

Annual report

2016





The new 1-krona coin features King Carl XVI Gustaf's portrait in profile on the obverse. The reverse bears an illustration of a stylised solar corona.



The new 2-krona coin features King Carl XVI Gustaf's portrait in profile on the obverse. The reverse bears an illustration of a stylised whirlwind.



The new 5-krona coin features King Carl XVI Gustaf's monogram on the obverse. The reverse bears an illustration of stylised waves.



The obverse of the 100-krona banknote bears a portrait of the actress Greta Garbo (1905–1990), who is considered one of the greatest Hollywood film stars of the 1920s and 1930s. She made 27 films. The portrait was engraved after a photograph by the US photographer Clarence Sinclair Bull. On the reverse, we see a motif depicting Stockholm, where Greta Garbo grew up.



The 500-krona banknote's obverse bears a portrait of the opera singer Birgit Nilsson (1918–2005), known as the leading Wagnerian soprano of her day with a successful career that spanned the world. The portrait was engraved after a photograph by Enar Merkel Rydberg, which shows Birgit Nilsson in the role of Brünnhilde in Wagner's opera Die Walküre. On the reverse, we see a motif depicting Skåne, where Birgit Nilsson grew up.

Cover picture: In October 2016, the Riksbank began to issue new 1-krona, 2-krona and 5-krona coins. The new coins are smaller and lighter than the older coins and are nickel-free. The coin changeover is expected to lead to more efficient cash management and reduced environmental impact.

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Annual report of the General Council

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

As of 14 October 2014, the General Council consists of the following members: Susanne Eberstein (Chairperson), Michael Lundholm (Vice Chairperson), Hans Hoff, Peter Egardt, Caroline Helmersson Olsson, Olle Felten (as of 11 January 2017), Hans Birger Ekström, Anders Karlsson, Roger Tiefensee, Agneta Börjesson and Chris Heister. The deputy members are Catharina Bråkenhielm, Elisabeth Björnsdotter Rahm, Tommy Waidelich, Oskar Öholm, Ann-Kristine Johansson, Mikael Eskilandersson (as of 11 January 2017), Carl B Hamilton, ClasGöran Carlsson, Karin Nilsson, Esabelle Dingizian (as of 2 December 2014) and Stefan Attefall.

The General Council's tasks

The General Council appoints the members of the Executive Board and decides on their salaries and other terms of employment. The General Council adopts the Riksbank's Rules of Procedure, which specify the Riksbank's overall organisation and the 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 from 1997/98 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. One of the ways the General Council can perform its supervisory role is through the Chairperson and Vice Chairperson attending the Executive Board meetings. The Chairperson and Vice Chairperson also have the right to speak at these 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 a procured consultant.

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 government amendments to statutes or other central government measures.

The Chairperson and Vice Chairperson submit a report on

the General Council's work to the Riksdag Committee on Finance. This usually takes place twice a year.

The General Council's activities in 2016

During the year, the General Council held nine meetings.

At its meeting on 10 June 2016, the General Council decided to extend the mandate for Per Jansson as member of the Executive Board for a further five years, with effect from 1 January 2017.

The General Council made decisions during the year on the terms of employment and external assignments of the members of the Executive Board.

Banknotes and coins

Over the year, the General Council received regular information on the current work on the new Swedish banknote and coin series and on the withdrawal of invalid banknotes. The chairperson of the General Council received attention during the introduction of the new 100-krona and 500-krona banknotes in October, as the first woman in Sweden to have her signature on the banknotes.

In connection with issues linked to the banknote and coin changeover, the question of the banks' responsibility for cash and the general public's possibilities for depositing cash has been addressed on a number of occasions. This was due to the general public's concerns about being able to use its cash.

The Drafting Committee for the Design of Banknotes and Coins discussed the question of whether the Riksbank's role in Swedish banknote and coin history should be marked in some way in connection with the Riksbank having been Sweden's central bank for 350 years in 2018. The Committee's proposal was that a commemorative banknote, in the form of a 100-krona note, should be issued in connection with the anniversary. This proposal was presented to and discussed with the Executive Board. Ultimately, the Executive Board decided not to issue a commemorative banknote, but instead to produce a folder with a presentation of the Riksbank's banknote history.

The Drafting Committee consisted of six members of the General Council. The State Herald of Sweden, the Head of the Royal Coin Cabinet and one representative each from the National Museum of Fine Arts and the Royal Swedish Academy of Fine Arts were invited to participate in the Committee as experts. The group was headed by General Council member Peter Egardt.

Consultation responses

At its meeting in March, the General Council decided to present its own consultation response on the payment ser-



The General Council of the Riksbank's Chairperson Susanne Eberstein and Vice Chairperson Michael Lundholm.

vices inquiry's interim report on Directive 2014/92/EU on the comparability of fees related to payment accounts, payment account switching and access to payment accounts with basic features. The General Council welcomed that implementing this directive would give good opportunity to achieve a better balance between supply and demand for certain essential payment services, in particular the deposit and withdrawal of cash. The General Council also shared the more in-depth comments on the contents of the report, which were presented in a separate response from the Executive Board.

In March, the General Council also decided to present its own consultation response regarding the Riksdag Committee on Finance's review of the Riksbank's monetary policy 2010–2015 (Goodfriend and King) on the parts that concern the General Council's area of responsibility. In its comments, the General Council welcomed the generally positive opinions expressed regarding the Riksbank's work on monetary policy and financial stability, as well as the recommendation for a review of the Sveriges Riksbank Act. The General Council drew attention in particular to it being important to review the Riksbank's financial stability activities and the role distribution between the Government, the Riksbank, Finansinspektionen (the Swedish financial supervisory authority) and the Swedish National Debt Office. In connection with the General Council's discussion of the consultation response, they were informed of the contents of the Executive Board's consultation response.

Riksbankens Jubileumsfond

The General Council decided in April to nominate, as replacement for Hans Mertzig, Jan Häggström as member of the Board of Directors of Riksbankens Jubileumsfond for the remainder of the mandate period, until 31 October 2016. The Riksdag decided in accordance with this proposal on 20 April.

