

Submission to the Riksdag 2019/20:RB1

Annual Report for Sveriges Riksbank 2019

To the Riksdag

Sveriges Riksbank hereby submits the Riksbank's Annual Report for 2019 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 2019 as proposed in the Annual Report.

Stockholm, 13 February 2020

On behalf of the Executive Board

STEFAN INGVES

/Amanda Johansson

Stefan Ingves, Cecilia Skingsley, Anna Breman, Martin Flodén, Per Jansson and Henry Ohlsson took part in this decision.

The Reporting Clerk was Sofia Kåhre.

Table of contents

| | |
|--|-----|
| Statement by the Governor | 4 |
| ADMINISTRATION REPORT..... | 8 |
| The tasks and role of the Riksbank..... | 8 |
| Organisation and management..... | 12 |
| Maintaining the value of money – price stability..... | 22 |
| Safe and efficient payments..... | 36 |
| A stable financial system..... | 43 |
| Statistics and research..... | 54 |
| Asset management..... | 58 |
| BALANCE SHEET AND PROFIT AND LOSS ACCOUNT | 71 |
| Accounting policies | 71 |
| Balance sheet..... | 77 |
| Profit and loss account..... | 80 |
| Cash flow statement..... | 81 |
| Notes..... | 84 |
| The profit and loss account and balance sheet by function..... | 105 |
| Five-year overview | 109 |
| INTERNAL CONTROL..... | 112 |
| ANNEXES | |
| The departments of the Riksbank and their tasks..... | 113 |
| Consultation work of the Riksbank..... | 115 |
| The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2019 | 116 |
| Glossary..... | 117 |

Statement by the Governor

The Riksbank is responsible for some of the most fundamental functions of the financial system. A normal working day for my fellow-workers and me involves making sure that there are banknotes and coins to pay with and that the value of money is stable. We also take care of the central payment system for financial transfers, manage Sweden's gold and foreign currency reserves and can, as a last resort, lend money to banks should a financial crisis arise. We read, write and calculate. We research, analyse and communicate. Through our daily work, we at the Riksbank – the banks' bank – contribute to financial stability and ensure that the national economy works.

A central bank thus has great responsibility. Now that we can see that most people seem to prefer to make payments digitally instead of by cash, that people are expressing a need for faster and cheaper international payments, that we are concerned about climate change and threats to financial security – then we, as central bank, cannot just sit here and do nothing. For the Riksbank, as an institution, to continue to be relevant in the future, innovation and strengthened preparedness are needed. We are an old institution, but we need to think in new ways. We are a small central bank but we need to think big. We strive for stability but know that we have to find new paths and take greater steps to develop our operations – and to implement what will probably be the greatest changes for several decades. In 2019, the Riksbank started a comprehensive change process with the aim of allowing us to continue to fulfil our main tasks and to act, as central bank, for a strong and secure economy in the future too.

Payments in focus

The Swedish payment market is changing at a rapid pace. Various digital payment methods are forcing out cash and new technology is leading to payment services being offered by companies other than banks. Digitalisation makes payments easier and smoother, but also creates risks that need to be managed. The state means of payment, which is to say banknotes and coins, needs to be modernised, as does the payment system. Considering that about SEK 600 billion moves through our central payment system, RIX, on a daily basis, it is obvious that we have to be in the absolute forefront as regards our own development work. But we cannot do all of this entirely by ourselves. A number of matters require political decisions and we are now glad that the Riksdag has responded to our wish to investigate the state's future role on the payment market.

During this time, the Riksbank will continue to work on the e-krona project, in which we are studying the prerequisites for issuing a digital complement to cash. Over the year, we have also extended opening hours for our RIX system, giving financial institutions the opportunity to settle payments in central bank

money later in the day. We have also opened negotiations with the ECB on using the ECB's platform for instant payments, TIPS (Target Instant Payment Settlement), for the Swedish krona too. In addition, we made certain technical changes to the Riksbank's operational framework for the implementation of monetary policy, which is to say the instruments, counterparties and collateral for credits that the Riksbank uses to govern the level of interest rates in the economy. These changes have not changed the direction of monetary policy but make the operational framework simpler and more flexible.

For over 350 years, the Riksbank has ensured that people have a state means of payment in one form or another. Our task may be timeless but technology changes. The Riksbank's vision is for everybody to have access to state money in both physical and digital form and for it to be possible to make payments, rapidly, safely and cheaply, both within and between countries, around the clock.

Continued low interest rates and continued unease over household debt

After several years of strong economic activity and inflation close to the target of 2 per cent, the Swedish economy slowed down slightly in 2019 and the economic conditions became more normal. Inflation fell, but this was expected, and the inflation prospects for the next year remained unchanged overall. Monetary policy continued to be expansionary over the entire year, with the aim of safeguarding the inflation target and contributing to good economic development. The Riksbank continued to purchase government bonds and the repo rate was held unchanged at -0.25 per cent until the final monetary policy meeting in December, when we decided to raise the rate to 0 per cent. With this, the Riksbank's repo rate left the negative interest rate situation Sweden has had since the start of 2015.

Low interest rates can have side effects, for example in the form of excessive risk-taking in the economy. For a long time, even when the policy rate was higher than now, Swedish households' increasing debts have worried the Riksbank. Among other factors, this increase is due to structural problems on the housing market and falling real interest rates in Sweden and abroad, while the expansionary monetary policy has also contributed. Households' large debts and various vulnerabilities in the banking system are making the Swedish financial system sensitive to shocks. Because of this, the Riksbank deemed that risks to financial stability in Sweden had increased slightly over the year. The Riksbank pointed out that it was therefore important for the resilience of the financial system to be improved, among other means by the banks increasing their capital in relation to their total assets.

Assessing the household sector's resilience and monetary policy's effects on the economy requires detailed data on Swedish households' assets and liabilities. In May, the Riksbank presented a proposal to the Riksdag on investi-

gating the conditions for collecting this type of statistics. In October, the Riksdag supported this proposal and called on the Government to appoint an inquiry.

Over the year, the Riksbank placed particular focus on analysing the Swedish krona, which developed more weakly than we had expected. With a floating exchange rate, many different factors affect the krona's value in relation to other currencies.

The Riksbank's overall assessment was that the side-effects of the negative policy rate have so far been manageable.

It is important to talk about what we do – but also to listen

What the Riksbank does affects many groups in society, and therefore we constantly need to find new forms for dialogue. Over the year, we have built on the positive experiences of our 350th anniversary in 2018, when we stepped up our efforts to reach the general public around the country. We are inviting in various groups in society, listening to their questions and trying to answer them. For example, in October, we arranged a well-attended open day at the Riksbank, with lectures, discussions by experts and a display of gold bars. We are also meeting increasing numbers of upper-secondary students: both when we in the Executive Board are visiting other parts of the country, and through our newly-started pool of lecturers, with members of staff who are educating students on the Riksbank's role in the economy. In 2019 too, we held our highly-appreciated teachers' days, at which our experts discuss their specialist areas and about 40 teachers go back to school here at the Riksbank.

In addition to a large number of media interviews, we are making efforts ourselves to become more relevant in various digital channels. We are producing increasing amounts of films in which we explain, a little more simply, the reasons for various decisions and also respond to questions the public ask us via letters and social media. At the same time, we are also making our publications more accessible to broader groups. In November, we published on the internet a completely new report on payment habits in Sweden, Payments in Sweden 2019.

Climate change is affecting the economy

Climate change is one of the greatest challenges of our time. It affects how the economy functions and also creates new risks on the financial markets. We therefore continued our work on attempting to find new ways of taking account of sustainability aspects in our operations and of contributing to climate efforts. In November, the Riksbank chose, for climate reasons, to sell some federal government bonds in the foreign exchange reserves with particularly high carbon footprints. Of course, more needs to be done and we are therefore continuing to analyse issues of sustainability in the financial system, together with

central banks and supervisory authorities in the international network NGFS (Network for Greening the Financial System).

The Riksbank's tasks

At the end of November, a parliamentary committee presented a proposed new act for Sveriges Riksbank, and this proposal is now passing through the customary process of referral before eventually becoming a new act. Over the next few years, the Riksbank needs to continue its work to keep us innovative and in a state of heightened preparedness for changing conditions in the world around us, exactly as we specify in our vision for 2022. One central factor for success is having both competent staff and good leadership. Consequently, one of our five most important priorities is to create a stimulating and developmental workplace. As part of this work, in autumn 2019, we started to work more strategically by asking all members of staff to conduct an inventory of the skills needed in both the short and long terms. I would like to thank all employees of the Riksbank for your significant work efforts in 2019 and for contributing to this transformational journey with your professional expertise, good ideas and commitment.

The Riksbank works, on behalf of the citizens of Sweden, for a strong and secure economy. This is what we have always done and what we will continue to do.

Stefan Ingves

13 February 2020

The Riksbank's financial statements show a result of SEK 25,651 million for the 2019 financial year. Besides the financial accounts, this annual report contains an overall description of the Riksbank's activities in the Bank's main areas. For more detailed descriptions, references are provided to publications and reports published during the year, as well as references to the Riksbank's website. The glossary in Annex 4 explains important words and terms, making the report easier to read.

ADMINISTRATION REPORT

The 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 Swedish monetary policy, with the objective of maintaining price stability. The Riksbank also has the task of promoting a safe and efficient payment system.

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. In addition to stabilising inflation around the inflation target, the Riksbank therefore also endeavours to stabilise production and employment around paths that are sustainable in the long-term. The inflation target, however, takes precedence.

The Riksbank determines the level of its policy rate, the repo rate, to influence inflation and economic developments. In addition, after each monetary policy meeting, the Riksbank publishes its forecast for the repo rate, known as the 'repo rate path'. The repo rate and the repo rate path affect other interest rates in the economy and thereby economic activity and inflation. The Riksbank can also use other measures to influence interest rate formation. The most relevant measure in recent years has been the purchase of Swedish government bonds.

A safe and efficient payment mechanism – financial stability

The Sveriges Riksbank Act states that the Riksbank shall also promote a safe and efficient payment system. The Riksbank can do 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 accounts provided by the Riksbank are also used to implement monetary policy and, in crisis situations, to supply extra liquidity to stabilise markets and financial institutions. The Riksbank's ability

to act as ‘the banks’ bank’ is thus a precondition both for fulfilling the objective of price stability and for promoting financial stability. Additionally, the Riksbank is responsible for providing the country with banknotes and coins.

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. This means that the Riksbank supplies banknotes and coins, destroys banknotes and coins that can no longer be used and redeems banknotes that are no longer legal tender. The objectives are to ensure that banknotes and coins are of a high quality and that the Riksbank’s provision of cash is safe and efficient. The general public and companies that handle cash must have great confidence in banknotes and coins and in cash provision. The Riksbank also follows developments on the payment markets and analyses the use of cash and alternative means of payment in the economy in order to stand prepared to adapt its operations to changes in society if needed.

Secure and efficient financial transfers

The Riksbank owns and runs the central payment system RIX, which makes it possible for the market participants to make mutual financial transfers without credit or liquidity risks. Most transactions in Swedish kronor that are not made internally within an individual bank are handled in the RIX system in some form. RIX is thereby of decisive importance to the efficient functioning of the Swedish financial system and the Riksbank has consequently set high targets for its availability and functionality.

RIX is also of great significance to the operational framework for the implementation of monetary policy. This is because the interest rates on the participants’ accounts in the Riksbank are directly linked to the repo rate. These interest rates influence short-term interest rates on the financial markets. The Riksbank itself also carries out various operations via RIX, such as monetary policy operations of various types, and provides credits for extraordinary situations when this is justified.

Preventive work and crisis management

One precondition for the stability of the financial system is that cash supply and the payment system function well in a more general sense. In line with international practice, the Riksbank defines financial stability as meaning that the financial system can maintain its basic functions and also has resilience to disruptions that threaten these functions. It is important that both the Riksbank and the central banks of other countries, together with other relevant authorities, work to reduce the risk of financial crises and ensure their ability to manage serious shocks that could arise in the financial system.

The Riksbank works to prevent threats to financial stability by regularly analysing developments in the financial system and in the economy in other respects, as well as informing of risks that are building up. 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 their funding and risk management. The infrastructure systems included in the Riksbank's oversight are: the Riksbank's payment system RIX, Euroclear Sweden AB's settlement system for securities (the VPC system), Nasdaq Clearing AB's central counterparty system for financial derivatives, commodity derivatives and repos and Bankgirocentralen BGC AB's payment system for clearing retail payments.

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, both by responding to consultation documents and by actively participating in the work of a number of international organisations.

Several authorities in Sweden are responsible for promoting financial stability. Cooperation between the authorities takes place within the Financial Stability Council and elsewhere. The Council is a forum for discussion and not a decision-making body. This means that the authorities represented can communicate their opinions on what they consider should be addressed, but decisions on which measures should be adopted are taken independently by the authorities within their respective area of responsibility. If a financial crisis occurs, the Riksbank, Finansinspektionen, the Ministry of Finance and the Swedish National Debt Office share the responsibility for dealing with the crisis so as to minimise the economic costs.

The Riksbank can help to manage a financial crisis in different ways: through normal 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.

The Riksbank's independence

The Riksbank is a public authority under the Riksdag. The Riksdag appoints the members of the Riksbank's General Council, and the General Council, in turn, appoints the members of the Riksbank's Executive Board. The General Council also supervises and scrutinises the work of the Executive Board.

The Executive Board of the Riksbank takes monetary policy decisions without seeking or taking instruction 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 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. Therefore, the asset composition must be such that it ensures preparedness and ability to perform the tasks at all times.

The Riksbank Committee

On 22 December 2016, the Government decided to appoint a cross-party parliamentary committee with the task of performing a review of the monetary policy framework and the Sveriges Riksbank Act. This committee adopted the name 'the Riksbank Committee'. Among others, the report covered questions of monetary policy objectives and means, the Riksbank's role in work on financial stability, the Riksbank's role on the cash market and the governance of the Riksbank. On 12 October 2017, the Riksbank Committee was also commissioned to investigate the Riksbank's financial independence and balance sheet. On 29 November, the Riksbank Committee presented its final report to the Government. During the year, the Riksbank participated in the inquiry with one adviser and one expert. These submitted a separate statement of opinion to the inquiry. Towards the end of the year, the Riksbank started its analysis of the collected text of the inquiry so as to be able to submit a consultation response within the consultation period, which lasts until 16 April 2020.

Openness and communication

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 handles the situation on the financial markets. The Riksbank's explanations of its assessments also help market participants to form an understanding of economic developments and the risks in the financial system.

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's analysis work is normally presented in the form of reports. In-depth analyses and detailed descriptions of methods and models are regularly published in various formats. All the Riksbank's publications are available in full text on its website (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.

Organisation and management

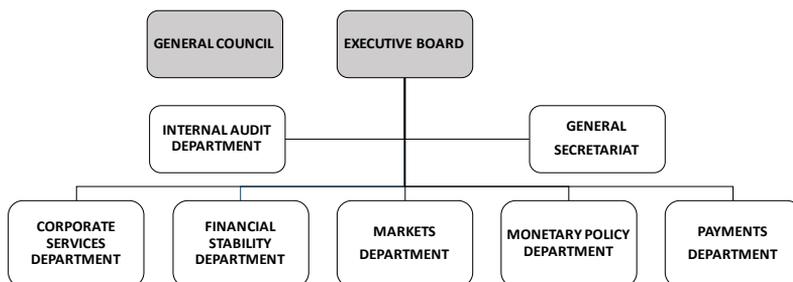
Based on the vision of being “an innovative central bank with a high level of preparedness”, the Riksbank continued to develop its organisation and governance to increase its efficiency and quality further and to adjust its operations to changes in the world around us. Towards the end of the year, the General Council appointed Anna Breman as new Deputy Governor of the Riksbank. She replaced Kerstin af Jochnick, who left her post at the end of September.

Management and organisation

The Riksbank is led by an Executive Board appointed by the General Council of the Riksbank. The Executive Board is responsible for the bank’s operations, while the General Council appoints the members of the Executive Board and adopts the Riksbank’s Rules of Procedure.

In 2019, the Riksbank consisted of seven departments (see Figure 1 and Annex 1). A Management Group consisting of the heads of all departments, with the exception of the Internal Audit Department, has the task of coordinating and following up activities. The head of the Communications Division is also a part of the Management Group, which is chaired by the head of the General Secretariat.

Figure 1 The Riksbank’s organisational structure in 2019



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 2018. The General Council selects a Chairperson and a Vice Chairperson from among its members.

In 2019, the General Council consisted of the following members: Susanne Eberstein (Chairperson), Michael Lundholm (Deputy Chairperson), Hans Hoff, Hans Birger Ekström, Bo Broman, Marie Granlund, Peter Helander, Ali Esbati, Chris Heister, Mikael Eskilandersson and Caroline Helmersson Olsson. Deputy members over the year were: Agneta Gille, Jonas Jacobsson Gjörtlér, Thomas Strand, Sofia Fölster, Josef Fransson, Mathias Tegnér, Roger Tiefensee, ClasGöran Carlsson, Maria Plass (from 30 January 2019), Sammy Almedal and Agneta Börjesson.

The General Council's tasks

Apart from appointing the members of the Riksbank's Executive Board and determining their salaries and other terms of appointment, the General Council adopts the Riksbank's Rules of Procedure. The Rules of Procedure specify the Riksbank's overall organisation and regulation of certain managerial and decision-making matters. The General Council also determines the design of banknotes and coins.

Furthermore, the General Council submits proposals to the Riksdag concerning the allocation of the Riksbank's profits and makes a recommendation to the Riksdag with regard to the discharge from liability of the members of the Executive Board.

According to the preparatory works to amendments to the Sveriges Riksbank Act (1988:1385), the General Council also has the task of monitoring and controlling how the Riksbank conducts its activities and how the members of the Executive Board manage its business. 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 General Council also has an audit function whose work is carried out by external consultants.

The General Council submits consultation responses within its field of competence and the Executive Board consults with the General Council on reports and formal communications with proposals to the Riksdag and the Government regarding amendments to statutes or other central government measures.

The Chairperson and Vice Chairperson submit, usually twice a year, a report on the General Council's work to the Riksdag Committee on Finance.

In 2019, the General Council held 12 meetings. In addition, the General Council took two decisions by circulation.

An account of the General Council's activities is presented in the General Council's submission to the Riksdag 2019/20:RB2 The General Council of the Riksbank's proposal for the allocation of profit 2019 and so forth.

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 establishes the Riksbank's organisation in more detail in the Instructions for Sveriges 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 makes decisions jointly at its meetings. In 2019, the Executive Board held a total of 24 meetings, six of which were monetary policy meetings. In addition, the Executive Board took six 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 2019, 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 2018.

Members of the Executive Board

In 2019, the Executive Board consisted of the following members:

Stefan Ingves

Stefan Ingves is Governor of the Riksbank and Chairman of the Executive Board. He took up the post on 1 January 2006 for a term of office of six years. Stefan Ingves received a further term of office to lead the Executive Board of the Riksbank for another six years from 1 January 2012. On 29 September 2017, the General Council decided to extend Stefan Ingves' term of office by a further five years as of 1 January 2018.

Stefan Ingves is a member of the General Council of the European Central Bank (ECB) and a member of the General Board of the European Systemic Risk Board (ESRB). In December 2019, the General Council of the ECB appointed Stefan Ingves as First Vice-Chair of the ESRB. Furthermore, he is a member of the Board of Directors of the Bank for International Settlements (BIS) and Chairman of the BIS Banking and Risk Management Committee (BRC). Stefan Ingves is Sweden's representative on the Board of Governors

of the International Monetary Fund (IMF), a member of the Nordic-Baltic Macprudential Forum (NBMF) and a member of the Financial Stability Council. Stefan Ingves is chair of the Board of Directors of the Toronto Centre. Until February 2019, he was Chairman of the Basel Committee on Banking Supervision (BCBS) and, in that capacity, member of the Financial Stability Board (FSB).

Cecilia Skingsley

Cecilia Skingsley has been First Deputy Governor of the Riksbank since 8 November 2019. She took up the post of Deputy Governor on 22 May 2013 for a term of office of six years and, in 2019, received an extended term of office for another six years until 21 May 2025. She represents the Riksbank on the Committee on the Global Financial System (CGFS) and on the Euro Retail Payments Board (ERPB). She is the Governor of the Riksbank's alternate on the Board of Directors of the BIS and chairs the Retail Payments Council.

Anna Breman

Anna Breman is Deputy Governor of the Riksbank. She succeeds Kerstin af Jochnick, who left the Riksbank on 30 September 2019. Anna Breman took up the post on 1 December 2019 for a term of office of six years.

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. He represents the Riksbank in the OECD's Working Party 3 (WP3) and in the Bellagio Group.

Per Jansson

Per Jansson is Deputy Governor of the Riksbank. He took up the post on 1 January 2012 for a term of office of five years and, in 2016, received an extended term of office for another five years until 31 December 2021. He represents the Riksbank on the EU Economic and Financial Committee (EFC), in the IMF cooperation between Sweden, the Netherlands, Belgium and Switzerland (G4) and on the Nordic-Baltic Monetary and Financial Committee (NBMFC). He is also a deputy on the International Monetary and Financial Committee (IMFC).

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. He represents the Riksbank

on the International Relations Committee (IRC) of the ECB, and on the Regional Consultative Group for Europe (RCG-E) of the FSB. Since 2019, he has been one of two chairs for the RCG-E.

Kerstin af Jochnick

Kerstin af Jochnick was First Deputy Governor of the Riksbank until 30 September 2019. She took up the post on 1 January 2012. She was the Riksbank's member of the Basel Committee (BCBS) and member of the Advisory Technical Committee (ATC) of the European Systemic Risk Board (ESRB). Kerstin af Jochnick was also co-chair of the Pillar 2 Working Group of the BCBS. She was also the Governor of the Riksbank's alternate on the ECB General Council and chaired the Cash Handling Advisory Board.

Management of activities

The Riksbank's objectives, tasks and organisation are specified by the Sveriges Riksbank Act, the Riksbank's Rules of Procedure and the Riksbank's Instructions. The work of the Riksbank is governed by a strategic plan, an annual business plan and internal regulations in the form of policies, rules and procedures.

Figure 2 The Riksbank's objectives 2019–2022



In December 2018, the Executive Board decided upon a new strategic plan to specify the direction of the Riksbank's development work for the years 2019 to 2022. This formulated three overall objectives for the Riksbank's operations: Price stability, Safe and efficient payments and a Stable financial system. To keep fulfilling our objectives even when the conditions for our work are continually changing, a vision was formulated for 2020, which is that the

Riksbank needs to be “an inventive, highly prepared and responsive central bank”.

Five strategic priorities to help the Riksbank to realise its vision were also formulated: Strengthened preparedness, A payments market for the future, Communication in new forms, Updated and agile analysis and a Developmental workplace. In turn, these priorities were given more concrete form in strategic initiatives to be implemented via action plans in the annual business plan.

The Riksbank’s targets for different areas of activity are monitored using indicators in the business plan. Every four months, the Executive Board receives follow-up reports summarising the status of the indicators, the action plans for development work, the budget and the operational and financial risks. Any measures or reprioritisation prompted by the results were discussed in conjunction with these follow-ups.

Work on transition to new IT supplier

In 2019, work was under way on moving the operation of the Riksbank’s IT systems to a new supplier. In 2012, the Riksbank outsourced all of its IT operations to an external supplier. At the end of 2018, a new procurement of IT operations was concluded and another IT company was awarded the new contract. Among other things, in the new contract, the Riksbank places higher demands on security than previously, in line with the new Protective Security Act. The work of the transition to the new supplier is expected to be completed in 2020.

Internal control

The Executive Board is ultimately responsible for internal control and establishes overall policies and certain rules that govern the Riksbank’s activities.

The internal control is evaluated on the basis of the components governance and control environment, risk analysis, control mechanisms, information and communication and follow-up and evaluation. Under the internal control framework, the Internal Audit Department also carries out examinations of selected areas of the operations.

