's allocation of profit, the exchange rate effect is excluded from reported profit. The exchange rate effect broken down by the currencies is shown in the table below

#### **Exchange rate effect broken down by currency**

	31/12/2022	31/12/2021
<i>Realised exchange rate effects:</i>		
US dollars	5,730	816
Euro	1,422	34
Pounds sterling	343	83
Japanese yen	–	–
Australian dollars	562	174
Canadian dollars	1,308	103
Special Drawing Rights	52	29
Norwegian kroner	151	53
Danish kroner	78	1
	9,646	1,293
<b>Total</b>	<b>9,646</b>	<b>1,293</b>

#### **Note 33 Fees and commissions income**

The item includes annual and transaction charges for the RIX system of SEK 143 million (129).

#### **Note 34 Fees and commissions expenses**

The item mainly consists of custody fees and transaction costs for management of the foreign currency reserve.

#### **Note 35 Dividends received**

In 2022 the Riksbank received a dividend from the BIS of SEK 64 million (110).

**Note 36 Other income**

	<b>2022</b>	<b>2021</b>
Reimbursement for the redemption of invalid banknotes	4	4
Unredeemed cash received	21	34
Reimbursement for discoloured banknotes etc.	0	0
Sold for scrap	0	–
Commemorative coins written off	–	17
Sida (Swedish International Development Cooperation Agency)	2	2
Compensation from the sale of machinery and equipment	–	–
Other	4	2
<b>Total</b>	<b>31</b>	<b>59</b>

The income from Sida refers to remuneration for technical assistance to central banks in some developing countries (see the box ‘International commitments’).

**Note 37 Staff costs**

	<b>2022</b>	<b>2021</b>
Salaries and benefits	–342	–317
Salary recorded as assets	–	–
Social security contributions	–106	–98
	–448	–415
Pension premiums	–100	–94
Pension payments	–6	–6
Change in pension provision	6	7
Special payroll tax	–26	–25
	–126	–118
Training	–3	–3
Staff representation	–1	0
Other	–11	–10
	–15	–13
<b>Total</b>	<b>–589</b>	<b>–546</b>

Pension premiums were disbursed in accordance with the pension agreement for central government employees and others, PA 16.

The item ‘Pension payments’ refers to payments to pensioners retiring before 2003, and to persons who have been granted a partial pension since 2003 or who have been granted a pension before the age of 65.

Salaries and benefits to the members of the Executive Board in 2022 amounted to SEK 15,8 million (14.9), broken down as follows:

**Salaries and benefits for Executive Board members**

	<b>2022</b>	<b>2021</b>
Stefan Ingves	2.2	2.2
Martin Flodén	2.6	2.5
Per Jansson	2.6	2.5
Henry Ohlsson	2.6	2.5
Anna Breman	2.6	2.5
Aino Bunge	0.2	–
Cecilia Skingsley	1.9	2.7
Qualification period salaries	1.1	–
<b>Total</b>	<b>15.8</b>	<b>14.9</b>

In addition, the Governor of the Riksbank received a board fee in 2022 of SEK 1.5 million (1.0) from the Bank for International Settlements (BIS). In accordance with a decision of the General Council a deduction is made from the gross salary of the Governor of the Riksbank corresponding to the amount of the board fee from BIS. No deduction is made however, according to the General Council's decision, for the pension received by the Governor of the Riksbank from the IMF.

The item 'Qualification period salaries' refers to Stefan Ingves. On 28 October 2011, the General Council decided that, during the statutory qualification period after the end of employment, members of the Executive Board shall receive a full salary for a maximum of six months. However, deduction will be made for any income from other employment during this period.

The General Council has decided that the Ordinance on Severance Benefits for Certain Employees employed as Senior Government Officials (2003:55) shall be applied for all present Executive Board members, with the exception of Anna Breman and Aino Bunge. For Anna Breman and Aino Bunge, the General Council has decided that the new Ordinance on Occupational Pension, Income Guarantee and Severance Pay for Heads of Government Agencies (2016:411) shall apply.

Under present arrangements, Stefan Ingves may also receive a pension from BIS. This is paid to board members who have served on the board of BIS for at least four years, but only when they have reached the age of 65. The pension is calculated on the basis of the board fees paid, amounting to 1.82 per cent of these fees.

**Note 38 Administrative expenses**

	<b>2022</b>	<b>2021</b>
Information, external representation	-4	-2
Transport, travel	-10	-2
Consulting assignments	-87	-100
Other external services	-120	-119
IT operations	-163	-141
Economics prize	-20	-19
Office and property maintenance	-54	-45
Other	-13	-13
<b>Total</b>	<b>-471</b>	<b>-441</b>

The information expenses include costs for the Riksbank's regular publications, such as the Monetary Policy Reports, the Financial Stability Reports and the Annual Report.

The costs for representation amounted to SEK 0.9 million (0.2).

The item 'Transport, travel' includes the cost of the Riksbank's transport of banknotes and coins as well as travel costs.

Consulting assignments amounted to SEK 86 million (100). This amount includes the costs of IT consultants including the e-krona of SEK 65 million (71).

The cost of statistics deliveries of SEK 81 million (81) is the largest single item in 'Other external services'. It refers mainly to remuneration to Statistics Sweden for preparing e.g. the balance of payments statistics and financial market statistics. In addition, audit fees to the Swedish National Audit Office and the General Council's auditors are included in the amount of SEK 2 million (2).

The 'IT operations' item includes licensing expenses of SEK 66 million (62) and costs for IT services of SEK 92 million (75).

The 'Economics prize' item includes the prize sum of SEK 10 million (10) and the administration costs for the prize of SEK 10 million (9).

The largest single items in the cost group 'Office and property maintenance' consist of refurbishment and maintenance of the Riksbank's premises of SEK 16 million (14), and rent of premises of SEK 8 million (9).

**Note 39 Depreciation of tangible and intangible fixed assets**

This item is used to report scheduled depreciation of tangible and intangible fixed assets.

**Note 40 Banknote and coin expenses**

Total purchases of banknotes and coins in 2022 amounted to SEK 15 million (6). Banknotes were purchased in the amount of SEK 15 million (-). No coins were bought in 2022 (6). No commemorative coins were bought in 2022 (-).

**Note 41 Pledged assets and contingent liabilities, etc.**

### Pledged assets

At the close of 2022 no securities were pledged in connection with foreign securities repos (–).