At its meeting in August, the General Council decided to nominate Jan Häggström as member of the Board of Directors of the foundation for the coming mandate period

1 November 2016 to 31 October 2020. The Riksdag decided on 26 October in accordance with this proposal.

Consultation with the Executive Board

The Executive Board consulted with the General Council on two occasions regarding three submissions to the Riksdag concerning loans to the International Monetary Fund (IMF).

Further, the Executive Board consulted with the General Council on two submissions to the Government, one concerning the modernisation of older legal acts that affect the Riksbank's crisis preparedness and one concerning statistics.

Follow-up of the work of the Executive Board

Part of the General Council's control was exercised in that the Chairperson and Vice Chairperson of the General Council followed the work of the Executive Board during the year, for example by attending all the meetings of the Executive Board and a number of informal meetings.

The members of the Executive Board normally participated in the General Council meetings and regularly contributed accounts of important decisions and events in the Riksbank's activities. For example, they described current monetary policy and the work of overseeing the stability of the financial system. There has been particular focus on information on the Executive Board's measures to reach the inflation target. The Executive Board also provided information on the state of the financial markets, in Sweden, in Europe and globally. At the General Council's meeting in August, the Executive Board reported on the Riksdag's processing of the review of the Riksbank's monetary policy 2010–2015 and the proposal to review the Sveriges Riksbank Act. The Executive Board also informed the Council of the continued internal work on related issues.

Furthermore, the General Council received regular information on the follow-up of the Riksbank's budget and business plan, on the follow-up of financial and operational risks and



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Chairperson
Member of the Riksdag
Judge, Administrative Court of Appeal



Michael Lundholm (M)
Vice Chairperson
Professor Stockholm University



Hans Hoff (S)
Member of the Riksdag
Ombudsman



Peter Egardt (M)
Chairman, Swedish National Space Board and Swedish National Defence College



Caroline Helmersson Olsson (S)
Member of the Riksdag
Ombudsman
Assistant nurse



Olle Felten (SD)
Member of the Riksdag



Hans Birger Ekström (M)
General Secretary
Moderate Party
Parliamentary Secretariat



Anders Karlsson (S)
Former Member of the Riksdag



Roger Tiefensee (C)
Former Member of the Riksdag
Environmental economist



Agneta Börjesson (MP)
Member of the Riksdag
Master of Engineering



Chris Heister (M)
County Governor
Stockholm County
Former Member of the Riksdag

the results of asset management, on the outcome of activities in other respects and on the activities of the internal audit department.

Moreover, the General Council received information on the consultation responses decided on by the Executive Board during the year.

The Executive Board provided regular information on important international meetings and on important discussions within various international bodies. Furthermore, the General Council received regular information on the Riksbank's commitments to the IMF. The General Council was also given information on current discussions of a reform of the board of directors at the Bank for International Settlements (BIS).

The General Council received regular information updates on the preparation work for the Riksbank's 350th anniversary in 2018.

To gain supplementary information, the General Council participated in theme lunches at which the Executive Board provided more in-depth information on various current operational matters. The themes discussed were the Riksdag Committee on Finance's review of the Riksbank's monetary policy 2010–2015, the Riksbank's investment policy, the economic situation in the euro area and the rest of the world, the Riksbank's discussions on target variables and intervals in the monetary policy strategy, the results of the Riksbank's target group analysis and questions concerning payments and the cash market.

The General Council's examination of the Riksbank's activities

The General Council examines the Riksbank's activities through its audit function. KPMG AB undertook this assignment on behalf of the General Council until 31 March 2016. Following the procurement of a new consultant the assignment will be carried out during the period 1 April 2016 to 31 March 2018 by Transcendent Group AB.

The General Council annually establishes a plan for the audit function's work. During the first quarter of 2016, KPMG reported on its examination of the exercise of duties and of the banknote changeover. The audit plan for 2016/2017 includes, apart from the annually-recurring examination of compliance, including the Executive Board's exercise of its duties, an examination of the lines of defence and of personal protection. The two latter examinations will be made during the first quarter of 2017.

The General Council was also informed about the Swedish National Audit Office's annual examination of the Riksbank's activities. The Swedish National Audit Office reports the results of its audit to the General Council ahead of and in conjunction with the General Council's decision on its proposal for the allocation of profits, as well as when the Swedish National Audit Office has completed its audit.

Proposal for the allocation of profits for 2016

When reviewing the Riksbank's management for the year 2015 (2015/16:FiU23), the Riksdag approved the proposal put forward by the General Council that the allocation of net income for the year should be based on the 1988 principle for the allocation of net income with the supplements to the principle made since then. The principle implies in brief that 80 per cent of the past five years' average profit, excluding the exchange rate and gold value effects, but including the price effects reported in the revaluation account on the balance sheet, shall be transferred to the Treasury. The exchange rate and gold value effects and normally 10 per cent of adjusted average profit shall be transferred to or from the contingency fund. The amount remaining after this shall be transferred to or from the balancing fund.

The General Council applies the same basis for calculation for 2016. The General Council also proposes that the Riksbank shall be authorised to finance external research-related activities for an amount of SEK 60 million. The motives for this allocation are presented in Annex 1.

In accordance with Chapter 10, Article 3 of the Sveriges Riksbank Act (1988:1385), the General Council has received a report for the 2016 financial year from the Executive Board. The General Council notes that the Riksbank reports a profit of SEK 7,010 million for 2016. In accordance with the 1988 principle for the allocation of profits and the supplements to this, the following adjustments are made to the accounting profit when calculating the result used as a basis for the transfer:

- The reported result has been positively affected by an exchange rate gain of SEK 3,456 million. This profit is excluded from the calculation.
- The accounting profit was not affected by any gold value effect and therefore no adjustment was made for such an effect.
- A price profit of SEK 5,297 million was recorded as a price effect decrease in the revaluation account on the balance sheet. The General Council has included this gain when calculating the allocation of the net income.

In accordance with the account below, the General Council proposes a transfer to the Treasury of SEK 2,500 million.

The foreign exchange gain is transferred to the contingency fund. In addition, 10 per cent of the adjusted average profit is transferred there. As the proposed transfer and reversal to the contingency fund is lower than the accounting profit,

it is proposed that the remaining SEK 737 million be transferred to the balancing fund. The basis used for calculating the proposal for the allocation of net income is presented in Annex 2.