Pursuant to the provisions of the Sveriges Riksbank Act, the Executive Board presents its assessment of the adequacy of internal control in the Annual Report. See also page 109.

Risk assessment

There are different types of risk in the Riksbank’s activities, both financial and operational. Financial risks are about market risk, credit risk and liquidity risk. Operational risks are events that, should they occur, may damage the activities, assets or reputation of the Riksbank and that arise as a result of human error or shortcomings in manning, internal processes or IT systems, or are due to external events. Risks of this type are to be found throughout the Riksbank’s

operations, both in the course of day-to-day work and in connection with changes. The risks are managed in a special risk process.

The Riksbank's Risk Division reports its independent assessment of the Riksbank's financial and operational risks to the Executive Board three times a year. The operations' risk analyses and incident reports indicate that the risk level for the Bank as a whole was satisfactory and did not change significantly in 2019.

Crisis preparedness and security

Uncertainty persists in the security policy situation. In 2019, the Riksbank continued the work of building robustness so that critical infrastructure can continue to function both in peacetime crises and under heightened alert. The Riksbank participates actively in Sweden's total defence planning and voluntarily coordinates work within Financial services, which is one of the seven priority areas for the Swedish Civil Contingencies Agency (MSB). In parallel with this, the Riksbank is now preparing for its participation in the major Total Defence Exercise 2020. In 2019, the Riksbank also initiated a review of its internal crisis preparedness organisation.

Information security and cybersecurity continue to form a priority area. The work of implementing an information security management system based on the international standard ISO/IEC 27000 continued in 2019. Internal collaboration takes place in the Committee for IT security issues (the Cyber Committee). External collaboration, both national and international, contributes to the effective assessment of threats and joint defence measures. The Riksbank is also a member of the Information Security Forum, together with other private companies and public organisations from the whole world.

Employees

At the end of 2019, the Riksbank had a total of 377 employees (349 full-time equivalents), compared with 362 employees (327 full-time equivalents) at the end of 2018. Taking the strategic plan as a starting point, managers and employees worked over the year with strategic skills supply, continued development of leadership and employeeship, the working environment and health-promoting activities, and other initiatives.

In 2019, the Riksbank introduced a method for competence analysis to make it easier to work systematically with skills mapping and strategic skills supply in the annual operational planning. This will allow the Riksbank to ensure that it has the right skills in its operations in both the short and long terms.

In 2019, the Riksbank conducted two employee surveys to monitor the development of operations in terms of strategic skills supply, including the working environment and efficient working forms. Through these surveys, the Riksbank obtains regular feedback on how members of staff experience their working situation and also creates the conditions for employees and managers

to develop the working environment together. The Riksbank continues to achieve high results in terms of well-being and commitment and is continuing to work with efficient working forms, skills planning and target definitions.

The Riksbank makes active efforts to be a health-promoting employer and, over the year, conducted health surveys in cooperation with its occupational health service. The results of the health surveys indicate that employees at the Riksbank experience their health as being good. All employees were offered e-Training for addiction problems. Sick leave remained low at 1.8 per cent in 2019, compared with 1.7 per cent in 2018.

Confidence and communication

Confidence among the Riksbank's target groups

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 the year, surveys by the SOM Institute and MedieAkademin showed that the general public continued to have strong confidence in the Riksbank. However, surveys conducted later in the year showed that confidence had weakened compared with the same surveys in 2018. The lower level of confidence in the Riksbank was also indicated by Kantar Sifo's recurring confidence question to an internet panel intended to represent the general public. 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 from 56 per cent in 2018 to 47 per cent in 2019. Those with the lowest confidence in the Riksbank primarily cited the negative interest rate and the development of the krona's value as reasons.

Communication

The Riksbank's most prominent monetary policy message over the year was that inflation was close to the target, but also that inflation needed the continued support of an expansionary monetary policy to be close to the target. In addition, the Riksbank continued to highlight the risks inherent in households' high levels of indebtedness. Media reporting on the Riksbank increased slightly in scope in 2019, compared with the previous year. This reporting focused on monetary policy and the development of inflation. The value of the krona relative to other currencies also received great attention and contributed to the Riksbank's media image being more negative than in 2018. The media continued to report on the e-krona project and the matter of the cashless society.

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. Over the year, the Riksbank conducted a survey among the general public to measure knowledge of and interest in economics in general and in the Riksbank's tasks. This survey showed that young adults have lower knowledge of the Riksbank than older people and that young adults have different reading and viewing habits than older people.

One part of the strategy is for the Riksbank to communicate in a digital format to a greater extent. In November, the Riksbank published its first entirely web-based and interactive report, *Payments in Sweden 2019*. By publishing a report in digital form, the Riksbank hopes to reach more readers than previously, as it will also be easier to search for and share in digital channels.

Interest in the Riksbank's official accounts in social media has continued to be high in 2019, above all on LinkedIn but also on Twitter and Facebook. Here, the Riksbank is increasingly working with short films that explain what the Riksbank does and what its standpoints are on various current issues concerning monetary policy, financial stability and payments now and in the future.

Over the year, the Riksbank's website was awarded Central Banking's prize, *Website of the Year*. The website was praised for its simplicity and accessible content, which managed simultaneously to capture and communicate the complexity and subtleties of central banking operations.

Environmental work and sustainable development

Sustainable development can be understood to be developments in society that meet today's needs without compromising the possibilities of future generations to meet their needs, and in which consideration is given to economic, ecological and social aspects.

The Riksbank strives to reduce the Bank's environmental impact. The Riksbank's environmental work and work on sustainable development were therefore increased over the last year and sustainability aspects were integrated into several policy areas. The insight that climate crises are also a source of financial risks means that the Riksbank, in its work on financial stability, needs to analyse how Swedish banks and financial infrastructure systems are exposed to climate-related risks (see also the section on financial stability). The Riksbank's asset management now includes sustainability as a criterion in the financial risk and investment policy. This means, for example, that the Riksbank must not invest in assets issued by issuers with a large climate impact when the Riksbank is investing in other assets than those fulfilling its contingency requirement (for further details, see the section on asset management).

Since December 2018, the Riksbank has been member of an international network of central banks and supervisory authorities for analysing sustainabil-

ity-related issues in the financial system – The Network for Greening the Financial System. In this network, the Riksbank contributes to the work of working out possible future scenarios for stress tests of financial institutions. The Riksbank also collaborates with other Swedish authorities, among other things to develop suitable methods for assessing the macroeconomic consequences of climate change.

The Riksbank is already actively engaged in environmental aspects of its internal work. The work is an integral part of operations and is part of every manager's responsibility. Internal seminars, with both internal and external speakers, were arranged over the year to increase employee awareness of various aspects of sustainability. These included, for example, how sustainability requirements can be set in procurements conducted by the Riksbank.

The measures used by the Riksbank in its environmental work and their outcomes are presented in Table 1.

Table 1 Measures used to monitor environmentally sustainable development

| | 2017 | 2018 | 2019 |
|--|-------------|-------------|-------------|
| Carbon dioxide emissions from official travel (tonnes), total per employee | 1.51 | 1.61 | 1.31 |
| Energy usage, total (MWh) | 5,689 | 5,975 | 5,580 |
| Energy usage, total per employee (MWh per square metre) | 17.6 (0.22) | 18.6 (0.23) | 16.7 (0.21) |

Note: 'Employee' refers here to the average number of full-time employees.

Source: The Riksbank.

Maintaining the value of money – price stability

Just as abroad, economic activity in Sweden slowed down in 2019. This slow-down meant that the economic situation became more normal after several years of strong development on the labour market and good growth. GDP increased by 1.1 per cent according to the Riksbank's assessment in December. The labour market cooled off too but employment remained at a historically high level. Inflation, which has been close to the inflation target of 2 per cent since the start of 2017, fell slightly, as expected, and averaged 1.7 per cent in 2019. Monetary policy continued to be expansionary over the year. The forecast showing continued rate rises at a slow pace was revised downwards, among other reasons due to increased uncertainty over international economic activity. The interest rate was held at -0.25 per cent until December, when it was raised to 0 per cent. To maintain a suitable level in its holdings of government bonds, the Riksbank decided in April to purchase Swedish government bonds at a steady rate from July 2019 until the end of 2020 in a nominal amount of SEK 45 billion.

Monetary policy

The Executive Board of the Riksbank held six monetary policy meetings in 2019, at which it decided on the repo rate and other monetary policy measures. In conjunction with these meetings, a Monetary Policy Report is published, which includes forecasts for the repo rate, inflation and other economic variables. Below is a summary of the Riksbank's monetary policy in 2019.

Sweden is a small, open economy and is greatly affected by developments abroad. In 2019, GDP growth in the global economy continued to slow down slightly and became more in line with the historical average (see Chart 1). Several uncertainty factors made their mark on developments, including the trade conflict between the United States and China and the unclear situation surrounding the United Kingdom's withdrawal from the EU. This uncertainty contributed to worsening sentiment, above all in the manufacturing sector. At the same time, unemployment continued to be low in many countries and indicators of consumer confidence remained at relatively high levels. Inflation was low, above all in the euro area, and inflation expectations in the euro area and United States fell in 2019.

In the wake of unease over the economic outlook and falling inflation expectations, market participants' expectations of monetary policy shifted in a more expansionary direction. Several central banks abroad also made their monetary policies more expansionary in various ways. Even if government bond yields fell markedly, for example, prices for higher-risk assets such as

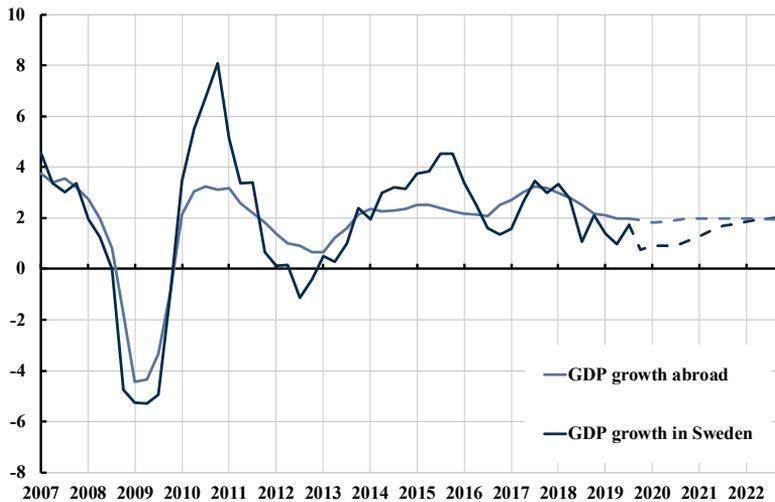
equities rose over the year. Overall, pricing on the financial markets signalled that participants expected the slowdown in economic activity to be limited.

The Swedish krona depreciated when measured in terms of the krona index (KIX), a weighted average of currencies in the countries that are most important for Sweden’s international transactions. Currencies in small, open economies like Sweden usually weaken in times of rising uncertainty on the financial markets. In addition, the krona weakened in conjunction with the publication of statistics indicating that the domestic economic outlook had become weaker than the market participants had expected. The Riksbank’s successive revisions of its repo rate forecasts may also have contributed to the weaker krona.

The Swedish economy slowed down a little faster than expected in 2019, following a long period of strong development on the labour market and good growth (see Chart 1). Unemployment rose slightly in 2019, but the proportion of the working-age population in employment remained high from a historical perspective. CPIF inflation, which has been close to target since the start of 2017, fell, as expected, over the autumn but rose again towards the end of the year (see Chart 2). On average, CPIF inflation was 1.7 per cent in 2019.

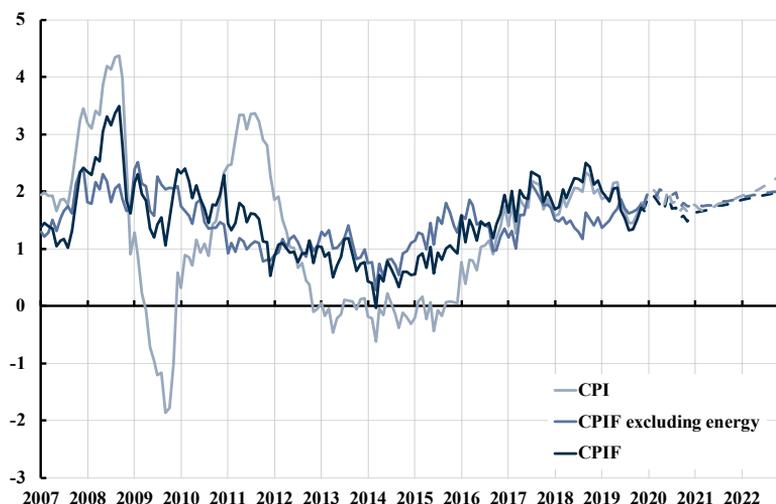
Chart 1 GDP growth in Sweden and the world

Annual percentage change



Note: GDP abroad is aggregated with the weights in the krona index, KIX. The broken lines represent the Riksbank’s forecast from December 2019.

Sources: National sources, Statistics Sweden and the Riksbank.

Chart 2 CPIF, CPIF excluding energy and CPI*Annual percentage change*

Note: The CPIF is the CPI with a fixed interest rate. The broken lines represent the Riksbank's forecast from December 2019.

Sources: Statistics Sweden and the Riksbank.

In December 2018, the Riksbank raised the repo rate to -0.25 per cent. This was the first repo rate rise since 2011. Several factors suggested that monetary policy needed to proceed cautiously and, at the start of 2019, the forecast was that the next repo rate rise would take place in the second half of 2019, assuming that the economic outlook and inflation prospects would turn out as expected. After this, the rate would probably have to be raised at a slow pace for inflation to stay close to the inflation target. As the inflation prospects had become weaker, both abroad and in Sweden, the Riksbank revised its forecast for the repo rate down in April 2019. The forecast then indicated that the next rise would take place at the end of the year or at the start of 2020 and that rate rises thereafter would take place at a slightly slower pace compared with the assessment in February (see Chart 3).

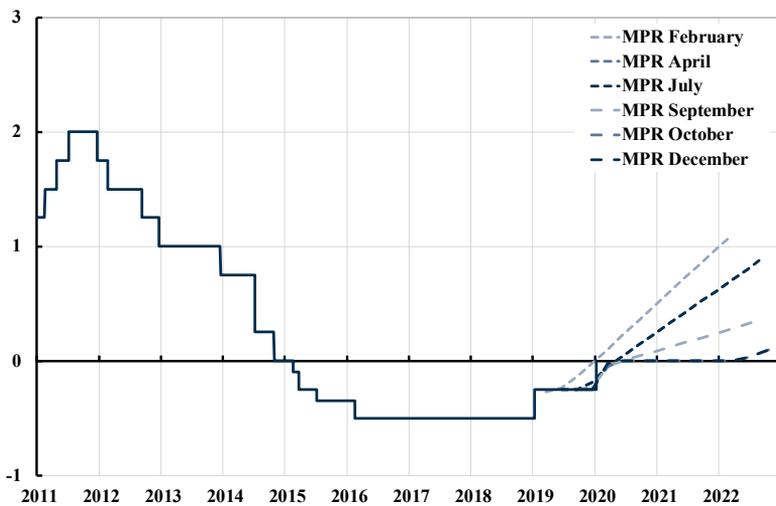
Uncertainty over the global economic outlook increased over the summer and autumn, and several central banks abroad made their monetary policies more expansionary. In September, the Riksbank noted that development so far had nevertheless been largely in line with the previous assessment and its forecast continued to indicate that the next rate rise would occur towards the end of the year or at the start of 2020. After this, however, rises would happen at a slower pace, among other reasons in light of the low interest rates and worsened sentiment abroad.

New information received by the monetary policy meeting in October indicated that economic activity was slowing down faster than expected. Overall, however, there were no indications of a recession, either in Sweden or abroad. The inflation prospects for the next year were unchanged and the Riksbank's forecast for the repo rate until the middle of 2020 thus remained the same,

including a probable rise of the rate to 0 per cent in December. However, uncertainty over the economic outlook made it difficult to say when the next rise could be appropriate and the assessment was that resource utilisation would fall towards a normal level a little faster than in the forecast from September. The forecast for the repo rate in the longer term was therefore revised down, meaning that the repo rate was predicted to remain unchanged for a longer time after the rise expected in the near term (see Chart 3). Developments towards the end of the year were more or less as the Riksbank had expected and, in line with the assessment from October, the repo rate was raised to 0 per cent in December. The forecast for the repo rate was unchanged, and the repo rate was expected to remain at 0 per cent in the coming years.

Chart 3 Repo rate and repo rate forecasts 2019

Per cent



Note: The unbroken line represents outcome (daily data) and the broken lines represent the Riksbank’s forecasts (quarterly averages). The forecasts for April and July are identical, as are the forecasts for October and December.

Source: The Riksbank.

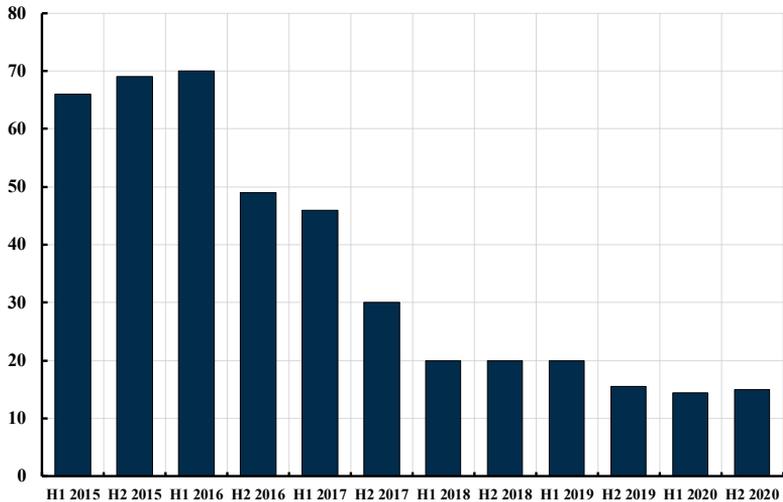
The Riksbank concluded its net purchases of government bonds in December 2017, in the sense that the total holding would subsequently remain approximately constant, but regularly reinvested principal payments and coupons from the portfolio of government bonds. At the end of 2017, the Executive Board also resolved to start, in January 2018, the reinvestment of the principle payments that was to take place in the spring of 2019 and the coupons that were to have been received over the full year of 2018 and first six months of 2019. Pursuant to this decision, the Riksbank carried out reinvestments for a total amount of about SEK 60 billion until the end of June 2019 (see Chart 4).

In April 2019, the Executive Board made the assessment that monetary policy needed to remain expansionary so that inflation would stabilise around the target of 2 per cent. To maintain an appropriate level of government bond

holdings and the Riksbank's presence on the market, the Executive Board therefore decided that, over the period July 2019–December 2020, the Riksbank would purchase Swedish government bonds for a nominal amount of SEK 45 billion (see Chart 4). This corresponds to around half of the principal payments and coupons the Riksbank will receive during this period (at the same time, the earlier decisions on regular reinvestments were revoked). This decision means that the Riksbank's holding of government bonds will be kept at about the same level as it has averaged since the start of 2018, which is to say after net purchases were concluded.

Chart 4 The Riksbank's purchases of government bonds

SEK billion

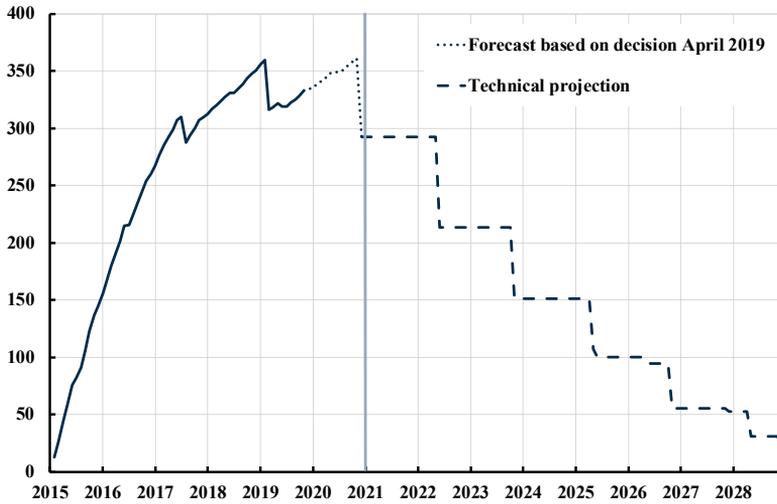


Note: Nominal amount.

Source: The Riksbank.

Chart 5 The Riksbank’s holdings of government bonds

SEK billion



Note: Nominal amount. Forecast from the Monetary Policy Report, December 2019. Forecast up until end of December 2020, then subsequently a technical projection under the assumption that no further purchases are made. The progression of the holding is also affected to some extent by the market prices of the bonds, and the bonds in which the Riksbank chooses to reinvest. The vertical line denotes the shift between forecast and technical projection.

Source: The Riksbank.

Monetary policy decisions and reservations

12 February The repo rate was held unchanged at -0.25 per cent. The repo rate forecast was also held unchanged and indicated that the rate would be raised again in the second half of 2019 assuming that the economic outlook and inflation prospects turned out as expected. The mandate that facilitated rapid interventions on the currency market, which had been extended a number of times since introduction in 2016, expired on 12 February 2019. The Executive Board chose not to extend it further.

24 April The repo rate was held unchanged at -0.25 per cent. The forecast for the repo rate was revised down. It now indicated that the rate would be raised again towards the end of the year, or at the beginning of 2020. Following this, rises were expected to take place at a slightly slower pace. The Executive Board also decided that the Riksbank would purchase government bonds for a nominal value of SEK 45 billion from July 2019 to December 2020 in order to maintain an appropriate level of holdings and the Riksbank’s presence in the market. Martin Flodén and Henry Ohlsson entered reservations against the decision to purchase government bonds

| | |
|-------------|--|
| | from July 2019 to December 2020. They considered that further purchases would not contribute to attaining monetary policy targets in any clear way, but that there would be risks associated with additional purchases. They also referred to their previous reservations in connection with the Executive Board's decisions on bond purchases. |
| 2 July | The repo rate was held unchanged at -0.25 per cent. The forecast for the repo rate was also left unchanged and indicated that the rate would be increased again towards the end of the year or at the beginning of 2020. |
| 4 September | The repo rate was held unchanged at -0.25 per cent. The forecast for the repo rate was revised down slightly. As previously, the forecast meant that the rate would be raised towards the end of the year or at the beginning of 2020. After that, however, changes to the rate were expected to be made at a slower rate than in the previous forecast. |
| 23 October | The repo rate was held unchanged at -0.25 per cent. The forecast for the repo rate in the short term was unchanged and meant a rate rise in the near term, most probably in December. The forecast for the repo rate after this indicated a longer period with an unchanged repo rate, compared with the earlier assessment. |
| 18 December | The repo rate was increased to 0 per cent. The forecast for the repo rate was held unchanged. Anna Breman and Per Jansson entered reservations against the decision to raise the repo rate. Anna Breman considered that waiting before raising the repo rate in the near term would increase the probability of maintaining inflation close to the target in the longer run. She also considered that it would increase the possibility of continuing to make slow increases of the repo rate over the coming years. She preferred a repo rate path indicating an increase during the first half of 2020 and subsequent rises around once per year in 2021 and 2022. Per Jansson advocated a repo rate path indicating that the repo rate would be raised some way into the forecast period, in a future situation where it could be assumed that the conditions for attaining the inflation target would look a little better than they did at present. |

Target fulfilment

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 the month of March following the year

evaluated. Among other things, the Account of Monetary Policy describes how inflation and the real economy have developed over the past year. The report for 2019 will be submitted to the Riksdag in March 2020.

The Riksbank strives to stabilise inflation around the inflation target but also tries to stabilise production and employment around paths that are sustainable in the long term. The Riksbank thus conducts what is referred to as flexible inflation targeting. A precondition for taking factors other than inflation into account is that confidence in the inflation target is maintained.