### Contingent liabilities

- At the end of 2022, there were no outstanding compensation claims (–).
- The Riksbank has a commitment to provide the Nobel Foundation with funds annually equalling the sum awarded for the prize in economic sciences in memory of Alfred Nobel and also to bear the administration costs for this prize. This undertaking amounted to SEK 20 million in 2022 (19).
- The Riksbank has committed to pay KPA Pensionsförsäkring AB supplementary compensation if so needed as a result of index-linking the pension benefits to which the insured is entitled. This commitment refers to personnel transferred from the Riksbank to AB Tumba Bruk (now Crane AB) in 1971.

### Lending and exchange commitments in relation to the IMF

At the end of 2022, the Riksbank's remaining lending and exchange commitments amounted to SEK 338,497 million (310,374); see the table and the description below.

#### Remaining lending and exchange commitments in relation to the IMF

	31/12/2022	31/12/2021
<i>Special Drawing Rights</i>		
Contractual commitment (2*allocation)	180,834	164,560
SDR allocation (see Note 22)	90,417	82,280
SDR holding (see Note 2)	–93,273	–84,762
Remaining	177,978	162,078
<i>Capital contribution (quota)</i>		
Contractual commitment (Capital contribution, see Note 2)	61,671	56,121
Reserve position (see Note 2)	–17,886	–14,536
Remaining	43,785	41,585
<i>PRGT agreement</i>		
Contractual commitment	13,921	12,668
PRGT lending (see Note 2)	–4,070	–2,825
Remaining	9,851	9,843
<i>NAB</i>		
Contractual commitment	62,803	57,151
NAB lending (see Note 2)	–301	–670
Remaining	62,502	56,481

	31/12/2022	31/12/2021
<i>Credit agreement</i>	44,381	40,387
<b>Total remaining commitment</b>	<b>338,497</b>	<b>310,374</b>

### *Special Drawing Rights*

Under the Articles of Agreement, the commitment that refers to Special Drawing Rights (SDR) means that the Riksbank may be obliged to buy SDR in exchange for foreign currency to such an amount that the Riksbank's total SDR holding is a maximum of 300 per cent of the ordinary allocation; that is to say, an allocated amount of SEK 90,417 million (82,280) plus two times the allocated amount of SEK 180,834 million (164,560). This commitment also includes the Riksbank's standing arrangement to, on the IMF's request, buy or sell SDR in exchange for payment in US dollars or euro within an interval of 50 to 150 per cent of the Riksbank's total net allocation of SDR. Because the Riksbank's SDR holding amounts to SEK 93,273 million (84,762), see Note 2, the outstanding commitment amounts to SEK 177,978 million (162,078).

### *Capital contribution*

The Riksbank's maximum commitment as regards capital contribution amounts to the total capital contribution of SDR 4,430 million (4,430), which equals SEK 61,671 million (56,121). Because the share of the total capital contribution that has been paid in in foreign currency, that is to say the reserve position, amounted to SEK 17,886 million (14,536) at the end of 2022, the remaining commitment amounts to SEK 43,785 million (41,585), which corresponds to the balance of the IMF's krona account.

### *PRGT agreement*

In November 2016, July 2020 and December 2022 the Riksbank entered agreements regarding lending to the IMF totalling SDR 1,150 billion, equalling SEK 13,921 million (12,668), under a programme known as the Poverty Reduction and Growth Trust (PRGT). Because the Riksbank's PRGT lending at year-end amounted to SEK 4,070 million (2,825), see Note 2, the outstanding commitment amounts to SEK 9,851 million (9,843). The funds which the Riksbank loaned in the programme may be used by the IMF for lending to low-income countries.

### *NAB*

The commitment regarding the Riksbank's NAB agreement (New Arrangements to Borrow) to provide the IMF with a credit facility means that the Riksbank is obliged to lend to the IMF an amount up to a maximum of SDR 4,511 million (4,511), which is equivalent to SEK 62,803 million (57,151). Because the Riksbank's NAB lending at year-end amounted to SEK 301 million (670),

see Note 2, the outstanding commitment amounts to SEK 62,502 million (56,481).

This agreement is only activated under special circumstances and is aimed at temporarily strengthening the IMF's lending capacity over and above the funds available under the item 'Capital contribution'. On 1 January 2021 the Riksbank's commitment under NAB was extended – after receiving the consent of the Riksdag – by an additional five-year period.

### *Credit agreement*

In April 2017 – after receiving the consent of the Riksdag – the Riksbank entered an agreement to provide credit to the IMF in the amount SDR 7,400 million. In order for the IMF to use the new agreement, the IMF's remaining funds for lending must be less than a lower limit of SDR 100,000 million. In addition, the lenders, that together hold 85 per cent of the committed loan resources, must approve the activation of the agreements. Since 1 January 2021 – after receiving the consent of the Riksdag – a new bilateral agreement with the IMF has applied. The new agreement concerns an amount of SDR 3,188 million, which equals SEK 44,381 million (40,387).

### **Payment agreements**

- The Riksbank has committed to pay to the BIS, three months after any demand, the remaining 75 per cent of the nominal amount of the Riksbank's shareholding in the BIS. This commitment amounted to SDR 65 million (65), equivalent to SEK 905 million (823) at the end of 2022.
- In 2020 the Riksbank signed a swap agreement with Norges Bank, according to which Norges Bank may, by special agreement, borrow Swedish kronor in exchange for Norwegian kroner.

### **Contingent assets**

At the end of 2022 there were no outstanding compensation claims (–).

### **Deposit agreements**

- BIS has issued a 'non-binding credit commitment', according to which BIS, upon the Riksbank's request and subject to a specific agreement, may lend foreign currency to the Riksbank. This credit commitment was extended in 2022 and is valid until 27 April 2023.
- The Riksbank has an agreement with BIS whereby the Riksbank may, subject to a specific agreement, conduct repurchase agreements with BIS in securities denominated in US dollars, euros and pounds sterling. This agreement was extended in 2022, and expires on 13 April 2023.
- The Riksbank has a swap agreement with the ECB whereby the Riksbank, subject to a specific agreement, may borrow euros in exchange for Swedish kronor.

- In 2020 the Riksbank signed a swap agreement with Norges Bank, according to which the Riksbank may, subject to a specific agreement, borrow Norwegian kroner in exchange for Swedish kronor.

## The profit and loss account and balance sheet by function

The table below shows the Riksbank's net income and expenses by function. The amounts are expressed in SEK million.