In conjunction with its annual examination of the Riksbank's annual report, the National Audit Office has also examined the proposed allocation of profit, even though the National Audit Office has no obligation to comment in the proposal itself. The National Audit Office has not noted any deviations from the previously applied principle for the allocation of profit.

Profit for 2016 amounts to SEK 7,010 million. The General Council decided, on 10 February 2017, to submit the following proposal for the allocation of the Riksbank's profits:

- SEK 2,500 million will be transferred to the Treasury.
- SEK 3,773 million will be transferred to the Riksbank's contingency fund.
- SEK 737 million will be transferred to the Riksbank's balancing fund.

The General Council further proposes that the Riksbank shall be authorised to finance external research-related activities for an amount of SEK 60 million. This financing shall be deducted from the transfer proposed by the General Council. The net transfer to the Treasury is therefore proposed to be SEK 2,440 million.

The General Council also proposes that the transfer should be made no later than one week after the Riksdag's decision, most appropriately in connection with the Riksbank's implementation of the weekly open market operation.

Stockholm, 10 February 2017

Susanne Eberstein
Chairperson

1. FUNDING OF EXTERNAL RESEARCH-RELATED ACTIVITIES

Background

The Riksbank's skills provision is dependent on a continuous supply of well-educated people with research training and university degrees from Swedish higher education institutes. It is particularly important that basic education, research training and research are carried out in areas that cover or are close to the Riksbank's two core areas, namely monetary policy and financial stability, the latter is normally known in the university sphere as the banking system and financial markets. At present, Swedish basic education in economics can be said to be satisfactory. However, within the Riksbank's core areas there are not sufficient people with cutting-edge expertise who can supervise PhD students, even if good research in these areas is conducted at Swedish universities.

Considerations

Funding of external research-related activities

The supply of qualified researchers in the Riksbank's core areas needs to be replenished. One means of meeting this need is to establish two professorships – one for each research area. Such a decision would entail several positive effects. Firstly, the professorships would benefit both of the research area's presences in Swedish social science research, research training and basic education. Secondly, the professorships would in the long run increase the number of prospective Riksbank employees with relevant skills profiles. A third argument in favour of creating these professorships is that they would lead to a general raising of the skills within the Riksbank's two core areas among people with research training in Sweden.

The two areas of research are strongly connected to the Riksbank's activities. Given this, and the advantages described above, it is proposed that the Riksbank is given the right to participate in creating and funding two professorships. The funding need not only concern professorships. As the purpose of the funding is to increase the number of PhDs, it may be appropriate to supplement the professorships with doctoral posts within the framework of the proposed funding amount. In both cases, it is a question of external Riksbank research-related activities, which includes some educational element.

The Riksbank assesses that it is reasonable to limit the funding to a certain time period. For reasons of principle, this type of funding should only in exceptional cases be

made permanent. However, the funding period should not be too short, as this might prevent suitable candidates from applying for the intended posts. The Riksbank assesses that an appropriate funding period would be twelve years. This time period should therefore form the basis for the maximum amount the Riksbank shall allocate within the framework of this submission. Taking into account the calculated market salaries and administrative costs the funding programme can be assumed to entail, the size of the total amount should not exceed SEK 60 million. It is then assumed that the funding will be spread as evenly as possible over the twelve years.

Need for a Riksdag decision

Pursuant to Chapter 1, Article 1 of the Sveriges Riksbank Act (1988:1385), the Riksbank may only conduct, or participate in, such activities for which it has been authorised by Swedish law. The funding of external research-related activities lies outside of the Riksbank's main objectives and reduces the scope for transfer of surplus funds to the Treasury. As it is the Riksdag that pursuant to Chapter 10, Article 4, first paragraph of the Sveriges Riksbank Act determines how the Riksbank's profits shall be allocated, the Riksdag should approve the funding programme now being proposed.

In Article 123 of the Treaty on the Functioning of the European Union and the Council Regulation (EC) No. 3603/93 of 13 December 1993, there are provisions that forbid central banks to fund member states, what is known as monetary financing. An external research funding along the lines of the proposal may be regarded as financing the public sector's commitments to a third party and could thereby entail prohibited monetary financing. However, the national central banks within the EU have the right to pay dividends to the state in accordance with special national regulations without this coming into conflict with the ban. The Riksbank has long applied a special model for calculating the profits the bank annually transfers to the state. For a research programme to be compatible with the provisions on monetary financing, the costs for the programme should be deducted from the dividend paid to the state at the next allocation of profits decision.

The Riksbank's internal financing of the proposal

The Riksbank has long conducted its own research activities. In addition, the Riksbank defrays the cost of some external research commissioned within the scope of the

bank's core business, which is comparable with internal research activities. The Executive Board of the Riksbank has explained that it intends as far as possible to adapt the budgetary scope for these activities, taking into account the costs of the intended financing programme.

The Riksbank's 350th anniversary

The Riksbank is intending to mark its 350th anniversary in 2018 with a number of activities. These will be aimed at several different target groups, regionally and nationally. The overall aim is to make use of the anniversary to create an active dialogue on the tasks of central banks and future challenges for the economy. A decision to finance external, research-related activities within the Riksbank's core areas lies, as mentioned earlier, outside of the Riksbank's normal activities. Given the nature of the case, there is reason to link the decision to the Riksbank's anniversary in line with the establishment of the Riksbankens Jubileumsfond and the Riksbank's Prize in Economic Sciences in Memory of Alfred Nobel, both of which occurred in connection with the bank's 300th anniversary.

Other administrative matters and issues of principle

Regardless of the length of the financing programme and its total costs, the question of financing external research contains several sub-areas regarding issues of principle and administrative matters. The issues of principle concern, for instance, whether the Riksbank shall have the possibility to influence the work of the professors and doctoral students without infringing on their research independence. Another question of central importance is how the process of appointing the professors shall be designed with regard to authorisation, right to make suggestions and referral procedures. One possible solution is that the appointment procedures are entrusted to one or more universities. In this case, it must be decided how these universities will be chosen. A further assessment that needs to be made is whether the Riksbank, or a representative appointed by the Riksbank,

shall have influence over the decision to appoint the professors and doctoral candidates and over their conditions of service. The Riksbank's influence over the professors' working conditions also needs consideration.