When the fulfilment of monetary policy objectives is assessed, consideration needs to be taken not only of how inflation has developed, but also of developments in the real economy. However, both inflation and the real economy are constantly impacted by unexpected shocks, meaning that deviations from the inflation target are the rule rather than the exception.

Inflation in 2019

Inflation, which has been close to the target since the start of 2017, fell, as expected, over the summer and autumn of 2019, when energy prices were no longer increasing as rapidly as before. Inflation rose again towards the end of the year as energy prices stabilised, and the depreciation of the krona contributed to greater price increases for imported goods and services (see Chart 2). On average, inflation was 1.7 per cent in 2019, which is to say slightly below target (see Table 2). The average contribution of energy prices to inflation was small over the year and, measured in terms of the CPIF excluding energy, inflation was 1.6 per cent, which is slightly higher than the outcome for 2018 (see Chart 2 and Table 2). CPI inflation amounted to 1.8 per cent in 2019. The money market participants' inflation expectations over all time horizons fell over the year (see Chart 6). However, expectations of inflation five years ahead continued to be close to the inflation target.

Table 2 Comparison of different measures of inflation

Annual percentage change

| | Annual average | | |
|-----------------------|----------------|------|------|
| | 2017 | 2018 | 2019 |
| CPIF | 2.0 | 2.1 | 1.7 |
| CPIF excluding energy | 1.7 | 1.4 | 1.6 |
| CPI | 1.8 | 2.0 | 1.8 |

Note: The CPIF is the CPI with a fixed interest rate.

Sources: Statistics Sweden and the Riksbank.

Chart 6 Inflation expectations among money market participants*Per cent*

Source: TNS Sifo Prospera.

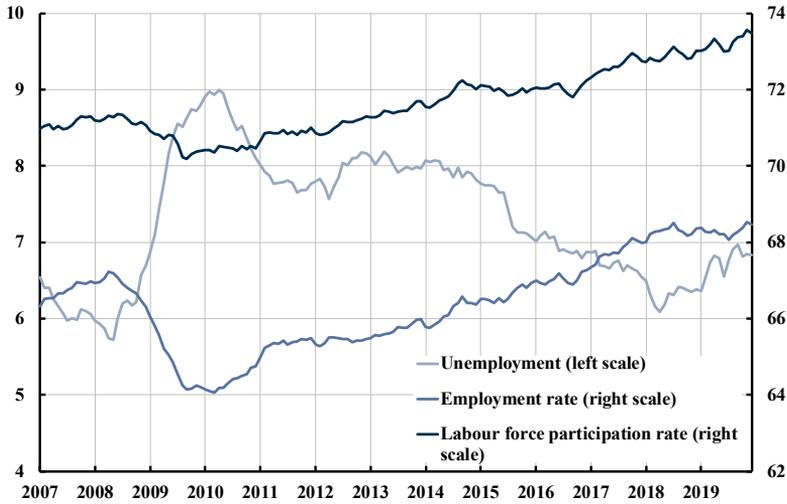
The development of the real economy in 2019

Just as abroad, economic activity in Sweden slowed down in 2019. This slow-down meant that the economic situation became more normal after several years of strong development on the labour market and good growth. Over the year, the economy entered a phase of lower growth, and GDP is deemed to have increased by 1.1 per cent. Domestic demand slowed down, housing construction decreased and household consumption developed more weakly. The proportion of the population participating in the labour force increased slightly compared with last year, while the proportion in employment was more or less unchanged (see Chart 7). Unemployment increased slightly and, according to the Riksbank's assessment from December, it amounted to an average of 6.8 per cent in 2019.

To estimate the state of economic activity, the Riksbank uses different measures of resource utilisation, for example the GDP gap, the hours gap and the employment gap. These show the deviation from the respective estimated trends of GDP, hours worked and employment. The overall view given by the measures towards the end of the year was that resource utilisation was close to or slightly higher than normal (see Chart 8).

Chart 7 Labour force participation, the employment rate and unemployment

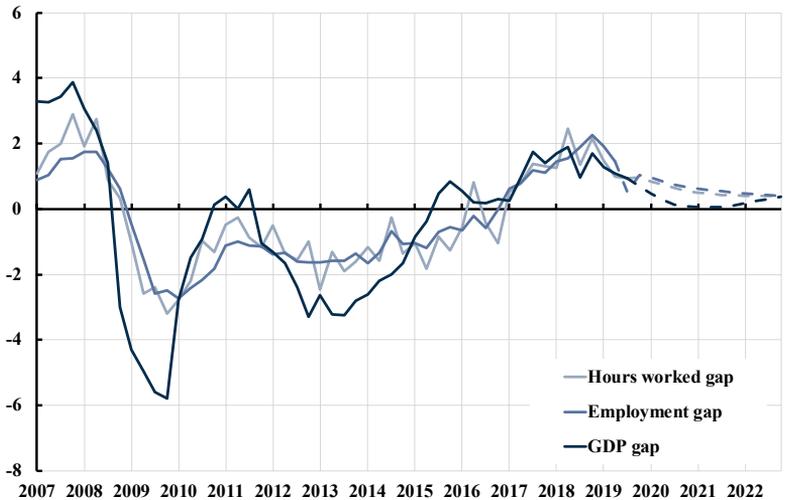
Per cent



Note: Seasonally adjusted data. Three-month moving average. 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. Outcomes for the period July 2018–September 2019 have been revised as Statistics Sweden discovered shortcomings in the collection of data for the labour force surveys.
Source: Statistics Sweden.

Chart 8 GDP gap, employment gap and hours gap

Per cent



Note: The gaps refer to the deviation in GDP, the number of hours worked and the number of those employed from the Riksbank's assessed trends. The broken lines represent the Riksbank's forecast from December 2019.
Sources: Statistics Sweden and the Riksbank.

The Riksbank simplified the operational framework for monetary policy

The Riksbank's repo rate decisions are put into practice via the Riksbank's operational framework for the implementation of monetary policy. With the aid of this framework, the Riksbank ensures that the shortest market rates are stabilised close to the repo rate. In July, the Riksbank announced that changes needed to be made to the operational framework, as developments on the payment market were making new demands for longer opening hours and better access to the payment system. On 30 September, after having considered comments from its monetary policy counterparties and others, the Riksbank decided to implement certain changes to make the operational framework simpler and more flexible. These changes will be implemented in two stages, starting 9 October 2019. The agreed adjustments to the operational framework are of a technical nature and are not intended to have any monetary policy effects.

The main changes are that the Riksbank ceased its daily fine tuning operations as of 9 October, and that the difference between the repo rate and the interest rate for the standing automatic deposit facility has been reduced to 0.10 percentage points. The deposit rate has thus been set at 0.10 percentage points below the repo rate, which is to say the same level at which the fine-tuning deposit transactions were previously conducted. At the same time, the Riksbank is restricting the issue of Riksbank Certificates to leave more liquidity available to be deposited in the deposit facility over night. In this way, the Riksbank can ensure that the overnight rate remains close to the repo rate in the period ahead, even without daily fine-tuning operations. In the next stage, when the technical conditions are in place, the Riksbank will also adjust the lending rate so that it is closer to the repo rate (0.10 percentage points above the repo rate). At the same time, collateral requirements for any party wishing to utilise the lending facility will be tightened.

Monetary policy development work

In 2019, the Riksbank's development work was focused on the krona, among other things. The factors determining the exchange rate were also in focus at a conference on business cycles in small, open economies that the Riksbank arranged together with the central banks of Australia, Canada, Norway and New Zealand. To further increase knowledge of the driving forces behind fluctuations of the Swedish exchange rate, the Riksbank engaged an external researcher, Professor Philippe Bacchetta from the University of Lausanne, to lead a project and report back in 2020.

Apart from the exchange rate, other aspects of the Swedish economy's international dependence were the focus of the Riksbank's analysis. Over the year, work also continued on increasing understanding of changes in the economy's supply side. In addition, the analysis of the conditions for stabilisation

policy in Sweden was also deepened. A selection of the studies published by the Riksbank in these areas over the year is presented below.

In-depth analysis of international dependence in the Swedish economy

An article in the Monetary Policy Report from July analysed how the value of the krona has changed in relation to other currencies over a longer period in real terms, which is to say taking into account how price levels have diverged in Sweden and abroad. The real krona exchange rate showed a weakening trend from 1970 to 1993. Since then, development has not been as clear but there are signs that the trend depreciation has continued. The article showed that the trend over the period 1970–1993 coincided with changes in Sweden’s GDP per capita in relation to other countries and in the current account, which reflects the difference between prices for Sweden’s exports and imports. These factors could thus explain the development of the real exchange rate over this period. However, it is difficult to find any support for the suggestion that such changes can explain developments over the last decade and there are many indications that the krona is weaker at present than it will probably be over the longer term.

If Swedish labour costs are higher than labour costs abroad, Swedish goods and services will be relatively more expensive and it will be more difficult for them to compete on a global market. However, a development like this would be linked with an increasingly weak krona over the long term, which would contribute towards evening out the differences in labour costs between Sweden and other countries. At the same time, the krona is affected by several factors and wage formation in Sweden therefore cannot completely disregard the international competitive situation. An article in the Monetary Policy Report from February analysed how Swedish labour costs have developed from an international perspective. Its conclusion was that Swedish unit labour costs are currently low compared with costs in most competitor countries, measured in the same currency. The recent depreciation of the krona is an important explanation for this.

What are the effects of changes to the Swedish economy’s supply side?

In the period ahead, monetary policy both in Sweden and abroad will be conducted in an environment in which major changes are occurring in the economy’s supply side. Demographic imbalances provide one of the reasons for this, with an increasing proportion of older people and large migration flows. In 2019, the Riksbank continued the work of improving its understanding of these conditions. Among other things, it published a survey of migration to Sweden in recent decades and the macroeconomic effects immigration can have. One specific question was whether immigration may make it easier to

support an ageing population. Its conclusion was that immigration could help with this but that this would depend on integration into the labour market functioning better than it does today. Another survey compared different sources for labour market statistics. Among other things, it compared details over people born abroad and demonstrated how combining sources can give a more complete view of the Swedish labour market.

Another trend with potentially major consequences for the labour market is the ongoing technological development with automation and robotisation. An Economic Commentary on empirical research in this area concluded that total employment so far has not decreased due to technological development. On the other hand, some groups have been impacted harder as their skills are no longer in demand on the labour market. Rapid technological developments therefore risk leading to an increasing division of the labour market, which makes it necessary for the economy to have a good ability to adjust.

One of the conclusions of an article in Sveriges Riksbank Economic Review was that technological development that benefits the highly educated has had an effect on wage formation. The article summarised the research literature's findings concerning the effects of all the changes that have affected the Swedish labour market in the last 25 years. Another article investigated whether changes on the labour market can explain the restrained development of prices and wages in recent years. Its conclusion was that increased labour force participation, weakened bargaining power among employees and a lower compensation rate during unemployment may have contributed to this development. Some of these changes may also have contributed to the increasingly high resource utilisation in the economy not being linked with such large wage growth as in previous years.

In-depth analysis of the conditions for stabilisation policy

As the level of interest rates is already low, monetary policy's ability to counteract weaker economic developments depends, among other things, on how far it is possible to cut the repo rate in practice. The Riksbank and a couple of other central banks have cut their policy rates to below zero, which was previously considered the lower bound. A staff memo analysed experiences of this in Sweden. The analysis showed that market rates, both interbank rates and yields for government bonds, have followed the policy rate in tandem with the cuts. On the other hand, as the Riksbank suspected, the banks' deposit rates have not fallen to a corresponding degree. The banks' lending rates with a three-month fixation period – the variable mortgage rates – have, however, followed the cuts to the policy rate, albeit after a delay. The conclusion of the analysis was that cuts taking the policy rate below zero have had an effect and have contributed to stimulating the economy further.

One question that received increasing focus in the economic debate over the year concerned the extent to which fiscal policy needs to take greater responsibility in any future economic downturn. Apart from the argument that

the low level of interest rates restricts monetary policy's scope for action, while fiscal policy's scope is increasing, empirical research indicates that temporary fiscal policy measures may have significant effects on household consumption. An Economic Commentary published by the Riksbank discussed these arguments and the interplay between fiscal policy and monetary policy in more detail.

Transaction-based overnight rates

The Riksbank needs to have information on short-term market rates to be able to ensure that monetary policy is being implemented effectively and that the Riksbank has an appropriate operational framework for the implementation of monetary policy. Earlier, central banks have had a clear focus on what are known as interbank rates, which is to say rates for loans between banks with access to the central bank's monetary policy instruments. However, changes to the financial markets have caused activity on the interbank market to decrease in many jurisdictions – including Sweden. The Riksbank therefore also needs information on loans at the very shortest maturities between participants other than banks.

The Terms and Conditions for RIX and Monetary Policy Instruments were amended on 1 April 2019 to allow the Riksbank to have access to the information needed to evaluate the implementation of monetary policy. The Riksbank now requires parties with access to the Riksbank's monetary policy instruments, that is, the monetary policy counterparties, to report information on transactions on the money market. This is performed in a standardised format used by several central banks in Europe. Reporting started on 1 October 2019. Using this data, the Riksbank can better evaluate monetary policy and its operational framework and see, to a greater extent, how other participants than the monetary policy counterparties are affected by monetary policy decisions.

In 2020, the Riksbank intends to start publishing information on the overnight rate in SEK, which is to say the interest rate with the very shortest maturity, from the end of one trading day to the start of the following day. This rate will be based on information collected from the monetary policy counterparties. In addition, the work with transaction-based overnight rates will create the conditions for the Riksbank to provide a reference rate in Swedish kronor. On 12 December, the Executive Board of the Riksbank took the decision for the Riksbank to be administrator of the reference rate for the very shortest maturity in SEK (see the section A stable financial system).

Safe and efficient payments

The Swedish payment market is developing rapidly and the Riksbank is therefore evaluating how the supply of services needs to be changed so that the payment system can continue to be safe and efficient. Safe and cost-effective payments are namely a precondition for the Swedish economy to function well. The Swedish payment infrastructure must be at least as safe and efficient as it is in comparable countries abroad. This development also requires a review to be conducted of the infrastructure for instant payments between households and companies. In June 2019, the Riksbank decided to open negotiations over the use of the ECB's platform for instant payments (TIPS) for settlements in Swedish kronor. Work on the e-krona project has continued in 2019, among other things concerning the development of an e-krona pilot.

Developments on the payment market

Electronic payments are increasing in number as part of a global trend. Reasons for this include technological developments and changed consumption patterns. Cross-border payments are becoming increasingly common, and the national payment markets are becoming much more integrated. For Sweden, developments in the Nordic region and EU are the most important. The central banks have a key role in the transformation of the payment markets and the Riksbank participates in the international cooperation and monitors and analyses developments.

On the Swedish market, the usage of electronic payment services has shown an increasing trend, at the same time as the usage of paper-based direct debits and cash has decreased. In an international comparison from 2017, Sweden is one of the countries that has the lowest level of cash usage and highest number of card payments per person and year. The ever-lower level of cash usage among the Swedish population is partly due to technological developments and the increased digitalisation in society as a whole, but it is also due to demographic changes and increasing numbers of payment users who have grown up in a digital society.

This development has continued in 2019. Fewer and fewer payments at points of sale are being made in cash and consumers also report that they are experiencing more and more often that they are unable to pay with cash in shops. At the same time, usage of cards and Swish is increasing. So-called contactless smart cards and terminals, where payment is made by holding the card against the terminal, have become common. The international development is also continuing and, in June 2019, Facebook announced its intention, together with other parties, to create a global digital currency. Libra. This decision intensified a global debate on the efficiency of the payment system. The Riksbank worked with these issues in 2019 in the form of ongoing analyses

and international monitoring. In November, the Riksbank published the report *Payments in Sweden 2019*, which describes and analyses developments in the payment market.

The trend towards a cashless society could ultimately make society vulnerable if the payment market becomes concentrated among a small number of private participants, payment services and infrastructures. These matters were also raised in the work of the parliamentary committee for the review of the monetary policy framework and the Sveriges Riksbank Act, and in the final report of the Defence Commission on the direction of security policy and the design of military defence. The Riksbank also worked with these matters at the Retail Payments Council, a forum for consultation and dialogue on matters concerning the Swedish market for payment services. In its role of coordinator of the secretariat for the Retail Payments Council, the Riksbank led the work of developing a new work programme for 2020 to 2022.

The increased demand for and volume of instant payments has led the Riksbank to investigate how these can be offered to the public in the period ahead as efficiently and securely as possible. Consequently, a feasibility study was conducted in 2019 to investigate the possibility of allowing the Swedish krona to be settled on the ECB's platform for instant payments, TIPS. The feasibility study has led to negotiations being opened with the ECB and a project on membership has been initiated at the Riksbank.

The developments on the payment market led to the Riksbank, in 2017, initiating a project to study whether it would be possible to issue a digital complement to cash, an 'e-krona', and whether such a complement could support the Riksbank in the task of promoting a safe and efficient payment system. This work continued in 2019. In May 2019, the Riksbank submitted a written petition to the Riksdag on the need for a government inquiry into the payment market in a digitalised economy, on the roles of the state and the private sector in such a market, and on the need for an e-krona. In June 2019, the Riksdag approved the petition and urged the Government to appoint an official inquiry into the state's future role on the payment market.

In parallel with this work, the Riksbank is also running an e-krona pilot project.

E-krona pilot

In the autumn of 2018, the Riksbank's work on the e-krona was reorganised. In December 2018, the E-krona Pilot Division was set up under the Riksbank's General Secretariat, at the same time as responsibility for the coordination of overall policy issues on central bank digital currency was handed over to the Payments Department. Since 2019, via the E-krona Pilot Division, the Riksbank has been running a project aimed at developing a proposal for how the Riksbank could issue Swedish kronor in digital form that would be accessible to the public, known as the e-krona. The starting point is the concept for the e-krona described by the Riksbank in interim reports 1 and 2 in 2017 and 2018.

The aim of the project is also to broaden the bank's understanding of the technological possibilities for the e-krona. The project is to produce a proposal for a technical solution in a test environment and a proposal for a regulatory framework.

In 2019, the Riksbank worked on the procurement of a technology supplier in order to work out a concrete proposal for an e-krona.

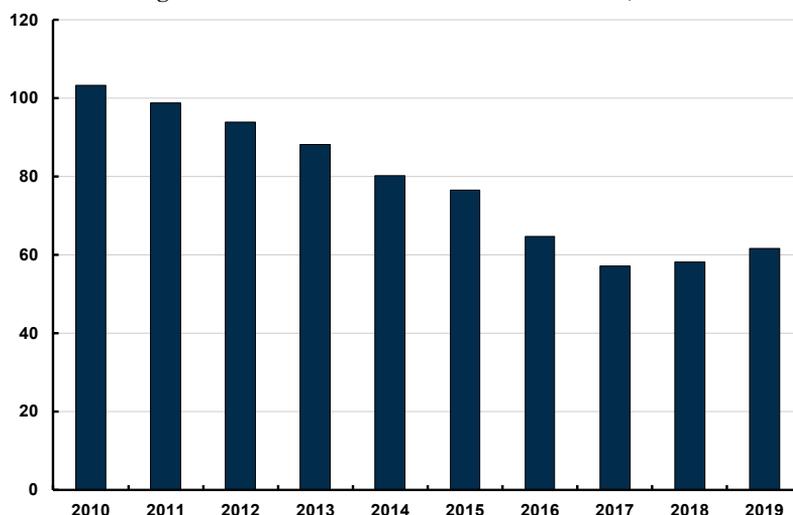
Interest in digital currencies issued by central banks has increased around the world. Consequently, in parallel with the procurement, the Riksbank conducted a dialogue with external interested parties on various aspects of digital central bank money and participated in conferences in and outside Sweden.

Cash provision

As usual, in 2019, the Riksbank provided banknotes and coins to the banks and followed the value of cash in circulation.

Cash volumes have fallen for many years but have increased since 2017. The increase has primarily been in 500-krona banknotes. 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 over the twelve months of the year. This average value amounted to SEK 62 billion in 2019, of which the value of banknotes amounted to SEK 59 billion and the value of coins to SEK 3 billion (see Chart 9 and Table 3).

Chart 9 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 63 billion at the end of 2019, of which the value of banknotes amounted to SEK 60 billion and the value of coins

amounted to SEK 3 billion (see Table 3). This is an increase compared with the corresponding period of 2018.

Table 3 Value of banknotes and coins in circulation, SEK billion

| | 2015 | 2016 | 2017 | 2018 | 2019 |
|---------------------------------------|------|------|------|------|------|
| Total value at 31 December | 73 | 62 | 58 | 62 | 63 |
| Banknotes | 68 | 58 | 55 | 59 | 60 |
| Coins | 5 | 5 | 3 | 3 | 3 |
| Total value, average during the year | 77 | 65 | 57 | 58 | 62 |
| Banknotes | 71 | 60 | 53 | 55 | 59 |
| Coins (excluding commemorative coins) | 5 | 5 | 4 | 3 | 3 |

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

Source: The Riksbank.

In 2019, the Riksbank signed a new agreement with the Dutch coin manufacturer KNM (Koninklijke Nederlandse Munt) on the minting of Swedish coins.

In 2019, the Riksbank Committee presented its final report, A new Sveriges Riksbank Act (SOU 2019:46). Among other things, the report proposes that the Riksbank be given one objective for its entire cash operations: ensuring that there is adequate access to cash across the whole of Sweden. Furthermore, it proposes that the Riksbank be given three tasks within cash operations: taking responsibility for issuing cash in Sweden by issuing and redeeming banknotes and coins (a responsibility that the Riksbank already has); taking overall responsibility for the functioning of cash handling in Sweden, meaning that the Riksbank must regularly report to the Riksdag and, when necessary, act as coordinating actor in cash handling; and ensuring that depot operations are being run in Sweden and ensuring there are banknote depots in at least five locations in Sweden, two of them in the northern parts of the country.

Normally, Swedish banknotes are counterfeited to a minor extent, even if the number of counterfeit banknotes increased in 2019. The value of counterfeit notes removed from circulation in the first ten months of the year amounted to SEK 460,460. The number of counterfeit banknotes amounted to 1,003. Almost nine out of ten of these were 500-krona banknotes. Most counterfeits are not particularly sophisticated.

Table 4 Number of banknotes and coins

| | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|-------|-------|-------|------|-------|
| Number of banknotes in circulation (millions) | 317 | 288 | 265 | 262 | 266 |
| Number of coins in circulation (millions) | 1,917 | 1,823 | 1,433 | 552 | 624 |
| Number of counterfeited banknotes | 295 | 379 | 537 | 453 | 1,003 |

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.

Note: The number of counterfeited banknotes for 2019 refers to the months January–October.

Source: The Riksbank and the Swedish Police.

The RIX payment system

The Riksbank provides the payment system RIX, which 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 – banks, clearing organisations and other market participants – with the Riksbank. In order for RIX to function safely and efficiently, sufficient credit limits among the participants, well-functioning collateral management and well-functioning technical systems are required. As of 14 October, the Riksbank extended the opening hours of RIX from 7.00–17.00 to 7.00–18.00.

Number of participants, transactions and turnover

In 2019, two new participants joined and one participant chose to terminate its participation in RIX. At the end of the year, there was a total of 35 participants in RIX. On average, the system handled 22,790 transactions per day in 2019. This is an increase of 6.1 per cent compared with the previous year. Daily turnover, adjusted for monetary policy operations, averaged about SEK 500 billion, which was an increase of 3.23 per cent compared with the previous year. The average transaction amounted to about SEK 24 million, while the corresponding figure for 2018 was SEK 29 million.

The RIX system is funded by its participants. On 1 March 2019, the fixed monthly fee was raised from SEK 55,000 to SEK 65,000. The additional fee, which is paid by the largest participants, was raised by SEK 800,000. At the same time, the monthly fee for access rights administration was removed. Other fees were left unchanged. The main reason for the raised fees was increased IT costs.

Follow-up

The RIX system 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 outcome for 2019 was 99.97 per cent. Two incidents occurred that meant that RIX could not conduct payments for a total period of 53 minutes.