Function	2022			2021		
	Net income	Ex-penses	Result	Net income	Ex-penses	Result
Monetary policy	2	-196	-194	1	-178	-177
Financial stability	68	-175	-107	112	-165	-53
Payments	160	-404	-244	184	-363	-179
Of which						
<i>Payment system</i>	<i>143</i>	<i>-139</i>	<i>-4</i>	<i>129</i>	<i>-112</i>	<i>17</i>
<i>Cash provision</i>	<i>17</i>	<i>-164</i>	<i>-147</i>	<i>55</i>	<i>-146</i>	<i>-91</i>
<i>Dev. and analysis</i>	<i>0</i>	<i>-101</i>	<i>-101</i>	<i>0</i>	<i>-105</i>	<i>-105</i>
Asset management	-84,825	-208	-85,033	721	-203	518
Statistics	0	-135	-135	0	-127	-127
Economics prize and General Council, etc.	5,002	-23	4,979	4	-22	-18
<b>Total</b>	<b>-79,593</b>	<b>-1,141</b>	<b>-80,734</b>	<b>1,022</b>	<b>-1,058</b>	<b>-36</b>

The breakdown should reflect as closely as possible the actual use of resources for each function. The principle used is for expenses and income to be allocated as far as possible directly to the respective function without use of any cost allocation key.

Payment system expenses are to be financed by fees from participants. Asset management is to generate a return that is as high as possible in relation to the task and the risk taken. For the other functions, there is no cost coverage requirement.

The allocation model is based on the format of the profit and loss account and the balance sheet, where the Riksbank's outcome for 2022 amounts to SEK -80,734 million (-36) and the Riksbank's assets and liabilities to SEK 1,499,961 million (1,564,249) at 31 December 2022. The financial risk provision that was made in 2020 of SEK -5,000 million was reversed in 2022.

### Allocation of costs

#### Staff costs, excluding IT personnel

The actual payroll expense has been used when allocating staff costs for employees directly involved in a function. Payroll expenses for the employees included in the support functions have been allocated according to a cost allocation key. The key most used is the number of directly involved employees

in relation to the total number of directly involved employees in all functions. Altogether about 275 employees, or 64 per cent of the total of 432, are directly involved in one of the functions. The other 157 employees are in support functions, mainly IT, communications and internal services.

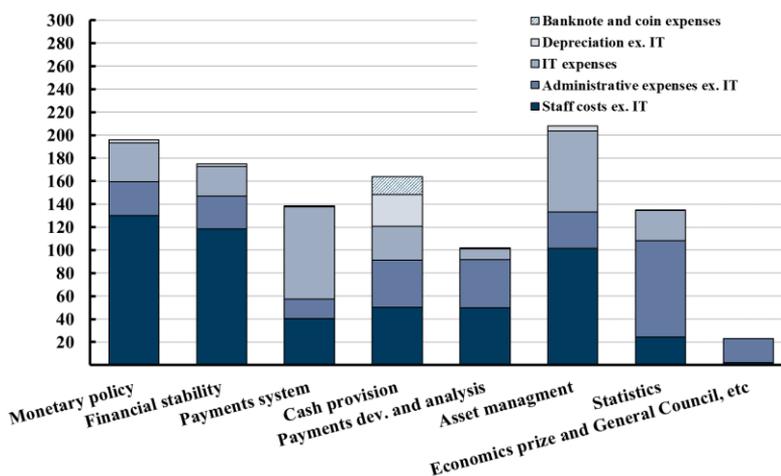
### Administrative expenses, excluding IT expenses

The Riksbank's process accounting means that administrative expenses are directly allocated by function at the time of registration of invoices.

A large part of the Riksbank's costs are, however, common expenses, such as costs of premises, property maintenance, security and surveillance. These cannot be allocated directly but have been allocated using predefined keys, which usually consist of the number of employees directly involved per function in relation to the total number of directly involved employees in all functions.

**Chart 23 Allocation by nature of expense by function, 2022**

SEK million



Source: The Riksbank

### Depreciation, excluding IT-related investments

Depreciation is directly allocated to the function which is supported by each facility or allocated on the basis of predefined keys.

### Banknote and coin expenses

Costs for purchasing banknotes and coins amounted to SEK 15 million (6) in 2022. The costs are allocated in their entirety to the Cash provision function.

## **IT expenses**

IT expenses refer to the costs of the IT operations. The model for allocation of the IT expenses is primarily based on the following principles: The expenses for workstations and basic systems are allocated on the basis of the number of directly involved employees per function in relation to the total number of directly involved employees in all functions. The expenses for application operation of business systems and other IT expenses (staff, consultants, licences, etc.) are allocated on the basis of the fixed expenses of the business system for application operation divided by the total fixed expense for application operation for all business systems. Depreciation for business systems that belong to one or more functions is allocated directly to each system.

## **Allocation of net income**

Income has been allocated to the function that is responsible for it. Consequently, the fact that seigniorage derives from cash provision has not been taken into account. Instead seigniorage income has been allocated to asset management. Seigniorage for 2022 amounted to SEK 50 million (150).

The net income in the Financial stability function mainly consists of the dividend from the Riksbank's holding of BIS shares.

The net income for asset management reported in the profit and loss account amounted to SEK -84,825 million (721). Total return from the Riksbank's asset management for 2022 was SEK -56,969 million (15,367). The 2020 financial risk provision of SEK 5,000 million has been reversed in 2022.

## Allocation of assets and liabilities

The table below shows the Riksbank's assets and liabilities by function in millions of kronor.

Function	31/12/2022		31/12/2021	
	Assets	Liabilities	Assets	Liabilities
Financial stability	441	–	441	–
Cash provision	–	65,320	–	61,833
Asset management	1,498,621	1,325,114	1,562,951	1,332,771
Unallocated	899	109,527	857	169,645
<b>Total</b>	<b>1,499,961</b>	<b>1,499,961</b>	<b>1,564,249</b>	<b>1,564,249</b>

The assets in the Financial stability function consist of the shareholding in the BIS.

The unallocated assets mainly contain tangible and intangible fixed assets and other assets.

The item 'Unallocated liabilities' mainly contains equity, revaluation accounts and result for the year.

## Five-year overview

The five-year overview presents the balance sheet and profit and loss account restated according to current accounting policies.