Other more administrative questions concern, for instance, the drawing up of the financing agreement, the responsibility for appointing the professors, the length of the professorships and other conditions of employment, as well as examining and following up the day-to-day decisions that will be a consequence of establishing the professorships.

These questions require continued investigation work. To make use of the research administration experience in the Riksbankens Jubileumsfond foundation, the bank is considering designing and implementing the intended financing programme in cooperation with the Jubileumsfond.

The Riksbank assesses that the aspects now mentioned and other questions concerning the practical introduction of the financing programme will not require a stance by the Riksdag.

Financing period and evaluation

The Riksbank considers that the financing period should run over twelve years. The amount that the Riksbank proposes should be allocated to the programme is a maximum of SEK 60 million. This means that the Riksbank can decide, within the scope of the agreements made, to limit the programme if the bank assesses this to be appropriate with regard to the usefulness the allocations entail or are expected to entail. The proposal also means that the programme could be longer than twelve years if the amount allocated has not been used during this period.

The Riksbank intends to make an evaluation of the programme after around six years. An evaluation should also be reported after around ten years. In this way the Riksbank can – if there is still a need – in good time before the allocated funds have been used up, request that the Riksdag allocates further funds for a new financing period.

2. CALCULATION OF THE RIKSBANK'S ALLOCATION OF PROFIT 2016

SEK million

1 CALCULATION OF THE RIKSBANK'S TRANSFER TO THE TREASURY

Adjustment of the year's profit

Profit for 2016	7 010
Less exchange gain	-3 456
Plus price gain recorded on the balance sheet	5 297

Adjusted profit 2016 **8 851**

Calculation of average adjusted profit

Adjusted profit 2012	2 985
Adjusted profit 2013	-3 392
Adjusted profit 2014	9 019
Adjusted profit 2015	-1 588
Adjusted profit 2016	8 851

Total adjusted profit for the past five years **15 875**

Average adjusted profit for the past five years **3 175**

Calculation of transfer amount

80% of the average adjusted profit	2 540
Rounding off to SEK 100 millions	-40

Transfer 2016 **2 500**

2 CALCULATION OF TRANSFER TO THE RIKSBANK'S CONTINGENCY FUND

Transfer to the Riksbank's contingency fund

Exchange gain	3 456
10% of the average adjusted profit	317

Total **3 773**

3 CALCULATION OF TRANSFER TO THE RIKSBANK'S BALANCING FUND

Transfer to the Riksbank's balancing fund

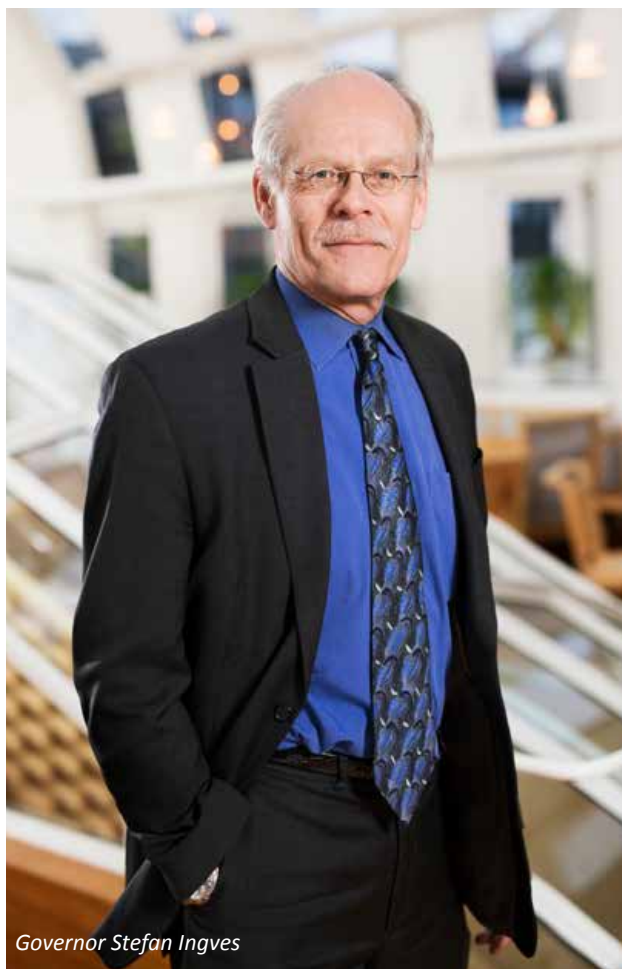
10% of the average adjusted profit	318
Price gain recorded on the balance sheet	-5 297
Rounding off of transfer	40
Adjusted profit less average profit	5 676

Total **737**

Annual Report for Sveriges Riksbank 2016



Statement by the Governor



Governor Stefan Ingves

During 2016, monetary policy in Sweden has been characterised by low inflation, considerable uncertainty over international economic developments and low global interest rates. Given this, monetary policy has become increasingly expansionary to safeguard the role of the inflation target as nominal anchor for price-setting and wage formation. At the same time, the low interest-rate environment has entailed risks, such as increased household indebtedness. The risks linked to household indebtedness need to be managed with targeted measures in macroprudential policy, housing policy and tax policy.

The cash changeover continued during the year. The withdrawal of the old banknotes functioned well, and we introduced the new 100-krona and 500-krona banknotes and the new coins. Another important issue for us was to contribute to the discussion on the role and tasks of the Riksbank, partly as a result of the Riksdag's evaluation of monetary policy 2010–2015.

More expansionary monetary policy to safeguard the inflation target

The Riksbank is currently conducting an unusual monetary policy. The repo rate, which was cut below zero for the first time in 2015, was cut further during the year and at the end of 2016 the repo rate was –0.50 per cent. The Riksbank also continued purchasing government bonds. At the end of 2016, the Riksbank had decided on purchases of government bonds in a nominal value of SEK 275 billion.

Monetary policy is being conducted against a background of considerable uncertainty over economic developments abroad. Sweden, which is a small, open economy, is affected to a large extent by events abroad. Global interest rates have fallen over the past decades, and policy rates around the world are very low. In this type of environment, and in a situation where inflation in Sweden has undershot the target over a number of years, it has been necessary to conduct an increasingly expansionary monetary policy.