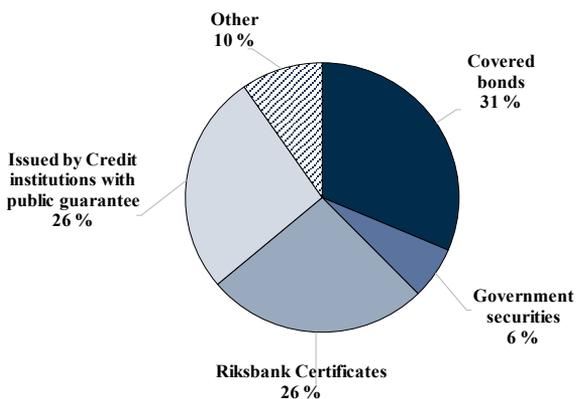
All costs relating to the provision of services in RIX are to be covered by fees paid by the participants. In 2019, these costs amounted to SEK 107.6 million, 91 per cent of which was covered by fees. Over a three-year period (2017–2019), cost coverage was 100 per cent. The requirement for full cost coverage is measured over a three-year period, in which revenues are to correspond to 100 per cent of costs \pm 10 percentage points.

Management of collateral and credit limits

To reduce the risk of transfers in RIX failing because a participant lacks liquidity, the Riksbank can supply liquidity during the day by granting credit to the participants against collateral. 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 227 billion per day on average in 2019. On average, 51 per cent of this credit facility was utilised. At the close of 2019, covered bonds stood for 31 per cent of the value of all collateral pledged to the Riksbank (see Chart 10).

Chart 10 Collateral value pledged for credit per 30 December 2019, per 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 a technical system failure requires efficient contingency routines and continual exercises of crisis management. In 2019, 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 objective of the exercises is to achieve a good ability to limit negative consequences, exercise cooperation with others and take the right decisions in a crisis. The Riksbank considered that the exercises worked well.

In 2019, the group for private-public cooperation in the financial sector (FSPOS) carried out a cooperation exercise. The objective for the 2019 exercise was for the participating organisations to gain a better understanding of civil defence and their own and the sector's ability to operate under a heightened state of alert. The Riksbank is chairman of the group for private-public cooperation in the financial sector.

A stable financial system

The Riksbank's financial stability efforts in 2019 largely involved monitoring developments in Sweden and abroad so as to analyse any risks and vulnerabilities that may be accumulating in the financial system and thus threatening stability. The Riksbank also proposed measures to reduce these risks.

In addition, work continued on influencing the formulation and introduction of national and international financial regulations. The Riksbank participated in international work and also submitted several consultation responses. Over the year, the Riksbank participated in a crisis exercise and cooperated with other government agencies, both in Sweden and in our neighbours, to strengthen crisis preparedness. The Riksbank also participated in the Financial Stability Council.

National work to strengthen the financial system

The Riksbank assessed that the Swedish financial system functioned well in 2019. However, there were vulnerabilities and risks that could threaten financial stability. The Riksbank discussed the international slowdown and expectations of continued low interest rates, and pointed out that risk-taking may increase in such an environment. The Riksbank also pointed out the trade conflict between the United States and Canada, as well as the effects of the United Kingdom's withdrawal from the EU, as risks that could contribute to a more rapid slowdown and increase unease on the financial markets. The Riksbank deemed that household debt represented the greatest domestic risk and that there were vulnerabilities and risks connected to the banking system in Sweden.

Even if the financial infrastructure functioned well overall and availability had mainly been good, the Riksbank simultaneously noted that disruptions had occurred and that resilience to various risks needed to increase.

Household debt poses the greatest domestic risk

The high and rising indebtedness of households continued to comprise a major vulnerability of the Swedish economy in 2019. Swedish households are highly indebted, in both a historical and international perspective. The aggregate debt-to-income ratio, which is to say debts in relation to disposable income, amounted to over 188 per cent in the autumn of 2019. The average for the 31 OECD countries for which comparable data exists was 126 per cent in 2017.

In parallel with the rising indebtedness, housing prices have also risen heavily over a long period of time. Prices certainly started to decline in the autumn of 2017 but they stabilised somewhat in 2018–2019. The Riksbank deemed the slower rate of price increase to be positive, as it will contribute to a more

stable development on the housing market. At the same time, there is a great deal of uncertainty over future price developments on the housing market. The combination of large debts and variable-rate loans among most mortgage borrowers means that households may quickly be affected if rates rise, which, in turn, could reduce their consumption.

The rise of household debt over a long period of time is due not only to interest rates having fallen but also to the housing market functioning poorly and the tax system not being well designed from a financial stability perspective. To address the fundamental causes of this high level of indebtedness, the Riksbank has stated that measures are required within housing and tax policy.

Economic and political uncertainty abroad presents risks

Sweden is a small, open economy with extensive foreign trade and a financial system that is heavily dependent on international financial markets. Economic and political uncertainty abroad therefore poses risks to the Swedish macroeconomy and financial stability. Like before, during the year there were a number of international risks linked to economic and political uncertainty, which, if they transpire, could lead to weaker economic developments. For example, it was still unclear which economic and financial effects the United Kingdom's withdrawal from the EU could have. In addition, many countries in the euro area continued to struggle with substantial sovereign debt and low profitability in the banking sector. In addition, unease continued to prevail over the conceivable effects of a possible escalation of the trade conflict between the United States and China. In addition, economic activity both in Sweden and abroad had slowed and, after several years of strong activity, moved towards more normal conditions. Market participants also expected the very low interest rates to continue over the coming years and there were signs that risk-taking had increased globally.

Structural vulnerabilities in today's banking system

The Riksbank pointed out once more that there are several vulnerabilities and risks linked to the banking system in Sweden, including its size, concentration, limited capital levels and, in some respects, low resilience to liquidity risks. The banks' major exposures to the real estate market and developments on the housing market further increase the vulnerabilities. Loans to Swedish households and non-financial corporations with housing or other types of property as collateral make up about 75 per cent of the major banks' lending to these borrowers. The banks largely fund these loans on the capital market using, for example, covered bonds – the collateral for which consists of mortgages – to fund, in turn, mortgages. As mortgages have increased, so too has the volume of outstanding covered bonds. This makes the banks sensitive to a fall in housing prices, as this could reduce confidence in them, as well as making it more difficult and expensive to obtain funding. Another vulnerability is that the

banks are among the largest owners of one another's covered bonds. This means that problems in one bank can rapidly spread to other parts of the financial system.

The infrastructure needs more resilience to risks

The Riksbank's oversight of the financial infrastructure showed that it worked well on the whole over the year, but that there were risks that needed to be managed.

Over the year, the Riksbank pointed out that the internal governance and control of the RIX payment system needs to continue to be strengthened. It is important that RIX is organised and governed in such a way that there are well-documented routines and resources allocated for appropriate governance, control and risk management.

Euroclear Sweden is Sweden's only central securities depository. Since 2013, the Riksbank has pointed out that Euroclear Sweden's system for the settlement of securities needs to be modernised, as it has been risky to make necessary changes in the system. Euroclear Sweden has taken measures to reduce these risks and has also decided to modernise the system in the coming years to make it more flexible. Over the year, the Riksbank pointed out that it is important for Euroclear Sweden to continue to prioritise the planned modernisation so that it can be implemented as safely as possible. Euroclear Sweden is subject to the EU regulation on improving securities settlement in the European Union and on central securities depositories (CSDR) and must thus fulfil the regulation's requirements. The regulation requires all central securities depositories, both new and old, to be authorised. Consequently, Euroclear applied for authorisation over the year and had its application approved in November. In conjunction with authorisation, the Riksbank had the possibility to express its views on Euroclear's application to Finansinspektionen.

In the autumn of 2018, one of the participants in the Swedish central counterparty (CCP) Nasdaq Clearing defaulted. The default was managed without the main operations being affected but it entailed major losses for both other participants and for Nasdaq Clearing. Since then, Nasdaq Clearing has taken several measures to reduce the risk of substantial losses that can arise in such contexts. Not all the planned measures were implemented over the year, however. The Riksbank therefore emphasised that it is important that all measures be implemented according to plan.

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 going in the period ahead.

The participants that participated in the survey from the spring pointed out several different risks that could negatively affect the Swedish financial system in the period ahead. According to the participants, the greatest risk was a disorderly UK withdrawal from the EU. In addition, the participants mentioned risks related to a financial crisis or recession, cyber risks, money laundering issues and other risks. The participants in the autumn's survey considered that the main developments that could have a negative impact on the Swedish financial system would be an escalation of the trade conflict between the United States and China and a global economic slowdown.

Financial Stability Council

The Riksbank is a member of the Financial Stability Council. The Council met twice in 2019. Among other things, the authorities continued to discuss matters including the risks inherent in households' high indebtedness. The Riksbank noted that indebtedness had increased heavily for a long time to a historically high level. The Riksbank also noted that an important contributory factor for the increase of debt is that the housing market functions poorly and that the tax system is not well designed from the perspective of financial stability.

The Riksbank stated that measures are needed in housing and tax policies to address the basic reasons that debts have become so high. Sporadic housing policy measures and changes in tax regulations are not enough. In addition, such measures can have distorting effects. The absence of such measures has contributed to the need to adopt macroprudential policy measures. If structural measures had been introduced, the need for macroprudential policy measures would probably have been smaller.

According to the Riksbank, creating a better balance on the housing market would need measures affecting the entire stock of outstanding loans. A better balance between supply and demand on the housing market also needs to be achieved. One part of this involves conducting a review of rent control regulations and the tax system, for example.

Over the year, the Council also discussed money laundering and cybersecurity in the financial system. The Riksbank considered that effective coordination is important for a good cyber defence and that it is therefore important to find good forms for cooperation in the period ahead, both between authorities and with the private sector. International cooperation is also important, as many of the systems in the financial sector are cross-border in nature. The authorities also worked in developing a joint manual for crisis management and continued their work on the lessons learnt from previous scenario exercises.

International work to strengthen the financial system

The laws regulating Swedish banks and financial institutions are largely based on standards developed on an international level. An important part of the Riksbank's work on financial stability is therefore participating in various international forums to influence the formulation of financial standards and financial supervision.

Over the year, the Riksbank participated in discussions and decisions on the formulation of standards, rules and supervision on both the global and EU levels. In many of these issues, the Riksbank cooperated with Finansinspektionen, the Swedish National Debt Office and the Ministry of Finance. This international work took place primarily as part of the Basel Committee, the Committee on Payments and Market Infrastructures (CPMI), the International Monetary Fund (IMF) and various EU bodies such as the European System of Central Banks (ESCB), the European Banking Authority (EBA), the European Systemic Risk Board (ESRB) and the Economic and Financial Committee (EFC).

Global cooperation on banks

The Basel Committee on Banking Supervision promotes global financial stability by developing standards for minimum requirements for internationally active banks. Until March 2019, Governor Stefan Ingves was chairman of the Committee and, until September 2019, First Deputy Governor Kerstin af Jochnick was the Riksbank's representative on the Committee. Over the year, Riksbank officials also participated actively in several working groups.

In 2019, the Basel Committee primarily focused on completing the Basel III framework and seeking to ensure that the standards are fully implemented, on time and consistently in all Member States. In addition, the Committee worked on promoting banking supervision-related matters and on launching a framework for assessing the consequences and potential undesirable effects of the Basel standards. The Committee also studied the consequences of cyber risks, new payment instruments, new reference rates, money laundering risks, climate risks and other matters.

The Financial Stability Board (FSB) was established to coordinate national authorities and international standard-setters and to promote effective legislation in the financial sector. Sweden is not a member of the FSB but Deputy Governor Henry Ohlsson represented the Riksbank in the FSB's regional consultative group for Europe (FSB RCG-E), where he has been Co-Chair since July 2019. The Riksbank was also involved in the FSB's work to develop crisis management for financial infrastructure and in a working group appointed to assess the effects of the 'too-big-to-fail' reforms. At the start of the year, as Chairman of the Basel Committee, Governor Stefan Ingves also took part in the FSB's meetings on the Steering Committee level and Plenary level.

Global cooperation on financial infrastructure

In 2019, the Riksbank participated in several international collaborations on the oversight of foreign financial infrastructures that handle payments and securities transactions. The oversight collaborations are based either on legal requirements or on mutual agreements with foreign systems and authorities. In addition, the Riksbank 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.

Furthermore, the Riksbank participated in the international work of assessing the degree to which global standards have been implemented in the regulatory frameworks of two countries. These collaborations were organised by CPMI-IOSCO, which consists of the CPMI, which is a standard-setting body for central banks, and the IOSCO, which is an equivalent body for securities regulators. This work resulted in two published reports. The Riksbank participated in the work of producing a published report from the CPMI on digital units of value and their function as settlement method for large payments. Among other things, CPMI-IOSCO also published a report aimed at central counterparties. The objective of this report is to spread knowledge and open up the discussion of how a central counterparty can plan and implement effective auctions to close exposures opened up by the default of a participant. This is a matter of great importance in that it became necessary to conduct an auction after the participant default at Nasdaq Clearing in the autumn of 2018.

European cooperation

In 2019, the Riksbank participated in the Economic and Financial Committee (EFC), which prepares meetings of the Economic and Financial Affairs Council (ECOFIN). The Committee discussed, among other issues, matters of joint interest within the framework of the IMF, the Council's action plan for managing the banks' non-performing loans (NPLs) and counteracting money laundering and the financing of terrorism, and the Commission's initiatives within the capital markets union. Among other things, the Riksbank worked for more effective measures to address non-performing loans.

Over the year, the Riksbank took part in working groups of the ESCB. These discussed matters of cybersecurity in the financial infrastructure and the work of a joint European framework to make it possible to test the resilience to cyber risks of participants in the financial system in a standardised way. Another focus area concerned preparations for the implementation of the Revised Payment Services Directive (PSD2). The Riksbank also participated in the analysis of the digitalisation of the payment market, which includes matters such as innovation and the global digital currency Libra, which Facebook plans to set up. The Riksbank also participated in the dialogue being held in the ESCB on the design of services for instant payment.

European cooperation on macroprudential policy

The ESRB identifies, analyses and counteracts financial systemic risks in the EU. The Riksbank participates in its General Board, its Advisory Technical Committee and a number of working groups and expert groups. Amongst other things, in 2019, the Riksbank contributed to devising the macroeconomic scenarios that form the basis for stress tests of European banks and the analysis of interconnectedness of infrastructure systems. The Riksbank also contributed to the analysis of macroprudential policy issues concerning central counterparties and the clearing of securities transactions in the EU, as well as in the design of an initial framework for macroprudential policy considerations.

In 2019, the ESRB issued warnings to five EEA countries and recommendations to six EU countries concerning vulnerabilities linked to their housing markets. Sweden is one of the countries to receive a recommendation. The recommendation suggests appropriate measures to handle vulnerabilities on the housing market. The ESRB warned of vulnerabilities on the Swedish housing market as early as 2016.

Nordic-Baltic cooperation

In 2019, the Riksbank continued with the Nordic-Baltic cooperation in the field of financial stability. Two meetings of the Nordic-Baltic Macroprudential Forum (NBMF) were held in 2019. This is a forum for cooperation between central banks and financial supervisory authorities, which focuses on financial stability risks and cross-border banking operations in the region. In addition to general risks that could affect the region, the group continued to discuss matters including how authorities can mutually recognise each other's measures for macroprudential policy.

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 January 2019, a Nordic-Baltic financial crisis exercise was carried out with about 300 participants from 31 public authorities in the eight Nordic and Baltic countries, as well as from relevant authorities in other European countries. The Riksbank chairs the working group that prepared the crisis exercise. Norway was Chairman of the NBSG in 2019.

International commitments

In addition to the international and European cooperation aimed at strengthening the financial system, the Riksbank also has other international commitments.

The International Monetary Fund

The Riksbank's work with the IMF includes developing Sweden's position together with the Ministry of Finance ahead of discussions in and decisions by the IMF's Executive Board. Over a four-year period until the end of 2019, Sweden represented the Nordic-Baltic constituency in the IMF. During this period, the Riksbank and the Ministry of Finance coordinated the development of positions in the constituency.

The Riksbank contributes to the IMF's funding through member capital (all countries contribute proportionately) and arrangements to borrow (countries contribute voluntarily). During 2016–2017, the IMF signed new bilateral loan agreements with about forty of its member countries, including Sweden via the Riksbank. The loans cover the period until the end of 2020, at most. In 2019, discussions continued regarding the IMF's future resources, in terms of both member capital and arrangements to borrow.

Major issues addressed by the IMF's board during the year included the crisis loan to Argentina and the direction of the IMF's oversight in the period ahead. Two major reviews have been initiated with the aim of evaluating and developing proposals: firstly, regarding the IMF's regular assessment of the financial sector (Financial Sector Assessment Program) and, secondly, regarding all oversight (Comprehensive Surveillance Review). These two reviews were discussed by the Executive Board on two occasions in 2019 and the final results will be presented in April 2020. In these discussions, the Riksbank has, among other things, asked the IMF to describe the advantages of open trade between countries and to strengthen its oversight of the financial sector. In addition, the Riksbank has highlighted the importance of adapting the oversight to developments within technology, digitalisation and sustainability issues.

Technical assistance

The Riksbank cooperates with central banks in emerging market economies to share knowledge in the field of important central bank-related subjects. This type of expert aid is usually called technical assistance. About 15 different initiatives were carried out with the central banks of Ukraine and Rwanda, as well as with the Palestine Monetary Authority, in 2019. The activities were financed by funds from the Swedish International Development Cooperation Agency, Sida.

In-depth analysis

In certain selected areas, the Riksbank worked to deepen its analysis of the financial system in particular.

Stress tests of the banks' capital and liquidity

For many years, the Riksbank has carried out different kinds of stress test to assess resilience to financial risks and threats in the banking system. A stress test is an analytical tool that tests the banks' resilience to financial risks and threats in a hypothetical scenario, for example a deep economic recession with falling asset prices. During the year, the Riksbank launched two new methods for stress tests: a method for the banks' capital and a method for the banks' liquidity.

The Riksbank's stress tests of the banks' capital indicate that the banks' credit losses could be comprehensive in a scenario with a deep economic recession. The Riksbank's stress tests of the banks' liquidity show that the banks' liquidity requirements increase rapidly if financial stress continues for more than a month and that the banks have significant liquidity requirements after six months.

Continued high proportions of non-performing loans in the EU

Over the year, the Riksbank deepened its analysis of non-performing loans in the European banking sector and their effects on banks and financial stability. Non-performing loans arise when the borrower no longer pays in accordance with terms of the loan. In Sweden, the proportion of non-performing loans is very small. However, the global financial crisis and subsequent European sovereign debt crisis led the proportion of non-performing loans to increase for several European banks and the proportion of non-performing loans in the European banking system remains higher than it was ahead of the financial crisis. Large volumes of non-performing loans can cause banks problems with their capital adequacy and, at worst, can lead the banks to fail. Non-performing loans also reduce banks' profitability and reduce their ability to grant new credit. Non-performing loans also risk impairing long-term economic growth and lead uncertainty to increase in the banking system with elevated financial stability risks as a consequence.

New prerequisites for housing developers

After the fall in housing prices in the autumn of 2017, uncertainty increased on the housing market and particularly on the market for new builds, where the conditions for housing development companies had changed. Declining numbers of new homes were being sold and households became increasingly unwilling to sign pre-sale agreements. As the financing of new housing projects often presupposes that a large share of housing is sold before construction

begins, it therefore became difficult for housing developers to begin new projects. In 2019, the Riksbank analysed housing developers' business models and revenue recognition to understand the risks associated with them.

Structural transformation of the securities market

Over the year, the Riksbank highlighted the question of how Swedish securities should be settled in the future so that the Swedish securities market can continue to be attractive for investors and issuers. This issue is important for the financial system because the securities market is a central part of it and must function as efficiently as possible. A Riksbank Study was published that highlights a number of issues that relevant actors – issuers, investors, central securities depositories, banks and the Riksbank – need to analyse in order to be able to take a stance on the issues above. Consequently, over the autumn, various actors on the Swedish securities market were invited to round-table discussions on how the future for Swedish securities settlement should look.

Climate-related risk is a source of financial risk

Climate change is one of the major challenges of our time and it requires a global transition to a less fossil-based economy. Both the effects of global warming and the transition itself create climate-related risks. In 2019, the Riksbank participated in international work in the area and highlighted how such risks may affect the participants in the financial system. For banks, insurance companies and other financial and non-financial corporations, climate-related risks can create financial risk. If these are not managed, there may be consequences for financial stability. Better disclosure of these risks by both financial and non-financial corporations is one of the actions required in order to be able to measure, price and manage climate-related risks.

The Riksbank provides a reference rate

Reference rates fulfil a central and important function in the financial system. However, due to events connected to the financial crisis of 2007–2008 and the so-called Libor scandal of 2012, there was a decline in confidence in certain reference rates, produced by the market participants themselves. Since then, the framework surrounding reference rates has been reformed and work is under way around the world to develop new, alternative reference rates.

Work is also ongoing in Sweden to develop an alternative to the current Stibor (Stockholm Interbank Offered Rate) reference rate. In 2019, the Riksbank was active in this work in several ways and participated as an observer in the Swedish Working group for alternative interest rates (AGAR). AGAR was created in December 2018 on the initiative of the Swedish Bankers' Association to produce a proposal for an alternative reference rate for Swedish

kronor. The seven Stibor banks take part in the working group, while the Riksbank, Finansinspektionen, Swedish National Debt Office and Swedish Bankers' Association participate as observers. The Riksbank also conducted an internal investigation into whether it would be appropriate for the Riksbank to provide such a reference rate. As part of this work, the Riksbank published the consultation "The Riksbank's role in providing a reference rate" on 26 October 2019. On 12 December 2019, the Executive Board of the Riksbank decided that the Riksbank will provide a reference rate for the very shortest maturity (overnight or O/N) in Swedish kronor.

Conference on cybersecurity in the financial sector

In November 2019, the Riksbank, in cooperation with the other Nordic central banks, arranged a conference on cybersecurity in the financial sector. This was the third of a series of annual conferences arranged by the Nordic central banks. The year's conference opened with a discussion of how organisations must be governed and organised to manage cyber risks in a satisfactory manner. This was followed by a discussion of a number of specific initiatives to improve resilience to cyber risks in the financial sector.

The Riksbank coordinates cybersecurity tests

In 2019, the Riksbank decided to adopt the TIBER-EU framework and therefore published guidelines for Sweden's national adaptation, TIBER-SE. TIBER-EU is a framework for cybersecurity tests developed by the ECB that makes it possible to test, in a standardised way, resilience to cyber risks among players in the financial system. To coordinate these tests in Sweden, over the year, the Riksbank started a cooperation forum together with the central players in the Swedish financial system who will undergo testing under the framework.

Deepening of the banking union

In 2018, work commenced in the Inquiry regarding potential participation in the European banking union (Fi 2017:10). The Riksbank was represented in the expert group linked to the inquiry. The inquiry submitted its report to the Government on 9 December 2019.

Statistics and research

To meet national and international analysis needs, the Riksbank has run a number of development projects for several years with the aim of improving and renewing financial statistics. Statistics over Swedish households' financial assets and liabilities are data that the Riksbank regards as particularly important if it is to conduct good emergency prevention work and counteract financial instability. Consequently, in 2019, the Riksbank presented a petition to the Riksdag with the proposal that there be appointed an official inquiry to clarify all aspects of the need for more detailed statistics over households' financial positions. Over the year, the Riksbank mainly conducted research into monetary policy and financial stability. Several articles were published in academic journals. The Riksbank also organised a couple of international academic conferences.

The Riksbank's statistical operations

Under the provisions of the Sveriges Riksbank Act, the Riksbank shall make public statistical data concerning foreign exchange and credit conditions on a continual basis. Statistics on the financial market, securities issues and the balance of payments are produced and published on behalf of the Riksbank by Statistics Sweden (SCB). However, the Riksbank is 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), Eurostat and the Bank for International Settlements (BIS).

The Riksbank itself compiles and publishes daily turnover statistics on the fixed-income and foreign exchange markets. In addition, interest rates and exchange rates are published on the Riksbank's website on a daily basis.