### Balance sheet

<i>SEK million</i>	<b>31/12/2022</b>	<b>31/12/2021</b>	<b>31/12/2020</b>	<b>31/12/2019</b>	<b>31/12/2018</b>
<b>ASSETS</b>					
<b>Gold</b>	76,488	66,680	62,897	57,488	45,981
<b>Claims on residents outside Sweden denominated in foreign currency</b>					
Receivables from the IMF	115,530	102,794	43,102	40,150	34,740
Balances with banks, loans and security investments	480,274	392,994	373,084	420,460	453,634
	595,804	495,788	416,186	460,610	488,374
<b>Lending to credit institutions in Sweden related to monetary policy operations denominated in Swedish kronor</b>					
Structural operations	–	19,000	167,500	–	–
Marginal lending facility	–	68	–	–	0
	–	19,068	167,500	–	0
<b>Securities of residents in Sweden denominated in Swedish kronor</b>					
	819,664	974,712	640,836	375,534	392,063
<b>Other assets</b>					
Tangible and intangible fixed assets	600	576	596	633	653
Financial assets	554	554	552	532	522
Derivative instruments	–	–	–	42	–
Prepaid expenses and accrued income	6,721	6,725	5,271	4,968	6,730
Other assets	130	146	148	158	191
	8,005	8,001	6,567	6,333	8,096
<b>Total assets</b>	<b>1,499,961</b>	<b>1,564,249</b>	<b>1,293,986</b>	<b>899,965</b>	<b>934,514</b>

*The table continues on the next page.*

	31/12/2022	31/12/2021	31/12/2020	31/12/2019	31/12/2018
<b>LIABILITIES AND EQUITY</b>					
<b>Banknotes and coins in circulation</b>					
Banknotes	61,798	58,315	59,717	60,383	59,147
Coins	3,158	3,147	3,136	3,105	3,034
	64,956	61,462	62,853	63,488	62,181
<b>Liabilities to credit institutions in Sweden related to monetary policy operations denominated in Swedish kronor</b>					
Deposit facility	574,293	588,068	494,574	117,666	6
Fine-tuning operations	–	–	–	–	104,099
	574,293	588,068	494,574	117,666	104,105
<b>Other liabilities to credit institutions in Sweden denominated in Swedish kronor</b>					
	268	108	194	184	107
<b>Debt certificates issued</b>					
	583,726	535,007	380,002	314,944	352,203
<b>Liabilities to other residents in Sweden denominated in Swedish kronor</b>					
	2,436	806	349	303	309
<b>Liabilities to residents outside Sweden denominated in Swedish kronor</b>					
	8,230	8,363	1,648	3,740	112
<b>Liabilities to residents in Sweden denominated in foreign currency</b>					
	75,586	126,651	173,791	192,934	254,802
<b>Liabilities to residents outside Sweden denominated in foreign currency</b>					
	–	–	–	10,575	2,220
<b>Counterpart of SDR allocated by the IMF</b>					
	90,417	82,280	26,592	29,166	27,714
<b>Other liabilities</b>					
Derivative instruments	–	–	–	–	544

	31/12/2022	31/12/2021	31/12/2020	31/12/2019	31/12/2018
Accrued expenses and prepaid income	1,174	845	1,138	1,488	1,640
Other liabilities	71	65	47	37	51
	1,245	910	1,185	1,525	2,235
<i>The table continues on the next page.</i>					
<b>Provisions</b>	423	5,435	5,449	460	477
<b>Revaluation accounts</b>	116,563	88,707	74,061	82,119	67,040
<b>Equity</b>					
Capital	1,000	1,000	1,000	1,000	1,000
Reserves	61,552	65,488	76,561	56,210	56,487
	62,552	66,488	77,561	57,210	57,487
<b>Result for the year</b>	-80,734	-36	-4,273	25,651	3,522
<b>TOTAL LIABILITIES AND EQUITY</b>	<b>1,499,961</b>	<b>1,564,249</b>	<b>1,293,986</b>	<b>899,965</b>	<b>934,514</b>

**Profit and loss account**

<i>SEK million</i>	2022	2021	2020	2019	2018
Interest income	11,661	4,557	6,478	11,369	8,147
Interest expense	-10,503	-1,645	-2,840	-4,455	-4,622
Net result of financial transactions, write-downs and risk provisions	-80,961	-2,165	-7,042	19,522	460
Fees and commissions income	143	129	104	98	86
Fees and commissions expenses	-28	-23	-19	-18	-19
Dividends received	64	110	-	55	51
Other income	31	59	48	56	275
<b>Total net income</b>	<b>-79,593</b>	<b>1,022</b>	<b>-3,271</b>	<b>26,627</b>	<b>4,378</b>
Staff costs	-589	-546	-497	-442	-414
Administrative expenses	-471	-441	-431	-431	-362
Depreciation of tangible and intangible fixed assets	-66	-65	-71	-78	-67
Banknote and coin expenses	-15	-6	-3	-25	-13
<b>Total expenses</b>	<b>-1,141</b>	<b>-1,058</b>	<b>-1,002</b>	<b>-976</b>	<b>-856</b>
<b>Result for the year</b>	<b>-80,734</b>	<b>-36</b>	<b>-4,273</b>	<b>25,651</b>	<b>3,522</b>

# ASSESSMENT OF INTERNAL CONTROL

The Executive Board is responsible for the Riksbank's activities and shall ensure that they are conducted efficiently and in accordance with applicable laws, that they are reported in a reliable and fair manner and that the Riksbank is economical with public finances. This is regulated in Chapter 9, Section 1 a of the Sveriges Riksbank Act. The Executive Board shall ensure that the requirements are met with reasonable certainty by ensuring that the Riksbank has a process for internal governance and control that includes risk analysis, control measures, follow-up and documentation. The Executive Board shall, in the Annual Report, provide its assessment of whether internal control has been satisfactory over the period covered by the Annual Report. This is regulated in Chapter 10, Section 3 of the Sveriges Riksbank Act.

## The Executive Board's assessment of the Riksbank's internal governance and control

The Executive Board has assessed whether the Riksbank's internal control in 2022 has met the requirements in the Sveriges Riksbank Act and its conclusion is that it has been satisfactory for the period covered by the Annual Report.

Stockholm, 15 February 2023

Erik Thedéen  
Governor

Anna Breman  
First Deputy Governor

Per Jansson  
Deputy Governor

Martin Flodén  
Deputy Governor

Henry Ohlsson  
Deputy Governor

Aino Bunge  
Deputy Governor

ANNEX 1

# The departments of the Riksbank and their tasks

## Payments Department

*Head of Department: Christina Wejshammar*

The Payments Department is responsible for the Riksbank's cash provision operations and the RIX payment system for large-value payments in Swedish kronor. The department has the task of following up on developments in the payment market and coordinating the analysis of payment issues. Since 1 November 2022, the department has been responsible for work on the e-krona.