The aim of the expansionary monetary policy is to push up inflation and stabilise it around the target of 2 per cent and to help keep inflation expectations in line with the inflation target. It is important to preserve confidence in the inflation target. A credible inflation target lays the foundation for efficient price-setting and wage formation and hence promotes good economic development.

The expansionary monetary policy has been a contributory factor in growth in Sweden maintaining a good level despite the weak developments abroad. During 2016, inflation measured both in terms of the CPI and the CPIF, as well as inflation expectations, approached 2 per cent.

Risks in the financial system must be managed

A low interest rate environment also entails risks. Particularly in a situation with low interest rates over a long time, there is a risk that households and companies will make decisions based on an unrealistic perception of the long-term development of interest rates. There is then a risk of inflated asset prices that may eventually need to be adjusted. Such a situation could mean that consumption and production decline and have a negative effect on the economy.

The Riksbank has for a long time now highlighted the unsustainable development on the Swedish housing market as one of the most serious risks for the Swedish economy. The problems on the housing market are essentially due to factors that are not connected to monetary policy. Supply is not able to meet demand, and a number of reforms are needed to boost construction. The tax system also needs to be reviewed to reduce households' incentives to incur debt. The conditions for mortgage borrowers in Sweden are

remarkable from an international perspective. As shown in the Riksbank's Financial Stability Reports, many households borrow at a variable interest rate, amortise to a small extent and have a high level of indebtedness. This is a development that began even before monetary policy was made very expansionary. But with very low interest rates, the risks become greater. The Riksbank has, over the course of the year, highlighted a number of possible measures to restrain the risky developments in two reports (Financial Stability Report 2016:1 and 2016:2).

Effects on the Riksbank's balance sheet

Another question is how monetary policy affects the Riksbank's balance sheet. From an economic perspective, the effect on the Riksbank's balance sheet is of relatively minor significance. But it is, of course, essential that we make clear how the negative repo rate and bond purchases affect the Riksbank's finances. The size of the Riksbank's profits and losses affect the dividends we can deliver to central government. The Riksbank also needs to have a balance sheet that does not undermine its financial independence.

The Riksbank's balance sheet has increased substantially over the past two years, which in itself increases the risks. It creates scope for both larger profits and larger losses. The Riksbank has conducted a policy that entails pushing down market rates, for instance through bond purchases. This has succeeded, and with lower market rates the value of the Riksbank's bond portfolio has also increased. But it is important to be aware that this situation will change. The Riksbank's interest-rate forecasts indicate future losses and thereby lower, and sometimes even no, dividends paid to the Treasury. At the same time, we assess that the Riksbank's financial position, despite the higher risks, is still satisfactory.

Contribution to the discussion on the role of central banks

The financial crisis and its consequences have led to an international discussion on the way the financial system works and what regulations are necessary. The Riksbank has contributed to the discussion in several ways. I myself devoted a lot of time in 2016, in my capacity as chairman of the Basel Committee on Banking Supervision, to the formulation of the new regulatory framework for banks, Basel III.

There are also discussions in many countries, in the wake of the financial crisis, on the role of the central banks. In Sweden, Professor Marvin Goodfriend and Lord Mervyn King presented their review of the Riksbank's monetary policy during the period 2010–2015, which was commissioned by the Riksdag, in January 2016. The Executive Board and

the General Council sent in their consultation responses to this review in April, and the Riksbank took part in hearings by the Committee on Finance. In addition to the evaluation, the Riksbank arranged a conference in June, to which international experts were invited to discuss the central banks' mandate. We look forward to continuing discussions during the coming year.

Cash changeover going according to plan

The banknote and coin changeover continued in 2016. The older 20, 50 and 1,000-krona banknotes became invalid after 30 June. The withdrawal was preceded by a large-scale advertising campaign to make the general public aware of which banknotes were becoming invalid. At the end of the year, 84 per cent of the value of the older 20, 50 and 1,000-krona banknotes had been handed in to the Riksbank. In October 2016, the new 100-krona and 500-krona banknotes, together with new 1, 2 and 5-krona coins were introduced. At the same time, a campaign was launched to inform the public of the second stage of the changeover.

While the cash changeover was going on, the use of cash in society declined relatively rapidly. It is clear that the Swedish payments market is undergoing a change. The Riksbank pointed out during the year that this structural transformation is positive, but that it needs to proceed at a pace that does not cause problems for certain groups or exclude anyone from the payments market. We also analysed how the future payments market might look and what role the Riksbank may play there. For instance, should the central bank issue electronic money, and if so, how? This entails analytical work that will proceed during several years.

Good working environment and investment in leadership and employeeship

The Riksbank works continuously on improving the working environment. In 2016, the Riksbank implemented a major investment in leadership and employeeship. All employees were offered a programme where they learned to coach themselves and their colleagues. The programme also provided tools to manage stress. It is my hope that our development work will strengthen the Riksbank as an organisation so that we remain an attractive workplace that will recruit and retain many competent employees.



Stefan Ingves

The year at a glance

In 2016, the Riksbank's activities were influenced by various economic outcomes and events. The bank performed its task as follows:

- Growth in the Swedish economy was relatively good despite only moderate growth abroad. According to the Riksbank's assessment in December, GDP grew by 3.4 per cent. An improved situation on the labour market, domestic consumption and housing investment contributed to the development. The number of persons in the labour force and the number of persons employed increased by 1.0 and 1.5 per cent over the year. Unemployment thereby fell gradually and averaged 6.9 in 2016, according to the Riksbank's assessment in December, which was 0.5 percentage points lower than in 2015.
- Sweden is a small, open economy that is affected by international events. Monetary policy must therefore be conducted against the backdrop of both continued major uncertainty over economic developments abroad during the year and low interest rates globally. At the same time, there were relatively substantial movements on the financial markets in 2016.
- Inflation, measured as the change in the consumer price index (CPI), amounted to 1.0 per cent as an annual average. Excluding the direct effect of the Riksbank's own cuts in the repo rate (CPIF), inflation averaged 1.4 per cent. The CPIF has seen a rising trend since 2014, although 2016 is the sixth year with an inflation rate of less than 2 per cent and there were signs during the year that the upturn in inflation was slowing.
- In order to underpin the positive development in the Swedish economy and to safeguard the upturn in inflation, the Riksbank continued to conduct an expansionary monetary policy. The Riksbank cut the repo rate from -0.35 to -0.5 per cent in February and extended its purchases of Swedish government bonds by a further SEK 75 billion during the year. By the end of the year, the Riksbank had decided to purchase government bonds to a nominal value of SEK 275 billion, excluding reinvestments. At the beginning of 2016, the Executive Board of the Riksbank also decided to heighten its contingency for currency interventions. The forecast for when the repo rate would begin to be raised was also postponed.
- The Riksbank assessed that the Swedish financial system was functioning well at the same time as the financial infrastructure was largely safe and efficient. The system for large-value payments (RIX) functioned well during the year.
- However, the Riksbank highlighted a number of vulnerabilities for financial stability during the year, including in the Swedish banking system and on the housing market. To limit the risks in the financial system, the Riksbank recommended the introduction of a leverage ratio requirement and a broadening of the current liquidity coverage ratio (LCR) requirements. In addition, the Riksbank recommended measures to deal with the rising indebtedness of Swedish households.
- The banknote and coin changeover continued in 2016. The older 20, 50 and 1,000-krona banknotes became invalid after 30 June. On 3 October, the new 100-krona and 500-krona banknotes, together with new 1, 2 and 5-krona coins were introduced. A major information campaign was conducted to keep the general public, the banks and the retail trade well informed about the changeover.

- The Riksbank reported a profit of SEK 7.0 billion. Compared with 2015, the profit increased by SEK 5.0 billion, primarily due to lower write-downs of the Riksbank's financial assets. The balance sheet total increased over the year by SEK 181.4 billion to SEK 844.8 billion, primarily due to the Riksbank's purchases of Swedish government bonds with the aim of making monetary policy more expansionary.
- The market value of the gold and foreign currency reserves, including net receivables from the International Monetary Fund (IMF), increased in 2016, from SEK 465.0 billion to SEK 513.7 billion.

Key figures	2014	2015	2016
At year-end			
Profit for the year (SEK billion)	3.3	2.0	7.0
Gold and foreign currency reserves (SEK billion)	464	465	514
Total assets (SEK billion)	502	663	845
Average number of employees	329	341	336
Repo rate (per cent)			
Repo rate (per cent)	0.00	-0.35	-0.50
Short-term interest rate (three-month T-bills, per cent)			
Short-term interest rate (three-month T-bills, per cent)	0.09	-0.46	-0.70
Long-term interest rate (ten-year government bonds, per cent)			
Long-term interest rate (ten-year government bonds, per cent)	0.92	0.99	0.54
On average			
GDP (percentage change)	2.3	4.1	3.4
Unemployment (per cent)	7.9	7.4	6.9
Inflation, CPI (percentage change)	-0.2	0.0	1.0
Inflation, CPIF (percentage change)	0.5	0.9	1.4
<small>Note: The table presents the outcome for all items with the exception of GDP and unemployment data for 2016, which are stated according to the Riksbank's forecast from December 2016. CPIF is estimated as CPI with a fixed mortgage rate.</small>			
<small>Sources: Macrobond, Statistics Sweden and the Riksbank</small>			

In accordance with Chapter 10, Article 3 of the Sveriges Riksbank Act (1988:1385), the Annual Report for Sveriges Riksbank includes an administration report, a balance sheet, a profit and loss account and a statement of internal control. 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. In its appendices, the Annual Report also reports on a number of other areas, such as the operations of the Riksbank's departments, consultation work and publications.

In accordance with Chapter 10, Article 3 of the Sveriges Riksbank Act, the Executive Board of the Riksbank submits this report of the activities of the Riksbank in 2016 to the Riksdag, the Swedish National Audit Office and the General Council of the Riksbank.

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's other main task is to promote a safe and efficient payments system.

Maintaining the value of money – price stability

Under the Sveriges Riksbank Act (1988:1385), 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 rate of increase in the consumer price index (CPI) is to be 2 per cent. The level for the inflation target was decided in 1993. A well-defined target that could comprise a clearer anchor for price-setting and wage formation was considered necessary to break the earlier pattern of high and varying inflation, and to create the conditions for a good economic development. With a target that entails some inflation rather than an unchanged price level, it is easier to stimulate the economy in a recession and to adapt real wages in the economy in a way that benefits employment and productivity growth. Moreover, 2 per cent was in line with the inflation targets of other industrial nations.

The Riksbank also describes and explains inflation and monetary policy using other inflation measures than the CPI. One important such measure is the CPIF (the CPI with a fixed mortgage rate), where inflation is adjusted for mortgage interest expenditure, which directly affects the CPI when the Riksbank adjusts the repo rate.

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. This is achieved through the Riksbank, in addition to stabilising inflation around the inflation target, also endeavouring 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. The repo rate affects other interest rates in the economy and thereby economic activity and inflation. The Riksbank can moreover apply complementary measures to make monetary policy more expansionary, such as asset purchases. Another important purpose of complementary measures may be to signal that the Riksbank is doing what is necessary to ensure that inflation expectations are compatible with the inflation target in the long run.

A safe and efficient payment mechanism – financial stability

The Sveriges Riksbank Act states that the Riksbank shall promote a safe and efficient payment system. The Act also states that the Riksbank has responsibility for the supply of cash and for providing a central payment system (RIX). A stable financial system is needed for payments and the supply of capital to function smoothly. The Riksbank, like other central banks, must therefore also safeguard financial stability by managing financial crises and other serious disruptions to the financial system.

The Riksbank does this mainly by supplying the system with liquid funds and through its continuous work on prevention and management of crises. Financial stability is moreover a necessary condition for the Riksbank to attain its statutory objective – price stability. This is because the financial markets and the way they work affect the impact of monetary policy.

Preventive work and crisis management

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. The Riksbank endeavours 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, and warning against, risks that are building up. The analysis focuses primarily on the major Swedish banking groups (Handelsbanken, Nordea, SEB and Swedbank), the functioning of the financial markets and the financial infrastructure required for payments by the public and the financial markets in Sweden to function.