Three times a year, the Riksbank publishes a report based on interviews with 40–45 companies to gain a rapid and up-to-date view of developments for non-financial corporations. The main purpose of the Riksbank's Business Survey is to obtain in-depth information on how companies view the current economic situation, and how they intend to act on the basis of this.

The Riksdag proposed an inquiry into statistics on households' assets and liabilities

Since the abolition of the wealth tax in 2007, Sweden lacks statistics over which groups of households are highly indebted and the assets they hold. Several instances have pointed out that such statistics are needed, including the International Monetary Fund (IMF) and the Swedish government inquiry into households' over-indebtedness. Such statistics are vital for the assessment of the household sector's resilience to various economic shocks and, in addition,

they improve the ability of the Riksbank and Finansinspektionen to maintain stability in the financial system.

In 2017, the Riksbank published a report that proposed collecting detailed information on households' assets and liabilities, and requested viewpoints on the proposal from the business sector and other government agencies. However, the ongoing investigation work showed that Swedish authorities lack clear support in law to gather in the data needed to produce adequate statistics in this field. In May 2019, the Riksbank therefore proposed that the Riksdag appoint an inquiry to review how new statistics on households' assets and liabilities can be gathered. This proposal was supported by Statistics Sweden and Finansinspektionen.

In October, the Riksdag proposed that the Government appoint an inquiry into new statistics on households' assets and liabilities. Among other things, this report stated that the inquiry should thoroughly clarify and analyse how detailed statistics over households' assets and liabilities should be accumulated and used, without neglecting personal integrity and the protection of personal data.

Follow-up questions in the Riksbank's business survey

To deepen the discussion of current issues that are relevant to monetary policy, supplementary questions are regularly asked of the companies interviewed in the Riksbank's business survey. Among other things, follow-ups were conducted in 2019 concerning how companies determine their sales prices and their work on productivity.

Companies' productivity work and pricing

In recent years, productivity growth in Sweden and abroad has been weak, according to official statistics. In the business survey for February, the Riksbank therefore asked some supplementary questions to the companies on how they measure productivity, how they work to improve it and which factors have the greatest significance for its development. The companies emphasised their day-to-day work on improving operations and planning as the most important factor behind higher productivity. Several have also introduced new technology that has contributed to productivity growth in their operations. Other factors, such as regulatory compliance and IT security, are more difficult to streamline and have thereby contributed to slower productivity growth. The companies also replied that they are not experiencing the same weak productivity growth that the official statistics show.

Later in the spring, the Riksbank, in collaboration with 15 other central banks, conducted a special investigation into how companies determine their sales prices. Understanding the driving forces behind companies' pricing is important when monetary policy is being formed. Among other things, questions were asked concerning how independent pricing is among companies, how often their prices change and which main factors determine their pricing.

The responses showed that a majority of companies determine their prices themselves, while others stated that they are determined by prices on the global markets. In the trade sector, it is relatively common for prices to change every day, while prices in the manufacturing sector are changed on more of an annual basis. The companies try to raise their prices when they see that costs are increasing, at the same time as they are cautious about changing their prices as their competitors may not follow suit.

The Riksbank's research

The Riksbank's research is primarily focused on areas of direct significance to the Bank's activities. The aim of this research is to provide a better foundation for the Riksbank's policy decisions.

The Riksbank's research is published in international scientific journals but also in the Riksbank's Economic Review. The results are also communicated through presentations at other central banks and universities, as well as at international conferences.

Research is mainly conducted in financial stability and monetary policy. 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 which macroprudential policy measures affect household indebtedness.

The researchers who focus on monetary policy and macroeconomics attempt, among other things, to understand and quantify the manner in which monetary policy measures affect economic activity and inflation, the functioning of the labour market and the interplay between monetary policy and fiscal policy. Research is aimed at identifying issues that can be expected to be important later on, among other things. An example of this is the paper *Fuel for Economic Growth?*, published recently in the *Journal of Economic Theory*. Data from 134 countries shows that countries that use fossil fuels to a greater extent grow faster than countries that use biofuels. To investigate and understand this empirical relationship, the researchers constructed a so-called endogenous growth model in which output is determined by capital, labour and the interchangeable energy sources fossil fuel and biofuel. The model shows two balanced growth paths: one with low growth in which energy is produced using biofuels and one with high growth in which energy comes from fossil fuels. The model shows that a sufficiently large increase of access to fossil fuels can initiate a boost for a country from stagnation to steady growth, like the economic transformation that took place in the western world during the Industrial Revolution. The economic growth of emerging market economies risks stalling due to a lack of fossil fuels, as the price of these fuels on the world market is determined by demand among rich and developed countries. Previously, access to energy played a decisive role for economic growth and

the future oil price can therefore be expected to have major implications for the global economy and is therefore important for the Riksbank's policy work.

Researchers from the Research Division have also written articles, primarily in the Riksbank's own publication, *Sveriges Riksbank Economic Review*, with the aim of spreading research findings to a wider circle and thereby promoting the discussion of policy-relevant issues. Some of the articles were co-authored with members of other departments at the Riksbank, among other reasons with the ultimate aim of producing better material for decisions. The articles dealt with the historical development of payment systems, how negative policy rates have affected lending rates, the Riksbank's balance sheet and financial independence, the functioning of the labour market and wage formation, and economic instruments to reduce global warming.

Over the year, the Research Division organised three academic conferences at the Riksbank. In June, it organised a conference on the labour market and the macroeconomy, in collaboration with the Institute for the World Economy in Kiel. Together with the central banks in Australia, Canada, New Zealand and Norway, a conference was held in September focusing on monetary policy issues of relevance for small, open economies. In November, the Riksbank was host for the annual central bank conference on Market Micro Structure, which concerns the granular analysis of trade on financial markets. This research area can, for example, provide insights into the behaviour of sellers and purchasers in foreign exchange trading, often with the use of high-frequency data, which gives us a better understanding of how the exchange rate for Swedish kronor, which is vital to the Riksbank's policy work, develops over time. In addition, the Riksbank was co-organiser of a conference at the Bank of Canada in October on electronic currencies.

Research cooperation with National Bank of Ukraine

One of the activities under the framework of technical assistance with the National Bank of Ukraine (NBU) deals with supporting and developing their research division. This has involved visits to the NBU by several researchers from the Riksbank's Research Division on various occasions, where they have held research seminars and discussed research-related issues. In 2017 and 2018, Sida supplied extra money to make it possible for a member of the Riksbank's staff to spend six months at the NBU to advise on how to strengthen and build up research there, and also to initiate and participate in two different research projects – one on monetary policy and another on financial stability. These research projects resulted in three publications in 2018 and 2019, with authors from both the Riksbank and the NBU: one publication in the NBU's journal *Visnyk* of the National Bank of Ukraine (Macroeconomic effects of introducing a capital conservation buffer in the Ukrainian banking sector) and two publications in the National Bank of Ukraine Working Paper Series (Mitigating the cost of stricter macroprudential policies and Disinflation in closed and small open economies). The publications can be downloaded from the NBU website.

Asset management

In 2019, the assets in the foreign currency reserves were redistributed to better meet the Riksbank's contingency requirements in foreign currency. The largest changes involve the redistribution of euros to US dollars and the inclusion of Danish and Norwegian kroner in the foreign currency reserves. In addition, the Riksbank sold assets in the foreign currency reserves for sustainability reasons. Furthermore, based on the assessment that contingency requirements had fallen slightly, the Riksbank decided to reduce the foreign currency reserves by not refinancing foreign currency loans from the Swedish National Debt Office in a total amount of USD 8 billion. Over the year, the value of the Riksbank's financial assets decreased by SEK 34.5 billion overall and amounted to SEK 898.6 billion at the end of the year. However, the value of the assets was affected positively by the depreciation of the Swedish krona over the year, falling international interest rates and the rising price of gold.

Financial assets and liabilities

The Riksbank manages financial assets to ensure that it can fulfil its statutory objectives and perform its tasks. The majority of the financial assets consist of the gold and foreign currency reserves. This gives the Riksbank the possibility, if necessary, to supply temporary liquidity assistance in foreign currency and to 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 also holds assets in the form of securities issued in Swedish kronor. These assets mainly consist of the Swedish nominal and real government bonds that the Riksbank purchased over the period 2015–2019 for monetary policy purposes. 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. The Riksbank stands prepared to use its gold and foreign currency reserves to lend money to the IMF, which, in turn, lends money to countries with balance of payment problems.

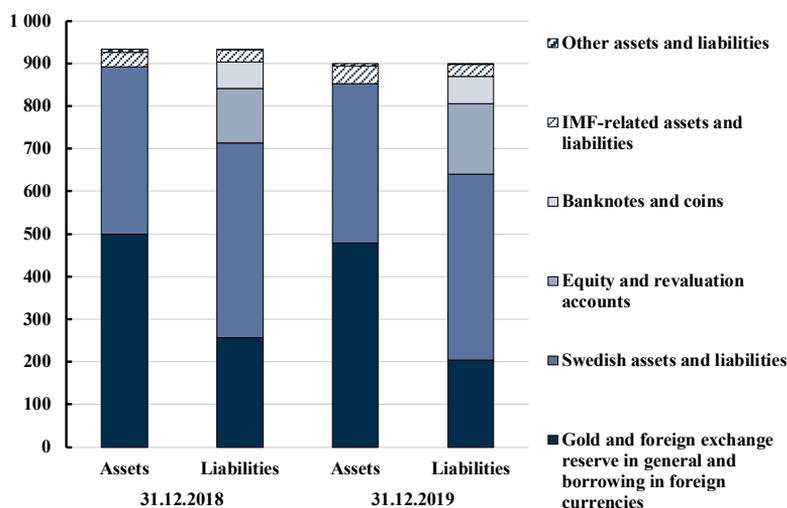
The Riksbank's financial liabilities mainly consist of the liability in SEK arising when the banking system deposits part of its liquid assets with the Riksbank, for example assets created in recent years when the Riksbank purchased government bonds from the banks. The Riksbank also has financial liabilities in foreign currencies to the Swedish National Debt Office. These liabilities consist of US dollars and euros that the Riksbank has borrowed from the National Debt Office in order to strengthen the foreign currency reserves.

Over the year, the balance sheet total decreased by SEK 34.5 billion to SEK 900.0 billion, primarily due to the repayment of foreign currency loans to the

Swedish National Debt Office (see Chart 11). The Riksbank's equity (including the financial result for the year and the revaluation accounts) increased by SEK 36.9 billion to SEK 165.0 billion, mostly due to the positive result for the year. At the end of 2019, the total return on the Riksbank's financial assets and liabilities amounted to SEK 41.5 billion (see Table 5).

Chart 11 The Riksbank's balance sheet at the end of 2018 and 2019

SEK billion



Source: The Riksbank.

Table 5 The Riksbank's financial assets and liabilities at the end of 2019

SEK million

| | Assets | Liabilities | Return | | |
|---|----------------|----------------|---------------|----------------|----------------|
| | | | Interest | Currency | Total |
| Gold and foreign currency reserves | 480,090 | 10,589 | 17,655 | 35,687 | 53,342 |
| Gold reserve | 57,488 | – | – | 11,506 | 11,506 |
| Foreign currency reserves | 422,602 | 10,589 | 17,655 | 24,181 | 41,836 |
| Foreign currency loans | – | 194,258 | –3,725 | –15,311 | –19,036 |
| Derivative instruments | 29 | – | –200 | 645 | 445 |
| IMF | 40,200 | 29,204 | 80 | 1,322 | 1,402 |
| Securities in SEK | 378,266 | – | 4,160 | – | 4,160 |
| Monetary policy operations | – | 432,582 | 1,180 | – | 1,180 |
| Standing facilities | – | 117,666 | 52 | – | 52 |
| Fine-tuning | – | – | 118 | – | 118 |
| Riksbank Certificates | – | 314,916 | 1,010 | – | 1,010 |
| Total | 898,585 | 666,633 | 19,150 | 22,343 | 41,493 |

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.

Gold and foreign currency reserves

The gold and foreign currency reserves are managed so that the Riksbank can always be ready to fulfil its commitments. The reserves must therefore be composed so that they can be used, when necessary, to provide temporary liquidity support to Swedish banks, 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 risks and attain a higher return in relation to the risk taken.

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, most of the foreign currency reserves are maintained in those currencies in which emergency liquidity assistance may be needed and in such assets as can rapidly be converted into liquid funds, primarily government bonds in US dollars and euros.

The foreign currency reserves were changed to reflect contingency requirements better

At the end of 2018, the Executive Board agreed on a new financial risk and investment policy to establish the principles for the Riksbank's investments in the gold and foreign currency reserves. Taking the contingency requirements as a starting point, the policy defines the composition of assets and currencies that acts as a framework for the management of the gold and foreign currency reserves. Some deviations from this composition are allowed, however, with the aim of reducing the risk or increasing the return of the reserves.

The new policy started to apply on 1 January 2019 and resulted in changes to the composition of the foreign currency reserves. To reflect its contingency requirements better, the Riksbank invested in Danish and Norwegian government bonds, thereby including Danish and Norwegian kroner in the reserves. In addition, the Riksbank exchanged euros for dollars and invested in US securities, thereby increasing the proportion of assets in US dollars. At the end of the year, the total assets in US dollars and euros amounted to 56 per cent and 19 per cent respectively of the gold and foreign currency reserves (see Chart 12).

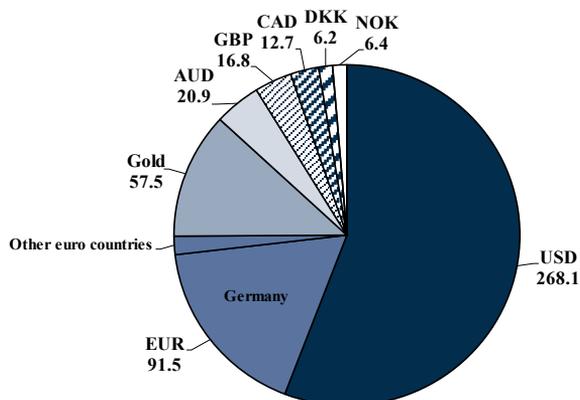
In order to diversify risks and attain a higher return, the Riksbank followed the procedure of previous years and held a small part of the reserve in currencies other than those needed to meet the contingency requirements. These investments were mostly made in Australian government and federal state bonds and Canadian government and provincial bonds. In 2019, these deviations led to the foreign currency reserves' market risk being lower than would otherwise have been the case, at the same time as return also became slightly lower.

If the Riksbank is to be able to maintain a high level of preparedness, the interest-rate sensitivity of the foreign currency reserves must not be too high. On the other hand, interest-rate sensitivity can be allowed to vary between assets in different currencies to achieve the best balance between return and

risk. In 2019, the Riksbank chose to increase the interest-rate sensitivity of the foreign currency reserves, as this was considered to contribute towards higher returns. Interest-rate sensitivity was increased to a level of around 4, measured as modified duration.

Chart 12 Composition of the gold and foreign currency reserves at the end of 2019

SEK billion



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

Source: The Riksbank.

The size of the reserves was decreased through the repayment of loans

The contingency requirements for foreign currency determine how large the gold and foreign currency reserves need to be. As a result of changes in, for example, banks' balance sheets and Nordea's relocation to Finland, the Riksbank deemed in 2019 that the contingency requirement had decreased somewhat. In March, the Executive Board therefore decided to reduce the gold and foreign currency reserves over the year by not refinancing foreign currency loans from the Swedish National Debt Office in a total amount of USD 8 billion. The Riksbank thus repaid the loans in question at their due dates in May, July and October.

Over the year, the value of the liability to the Swedish National Debt Office decreased by an amount equivalent to SEK 62.0 billion and amounted to SEK 194.3 billion at the end of the year. Loans in US dollars and euros amounted at year-end to 70 per cent and 30 per cent respectively of the liability to the Debt Office.

The Riksbank sold assets for sustainability reasons

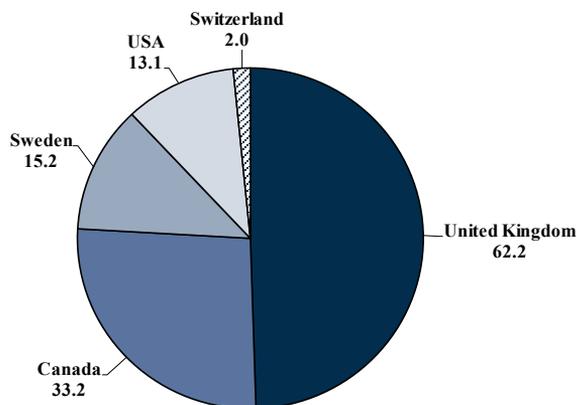
In its financial risk and investment policy, the Executive Board has decided that the Riksbank is to take account of sustainability in its choice of assets. This applies under the assumption that this does not negatively affect the Riksbank's preparedness, for example, where contingency requirements mean that the foreign currency reserves must largely consist of government bonds in US dollars. The Riksbank has primarily chosen to consider the climate impact entailed by the assets in the foreign currency reserves. This has had the consequence that the Riksbank only invests in Australian states and Canadian provinces with the same or lower greenhouse gas intensities than the country as a whole. Consequently, in 2019, the Riksbank sold bonds issued by some Australian states and Canadian provinces and invested in government bonds and other states and provinces with lower greenhouse gas intensities.

The gold reserve to be held unchanged

The Riksbank has a gold reserve that amounts in total to 125.7 tonnes of gold. The Riksbank owns gold largely due to gold's historical link to banknotes and coins. During a period when the gold standard was in use, among other things, the Riksbank was obliged to be able 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 13).

Chart 13 Storage of the gold reserve at the end of 2019

Tonnes



Source: The Riksbank.

Storing all of the gold in the same place would pose 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, should the need arise. In this way, the gold can be considered a liquid asset.

As in previous years, the Riksbank also stored gold on behalf of one or more other central banks in 2019.

Positive return on the gold and foreign currency reserves

The return on the foreign currency reserves amounted to SEK 41.8 billion or 9 per cent. The positive return is mainly due to the fact that the currencies in the reserves strengthened on average against the Swedish krona over the year. The total return on foreign exchange amounted to SEK 24.2 billion or 5 per cent. The interest return was also positive and amounted to SEK 17.7 billion or 4 per cent, primarily because interest rates in general fell on the markets where the Riksbank had invested parts of its assets.

Gold is traded and priced in US dollars, and, in 2019, the price of gold expressed in dollars increased by 18 per cent. However, as the dollar strengthened against the Swedish krona, the price of gold in kronor increased by 25 per cent. The return on the Riksbank's holdings of gold thereby amounted to SEK 11.5 billion over the year.

The Riksbank's financial risk management

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. On 1 January 2019, a new financial risk and investment policy entered into force. The new policy reflects more clearly than before the assets that need to be held for the purpose of contingency planning.

The financial risks consist of market risk, credit risk and liquidity risk. Follow-up of the financial risks to which the Riksbank is exposed is mainly carried out in 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 might change if a particular scenario, hypothetical or historical, were to occur.

The Riksbank's financial commitments to the IMF

The Riksbank contributes towards the funding of the IMF via capital contribution and arrangements to borrow, and stands prepared to use the gold and foreign currency reserves to meet its commitments in relation to the Fund (see Table 6). The Riksbank's commitments in relation to the IMF are described in more detail in the box International commitments and in the section Balance sheet and profit and loss account.

Over the year, the Riksbank's transactions with the IMF, which is to say those related to the IMF's onward lending to other countries, contributed towards reducing the Riksbank's remaining commitments to the IMF expressed in Special Drawing Rights (SDR). However, all in all, the IMF only utilises a smaller part of the total agreed commitment, corresponding to SEK 247 billion. The value of the Riksbank's receivables from the IMF was SEK 40.2 billion at year-end, while the value of the Bank's liabilities to the IMF was SEK 29.2 billion (see table 5). The interest return on net receivables amounted to SEK 80 million over the year.

Table 6 The Riksbank's remaining financial commitments to the IMF

SDR and SEK, million

| | 31/12/2019 | | 31/12/2018 | |
|------------------------------------|---------------|----------------|---------------|----------------|
| | SDR | SEK | SDR | SEK |
| Special Drawing Rights (SDR) | 4,456 | 57,793 | 4,533 | 55,854 |
| Capital contribution (quota) | 3,752 | 48,655 | 4,017 | 49,498 |
| New Arrangements to Borrow | 2,129 | 27,609 | 2,065 | 25,443 |
| Credit agreement | 7,400 | 95,968 | 7,400 | 91,190 |
| Poverty Reduction and Growth Trust | 500 | 6,484 | 500 | 6,162 |
| Total remaining commitment | 18,237 | 236,509 | 18,515 | 228,147 |

Note: See also Notes 2, 21 and 40 in the section Balance sheet and profit and loss account for a more detailed account of commitments to the IMF.

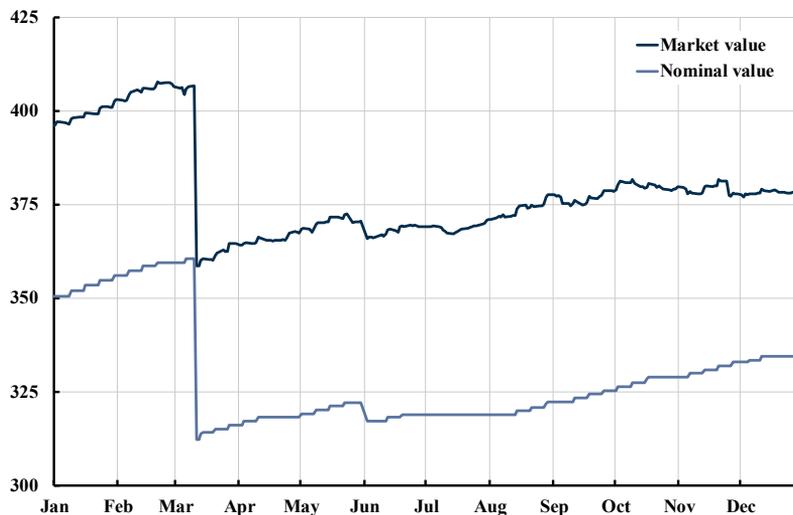
Source: The Riksbank.

Securities in Swedish kronor

Over the year, the Riksbank reinvested maturities and coupon payments in the Swedish government bond portfolio by purchasing Swedish nominal and real government bonds to a nominal value totalling SEK 37 billion (see the section Maintaining the value of money – price stability). The greater part of the reinvested amount, SEK 35 billion, referred to purchases of nominal government bonds. All bond purchases over the year were conducted on the secondary market at a total of 37 auctions (see Chart 14).

Chart 14 The Riksbank's holdings of Swedish government bonds 2019

SEK billion



Note: The chart shows the market value and the nominal value of the Riksbank's holdings of Swedish government bonds over the year. Reinvestments of the maturities that took place in the first six months of 2019 were initiated at the start of 2018.

Source: The Riksbank.

Over the year, the market value of the holdings of Swedish government bonds was positively impacted by the fall in Swedish interest rates and the return on the holdings amounted to SEK 4.2 billion or 1 per cent. At the end of the year, the market value of the Riksbank's holdings of Swedish government bonds amounted to SEK 378.3 billion. The remaining time to maturity on the bonds varied from 11 months to 19 years and the bonds' total interest-rate sensitivity, measured as modified duration, amounted to 4.4. As a proportion of the outstanding stock of Swedish nominal and real government bonds denominated in Swedish kronor, the Riksbank's holdings amounted to 45 per cent.

Monetary policy operations

The Swedish banking system has a liquidity surplus, which, in recent years, was mainly created by the purchase by the Riksbank of government bonds from the banks. The surplus is regularly deposited at the Riksbank through various monetary policy operations. Over the larger part of the year, the Riksbank borrowed most of the liquidity surplus either via overnight loans, so-called fine-tuning transactions, or by issuing Riksbank Certificates. Since 9 October 2019, when the Riksbank ceased fine-tuning transactions, the Riksbank has mainly borrowed the banking system's surplus via Riksbank Certificates and via the standing deposit facilities (see also the box The Riksbank simplified the operational framework for monetary policy).