## Financial Stability Department

*Head of Department: Olof Sandstedt*

The Financial Stability Department is responsible for the analysis of the stability and efficiency of the financial system and provides the basis for the Executive Board's decisions to promote a safe and efficient payment system. The department regularly analyses the risks and threats to the stability of the Swedish financial system. In addition, it coordinates the Riksbank's international work.

## Markets Department

*Head of Department: Heidi Elmér*

The Markets Department manages the Riksbank's gold and foreign currency assets. It administers and settles transactions in the management of the Riksbank's financial assets, and regularly evaluates and measures the results and risks in this management. The department conducts monetary and foreign exchange policy operations in accordance with the monetary policy decisions. In addition, the department is responsible for the ongoing monitoring of the markets and SWESTR, the transaction-based reference rate.

## Monetary Policy Department

*Head of Department: Jesper Hansson*

The Monetary Policy Department is responsible for the economic analysis that forms a basis for the decisions made to meet the price stability target. The department monitors and analyses economic and price developments, and is

responsible for financial market and balance of payments statistics. This department also contains the Riksbank's Research Division.

## Corporate Services Department

*Head of Department: Henrik Jönsson acting Head of Department until 4 September 2022; Robert Sirkka since 5 September 2022.*

The Corporate Services Department is responsible for the Riksbank's work on personnel development and recruitment, procurement support, archives and registry, office and property services, transport, security, budget documentation, and bookkeeping and payroll administration. Since 1 November 2022, the department has been responsible for coordinating crisis preparedness in the central payment system, information security and risk management in the form of operational and financial risks.

## IT and Digitalisation Department

*Head of Department: Ulrika Pilestål*

The IT and Digitalisation Department is responsible for the Riksbank's digital development. The department is also responsible for the robust and secure operation, management and further development of the Riksbank's IT support.

## General Secretariat

*Head of Department: Anders Vredin until 31 May 2022; Pernilla Meyersson acting Head of Department since 1 June 2022.*

The General Secretariat coordinates day-to-day operations and supports the Executive Board's governance and control, as well as strategic development of the Bank's activities. The department also provides secretariat services for the General Council, the Executive Board and the Management Group. The department includes functions for crisis preparedness, operational planning, legal support, data protection and business continuity coordination. The General Secretariat coordinates the Riksbank's communication work and support for central banks in emerging market economies through so-called technical assistance.

## Internal Audit Department

*Head of Department: Simon Rörborn*

The Internal Audit Department reviews parts of internal control selected by the Executive Board and supports other operations in these matters.

ANNEX 2

## Consultation work of the Riksbank

Every year, the Riksbank responds to a large number of consultation documents. All consultation responses from the Riksbank have been published on the Riksbank's website, riksbank.se. The heads of department are responsible for handling consultation requests within the department's area of responsibility. The responsibility of a head of department includes providing background information to the Executive Board for the assessment of whether a consultation response should be decided by the Executive Board or the head of department. The head of department also prepares draft consultation responses decided by the Executive Board. Important issues of principle regarding consultation responses must be answered by the Executive Board, while other consultations are answered by the Heads of Department.

In 2022, the Riksbank presented 28 consultation responses. Among other things, these concerned the review of the Riksbank's monetary policy 2015–2020, as well as financial services and proposed measures to strengthen the stability of the financial system. Most consultation responses were issued by the head of the appropriate department.

### The Executive Board's consultation responses

Over the year, the Executive Board provided three consultation responses dealing with important issues of principle. The consultation responses are listed below:

- Evaluation of the Riksbank's monetary policy 2015–2020 (2021/22:RFR4)
- Start-up loans for first-time home buyers (SOU 2022:12)
- A register for all residential property (SOU 2022:39)

For information on the content of the responses, see the Riksbank's website, riksbank.se.

ANNEX 3

## The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2022

*The Riksbank Prize in Economic Science in Memory of Alfred Nobel for 2022 was awarded to Ben S. Bernanke, Douglas W. Diamond and Philip H. Dybvig for their research on banks and financial crises, which has significantly improved our understanding of the role of banks in the economy, especially in financial crises.*

Ben S. Bernanke was born in 1953 in Augusta, USA and is a professor at the Brookings Institution, USA. Douglas W. Diamond was born in 1953 in Chicago, USA and is a professor at the University of Chicago, USA. Philip H. Dybvig was born in 1955 in Gainesville, USA and is a professor at Washington University, USA.

The Sveriges Riksbank Prize in Economic Sciences was established in connection with the Riksbank's 300th anniversary in 1968. By making a donation, the Riksbank committed itself to giving the Nobel Foundation each year in perpetuity the prize money and an amount of 65 per cent of the prize money to cover the Foundation's expenses for administration and awarding the prize. In 2018, the Riksdag decided that, each year, the Riksbank should provide an additional grant due to increased costs for managing the Prize in Economic Sciences. The Government has established the statutes for the prize. The prize is awarded every year to a person or persons who have produced work of outstanding importance in the field of economic sciences. The Royal Swedish Academy of Sciences selects the prize-winner(s) according to the same principles as for the Nobel Prizes. The prize amount is also the same. In 2022, the prize money amounted to SEK 10 million. This money is paid by the Riksbank.

In order to mark the year's Economics prize, the Riksbank hosted Nobel Calling, an online seminar for the general public in cooperation with the Nobel Prize Museum, on 10 October 2022. Participants were able to listen to discussions on the significance of the Nobel Prize and find out more about the year's Economics Nobel laureates. Deputy Governor Henry Ohlson participated on behalf of the Riksbank.

The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel has been awarded every year since 1969. All of the previous laureates are listed on the Riksbank's website [riksbank.se](https://www.riksbank.se).

ANNEX 4

# Glossary

**Activation of fixed assets**

Recording of expenses for a **fixed asset** as an asset in the balance sheet, instead of as an expense in the profit and loss account. The fixed asset is then written off over its economic life (see also **depreciation**). All tangible fixed assets with a value exceeding SEK 20,000 are activated.

**Balance of payments**

Statistical report of a country's economic transactions with the rest of the world.

**Ban on instructions**

Prohibition for a member of the Executive Board on seeking or receiving instructions when carrying out his or her monetary policy tasks. The Executive Board members' independent monetary policy stance is based on the Instrument of Government and the Sveriges Riksbank Act.

**Banknotes and coins in circulation**

Banknotes and coins that are in circulation in society outside the Riksbank. A decrease of the amount in the balance sheet item Banknotes and coins in circulation means that the banks have returned banknotes and coins to the Riksbank and been paid for this via deposits in their accounts in the Riksbank's payment system **RIX**. The liabilities item Banknotes and Coins thereby decreases at the same time as the liability in Swedish kronor to the Riksbank's counterparties increases to a corresponding extent.