The Riksbank works preventively by calling attention, in public and in dialogue with financial system participants, to risks and events that may threaten financial stability, both in Sweden and internationally. In this context, 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 also influences 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. This international cooperation is important for several reasons. The globalised financial sector needs a clear and strong regulatory framework. In addition, cooperation is also needed to make it possible to continually adjust and reinforce the forms for coordinated oversight and supervision by national authorities. Cooperation is also important as it facilitates the exchange of information, the discussion of current risks and the development of risk-prevention work.

If a financial crisis occurs, the Riksbank, Finansinspektionen, the Ministry of Finance and the National Debt Office share the responsibility for dealing with the crisis so as to minimise the economic costs. This cooperation is mainly within the Financial Stability Council. The Council is a forum for discussion and not a decision-making body. This means that the authorities represented can communicate their opinions on the issues that 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. The Council discusses issues of financial stability and possible measures to counteract the build-up of financial imbalances.

The Riksbank's crisis management can be divided into three main areas: supply of liquidity to the financial system; communication of the Riksbank's assessments and cooperation with authorities and organisations in Sweden and abroad. The supply of liquidity means that banks borrow from the Riksbank through standing facilities or temporary



There was great interest among the media ahead of the press conference on the new coins and the new 100 and 500-krona banknotes.

facilities. The Riksbank can also provide liquidity assistance to individual institutions on special terms and conditions. A more detailed description of the Riksbank's preventive work and crisis management can be found in the Riksbank's publication *The Riksbank and financial stability (2013)*.

Secure and efficient financial transfers

One way for the Riksbank to promote a safe and efficient payment mechanism is to provide the central payment system RIX that makes it easier for the market participants to make mutual financial transfers without credit or liquidity risks. RIX handles large payments between banks and other players in a safe and efficient way.

Almost all of the payments in Swedish kronor that are not made internally within an individual bank are handled in the RIX system in some form. RIX is thus of decisive importance to the efficient functioning of the Swedish financial system. Consequently, the Riksbank has set high targets for its availability and functionality. RIX is described in further detail in the section *The RIX payment system* on page 50.

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 steer short-term interest rates on the financial markets. The Riksbank itself also carries out various transactions via RIX, such as monetary policy transactions of various types, and provides credits for extraordinary situations. More information on RIX and the framework for the implementation of monetary policy can be found in the Riksbank's report *The Swedish Financial Market (2016)*.

Safe and efficient cash supply

The Riksbank's task of promoting a safe and efficient payment system also includes the exclusive right to issue banknotes and coins in Sweden and responsibility for the country's cash provision. 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.

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 inflation at a low and stable level to the Riksbank, the Riksdag has ensured that monetary policy is based on a long-term perspective and that conditions exist for perceiving the inflation target as credible.

The Riksbank's independent status is also reflected in its financial independence, guaranteed, among other things, through 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 composition of the assets must ensure the tasks can always be performed. More in-depth information on asset management can be found on page 56.

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. This 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.

The independent status of the Riksbank also places great demands on communication and the transparency of the Riksbank's activities so that these can be examined and evaluated by the general public and the Riksdag. Openness is apparent, for example, in the fact that the Riksbank publishes on its website minutes and background material from the meetings of the Executive Board, as well as detailed minutes of the monetary policy meetings. Much of the Riksbank's analysis work is also presented in report form (see Appendix 3). Moreover, the models that the Riksbank uses in its analysis work are also public.

Box 1 Review of the Sveriges Riksbank Act

In January, Professor Marvin Goodfriend and Lord Mervyn King presented a review of the Riksbank's monetary policy during the period 2010–2015. This review was commissioned by the Riksdag (Swedish Parliament) Committee on Finance and was the third external and independent evaluation of the Riksbank's monetary policy they have commissioned. The report evaluates not only monetary policy, but also touches on the Riksbank's financial stability work and the Riksbank's organisation and accountability. In total, the investigators made 15 recommendations. When the report was presented, the Committee on Finance was informed that the report would also be the starting point for a future review of the Sveriges Riksbank Act.

In April, the Executive Board of the Riksbank submitted a consultation response regarding the review. Also the General Council of the Riksbank submitted a consultation response. The Executive Board welcomed the coming review of the Sveriges Riksbank Act in its consultation response and also emphasised the importance of reviewing the area of financial stability and clarifying the Riksbank's responsibility in this field. In line with the investigators, the Executive Board also highlighted the importance of revising the organisational and legal framework for macroprudential policy and said that it should be investigated again. The Executive Board also pointed out that the investigators had highlighted a number of monetary policy questions that merit further analysis and discussion, for instance, how detailed the wording in the act should be with regard to the target for monetary policy. In addition, the Executive Board noted that there are several advantages to changing the variable for the inflation target from the CPI to the CPIF or

the HICP (the EU-harmonised index for consumer prices) and welcomed a continued discussion on this subject. The Executive Board agreed with Goodfriend and King's recommendation that monetary policy should continue to focus on attaining the inflation target and in addition give consideration to developments in the economy.

In May, the Executive Board took part in an open hearing of the Committee on Finance about the review, and Governor Stefan Ingves also took part in a closed hearing prior to the review of the Sveriges Riksbank Act.

In June, the Committee on Finance presented its report regarding the review. This entailed the Riksdag commissioning the Government to appoint a parliamentary inquiry into the framework for monetary policy in Sweden and the Sveriges Riksbank Act as soon as possible and to present proposals to the Riksdag regarding the Riksbank's financial independence at the earliest opportunity. With regard to macroprudential policy, the Committee on Finance noted that it is important that the Government presents a cohesive and clear framework as soon as possible.

In December, the Government presented the directives for the parliamentary committee. It is to analyse and assess and to propose the amendments it considers necessary with regard to monetary policy objectives and means and the Riksbank's responsibility for financial stability. The starting point is that the price stability target shall remain central and that the Riksbank shall have a high degree of independence. Mats Dillén, former Director General of the National Institute of Economic Research, will lead this work.