The borrowing from the banking system means that the Riksbank has a debt to the banks. At the end of the year, this debt amounted to SEK 432.6 billion,

which is a decrease of SEK 24.1 billion from the previous year (see Table 5). Liquidity in the banking system decreased above all when two bonds in the Riksbank's Swedish government bond portfolio matured in the spring. At the same time, the Riksbank's purchases of Swedish government bonds (see the section Maintaining the value of money – price stability) contributed to an increase in deposits by the banking sector. The reason for this is that the liquidity created in the banking system when the Riksbank buys bonds is deposited with the Riksbank. Deposits also increased in May, when the Riksbank transferred SEK 3.8 billion to the Treasury, as the Riksbank chose to finance the transfer by borrowing from the banking system. Over the year, negative deposit rates led to total deposits generating SEK 1.2 billion in interest income.

Analysis of the Riksbank's financial result and equity

The Riksbank's result derives largely from the development of the krona exchange rate, as well as international and Swedish interest rates. Recent years' low interest rates have meant that interest income from the Riksbank's foreign securities is low. If interest rates remain low, interest income will also remain low. If interest rates instead start to rise, interest income will gradually rise as the Riksbank's securities mature and are replaced by new ones. However, at the same time, the value of the securities will fall, which is expected to impair the total return on the Riksbank's assets (interest income plus change in market value) over the short term. In addition, interest expense for the Riksbank's borrowing of foreign currency is expected to increase.

Like several other central banks, the Riksbank has interest-free funding in the form of banknotes and coins. This provides good conditions for a good net interest income and thereby a better total return. The net result that can be attributed to banknotes and coins is usually called seigniorage. The seigniorage effect will be positive as long as the return on the assets is greater than the cost of manufacturing the banknotes and coins (which is typically quite a low cost). However, the amount of outstanding banknotes and coins has fallen heavily in recent years, which means that the Riksbank's possibilities of making seigniorage gains have also decreased. Even so, it should be possible for the Riksbank to balance this out by building up greater equity, which can also be seen as a cost-free form of funding.

In 2019, the total return on the Riksbank's foreign securities was positive, as international interest rates fell and the krona depreciated. However, interest rates are expected to remain on relatively low levels over the next few years. In addition, the krona is expected to appreciate gradually, reducing the value in SEK of assets denominated in foreign currency. The return from the foreign currency reserves can therefore be expected to be relatively low over the coming years.

The purchases of Swedish government bonds made by the Riksbank over the period 2015–2019 also affect its income. The overall net effect of government bonds on the financial result depends on how the repo rate progresses in

relation to return on the bonds purchased by the Riksbank. The bond purchases were funded by increased deposits in SEK from the banks. The cost for this is determined by the interest rate on the Riksbank's deposits in the form of Riksbank Certificates (the repo rate) and deposit facilities (the repo rate minus 0.10 percentage points). The repo rate was negative in 2019, meaning that deposits from the banks made a positive contribution to the Riksbank's result. In addition, in 2019, Swedish long-term bond yields fell, increasing the value of the Riksbank's government bonds. Even with the present repo rate of 0 per cent, the Riksbank's borrowing is cost-free. If the repo rate were to rise, the cost of funding the holdings of government bonds would increase, impairing the Riksbank's result.

Overall, the low level of interest rates means that the total return on the Riksbank's assets can be expected to be low over the next few years. Over the coming five-year period, the Riksbank is therefore expected to achieve a result that is significantly lower than was the case over the previous five-year period. If the krona appreciates heavily or if there is a strong rise in interest rates, the Riksbank may make significant losses. In addition, in the event of a heavy interest rate rise, the Riksbank's ability to make dividend payments to the government will decline temporarily and dividends may cease entirely in some years.

The buffers in the form of unrealised profits that have been built up in recent years may be utilised if market rates rise and the krona appreciates over the next few years. However, it is important that the Riksbank has sufficient resources to be able to carry out its tasks independently, in all situations. The size of equity is presently deemed to be sufficient for the Riksbank to be able to carry out the complementary monetary policy measures already decided upon and also to adopt further measures without jeopardising the Riksbank's financial independence. However, this requires the Riksbank to be able to adjust the size of its equity in the event that its earnings capacity and financial risks change.

Result measures and seigniorage

The Riksbank's financial result depends on 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 of the Riksbank's operations.

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. In 2019, equity increased by SEK 36,930 million. In that equity fell by SEK 3,800 million when the Riksbank made dividend payments to the government over the year, the total result for 2019 amounted to $36,930 + 3,800 = \text{SEK } 40,730$ million.

The total result can be divided up into different components. For example, a distinction can be made between realised and unrealised results. Realised results arise, for example, when the Riksbank earns interest on its bank balances and securities, in the sale of previously purchased securities or in the payment of wages. Unrealised results arise when the value of assets that the Riksbank still owns changes, for example if the price of gold changes. Another way of dividing up the Riksbank's result is to separate items relating to interest rates and securities holdings from items relating to gold and currency holdings.

In Table 7, the total result for 2019, that is SEK 40,730 million, has been divided into four parts. The realised result from interest rates and securities amounted to SEK 10,135 million. This includes the Riksbank's interest income and interest expenditure and the net result of all transactions and write-downs relating to securities. It also includes 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 realised result from gold and currency transactions, including write-downs, amounted to SEK 15,516 million. The unrealised result due to falling interest rates amounted to SEK 8,252 million, while the result relating to changed gold prices and exchange rates was SEK 6,827 million.

Table 7 Result matrix, SEK million

| | Interest and securities | Gold and currency |
|-------------------|--------------------------------|--------------------------|
| Realised result | 10,135 | 15,516 |
| Unrealised result | 8,252 | 6,827 |

Source: The Riksbank.

The Riksbank's *reported result*, which is the result taken up in the Riksbank's profit and loss account, comprises all the realised results stemming from interest rates and securities transactions as well as from gold and currency transactions. The Riksbank's reported result for 2019 thus amounted to $10,135 + 15,516 = \text{SEK } 25,651$ million.

The result on which the dividend to the government is based comprises both realised and unrealised results linked to interest rates and securities, but ex-

cludes all results relating to gold and currency. In 2019, this *dividend-qualifying result* amounted to $10,135 + 8,252 = \text{SEK } 18,387$ 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 8.

Table 8 Result measures 2019, SEK million

| | Total | Reported | Basis for dividend |
|---|---------------|---------------|--------------------|
| Interest income | 11,369 | 11,369 | 11,369 |
| Interest expense | -4,455 | -4,455 | -4,455 |
| Net result of financial transactions and write-downs | 19,522 | 19,522 | 4,006 |
| of which, sale of securities | 4,153 | 4,153 | 4,153 |
| and gold and currency respectively | 15,532 | 15,532 | – |
| of which, write-downs of securities | -147 | -147 | -147 |
| and gold and currency respectively | -16 | -16 | – |
| Net result of changes in value (unrealised result) | 15,079 | – | 8,252 |
| of which, changes in value of securities | 8,252 | – | 8,252 |
| and gold and currency respectively | 6,827 | – | – |
| Other income | 191 | 191 | 191 |
| Total net income | 41,706 | 26,627 | 19,363 |
| Personnel and administration costs and depreciation | -976 | -976 | -976 |
| of which, costs for managing banknotes and coins | -193 | -193 | -193 |
| other costs | -783 | -783 | -783 |
| Result for the year | 40,730 | 25,651 | 18,387 |

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 2019, this value amounted to SEK 63,488 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 976 million, SEK 193 million were 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 6.6 per cent of the balance sheet, it is assumed that 6.6 per cent of the earnings come from the assets corresponding to banknotes and coins. Calculated in this way, SEK 668 million of the Riksbank's total interest income from assets of SEK 10,187 million (SEK 11,369 million excluding interest income regarding deposits from the Riksbank's counterparties of SEK 1,182 million) can be said to come from these assets. Similarly, SEK 1,293 million of the total net result of financial transactions, excluding write-downs, of SEK 19,685 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 $668 + 1,293 - 193 =$ SEK 1,768 million. It is this sum that is called the Riksbank's seigniorage.

The size of the Riksbank's seigniorage has decreased in recent years, due both to the low level of interest rates and to the fact that the total value of banknotes and coins in circulation has decreased. Seigniorage for the year was, however, SEK 1,501 million higher than the corresponding value for the financial year 2018, as realised price and exchange rate gains were unusually high in 2019 due to the redistribution of assets in the Riksbank's foreign currency reserves. Under the current low level of interest rates, with long-term bond rates close to 0 per cent, seigniorage can be expected to remain low in the period ahead.

BALANCE SHEET AND PROFIT AND LOSS ACCOUNT

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 adopted by the Executive Board on 14 December 2016 (Ref. no. 2016-00854), which came into force on 31 December 2016.

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, (EU) 2016/2249 (ECB/2016/34) amended according to (EU) 2019/2217 (ECB/2019/34). Under Chapter 10, Article 3 of the Sveriges Riksbank Act the Riksbank must apply the accounting guideline of the European System of Central Banks (ESCB) where relevant.

It is the Governing Council at the ECB that decides on the accounting guideline of the ESCB, and the Accounting and Monetary Income Committee (AMICO) reports to the Governing Council on 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 Guideline was updated in 2019 with some clarifications. None of these caused any change to the Riksbank's accounting, but meant that the deviation that had previously existed concerning the valuation of pension provisions ceased to exist, as it was clarified that pension provisions may also be valued at discounted value.

The Riksbank deviates from the ESCB's 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.
- The Riksbank's threshold for capitalising fixed assets is half a price base amount instead of EUR 10,000, justified by the fact that a lower capitalisation limit is considered to give us 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 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

As of 1 January 2019, the Riksbank reverses write-downs on the prices of bonds on a straight-line basis against interest income from the date of the write-down, instead of waiting with the reversal until sale or maturity. This change gives a smoother profit and loss reporting account and is an adaptation to a clarification from AMICO regarding reporting price write-downs within the framework of the ESCB's accounting guideline.

Balances for RIX participants that are not monetary policy counterparties have been transferred from the item 'Deposit facility' to the items 'Other liabilities to credit institutions in Sweden denominated in Swedish kronor', 'Liabilities to other residents in Sweden denominated in Swedish kronor' and 'Liabilities to residents outside Sweden denominated in Swedish kronor'. This transfer was prompted by the Riksbank's simplification of the interest rate steering system on 9 October 2019.

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 recognised 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 in principle 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.

Balance sheet valuation rules

Gold and securities are recorded at the exchange rates and prices applying on the closing date. The exchange rates below are used for revaluation at year-end. In the table below the exchange rates have been rounded off to four decimals.

Exchange rates

| | 31.12.2019 | 31.12.2018 |
|---------|------------|------------|
| EUR/SEK | 10.5049 | 10.1667 |
| USD/SEK | 9.3694 | 8.8750 |
| GBP/SEK | 12.3994 | 11.3193 |
| AUD/SEK | 6.5704 | 6.2514 |
| CAD/SEK | 7.2669 | 6.5028 |
| SDR/SEK | 12.9686 | 12.3230 |
| NOK/SEK | 1.0657 | 1.0331 |
| JPY/SEK | 0.0862 | 0.0809 |
| DKK/SEK | 1.4040 | 1.3618 |

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, is 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 agreement 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 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 received is reported as a liability, while the transferred assets are reported as memorandum items.

Assets received 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 paid 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.

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 with regard to each individual currency and gold is added to the previous day's holdings 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 | | 31.12.2019 | 31.12.2018 |
|---|---------|-------------------|-------------------|
| Gold | Note 1 | 57,488 | 45,981 |
| Claims on residents outside Sweden denominated in foreign currency | | | |
| Receivables from the IMF | Note 2 | 40,150 | 34,740 |
| Balances with banks, loans and security investments | Note 3 | 420,460 | 453,634 |
| | | 460,610 | 488,374 |
| Lending to credit institutions in Sweden related to monetary policy operations denominated in Swedish kronor | | | |
| Marginal lending facility | Note 4 | – | 0 |
| | | – | 0 |
| Securities of residents in Sweden denominated in Swedish kronor | Note 5 | 375,534 | 392,063 |
| Other assets | | | |
| Tangible and intangible fixed assets | Note 6 | 633 | 653 |
| Financial assets | Note 7 | 532 | 522 |
| Derivative instruments | Note 8 | 42 | – |
| Prepaid expenses and accrued income | Note 9 | 4,968 | 6,730 |
| Other assets | Note 10 | 158 | 191 |
| | | 6,333 | 8,096 |
| Total assets | | 899,965 | 934,514 |

| Liabilities and equity | | 31.12.2019 | 31.12.2018 |
|---|---------|-------------------|-------------------|
| Banknotes and coins in circulation | | | |
| Banknotes | Note 11 | 60,383 | 59,147 |
| Coins | Note 12 | 3,105 | 3,034 |
| | | 63,488 | 62,181 |
| Liabilities to credit institutions in Sweden related to monetary policy operations denominated in Swedish kronor | | | |
| Deposit facility | Note 13 | 117,666 | 422 |
| Fine-tuning operations | Note 14 | – | 104,099 |
| | | 117,666 | 104,521 |
| Other liabilities to credit institutions in Sweden denominated in Swedish kronor | | | |
| | Note 15 | 184 | – |
| Debt certificates issued | | | |
| | Note 16 | 314,944 | 352,203 |
| Liabilities to other residents in Sweden denominated in Swedish kronor | | | |
| | Note 17 | 303 | – |
| Liabilities to residents outside Sweden denominated in Swedish kronor | | | |
| | Note 18 | 3,740 | 112 |
| Liabilities to residents in Sweden denominated in foreign currency | | | |
| | Note 19 | 192,934 | 254,802 |
| Liabilities to residents outside Sweden denominated in foreign currency | | | |
| | Note 20 | 10,575 | 2,220 |
| Counterpart of Special Drawing Rights allocated by the IMF | | | |
| | Note 21 | 29,166 | 27,714 |
| Other liabilities | | | |
| Derivative instruments | Note 22 | – | 544 |
| Accrued expenses and prepaid income | Note 23 | 1,488 | 1,640 |
| Other liabilities | Note 24 | 37 | 51 |
| | | 1,525 | 2,235 |
| Provisions | | | |
| | Note 25 | 460 | 477 |
| Revaluation accounts | | | |
| | Note 26 | 82,119 | 67,040 |

The table continues on the next page.

| Liabilities and equity | | 31.12.2019 | 31.12.2018 |
|-------------------------------------|---------|-------------------|-------------------|
| Equity | | | |
| Capital | Note 27 | 1,000 | 1,000 |
| Reserves | Note 28 | 56,210 | 56,487 |
| | | 57,210 | 57,487 |
| Result for the year | | 25,651 | 3,522 |
| Total liabilities and equity | | 899,965 | 934,514 |

Memorandum items, see Note 40

Profit and loss account

| | | <i>SEK million</i> | |
|--|---------|--------------------|--------------|
| | | 2019 | 2018 |
| Interest income | Note 29 | 11,369 | 8,147 |
| Interest expense | Note 30 | -4,455 | -4,622 |
| Net result of financial transactions and write-downs | Note 31 | 19,522 | 460 |
| Fees and commissions income | Note 32 | 98 | 86 |
| Fees and commissions expenses | Note 33 | -18 | -19 |
| Dividends received | Note 34 | 55 | 51 |
| Other income | Note 35 | 56 | 275 |
| Total net income | | 26,627 | 4,378 |
| Staff costs | Note 36 | -442 | -414 |
| Administrative expenses | Note 37 | -431 | -362 |
| Depreciation of tangible and intangible fixed assets | Note 38 | -78 | -67 |
| Banknote and coin expenses | Note 39 | -25 | -13 |
| Total expenses | | -976 | -856 |
| Result for the year | | 25,651 | 3,522 |

Cash flow statement

| <i>SEK million</i> | 31.12.2019 | 31.12.2018 |
|--|-------------------|-------------------|
| OPERATING ACTIVITIES | | |
| <i>Cash flow from operating activities, profit and loss</i> | | |
| Interest received | 13,008 | 7,895 |
| Interest paid | -4,543 | -4,598 |
| Net received from financial transactions | 19,685 | 848 |
| Fees and commissions received | 98 | 86 |
| Fees and commissions paid | -18 | -19 |
| Other income | 52 | 272 |
| Administrative expenses paid | -890 | -807 |
| | 27,392 | 3,677 |
| <i>Cash flow from operating activities, assets</i> | | |
| Receivables from the IMF | -993 | -3,517 |
| Securities denominated in foreign currency | 45,747 | 31,120 |
| Securities denominated in Swedish kronor | 11,702 | -34,870 |
| Other assets | 154 | 53 |
| | 56,610 | -7,214 |
| <i>Cash flow from operating activities, liabilities</i> | | |
| Banknotes and coins in circulation | 1,311 | 4,196 |
| Liabilities to credit institutions in Sweden related to monetary policy operations denominated in Swedish kronor | 13,145 | 77,182 |
| Debt certificates issued | -37,259 | -39,000 |
| Liabilities to residents outside Sweden denominated in Swedish kronor | 3,628 | -6,477 |
| Liabilities to residents in Sweden denominated in foreign currency | -76,272 | 53 |
| Liabilities to residents outside Sweden denominated in foreign currency | 8,014 | -1,971 |
| Other liabilities | 1,171 | -1,989 |
| | -86,262 | 31,994 |
| Cash flow from operating activities | -2,260 | 28,457 |
| <i>The table continues on the next page</i> | | |

| | 31.12.2019 | 31.12.2018 |
|--|---------------|---------------|
| INVESTING ACTIVITIES | | |
| Acquisition and disposal of tangible and intangible fixed assets | -58 | -43 |
| Acquisition and disposal of financial assets | -10 | - |
| Dividends received | 55 | 51 |
| Cash flow from investing activities | -13 | 8 |
| FINANCING ACTIVITIES | | |
| Transfer to the Treasury | -3,800 | -2,300 |
| Cash flow from financing activities | -3,800 | -2,300 |
| Cash flow for the period | -6,073 | 26,165 |
| Cash and cash equivalents at beginning of period | 45,851 | 18,950 |
| Cash flow from operating activities | -2,260 | 28,457 |
| Cash flow from investing activities | -13 | 8 |
| Cash flow from financing activities | -3,800 | -2,300 |
| Exchange rate difference on cash and cash equivalents | 2,373 | 736 |
| Cash and cash equivalents at end of period | 42,151 | 45,851 |

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, the Riksbank's capacity for creating liquidity in the national currency 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 paid 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 2018.

Note 1 Gold

| | 31.12.2019 | 31.12.2018 |
|-----------------------|---------------|---------------|
| Quantity | | |
| Troy ounces (million) | 4.0421 | 4.0421 |
| Price | | |
| USD/troy ounce | 1,517.9657 | 1,281.7739 |
| SEK/USD | 9.3694 | 8.8750 |
| Book value | 57,488 | 45,981 |

As of 31 December 2019 the Riksbank holds 4 million troy ounces (troy/oz) of gold (4), which is equivalent to 125.7 tonnes. No gold was sold in 2019.

Note 2 Receivables from the IMF

| | 31.12.2019 | 31.12.2018 |
|--------------------------------|---------------|---------------|
| Special Drawing Rights | 29,706 | 27,289 |
| Reserve position in the IMF | | |
| Capital contribution (quota) | 57,451 | 54,591 |
| IMF krona account | -48,655 | -49,498 |
| | 8,796 | 5,093 |
| PRG-HIPC lending | - | 0 |
| NAB New Arrangements to Borrow | 1,648 | 2,358 |
| Total | 40,150 | 34,740 |

The Riksbank's holding of Special Drawing Rights amounts to SDR 2,291 million (2,214). An amount corresponding to the total SDR that have been allocated by the International Monetary Fund (IMF) is reported as a liability (see Note 21). At the end of 2019, the SDR holding was 42 million higher than the allocation, which equals SEK 540 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 by utilising the overdraft facility of this account. 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 item 'PRG-HIPC lending' refers to an interest-free deposit with the IMF. This lending is chiefly used for the IMF's share of the debt relief initiative HIPC (Heavily Indebted Poor Countries). The deposit can also be used in the Fund's subsidised lending. The deposit of a total of SDR 18.6 million was repaid on 28 December 2018.

At the close of 2019 the Riksbank's NAB lending amounted to SDR 127 million (191).

At the close of 2019 the Riksbank also had a receivable from the IMF of SDR 12.8 million (12.8) for funds that the IMF may use for interest and credit losses due to delays. The IMF has made deductions from interest payments on the Riksbank's reserve position in the IMF to transfer the funds. The Riksbank has booked these deductions in the profit and loss account. Consequently they are not included as receivables from the IMF on the Riksbank's balance sheet.

Note 3 Balances with banks, loans and security investments

| | 31.12.2019 | 31.12.2018 |
|-------------------------------|----------------|----------------|
| Bank accounts | 392 | 3,647 |
| Bank lending | 31,184 | 39,984 |
| Reverse repurchase agreements | 10,575 | 2,220 |
| Bonds | 378,309 | 407,783 |
| Short-term securities | – | – |
| Total | 420,460 | 453,634 |

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

| | 31.12.2019 | 31.12.2018 |
|--------------------|----------------|----------------|
| Euro | 90,900 | 154,947 |
| US dollars | 266,991 | 243,189 |
| Pounds sterling | 16,650 | 19,199 |
| Australian dollars | 20,749 | 21,966 |
| Canadian dollars | 12,660 | 14,332 |
| Norwegian kroner | 6,301 | 1 |
| Danish kroner | 6,209 | – |
| Japanese yen | 0 | 0 |
| Total | 420,460 | 453,634 |

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

| Maturity | Bal. w. banks and loans | Securities |
|------------------------------|--------------------------------|-------------------|
| Up to 1 month | 17,682 | 1,405 |
| Over 1 month, up to 3 months | 11,144 | 2,246 |
| Over 3 months, up to 1 year | 13,325 | 47,201 |
| Over 1 year, up to 5 years | – | 198,691 |
| More than 5 years | – | 128,766 |
| Total | 42,151 | 378,309 |

The Riksbank did not participate in any automatic securities lending programmes in 2019.

Note 4 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 lending-facility interest rate during the year has equalled the Riksbank's repo rate plus 0.75 percentage points.

Note 5 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. The reduction for the year is chiefly explained by the fact that the bonds that reached maturity in the spring of 2019 were reinvested according to a decision made by the Executive Board already in 2018.

The securities have been recorded at quoted prices.

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

Maturity for SEK-denominated securities

| Maturity | Securities |
|------------------------------|-------------------|
| Up to 1 month | – |
| Over 1 month, up to 3 months | – |
| Over 3 months, up to 1 year | 78,313 |
| Over 1 year, up to 5 years | 138,395 |
| More than 5 years | 158,826 |
| Total | 375,534 |

Note 6 Tangible and intangible fixed assets

| | 31.12.2019 | 31.12.2018 |
|----------------------------------|-------------------|-------------------|
| Land and buildings | | |
| Cost of acquisition, 1 January | 602 | 612 |
| Acquisitions during the year | 13 | 1 |
| Reclassification | – | –11 |
| Divestments during the year | – | – |
| Cost of acquisition, 31 December | 615 | 602 |
| Acc. depreciation, 1 January | –265 | –246 |
| Depreciation for the year | –19 | –19 |
| Divestments during the year | – | – |
| Acc. depreciation, 31 December | –284 | –265 |
| Book value | 331 | 337 |
| Machinery and equipment | | |
| Cost of acquisition, 1 January | 692 | 660 |
| Acquisitions during the year | 45 | 42 |
| Reclassification | – | 11 |
| Divestments during the year | –12 | –21 |
| Cost of acquisition, 31 December | 725 | 692 |
| Acc. depreciation, 1 January | –376 | –349 |
| Depreciation for the year | –43 | –48 |
| Divestments during the year | 12 | 21 |
| Write-down for the year | –16 | – |
| Acc. depreciation, 31 December | –423 | –376 |
| Book value | 302 | 316 |
| Total book value | 633 | 653 |
| Tax assessment value | | |
| Buildings | – | – |
| Land | – | – |

The item ‘Land and buildings’ includes two properties: the head office in Stockholm and the cash provision office in the municipality of Sigtuna (Broby). The properties are classified as special units and are therefore not taxable.