**Basel III**

International regulatory framework for banks that mainly regulates their capital adequacy, i.e. how much capital a bank must hold in relation to the risk it takes, and the way they manage **liquidity**. Basel III was developed by the **Basel Committee**.

**Basel Committee**

Committee within the **Bank for International Settlements (BIS)** for international cooperation on issues relating to bank supervision and financial stability. The Basel Committee is made up of representatives of supervisory authorities and central banks from 28 different countries. It formulates standards and guidelines and issues recommendations.

**BIS, Bank for International Settlements**

Coordinating body for central banks with its headquarters in Basel.

**Bond**

Security issued by a government, municipality or company and that functions as a kind of loan. In practice, the purchaser of a bond lends out a sum of money

to the issuer and earns interest on it. A bond usually has a fixed maturity of one year or longer. Upon maturity, the issuer repays the bond's **nominal amount**. There are also what are known as zero coupon bonds, for which no periodic interest is paid. Instead, they are sold at a **discounted value**.

### **Business continuity management**

Process that ensures the organisation can run critical operations at a tolerable level regardless of any disruptions that have occurred. This means that the organisation reduces its vulnerability and increases its resilience to various incidents that could affect its critical operations.

### **Cash Handling Advisory Board**

Forum for discussing issues concerning cash management in society. The Cash Handling Advisory Board was established by the Riksbank in 2006 and is made up of representatives of the Riksbank, banks, cash depot companies, cash-in-transit companies, the retail trade and the authorities involved.

### **CCP, central counterparty**

Financial company that acts as an intermediary between buyer and seller in a securities transaction. This means that the parties have no risk towards each other, but towards the central counterparty instead.

### **Central bank digital currencies (CBDC)**

Digital money created by central banks. Retail CBDC is intended for the public, while wholesale CBDC is intended for financial institutions.

### **Civil defence**

Preparations by civilian actors to ensure an overall capability in states of heightened alert.

### **Classified information**

Protective security also involves protecting information concerning security-sensitive activities that is therefore subject to confidentiality pursuant to the Public Access to Information and Secrecy Act or that would have been subject to that Act, had it been applicable. Classified information is divided into four protective security classes on the basis of the damage to Sweden's national security that could be incurred should they be disclosed.

### **Contingent asset**

Asset that may perhaps fall to the Riksbank, depending on uncertain future events outside the Riksbank's control. Due to this uncertainty, the asset is not reported in the balance sheet, but is mentioned in the annual report.

### **Covered bond**

Bond in which the holder has higher collateral if the issuer should enter bankruptcy. This collateral consists of the issuer holding certain assets (primarily mortgage loans) separate from its other assets so that they can be used in the event of a bankruptcy to repay money to the holder of the covered bond.

**CPI, Consumer Price Index**

Statistical measure of the price level. The CPI is calculated every month by **Statistics Sweden**.

**CPIF, the CPI with a fixed mortgage rate**

Statistical measure of the price level that is the Riksbank's target variable for the inflation target. Unlike the **CPI**, the CPIF is not directly affected by changes in interest rates for household mortgages. The CPIF is calculated every month by **Statistics Sweden**.

**CPMI, Committee on Payments and Market Infrastructures**

Committee within the **Bank for International Settlements (BIS)** that promotes safe and efficient payments, clearing and **settlement**. Was previously known as the Committee on Payment and Settlement Systems (CPSS).

**Crisis management**

A process that includes all the actions that the organisation needs to take to respond to a crisis, i.e. a situation where the organisation's resources, routines or systems are not adequate and where specific measures are required to resolve the situation. Crisis management can be divided into the phases before, during and after a crisis.

**Crisis preparedness**

Preparations by civilian actors to ensure an overall capability during peacetime crisis situations.

**Currency swap**

**Derivative instrument** entailing an agreement between two parties on the respective purchase and sale of a currency at the daily rate, after which they will respectively sell or purchase it back at a later date at a rate determined in advance. Currency swaps are often used to obtain **liquidity** in another currency, but there may also be other reasons. For example, central banks can use currency swaps to obtain a temporarily larger surplus or deficit of their own currency in the banking system.

**Cryptocurrency/cryptoasset**

Digital currencies created in the private sector that are not backed by a state or central bank. Central banks generally refer to cryptocurrencies as cryptoassets because they usually do not fulfil the basic functions of money.

**Decision by circulation**

Decision taken without the Executive Board having been convened. When a decision is taken by circulation, the Governor of the Riksbank proposes a decision, either orally or in written form, to the individual Executive Board members, after which the opinions of the members are collected and minuted.

**Deposit facility**

Account in which the monetary policy counterparties deposit money at the Riksbank overnight. See also **Standing facilities**.

**Depreciation**

Allocation of the acquisition cost of an asset over the number of years that the asset is calculated to be in use. The asset's value in the balance sheet is reduced by a corresponding amount each year.

**Derivative instruments**

Financial instruments that are linked to an underlying asset, for example shares or a currency, and that entail an agreement between two parties on a purchase or exchange at a specific future point or period in time. The value of a derivative instrument depends on the development of the value of the underlying asset. Trading in derivative instruments involves speculating in how the value of the underlying asset will change during the period agreed. Derivative instruments are often used to spread and minimise risks. The most common derivative instruments are options, futures and swaps (**swap agreements**).

**Discount**

The difference between the amount paid and the **nominal amount** for a financial instrument if the nominal amount is greater.

**Discounted value**

The present value of a future payment, with consideration taken of interest over the period until payment. Dependent on the purpose of the calculation of the discounted value, consideration may also be taken of **inflation**.

**EBA, European Banking Authority**

Authority that establishes joint regulatory and supervisory standards in the EU and conducts **stress tests** of European banks.

**ECB, European Central Bank**

Joint central bank for the EU Member States that have adopted the euro, with its head office in Frankfurt. The Bank's duties are stipulated in a statute that is part of the EU Treaty.

**ECB General Council**

Consultative body within the European System of Central Banks (**ESCB**) consisting of the governors of all the EU central banks (including those that have not adopted the euro) as well as the President and Vice President of the **ECB**.

**Ecofin Council**

Group within the Council of the European Union (Council of Ministers) that consists of the economic and finance ministers of the European Union. The Ecofin Council is responsible for economic policy, financial markets, movement of capital and economic links with countries outside the EU.