Acquisitions during the year in 2019 included IT applications to a value of SEK 26 million (27).

The item ‘Book value, machinery and equipment’ includes intangible fixed assets in the form of application systems worth SEK 155 million (148). The reclassification in 2018 of the cost of acquisition from buildings to equipment

referred to replacing windows. During the year, SEK 16 million (–) has been written down for machinery and equipment.

Note 7 Financial assets

| | 31.12.2019 | 31.12.2018 |
|---|------------|------------|
| Shares and participations | | |
| 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 10,238,562.31 | 90 | 80 |
| SWIFT | | |
| 16 shares at a par value of EUR 125 | 1 | 1 |
| Total | 532 | 522 |

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 in the ECB. The Riksbank's capital subscription on 31 December 2019 amounted to 2.5222 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.

Due to the five-year rule above, on 1 January 2019, the Riksbank's capital subscription was increased from 2.2729 per cent to 2.5222 per cent, and the paid-up subscription amount from EUR 9,226,559.46 to EUR 10,238,562.31.

On 1 February 2020, the Riksbank's capital subscription increased due to the Bank of England leaving the ESCB in connection with the UK's withdrawal from the EU. The Riksbank's capital subscription subsequently amounts to 2.9790 per cent and the paid-up subscription amount to EUR 12,092,886.02.

Note 8 Derivative instruments

| | 31.12.2019 | 31.12.2018 |
|-----------------------------|------------|------------|
| Foreign exchange swaps, USD | 19 | – |
| Foreign exchange swaps, NOK | 23 | – |
| | 42 | – |
| Total | 42 | – |

The table above shows the valuation of the Riksbank's derivative instruments broken down by instrument group and currency.

The purpose of outstanding foreign exchange swaps is primarily to convert part of the Riksbank's exposure in US dollars to exposure to Norwegian kroner.

Nominal amounts of the derivative contracts, translated into SEK

| | 31.12.2019 | 31.12.2018 |
|-----------------------------|------------|------------|
| Foreign exchange swaps, USD | -2,804 | - |
| Foreign exchange swaps, NOK | 2,846 | - |
| | 42 | - |
| Total | 42 | - |

Note 9 Prepaid expenses and accrued income

| | 31.12.2019 | 31.12.2018 |
|--------------------------------|--------------|--------------|
| Receivables from the IMF | 50 | 60 |
| Bank accounts and bank lending | 0 | 0 |
| Reverse repurchase agreements | 15 | 5 |
| Bonds in foreign currency | 2,127 | 2,506 |
| Derivative instruments | - | - |
| Bonds in Swedish kronor | 2,732 | 4,072 |
| Fine-tuning operations | 0 | 5 |
| Debt certificates issued | 28 | 59 |
| Other | 16 | 23 |
| Total | 4,968 | 6,730 |

Note 10 Other assets

| | 31.12.2019 | 31.12.2018 |
|---------------------|------------|------------|
| Staff loans | 145 | 168 |
| Accounts receivable | 2 | 1 |
| VAT recoverable | 7 | 4 |
| Balances with banks | 4 | 18 |
| Other | 0 | 0 |
| Total | 158 | 191 |

Note 11 Banknotes

| | 31.12.2019 | 31.12.2018 |
|-------------------|---------------|---------------|
| 1 000 krona | 3,062 | 3,336 |
| 500 krona | 41,791 | 39,474 |
| 200 krona | 4,982 | 5,452 |
| 100 krona | 2,966 | 3,041 |
| 50 krona | 943 | 965 |
| 20 krona | 1,028 | 1,034 |
| Invalid banknotes | 5,611 | 5,845 |
| Total | 60,383 | 59,147 |

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 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 2019, the value of the banknotes that the Riksbank had received but which it had not yet decided to redeem was SEK 39 million (38).

Note 12 Coins

| | 31.12.2019 | 31.12.2018 |
|---------------------|--------------|--------------|
| 10 krona | 2,116 | 2,136 |
| 5 krona | 473 | 441 |
| 2 krona | 315 | 268 |
| 1 krona | 184 | 167 |
| Commemorative coins | 17 | 22 |
| Total | 3,105 | 3,034 |

Coins in circulation are broken down by the above denominations. In 2019 the item 'Commemorative coins' was written down by SEK 4 million (3) referring to an issue of commemorative coins that had become older than ten years. The amount was recorded in 'Other income' (see Note 35).

Note 13 Deposit facility

Overnight deposits from the Riksbank's monetary policy counterparties in their RIX accounts at the Riksbank are reported here. The increase in the balance from the previous year is explained by the fact that, since the fine-tuning operations ceased, the deposits that were previously fine-tuned remain in the RIX accounts. The interest rate on the deposit facility corresponded, at the beginning of the year, to the Riksbank's repo rate minus 0.75 percentage points, and as of 9 October 2019 minus 0.10 percentage points. The comparative figure includes SEK 416 million regarding RIX account balances that do not belong to participants that are monetary policy counterparties.

Note 14 Fine-tuning operations

This item was used to report deposits for the purpose of fine-tuning liquidity in the financial system. The interest rate for fine-tuning deposit operations equalled during the year the Riksbank's repo rate minus 0.10 percentage points. The fine-tuning operations ended on 9 October 2019.

Note 15 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. As at 31 December 2018, the RIX account balance for these participants was SEK 107 million and was reported in the item 'Deposit facility'. The deposit rate equalled during the year the Riksbank's repo rate minus 0.75 percentage points, and as of 9 October 2019 minus 0.10 percentage points.

Note 16 Debt certificates issued

This item is used to report the Riksbank's issuance of debt certificates, done with the purpose of absorbing liquidity from the financial system. These deposits are done at the Riksbank's most important policy rate, the repo rate, as a rule with a maturity of one week.

Note 17 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. As at 31 December 2018, the RIX account balance for these participants was SEK 309 million and was reported in the item 'Deposit facility'. The deposit rate equalled during the year the Riksbank's repo rate minus 0.75 percentage points, and as of 9 October 2019 minus 0.10 percentage points.

Note 18 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 0.1 million are reported for participants that have their headquarters or a branch outside of Sweden and that are not monetary policy counterparties and credit institutions. As at 31 December 2018, the balance of these accounts was SEK 0.1 million and was reported in the item 'Deposit facility'.

Note 19 Liabilities to residents in Sweden denominated in foreign currency

As of June 2009 deposits of foreign currency from the Swedish National Debt Office are reported under this item. The deposits were for the purpose of strengthening the foreign currency reserve. The distribution of foreign currency deposits is shown in the following table. In 2019, deposits decreased by USD 7,985 million because matured amounts were not refinanced.

Deposits of foreign currency

| | 31.12.2019 | 31.12.2018 |
|--|-------------------|-------------------|
| Euro from the Swedish National Debt Office | 57,645 | 55,789 |
| US dollars from the Swedish National Debt Office | 135,288 | 199,013 |
| Account deposits from authorities | 1 | 0 |
| Total | 192,934 | 254,802 |

Note 20 Liabilities to residents outside Sweden denominated in foreign currency

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

Currency breakdown for deposit repos

| | 31.12.2019 | 31.12.2018 |
|--------------|-------------------|-------------------|
| US dollars | 10,575 | 2,220 |
| Total | 10,575 | 2,220 |

Note 21 Counterpart of Special Drawing Rights allocated by the IMF

The Riksbank's liability corresponding to the Special Drawing Rights (SDR) originally allocated by the IMF is reported here. The total allocation is SDR 2,249 million (2,249). The current holding of SDR amounts to SDR 2,291 million (2,214) and is reported under the item 'Receivables from the IMF' (see Note 2). At the end of 2019, the SDR allocation was 42 million lower than the holding, which equals SEK 540 million.

Note 22 Derivative instruments

| | 31.12.2019 | 31.12.2018 |
|-----------------------------|-------------------|-------------------|
| Foreign exchange swaps, USD | – | –332 |
| Foreign exchange swaps, NOK | – | 876 |
| | – | 544 |
| Total | – | 544 |

The table above shows the valuation of the Riksbank's derivative instruments broken down by instrument group and currency.

The purpose of outstanding foreign exchange swaps is primarily to convert part of the Riksbank's exposure in US dollars to exposure to Norwegian kroner.

Nominal amounts of the derivative contracts, translated into SEK

| | 31.12.2019 | 31.12.2018 |
|-----------------------------|------------|------------|
| Foreign exchange swaps, USD | – | 26,399 |
| Foreign exchange swaps, NOK | – | –25,855 |
| | – | 544 |
| Total | – | 544 |

Note 23 Accrued expenses and prepaid income

| | 31.12.2019 | 31.12.2018 |
|--|--------------|--------------|
| Deposit repos | 14 | 5 |
| Derivative instruments | 13 | 72 |
| Deposits, Swedish National Debt Office | 1,324 | 1,450 |
| Counterpart of Special Drawing Rights | 38 | 50 |
| Other | 99 | 63 |
| Total | 1,488 | 1,640 |

Note 24 Other liabilities

| | 31.12.2019 | 31.12.2018 |
|--------------------------|------------|------------|
| Accounts payable – trade | 19 | 33 |
| Other | 18 | 18 |
| Total | 37 | 51 |

Note 25 Provisions

| | 31.12.2019 | 31.12.2018 |
|-----------------------------------|------------|------------|
| Pension provision | 69 | 75 |
| Banknotes and commemorative coins | 388 | 400 |
| Job Security Foundation | 3 | 2 |
| Total | 460 | 477 |

The pension provision has been calculated by the National Government Employee Pensions Board (SPV). Out of the pension liability, SEK 69 million (75) refers to PA-91 pensioners with a date of retirement prior to 2003, and SEK 0 million (0) refers to persons who have been granted a partial pension from 2003 onwards or pension compensation prior to the age of 65. As at 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. In 2019 the effect of technical revaluations was SEK 0 million (2), and has been reported as an increase in the pension liability.

The item ‘Provisions’ also includes SEK 388 million (400) for the estimated future cost of banknotes and commemorative coins written off that the Riksbank still may 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.

Note 26 Revaluation accounts

| | 31.12.2019 | 31.12.2018 |
|----------------------|-------------------|-------------------|
| Price effect | 22,130 | 13,878 |
| Exchange rate effect | 14,298 | 18,977 |
| Gold value effect | 45,691 | 34,185 |
| Total | 82,119 | 67,040 |

With effect from 2004, unrealised gains and losses are reported in special revaluation accounts, which 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 securities gains. 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.

Out of the total price effect, SEK 12,386 million (9,433) refers to domestic securities.

Exchange rate effect by currency

| | 31.12.2019 | 31.12.2018 |
|------------------------|-------------------|-------------------|
| Euro | 3,999 | 12,055 |
| US dollars | 1,563 | 1,229 |
| Pounds sterling | 2,198 | 1,115 |
| Australian dollars | 2,053 | 1,391 |
| Canadian dollars | 1,926 | 863 |
| Special Drawing Rights | 1,791 | 866 |
| Norwegian kroner | 768 | 1,458 |
| Danish kroner | – | – |
| Japanese yen | 0 | 0 |
| Total | 14,298 | 18,977 |

Note 27 Capital

The Sveriges Riksbank Act states that the Riksbank shall have capital in an amount of SEK 1,000 million.

Note 28 Reserves

| | 31.12.2019 | 31.12.2018 |
|------------------|-------------------|-------------------|
| Reserve fund | 500 | 500 |
| Contingency fund | 37,498 | 36,191 |
| Balancing fund | 18,212 | 19,796 |
| Total | 56,210 | 56,487 |

The Sveriges Riksbank Act states that the Riksbank shall have a reserve fund amounting to SEK 500 million and a contingency fund. The contingency fund and the balancing fund have been used since 1988, according to guidelines for the allocation of the Riksbank's profit adopted that year. The contingency fund has also been used for entering the amounts of asset write-ups. The amounts written up in the table below have been adjusted in the case of sale and depreciation of the written-up assets. The Riksbank's holdings of gold were written up to market value by SEK 12,686 million on 31 December 1998. Fixed assets were capitalised in the amount of SEK 654 million in the balance sheet in 1994, which equalled the cost of acquisition less depreciation. In 2019, SEK 2 million (2) was reposted from the sub-item 'Write-up of fixed assets' to 'Other', due to the year's depreciation of the written-up fixed assets. The value of the BIS shares was written up by SEK 235 million in 1996 to correspond to the market value of the gold used as payment for the share allocation in that year.

Allocations and write-ups

| | 31.12.2019 | 31.12.2018 |
|---|---------------|---------------|
| <i>Allocation of profit since 1988:</i> | | |
| Exchange rate effect | 2,475 | 1,649 |
| Gold value effect | 7,356 | 7,356 |
| Other allocation of profit | 19,001 | 18,521 |
| <i>Write-up of assets:</i> | | |
| Gold reserve | 8,604 | 8,604 |
| Fixed assets | 48 | 50 |
| BIS shares | 235 | 235 |
| <i>Other:</i> | -221 | -224 |
| Total | 37,498 | 36,191 |

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'

| | Capital | Reserves | Result for the year |
|----------------------------------|--------------|---------------|---------------------|
| Balance, 31 December 2017 | 1,000 | 54,861 | 3,926 |
| Transfer to the Treasury | – | – | –2,300 |
| <i>Transfer to/from:</i> | | | |
| Balancing fund | – | 1,006 | –1,006 |
| Contingency fund | – | 620 | –620 |
| Result for the year | – | – | 3,522 |
| Balance, 31 December 2018 | 1,000 | 56,487 | 3,522 |
| Transfer to the Treasury | – | – | –3,800 |
| <i>Transfer to/from:</i> | | | |
| Balancing fund | – | –1,584 | 1,584 |
| Contingency fund | – | 1,306 | –1,306 |
| Result for the year | – | – | 25,651 |
| Balance, 31 December 2019 | 1,000 | 56,210 | 25,651 |

Note 29 Interest income

| | 2019 | 2018 |
|--|---------------|--------------|
| <i>From foreign assets:</i> | | |
| SDR | 295 | 245 |
| Reserve position in the IMF | 58 | 16 |
| NAB (New Arrangements to Borrow) | 22 | 27 |
| Bank accounts | 19 | 16 |
| Bank lending | 535 | 558 |
| Reverse repurchase agreements | 243 | 135 |
| Bonds | 7,846 | 4,829 |
| Short-term securities | – | 2 |
| Derivative instruments | 10 | 0 |
| | 9,028 | 5,828 |
| <i>From domestic assets and liabilities:</i> | | |
| Negative interest deposit facility | 52 | 3 |
| Bonds | 1,157 | 0 |
| Correspondent accounts | 2 | 4 |
| Staff loans | 2 | 2 |
| Negative interest fine-tuning operations | 118 | 399 |
| Negative interest debt certificates issued | 1,010 | 1,911 |
| | 2,341 | 2,319 |
| Total | 11,369 | 8,147 |

Note 30 Interest expense

| | 2019 | 2018 |
|--|---------------|---------------|
| <i>From foreign liabilities:</i> | | |
| Deposits, Swedish National Debt Office | -3,725 | -3,684 |
| Deposit repos | -225 | -126 |
| Counterpart of Special Drawing Rights | -295 | -260 |
| Derivative instruments | -210 | -327 |
| | -4,455 | -4,397 |
| <i>From domestic liabilities and assets:</i> | | |
| Bonds | - | -225 |
| | - | -225 |
| Total | -4,455 | -4,622 |

Note 31 Net result of financial transactions and write-downs

| | 2019 | 2018 |
|----------------------------------|---------------|------------|
| Price effect foreign securities | 3,956 | -366 |
| Price effect domestic securities | 50 | - |
| Exchange rate effect | 15,516 | 826 |
| Gold value effect | - | - |
| Total | 19,522 | 460 |

The price effect for foreign securities includes realised price gains and price losses of SEK 4,103 million (22) and unrealised losses on securities of SEK -147 million (-388) that were recognised in the result for the year due to price write-downs of the securities holding.

The price effect for domestic securities includes realised exchange rate gains and losses of SEK 50 million (-).

The exchange rate effect includes realised exchange rate gains and exchange rate losses of SEK 15,532 million (826) and an unrealised exchange rate loss of SEK -16 million (-) that was recognised in the profit for the year due to a write-down of the currency position in Danish kroner.

When calculating the Riksbank's allocation of profit, the exchange rate effect is excluded from reported profit.

Note 32 Fees and commissions income

The item includes annual and transaction charges for the RIX system of SEK 98 million (86).

Note 33 Fees and commissions expenses

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

Note 34 Dividends received

In 2019 the Riksbank received a dividend from the BIS of SEK 55 million (51).

Note 35 Other income

| | 2019 | 2018 |
|--|-------------|-------------|
| Reimbursement for the redemption of invalid banknotes | 6 | 6 |
| Unredeemed cash received | 43 | 22 |
| Reimbursement for discoloured banknotes etc. | 0 | 0 |
| Coins written off | – | – |
| Sold for scrap | – | 239 |
| Banknotes written off | – | – |
| Commemorative coins written off | 4 | 3 |
| Sida (Swedish International Development Co-operation Agency) | 3 | 2 |
| Other | – | 3 |
| Total | 56 | 275 |

The coins that became invalid in 2017, and which were returned to the Riksbank, are sold for metal recycling (sold for scrap). In 2019, nothing was sold for scrap (239). In 2019 the item ‘Coins in circulation’ was written off by SEK 4 million (3). The write-off concerned an issue of commemorative coins that had become older than ten years.

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

Note 36 Staff costs

| | 2019 | 2018 |
|-------------------------------|-------------|-------------|
| Salaries and benefits | -259 | -249 |
| Salary recorded as assets | 1 | 0 |
| Social security contributions | -81 | -78 |
| | -339 | -327 |
| Pension premiums | -68 | -58 |
| Pension payments | -7 | -7 |
| Change in pension provision | 6 | 7 |
| Special payroll tax | -18 | -16 |
| | -87 | -74 |
| Training | -4 | -3 |
| Staff representation | -1 | -2 |
| Other | -11 | -8 |
| | -16 | -13 |
| Total | -442 | -414 |

Pension premiums were paid in accordance with pension agreements 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 from 2003 onwards or who have been granted a pension before the age of 65.

Salaries and benefits to the members of the Executive Board in 2019 amounted to SEK 14 million (14), broken down as follows:

Salaries and benefits for Executive Board members

| | 2019 | 2018 |
|---------------------|-------------|-------------|
| Stefan Ingves | 2.1 | 2.2 |
| Cecilia Skingsley | 2.5 | 2.4 |
| Martin Flodén | 2.4 | 2.4 |
| Per Jansson | 2.4 | 2.4 |
| Henry Ohlsson | 2.4 | 2.4 |
| Anna Breman | 0.2 | - |
| Kerstin af Jochnick | 2.0 | 2.4 |
| Total | 14.0 | 14.2 |

In addition, the Governor of the Riksbank received a board fee in 2019 of SEK 1.0 million (0.9) 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.

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. For Anna Breman, 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.

For Stefan Ingves, the General Council has decided on an exception: If he receives a pension, before he turns 65 years of age, ensuing from the position he held with the IMF, which he held before he was appointed Governor of the Riksbank, the income guarantee will not be reduced. Neither shall the pension from the IMF involve any reduction in his salary, if the pension is paid out during the period in which he receives salary from the Riksbank.

Furthermore, under present arrangements, Stefan Ingves may also receive a pension from the BIS. This is paid to board members who have served on the board of the 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 37 Administrative expenses

| | 2019 | 2018 |
|--------------------------------------|-------------|-------------|
| Information, external representation | -5 | -7 |
| Transport, travel | -14 | -12 |
| Consulting assignments | -48 | -39 |
| Other external services | -112 | -114 |
| IT operations | -178 | -126 |
| Economics prize | -19 | -19 |
| Office and property maintenance | -43 | -35 |
| Other | -12 | -10 |
| Total | -431 | -362 |

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 1.1 million (1.9).

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 48 million (39). This amount includes the costs of IT consultants of SEK 29 million (21).

The cost of statistics deliveries of SEK 72 million (70) 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 50 million (47) and costs for IT services of SEK 121 million (75). Costs for IT services have increased as a result of efforts to strengthen preparedness (information security and crisis preparedness).

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

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 (11), and rent of premises of SEK 4 million (7).

Note 38 Depreciation of tangible and intangible fixed assets

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

Note 39 Banknote and coin expenses

Of the total cost of notes and coins of SEK 25 million (13), SEK 21 million (13) refers to circulation banknotes. No commemorative coins were bought in 2019 and 2018.

Note 40 Memorandum items

Pledged assets

- At the close of 2019, securities equalling a market value of SEK 10,535 million had been pledged in connection with foreign securities repos (2,215).

Contingent liabilities

- Outstanding claims for compensation amounted to SEK 5 million (2) at the close of 2019.
- The Riksbank has a commitment to provide the Nobel Foundation with funds annually for the award of a prize in economic sciences in memory of Alfred Nobel and also to bear the administration expenses for this prize. This commitment amounted to SEK 19 million in 2019 (19). In addition to the original donation, since 2018 the Riksbank has been providing an additional grant for the Nobel Foundation's costs for the prize, which have been judged to amount to SEK 4 million annually.
- 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 2019, the Riksbank's remaining lending and exchange commitments amounted to SEK 236,509 million (228,147); see the table and the description below.

Remaining lending and exchange commitments in relation to the IMF

| | 31.12.2019 | 31.12.2018 |
|---|----------------|----------------|
| <i>Special Drawing Rights</i> | | |
| Contractual commitment (2*allocation) | 58,333 | 55,429 |
| SDR allocation (see Note 21) | 29,166 | 27,714 |
| SDR holding (see Note 2) | -29,706 | -27,289 |
| Remaining | 57,793 | 55,854 |
| <i>Capital contribution (quota)</i> | | |
| Contractual commitment (Capital contribution, see Note 2) | 57,451 | 54,591 |
| Reserve position (see Note 2) | -8,796 | -5,093 |
| Remaining | 48,655 | 49,498 |
| <i>NAB</i> | | |
| Contractual commitment | 29,257 | 27,801 |
| NAB lending (see Note 2) | -1,648 | -2,358 |
| Remaining | 27,609 | 25,443 |
| <i>Credit agreement</i> | 95,968 | 91,190 |
| <i>PRGT agreement</i> | 6,484 | 6,162 |
| Total remaining commitment | 236,509 | 228,147 |

Special Drawing Rights

Under the IMF by-laws, the commitment that refers to Special Drawing Rights means that the Riksbank may be obliged to buy Special Drawing Rights (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 29,166 million (27,714) plus two times the allocated amount of SEK 58,333 million (55,429). 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 29,706 million (27,289), see Note 2, the outstanding commitment amounts to SEK 57,793 million (55,854).

Capital contribution

The Riksbank's maximum commitment regarding capital contribution amounts to the total capital contribution of SDR 4,430 million (4,430), which equals SEK 57,451 million (54,591). 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 8,796 million (5,093) at the end of 2019, the remaining commitment amounts to SEK 48,655 million (49,498), which corresponds to the balance of the IMF's krona account.

NAB

The commitment concerning 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 of up to SDR 2,256 million (2,256), which is equivalent to SEK 29,257 million (27,801). Because the Riksbank's NAB lending at year-end amounted to SEK 1,648 million (2,358), see Note 2, the outstanding commitment amounts to SEK 27,609 million (25,443).

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'.

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, which is equivalent to SEK 95,968 million (91,190). 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.

PRGT agreement

In November 2016 the Riksbank entered an agreement regarding lending to the IMF to a maximum of SDR 500 million, equalling SEK 6,484 million (6,162), under a programme known as the Poverty Reduction and Growth Trust (PRGT). The funds which the Riksbank may lend in the programme may be used by the IMF for lending to low-income countries.