**EFC, EU Economic and Financial Committee**

Advisory body to the **ECOFIN Council** and the European Commission that monitors economic and financial development in the EU and euro area. The EFC is made up of higher officials from national authorities and central banks, as well as from the **European Central Bank** and European Commission.

**E-krona**

A central bank digital currency that may be issued by the Riksbank and that would be available to the public (a so-called retail CBDC). The Riksbank has not taken any decision on issuing an e-krona. See also **central bank digital currency**.

**ESCB, the European System of Central Banks**

Forum for cooperation between the **ECB** and the national central banks in all the EU Member States, both those that have adopted the euro and those that have not. See also **Eurosystem**.

**ESRB, European Systemic Risk Board**

Independent EU body responsible for the macroprudential policy of the financial system within the EU.

**Euroclear Sweden**

Swedish central securities depository that carries out clearing and **settlement** of transactions with Swedish shares and fixed-income securities, and that maintains a register of who owns them.

**Eurosystem**

Cooperation organisation that takes care of **monetary policy** in the euro area. Consists of the **European Central Bank** and the national central banks in the euro area.

**Finansinspektionen (Swedish financial supervisory authority)**

Central government agency with the task of monitoring the activities of banks, credit market companies, securities companies, securities brokers, fund management companies, stock exchanges, authorised marketplaces, clearing organisations, insurance companies and insurance brokers.

**Financial markets**

Markets where financial assets are bought and sold. The four most important markets are the foreign exchange market, the fixed income market, the stock market and the derivatives market.

**Financial Stability Council**

Discussion forum for matters of financial stability. Representatives of the Government, **Finansinspektionen**, the Swedish National Debt Office and the Riksbank participate in the Council.

**Fixed assets**

Assets that are intended for permanent use or possession. Examples of such assets are buildings and equipment. The opposite of fixed assets are current assets.

**FSB, Financial Stability Board**

International board that coordinates the work of national authorities and international regulatory bodies in the field of financial stability. Sweden is not a

member, but representatives of the Riksbank occasionally participate in various working groups.

**GDP, Gross Domestic Product**

The value of all goods and services produced in a country during a period, usually one year or one quarter. GDP can be calculated in several different ways. One common way is to total the value of everything consumed, invested in and exported, and then deduct the value of everything imported.

**GDP per capita**

GDP divided by the number of inhabitants in the country.

**Heightened state of alert**

Either high alert or highest alert. The Government decides on a heightened state of alert if Sweden is in danger of war, there are extraordinary circumstances due to war beyond Sweden's borders, or if Sweden has previously been at war or in danger of war. Highest alert applies if Sweden is at war. A heightened state of alert means that total defence is activated and is a way for society to quickly adapt so that it can function while under threat of war and, ultimately, while at war.

**IMF, International Monetary Fund**

International organisation that works to ensure the stability of the global financial system and to prevent international financial crises. The IMF monitors and analyses the development of the 190 countries that are members. The organisation also provides technical assistance and lends money to countries carrying out economic adjustment programmes. The IMF's Board of Directors consists of representatives of the IMF's 24 constituencies, where each constituency covers one country or group of countries.

**IMFC, International Monetary and Financial Committee**

Committee within the IMF that, in practice (but not formally) determines the main direction of the IMF's work in the short and medium terms. Just like the IMF's Board of Directors, the committee consists of one representative from each constituency, totalling 24. The IMFC meets twice a year.

**Incident management**

Process that supports risk, business continuity and crisis management. Incident management serves as a first barrier before other functions are activated to respond to the crisis. Effective incident management reduces the risk of incidents developing into crises and/or major interruptions in operations.

**Inflation**

Increase of the general level of prices that simultaneously means a decrease in the value of money. Inflation is most usually measured as the change in the CPI or CPIF.

**Interest rate swap**

Derivative instrument entailing an agreement between two parties on a mutual exchange of interest flows, for example fixed-rate against variable rate interest and vice versa.

**Liquidity**

Short-term payment ability, which is to say the ability to provide **liquid funds** rapidly. The word can be used for individual companies or organisations, or for the financial system as a whole. It can also be used as a synonym for liquid funds. Finally, it is also possible to discuss the liquidity of securities. In this case, the word refers to the ability to convert securities into money, rapidly and at a low transaction cost.

**Liquid funds**

Assets that can rapidly be used for payments, such as cash or account balances.

**Marginal lending facility**

Account from which the monetary policy counterparties can borrow money from the Riksbank overnight. See also **Standing facilities**.

**Medieakademin**

Non-profit organisation founded by Göteborgs-Posten newspaper, the University of Gothenburg, Forsman & Bodenfors and NFO Infratest (now Kantar Sifo) that, among other things, publishes the confidence barometer, a survey of confidence in social institutions, individual companies and the mass media.

**Modified duration**

Measure of how sensitive the value of a debt security is to changes in the interest rate. Expressed as a percentage change in the price of the security if the interest rate falls or rises by one percentage point.

**Monetary policy**

Measures adopted by a central bank to maintain **price stability**. The Riksbank's main tool for this is the **policy rate**. Monetary policy also aims to support the objectives of general economic policy, which are to achieve sustainable growth and high employment.

**Monetary policy operations**

The Riksbank conducts various monetary policy operations to conduct monetary policy in practice. The Riksbank primarily does this with the assistance of market operations and standing deposit and lending facilities. In addition, the Riksbank can take other measures if necessary.

**NBMF, Nordic-Baltic Macroprudential Forum**

Informal group consisting of central bank governors and heads of supervisory authorities in the Nordic and Baltic regions. The NBMF meets twice a year to discuss possible risks threatening financial stability and macroprudential policy measures to manage these.

**NBSG, Nordic-Baltic Stability Group**

Nordic-Baltic cooperation on financial stability, with a focus on crisis management issues. Ministries of finance, central banks and supervisory and resolution authorities in the Nordic and Baltic countries cooperate in this. The NBSG meets once a year. Regular crisis exercises are also held.

**Net interest income**

Interest income from lending less interest expenditure for funding and deposits.

**Nominal amount**

The amount at which a security is issued. For an interest-bearing security, it is the amount that the holder receives back upon maturity. For banknotes and coins, it is the amount specified on the banknote or coin.

**NPL, non-performing loan**

Loan where the borrower has stopped paying the agreed interest or amortisation. Sometimes also called a distressed loan. In most countries, a loan is classed as non-performing if payment is 90 days past due. See also **problem loans**.

**OIS contracts**

Interest rate swap in which the reference rate determining the variable interest rate flow is a reference rate at the shortest maturity, i.e. one day (overnight). The abbreviation stands for Overnight Index Swap.

**Peacetime crisis situations**

Situations that deviate from the norm and are difficult to foresee, affect large numbers of people and large sections of society, threaten fundamental values, involve a serious disruption or imminent risk of serious disruption to essential societal functions, cannot be dealt with individually by the ordinary organisation and require coordinated and urgent action by several actors.

**Policy rate**

Interest rate that a central bank sets for monetary policy purposes.

**Policy rate path**

The Riksbank's forecast for the **policy rate**.

**Post trade**

Activities that take place after ordering and closing in a securities trade and include settlement of the securities transaction, among other things.

**Price stability**

Condition where the prices of goods and services increase only moderately or not at all. The target of price stability is defined by the Riksbank as **inflation**, measured as an increase in the **CPIF**, of 2 per cent.

**Problem loans**

Loans where the probability of credit losses is heightened. What is included in the term is not precisely defined. The term is often used synonymously with **NPL (non-performing loans)**, but it can also be used more generally for loans that have not been classified as NPLs.

**Protective security**

Protective security concerns protecting the information and the activities that are of importance for Sweden's national security against espionage, sabotage, terrorist offences and certain other threats.

**Provision**

Amounts that are reserved in the accounts for future costs.

**Reference rate**

Common benchmark in the pricing of financial contracts that should reflect the general development of interest rates. Used, for example, for interest-bearing securities with variable coupons, derivative instruments or variable-rate loans. A reference rate shall not be controlled by any of the contracting parties.

**Resolution**

Reconstruction or settlement of a bank in distress in an orderly manner. Resolution is used by the government as an alternative to bankruptcy for banks that are deemed to be systemically important (**too-big-to-fail**). The aim of this is to avoid a financial crisis and ensure that the taxpayer does not have to bear the costs of the bank's collapse. According to the European Bank Recovery and Resolution Directive, each EU country must appoint a special resolution authority with responsibility for managing distressed banks. Sweden's resolution authority is the Swedish National Debt Office.

**Retail payments council**

Forum for dialogue aimed at promoting the functioning of the Swedish market for payment services. 14 authorities and private operators with important roles in the payment market participate in the retail payments council.

**Riksbank Certificate**

Security with a maturity of one week, as a rule, that is issued by the Riksbank and that can be purchased by the Riksbank's monetary policy counterparties. A Riksbank Certificate acts as a kind of borrowing. The interest received by the counterparty when it invests money in Riksbank Certificates is the **policy rate**. In the balance sheet. Riksbank Certificates are reported under Debt certificates issued.

**Riksdag Committee on Finance**

Parliamentary committee that prepares matters concerning economic issues, including the activities of the Riksbank and the central government budget.

**RIX**

The Riksbank's payment system for large-value payments in real time. Participants in RIX include banks, clearing organisations, the Swedish National Debt Office and the Riksbank.

**SOM Institute**

Independent survey research organisation at the University of Gothenburg that investigates the habits and attitudes of the people of Sweden. SOM stands for society, opinion and mass media.

**Stablecoin**

A form of crypto asset whose value is tied to the value of other assets, such as one or more national currencies or other financial assets. Stablecoins have mainly been used as a bridge between national currencies and investments in other cryptocurrencies.

**Statistics Sweden**

Central administrative agency for official statistics and other statistics produced by government agencies in Sweden.

**Settlement**

Final regulation of debts and claims between two banks, when money or securities are transferred between them. Settlement is executed on a daily basis.

**Special Drawing Rights (SDR)**

An international reserve asset created by the IMF. An SDR involves a potential claim on the foreign exchange reserves of IMF member countries but it is not a currency in itself and can only be used by countries and international organisations.

**Standing facilities**

Accounts for deposits and loans overnight that can be used by the Riksbank's monetary policy counterparties. The standing facilities give the counterparties the possibility of managing their **liquidity**, at the same time as they act as a monetary policy instrument. By setting the deposit rate just below the **policy rate**, and the lending rate just above it, the banks are given an incentive to set their own overnight rates in between. This allows the Riksbank to steer overnight rates and, by extension, other short-term market rates against the policy rate. (In recent years, when the banking system has had a surplus of liquidity, the lending rate has become less important. The deposit rate, however, still acts as a lower bound for overnight rates.)

**STIBOR**

Traditional bid-based reference rate (interbank interest) in Swedish kronor. Available on several maturities from tomorrow-next to six months. This abbreviation stands for Stockholm Interbank Offered Rate.

**Stress test**

Analysis of different scenarios to assess the resilience of banks, for example, to unexpected and negative events.

**Swap agreement**

**Derivative instrument** entailing an agreement between two parties, over a certain period, to exchange interest flows (see **interest rate swap**) or currencies (see **currency swap**) with each other.

**SWESTR**

A transaction-based reference rate with a maturity of one day (overnight) provided by the Riksbank. The abbreviation stands for Swedish krona Short Term Rate.

**SWIFT, Society for Worldwide Interbank Financial Telecommunication**

Belgian member-owned firm that provides a global network for the secure transfer of financial messages, such as payment instructions, between financial entities worldwide. The company also promotes the standardisation of financial messages. SWIFT has over 11,000 participants in over 200 countries.

**TIBER-SE**

The Swedish adaptation of the European Central Bank's TIBER-EU framework. The framework enables the standardised testing of resilience to cyber risks among critical participants in the financial system.

**Too-big-to-fail (TBTF)**

Also known as systemically important. This expression is used for banks that are considered to be so large and intricately interlinked with the rest of the financial system that they cannot fail without there being very serious consequences for the economy. For these banks, the market can expect that the government will intervene and rescue the bank if it encounters problems. This is problematical as it can lead to the bank becoming more inclined to take risks and to the bank's risks not being priced correctly.

**Total defence**

Consists of military defence and civil defence. Total defence means all activities needed to prepare Sweden for war. During the highest state of alert t, total defence consists of all society's activities that must then be carried out.

**Transmission mechanism**

The process through which **monetary policy** affects **inflation** and the economy in general. This takes place by market rates and the banks' willingness to issue loans being influenced and by the krona appreciating or depreciating.

**Value day**

With regard to the transaction-based reference rate **SWESTR**, the date on which the underlying transactions are executed. **SWESTR** reflects the interest rate situation on the money market on this day.

**Vital societal functions**

Activities, services or infrastructure that maintain or ensure the provision of societal functions essential to the basic needs, values or safety of society. Vital societal functions must be maintained during peacetime crisis situations.