Payment agreements

- The Riksbank has committed to pay 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 843 million (797) at the end of 2019.

Contingent assets

- The outstanding claims for compensation amounted to SEK 21.5 million (–) at the close of 2019.

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 is valid until 27 April 2020.
- 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 2019, and expires on 15 July 2020.
- 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.

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 | 2019 | | | 2018 | | |
|---|---------------|-------------|---------------|--------------|-------------|--------------|
| | Net income | Ex-penses | Result | Net income | Ex-penses | Result |
| Monetary Policy | 2 | -187 | -185 | 2 | -182 | -180 |
| Financial stability | 55 | -174 | -119 | 53 | -160 | -107 |
| Payments | 151 | -341 | -190 | 356 | -261 | 95 |
| Of which | | | | | | |
| <i>Payment system</i> | 98 | -106 | -8 | 86 | -82 | 4 |
| <i>Cash provision</i> | 53 | -193 | -140 | 270 | -156 | 114 |
| <i>Development and analysis</i> | - | -42 | -42 | - | -23 | -23 |
| Asset management | 26,414 | -140 | 26,274 | 3,960 | -127 | 3,833 |
| Statistics | 0 | -112 | -112 | 0 | -104 | -104 |
| Economics prize and General Council, etc. | 5 | -22 | -17 | 7 | -22 | -15 |
| Total | 26,627 | -976 | 25,651 | 4,378 | -856 | 3,522 |

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 2019 amounts to SEK 25,651 million (3,522) and the Riksbank's assets and liabilities to SEK 899,965 million (934,514) at 31 December 2019.

Allocation of costs

Staff costs, excluding IT personnel

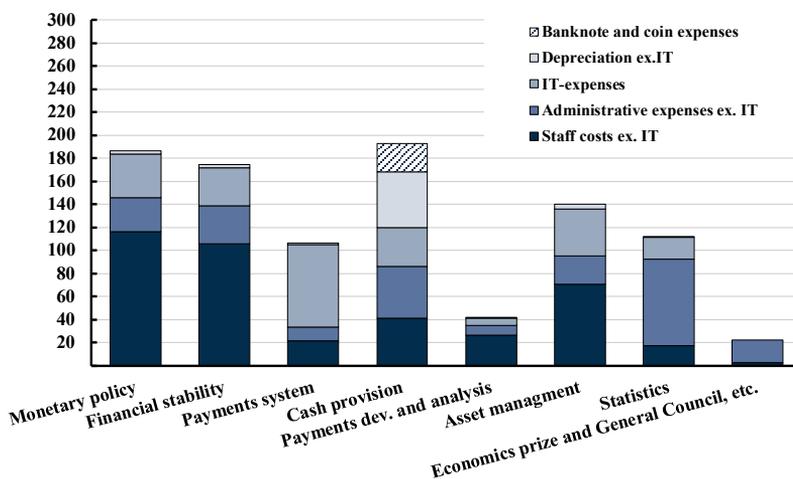
The actual payroll expense has been used when allocating staff costs for employees directly involved in a function. Payroll expenses for the employees included in the support functions have been allocated according to a cost allocation key. The key most used is the number of directly involved employees in relation to the total number of directly involved employees in all functions. Altogether about 234 employees, or 67 per cent of the total of 349, are directly involved in one of the functions. The other 115 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.

Allocation by nature of expense by function, 2019, SEK million



Source: The Riksbank.

Depreciation, excluding IT-related investments

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

Banknote and coin expenses

Costs for purchasing banknotes and coins amounted to SEK 25 million (13) in 2019. The costs are allocated in their entirety to the Cash provision function.

IT expenses

IT expenses refer to the costs of the IT operations. These operations are assigned to the Corporate Service Department. The model for allocation of the IT expenses is primarily based on the following principles: The expenses for workstations, data storage 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 consideration. Instead seigniorage income has been allocated to asset management. Seigniorage for 2019 amounted to SEK 1,768 million (267).

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 26,414 million (3,960). Total return from the Riksbank's asset management for 2019 was SEK 41,493 million (14,577). See also the table in the 'Asset management' section of the Administration Report. The difference is explained by the change in the item 'Revaluation account in the balance sheet' (see the table below).

Return, asset management and reported result

| | 2019 | 2018 |
|--|---------------|---------------|
| Interest income | 11,365 | 8,141 |
| Interest expense | -4,455 | -4,622 |
| Net result of financial transactions and write-downs reported in the profit and loss account | 19,522 | 460 |
| Fees and commissions expenses | -18 | -19 |
| Net income, asset management | 26,414 | 3,960 |
| Net result of financial transactions reported in revaluation accounts in the balance sheet | 15,079 | 10,617 |
| Total return, asset management | 41,493 | 14,577 |
| Net interest earnings on administration | 4 | 6 |
| Income from administration | 209 | 412 |
| Cost of administration | -976 | -856 |
| Result including income recognised in the balance sheet | 40,730 | 14,139 |
| Reversal of income recognised in the balance sheet | -15,079 | -10,617 |
| Reported result | 25,651 | 3,522 |

Net interest earnings on administration in the table above consists of interest income from the Riksbank's staff loans of SEK 2 million (2) and interest income of SEK 2 million (4) from accounts in Swedish kronor that the Riksbank holds on behalf of other central banks and international organisations.

The net result of financial transactions reported in revaluation accounts in the balance sheet corresponds to the change during the year in the 'Revaluation accounts' item.

Allocation of assets and liabilities

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

| Function | 31.12.2019 | | 31.12.2018 | |
|---------------------|-------------------|--------------------|-------------------|--------------------|
| | Assets | Liabilities | Assets | Liabilities |
| Financial stability | 441 | - | 441 | - |
| Cash provision | - | 63,880 | - | 62,582 |
| Asset management | 898,585 | 666,633 | 933,125 | 743,581 |
| Unallocated | 939 | 169,452 | 948 | 128,351 |
| Total | 899,965 | 899,965 | 934,514 | 934,514 |

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. Balances for RIX participants that are not monetary policy counterparties have, in the five-year overview, been transferred to 'Other liabilities to credit institutions in Sweden denominated in Swedish kronor', 'Liabilities to other residents in Sweden denominated in Swedish kronor' and 'Liabilities to residents outside Sweden denominated in Swedish kronor'. The change in accounting policy for writing down securities has only affected 2019.

Balance sheet

SEK million

| | 31.12.2019 | 31.12.2018 | 31.12.2017 | 31.12.2016 | 31.12.2015 |
|---|----------------|----------------|----------------|----------------|----------------|
| ASSETS | | | | | |
| Gold | 57,488 | 45,981 | 43,190 | 42,412 | 36,241 |
| Claims on residents outside Sweden denominated in foreign currency | | | | | |
| Receivables from the IMF | 40,150 | 34,740 | 28,653 | 29,063 | 34,115 |
| Balances with banks, loans and security investments | 420,460 | 453,634 | 436,093 | 466,970 | 422,854 |
| | 460,610 | 488,374 | 464,746 | 496,033 | 456,969 |
| Lending to credit institutions in Sweden related to monetary policy operations denominated in Swedish kronor | | | | | |
| Marginal lending facility | – | 0 | 20 | 0 | – |
| | – | 0 | 20 | 0 | – |
| Securities of residents in Sweden denominated in Swedish kronor | 375,534 | 392,063 | 353,874 | 298,645 | 163,762 |
| Other assets | | | | | |
| Tangible and intangible fixed assets | 633 | 653 | 677 | 667 | 670 |
| Financial assets | 532 | 522 | 522 | 522 | 522 |
| Derivative instruments | 42 | – | – | – | – |
| Prepaid expenses and accrued income | 4,968 | 6,730 | 6,391 | 6,268 | 4,900 |
| Other assets | 158 | 191 | 217 | 265 | 317 |
| | 6,333 | 8,096 | 7,807 | 7,722 | 6,409 |
| Total assets | 899,965 | 934,514 | 869,637 | 844,812 | 663,381 |

The table continues on the next page.

| | 31.12.2019 | 31.12.2018 | 31.12.2017 | 31.12.2016 | 31.12.2015 |
|---|------------|------------|------------|------------|------------|
| LIABILITIES AND EQUITY | | | | | |
| Banknotes and coins in circulation | | | | | |
| Banknotes | 60,383 | 59,147 | 55,215 | 57,535 | 68,193 |
| Coins | 3,105 | 3,034 | 2,773 | 4,858 | 5,258 |
| | 63,488 | 62,181 | 57,988 | 62,393 | 73,451 |
| Liabilities to credit institutions in Sweden related to monetary policy operations denominated in Swedish kronor | | | | | |
| Deposit facility | 117,666 | 6 | 81 | 37 | 16 |
| Fine-tuning operations | – | 104,099 | 27,055 | 144,143 | 70,826 |
| | 117,666 | 104,105 | 27,136 | 144,180 | 70,842 |
| Other liabilities to credit institutions in Sweden denominated in Swedish kronor | | | | | |
| | 184 | 107 | 81 | 60 | 4 |
| Debt certificates issued | 314,944 | 352,203 | 391,203 | 220,771 | 143,420 |
| Liabilities to other residents in Sweden denominated in Swedish kronor | | | | | |
| | 303 | 309 | 122 | 101 | 76 |
| Liabilities to residents outside Sweden denominated in Swedish kronor | | | | | |
| | 3,740 | 112 | 6,589 | 232 | 8,292 |
| Liabilities to residents in Sweden denominated in foreign currency | | | | | |
| | 192,934 | 254,802 | 237,905 | 256,723 | 240,537 |
| Liabilities to residents outside Sweden denominated in foreign currency | | | | | |
| | 10,575 | 2,220 | 3,481 | 11,264 | – |
| Counterpart of SDR allocated by the IMF | 29,166 | 27,714 | 26,273 | 27,540 | 26,310 |
| Other liabilities | | | | | |
| Derivative instruments | – | 544 | 528 | 910 | 1,619 |

The table continues on the next page.

| | 31.12.2019 | 31.12.2018 | 31.12.2017 | 31.12.2016 | 31.12.2015 |
|-------------------------------------|----------------|----------------|----------------|----------------|----------------|
| Accrued expenses and prepaid income | 1,488 | 1,640 | 1,584 | 1,424 | 1,174 |
| Other liabilities | 37 | 51 | 39 | 37 | 39 |
| | 1,525 | 2,235 | 2,151 | 2,371 | 2,832 |
| Provisions | 460 | 477 | 498 | 503 | 93 |
| Revaluation accounts | 82,119 | 67,040 | 56,423 | 60,313 | 43,373 |
| Equity | | | | | |
| Capital | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 |
| Reserves | 56,210 | 56,487 | 54,861 | 50,351 | 51,197 |
| | 57,210 | 57,487 | 55,861 | 51,351 | 52,197 |
| Result for the year | 25,651 | 3,522 | 3,926 | 7,010 | 1,954 |
| TOTAL LIABILITIES AND EQUITY | 899,965 | 934,514 | 869,637 | 844,812 | 663,381 |

Profit and loss account

| <i>SEK million</i> | 2019 | 2018 | 2017 | 2016 | 2015 |
|--|---------------|--------------|--------------|--------------|--------------|
| Interest income | 11,369 | 8,147 | 6,015 | 5,829 | 4,936 |
| Interest expense | -4,455 | -4,622 | -3,091 | -2,431 | -2,164 |
| Net result of financial transactions and write-downs | 19,522 | 460 | 321 | 4,152 | -45 |
| Fees and commissions income | 98 | 86 | 79 | 53 | 53 |
| Fees and commissions expenses | -18 | -19 | -24 | -17 | -18 |
| Dividends received | 55 | 51 | 62 | 44 | 45 |
| Other income | 56 | 275 | 1 427 | 293 | 34 |
| Total net income | 26,627 | 4,378 | 4,789 | 7,923 | 2,841 |
| Staff costs | -442 | -414 | -403 | -403 | -379 |
| Administrative expenses | -431 | -362 | -385 | -368 | -338 |
| Depreciation of tangible and intangible fixed assets | -78 | -67 | -61 | -54 | -51 |
| Banknote and coin expenses | -25 | -13 | -14 | -88 | -119 |
| Total expenses | -976 | -856 | -863 | -913 | -887 |
| Result for the year | 25,651 | 3,522 | 3,926 | 7,010 | 1,954 |

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 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 control

The Executive Board has assessed whether the Riksbank's internal control in 2019 has met the requirements in the Sveriges Riksbank Act and its conclusion is that the internal control has been satisfactory for the period covered by the Annual Report.

Stockholm, 13 February 2020

Stefan Ingves
Governor

Cecilia Skingsley
First Deputy Governor

Anna Breman
Deputy Governor

Martin Flodén
Deputy Governor

Per Jansson
Deputy Governor

Henry Ohlsson
Deputy Governor

ANNEX 1

The departments of the Riksbank and their tasks

Payments Department

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 also coordinates crisis preparedness in the central payment system, work that was concentrated into its own division in 2019. The department has the task of following up on developments on the payment market and coordinating the analysis of payment issues.

Financial Stability Department

The Financial Stability Department is responsible for analysing the stability and efficiency of the financial system. It provides a basis for decisions made to fulfil the task of promoting a safe and efficient payment mechanism. 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

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.

Monetary Policy Department

The Monetary Policy Department is responsible for the economic analysis that provides 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

The Corporate Services Department is responsible for the Riksbank's work on IT support, personnel development and recruitment, procurement support, office and property services, transport, security, budget documentation, and bookkeeping and payroll administration.

General Secretariat

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 General Secretariat coordinates the Riksbank's communications work, work on operational and financial risks, and some interdepartmental development projects such as the development of the e-krona pilot. The department also contains functions for data protection, regulatory compliance assurance, information security, business continuity coordination and legal support.

Internal Audit Department

The Internal Audit Department examines and assesses whether risk management and the governance and management processes fulfil their purpose with regard to the objectives established for the Riksbank's activities. The department also contributes to the effectiveness and improvement of these activities.

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 the head of department includes providing background information for assessing whether a consultation response should be decided by the Executive Board or the head of department. If the response is to be decided by the Executive Board, the head of department shall present a draft consultation response to the Executive Board. Responsibility for overall coordination and administration of consultation work lies with the General Secretariat.

In 2019, the Riksbank provided over 14 consultation responses in total, concerning, among other matters, supervision in the financial area 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 two consultation responses of particular importance:

- Finansinspektionen's requirement for liquidity coverage ratios in individual currencies and diversification of covered bonds in the liquidity buffer
- a secure state ID card using e-identification (SOU 2019:14).

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

ANNEX 3

The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2019

The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel for 2019 was awarded to Abhijit Banerjee, Esther Duflo and Michael Kremer for their experimental approach to alleviating global poverty. In just two decades, their research methods have become leading among emerging market economies, at the same time as they have transformed the area into a major field of research.

Abhijit Banerjee was born in 1961 in Mumbai, India, and is currently a professor at Massachusetts Institute of Technology in Cambridge, USA. Esther Duflo was born in 1972 in Paris, France, and is also a professor at Massachusetts Institute of Technology. Michael Kremer was born in 1964 in New York, USA, and is a professor at Harvard University in Cambridge, USA.

In order to mark the year's Economics prize, the Riksbank hosted Nobel Calling, a seminar for the general public in cooperation with the Nobel Prize Museum, on 14 October. Visitors 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 Ohlsson participated on behalf of the Riksbank.

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 2019, the prize money amounted to SEK 9 million. This money is paid by the Riksbank. If there is more than one winner, the prize amount is shared equally between them.

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.

ANNEX 4

Glossary

Activation of fixed assets

The stage at which expenses for a fixed asset are recorded as an asset in the balance sheet and are written off over their economic life.

Balance of payments

Statistical report of a country's economic transactions with the rest of the world. Consists of the current account, capital account and financial account. The total is always zero, i.e. the payments are in balance.

Banknotes and coins in circulation

The total amount of banknotes and coins actually in circulation in society outside the Riksbank. A decrease in this amount 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 liabilities item in Swedish kronor to the Riksbank's counterparties (deposits via fine-tuning transactions or Riksbank Certificates) increases to a corresponding degree.

Basel Committee

Global forum for cooperation on issues relating to bank supervision for supervisory authorities and central banks responsible for financial stability work.

Basel III

International regulatory framework for financial institutions that mainly regulates banks' capital adequacy, i.e. how much capital a bank must hold in relation to the risk it takes, and the way they manage liquidity.

BIS, Bank for International Settlements

Coordinating body for central banks with its headquarters in Basel.

Bond

An ongoing fixed-interest debt instrument that can be issued by a government, municipality, credit market company, mortgage institution, large company etc. A bond has a maturity of at least one year.

Cash Handling Advisory Board

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. The Board is intended to serve as a forum for discussing issues concerning cash management in society.

CCP, central counterparty

Financial company that acts as an intermediary in financial transactions and assumes responsibility for ensuring that commitments are fulfilled.

Contingent assets

Possible assets dependent on whether one or more uncertain future events outside the Riksbank's control occur or not.

Covered bonds

Bonds in which the bond holder has collateral in certain assets.

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

See CPI. Unlike the CPI, the CPIF is not directly affected by changes in mortgage rates.

CPMI, Committee on Payments and Market Infrastructures

A committee within the Bank for International Settlements (BIS) that was previously known as the Committee on Payment and Settlement Systems (CPSS).

Currency swaps

See Swap agreement.

Decision by circulation

A decision taken without the Executive Board having been convened. 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

See Standing facilities.

Derivative instruments

Financial instruments that entail agreements on commitments or rights at a given future point in time. The value of a derivative instrument is linked to an underlying asset. The most common derivative instruments are options, futures and swaps.

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 future payments.

EBA, European Banking Authority

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

ECB General Council

Consultative body within the European System of Central Banks (ECBS) consisting of the governors of all the EU central banks as well as the President and Vice President of the ECB.

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.

Ecofin Council

The Ecofin Council consists of the economic and finance ministers of all EU countries and is responsible for economic policy, tax issues, 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. Monitors, among other things, economic and financial developments in the EU and the euro area.

ESCB, the European System of Central Banks

Forum for cooperation between the ECB and the national central banks in all the EU Member States.

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 holds registers of almost all shares and fixed-income securities denominated in Swedish kronor traded in the Swedish financial markets. Also performs clearing and settlement of transactions with Swedish shares and debt securities.

Eurosystem

The Eurosystem consists of the ECB and the national central banks in the EU Member States that have the euro as currency.

Extraordinary measures

Measures taken by the Riksbank, for example during the financial crisis, to help the banks gain access to liquidity, get the money market to function well and strengthen the impact of monetary policy on the economy.

Financial markets

Collective term for the 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

A discussion forum for matters of financial stability. Representatives of the Government, Finansinspektionen, the Swedish National Debt Office and the Riksbank participate in the Council. The Council meets regularly and discusses questions of financial stability and how imbalances can be counteracted.

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.

Fine-tuning transactions

See the section Balance sheet and profit and loss account, note 14.

FSB, Financial Stability Board

International committee that coordinates the work of national authorities and international regulatory bodies in the field of financial stability.

GDP, Gross Domestic Product

The value of all goods and services produced in a country to be used for consumption, exports and investment during a period, usually one year or one quarter. GDP per capita is GDP divided by the number of inhabitants in the country.

IMF, International Monetary Fund

International organisation that works to ensure the stability of the global financial system and to prevent international financial crises. Monitors and analyses the economic development of the 189 member countries, provides technical assistance and lends money to countries carrying out economic adjustment programmes.

IMFC, International Monetary and Financial Committee

The International Monetary and Financial Committee consists of one representative from each country or constituency in the IMF's board (24 in total). The Committee meets twice a year, when it adopts a communiqué which, in practice (but not formally), establishes the main focus of the IMF's work in the short and medium term.

Inflation

General price increases that lead to a reduction in the value of money, a situation when fewer goods and services can be bought for the same amount of money. Inflation is measured as the change in the CPI and CPIF, for example.

In-house development

Something developed by the Riksbank.

Interest rate swap

See Swap agreement.

Liquidity

Measure of the ability of a company or organisation to meet its payment obligations in the short term. Also a measure of the amount of assets that can be converted into money without delay and how quickly it is possible to convert the assets into money.

Marginal lending facility

See Standing facilities.

Medieakademin

Cooperation project between Göteborgs-Posten newspaper, the University of Gothenburg, Forsman & Bodenfors and TNS Gallup (formerly NFO Infratest) that investigates 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 influence the development of the economy and to maintain price stability.

Monetary policy operations

The operations and standing facilities that the Riksbank uses to steer the overnight rate, the shortest market rate on the money market.

NBMF, Nordic-Baltic Macroprudential Forum

An informal group consisting of central bank governors and heads of supervisory authorities in the Nordic and Baltic regions. Meets twice a year. Risks to financial stability, and macroprudential measures for managing risks, are discussed.

NBSG, Nordic-Baltic Stability Group

A cooperation between the ministries of finance, central banks and supervisory and resolution authorities in the Nordic and Baltic countries. Meets once a year. Focus is on crisis management issues, including regular crisis exercises.

Net interest income

Interest income from lending less interest expenditure for funding and deposits.

NPL

Stands for non-performing loans, and refers to loans for which the borrower has ceased to pay the contractual interest or loan amortisation. In most countries, a loan is classed as non-performing if payment is 90 days past due. See also problem loans (below).

Policy rates

Interest rates that a central bank sets for monetary policy purposes.

Price stability

Condition where the prices of goods and services increase only moderately or not at all. The price stability objective is defined as an increase in the CPIF of 2 per cent.

Problem loans

An umbrella term for loans with an elevated probability of credit losses. An example of one type of problem loan is that classed as NPL (see above).

Provision

The reservation of amounts in the accounts for future costs.

PSD2

The second payment services directive (PSD2) is a European framework for the regulation of payment services in the EU/EEA single market. The purpose of the directive includes increasing security in payments, strengthening competition in the field of payment services and promoting innovation in payment services.

Repo rate

The Riksbank's most important policy rate. The Riksbank normally issues Riksbank Certificates at the repo rate every week.

Repo rate path

The Riksbank's forecast for the repo rate.

Retail payments council

The Riksbank has established the retail payments council for the purpose of promoting the functioning of the Swedish market for payment services. The council is a forum for consultation and dialogue and its chairperson is First Deputy Governor Cecilia Skingsley. Members include both public authorities and private actors.

Riksbank Certificates

See the section Balance sheet and profit and loss account, note 16.

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.

Settlement

Final regulation of debt when money or securities are transferred from one party to another, usually payment from one account to another.

Staff memo

Publications for civil servants that include more detailed analyses of issues that are relevant to the Riksbank. These publications are to be free of policy conclusions and individual stances on current policy issues.

Standing facilities

Banks and certain other financial participants may borrow money from or deposit money with the Riksbank overnight. The interest the counterparty gets when it deposits money with the Riksbank overnight is known as the Riksbank's deposit rate. Correspondingly, the counterparty pays the Riksbank's lending rate if the bank borrows funds from the Riksbank overnight.

Statistics Sweden

Central administrative agency for official statistics and other government statistics in Sweden.

Stress test

Analysis of different scenarios to assess the resilience of banks, for example, to unexpected and negative events.

Swap agreement

Bilateral agreement to exchange a specific currency or interest rate in return for another currency or interest rate for a predetermined period according to specific conditions.

Swift, Society for Worldwide Interbank Financial Telecommunication

A Belgian member-owned firm that provides a global network for the secure transfer of financial messages, such as payment instructions, between financial entities worldwide. SWIFT also promotes the standardisation of financial messages. SWIFT has over 11,000 participants in over 200 countries.

Too-Big-To-Fail (TBTF)

The term Too-Big-To-Fail (TBTF) is closely linked to systemic importance. When a bank is TBTF, this means that the bank cannot fail without there being very serious consequences for the economy. There may be expectations on the market that the state will be forced to intervene and save such banks if they suffer problems. The consequences may be that the bank may be willing to take greater risks than otherwise would have been the case and that the bank's risk is not priced correctly.

Transmission mechanism

The process through which monetary policy affects inflation and the economy in general. The process includes interest rate, credit and exchange rate channels.