Organisation and management

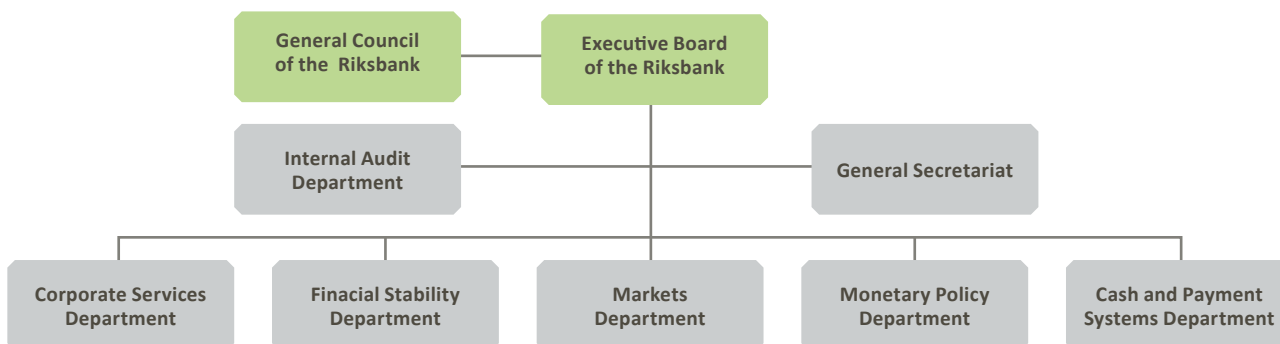
The Riksbank continued to develop its organisation and management with the aim of achieving its vision to be among the best in comparison with other organisations. No major organisational changes were carried out in 2016 and operations proceeded on the basis of the strategic plan A 350-year old at the forefront, which was adopted in 2015.

ORGANISATION

In 2016, the Riksbank consisted of seven departments (see Figure 1 and Appendix 1). Four of the departments work directly with the Riksbank's main tasks: the Monetary Policy Department, the Financial Stability Department, the Markets Department and the Cash and Payment Systems Department.

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 2016



GOVERNANCE

The Riksbank is led by an Executive Board appointed by the General Council of the Riksbank. The General Council is in turn appointed by the Riksdag, the Swedish parliament. The Executive Board holds joint responsibility for the Bank's strategic management, while the General Council, in addition to appointing the members of the Executive Board, adopts the Riksbank's Rules of Procedure and monitors operations.

The Executive Board of the Riksbank

The Executive Board of the Riksbank consists of six members with a term 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 General Council also determines salaries and other employee benefits for the members of the Executive Board.

The Executive Board's tasks

The Executive Board has a joint responsibility for the strategic management of the Riksbank and decides on the instructions for the bank. The role of the Executive Board as a strategic decision-maker means that its work focuses on central 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 makes the overall decisions on the Riksbank's activities, such as decisions on strategic objectives, its business plan and budget and how these are followed up. In accordance with the Instructions that the Executive Board has decided upon, the Governor of the Riksbank has a clear mandate to follow up activities in relation to adopted plans and the approved budget. The Governor of the Riksbank also has managerial responsibility for the heads of department, who prepare and submit proposals or background material to the Executive Board on matters that are decided there.

The Executive Board makes decisions jointly at its meetings. The Board held a total of 32 meetings during 2016, eight of which were meetings by circulation and eight of which were monetary policy meetings.

At least twice a year, the Executive Board is required to present a written report on monetary policy to the Riksdag Committee on Finance. The first of these consists of a specific report, the Account of Monetary Policy, compiled for the Riksdag Committee on Finance at the beginning of the year. The second report is presented to the Committee in the autumn, in conjunction with the publication of a Monetary Policy Report. Three open hearings are held on monetary policy per year and the Governor and one of the Deputy Governors of the Riksbank (according to a rotating schedule) participate in these hearings at the Committee on Finance. In addition to the three open monetary policy hearings, members of the Executive Board participated in one open hearing on monetary policy 2010–2015 and four closed hearings at the Committee on Finance.

The Executive Board on 31 December 2016



Stefan Ingves, term of office six years from 1 January 2012

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 and received a further term of office to lead the Executive Board of the Riksbank for another six years from 1 January 2012. Mr Ingves is a member of the General Council of the European Central Bank (ECB) and a member of the Board of Directors of the Bank for International Settlements (BIS), as well as Sweden's representative in the Board of Governors of the International Monetary Fund (IMF). He is also Chairman of the Basel Committee on Banking Supervision (BCBS), Chairman of the Advisory Technical Committee (ATC) of the European Systemic Risk Board (ESRB), Chairman of the Nordic-Baltic Macroprudential Forum (NBMF) and member of the Financial Stability Board (FSB). Mr Ingves is also a member of the Financial Stability Council. Mr Ingves holds a Ph.D. in economics and, prior to taking up the post of Governor of the Riksbank, he headed the Department for Monetary and Financial Systems at the IMF. Before that, he had been Deputy Governor of the Riksbank, Director General of the Swedish Bank Support Authority, and Under-Secretary and head of the Financial Markets Department at the Ministry of Finance.



Kerstin af Jochnick, term of office six years from 1 January 2012

Kerstin af Jochnick is First Deputy Governor of the Riksbank. She represents the Riksbank on the General Board of the ESRB and she is the Riksbank's member of the BCBS. She represented the Riksbank in the FSB's Resolution Steering Group (ReSG) until this representation was taken over by the Swedish National Debt Office in 2016. She is also the Governor of the Riksbank's alternate on the ECB General Council and chairs the Cash Handling Advisory Board. Kerstin af Jochnick is an economist. She has previously been Managing Director of the Swedish Bankers' Association, chaired the Committee of European Banking Supervisors (CEBS), and been Head of Department at Finansinspektionen. She worked at the Riksbank during the period 1977–1991.



Martin Flodén, term of office five years from 22 May 2013

Martin Flodén is Deputy Governor of the Riksbank. He represents the Riksbank in the OECD's Working Party 3 (WP3) and in the Bellagio Group. Mr Flodén is professor of economics at Stockholm University. He has previously been a member of the Economic Council of Sweden, the Swedish Fiscal Policy Council and the Swedish Centre for Business and Policy Studies' Economic Policy Group.



Per Jansson, term of office five years from 1 January 2012

Per Jansson is Deputy Governor of the Riksbank. On 10 June, the General Council decided to extend Per Jansson's mandate by five years with effect from 1 January 2017. Mr Jansson 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). Mr Jansson is an associate professor in economics and prior to taking up the post of Deputy Governor of the Riksbank he was Head of the Riksbank's Monetary Policy Department. Before that, he worked as State Secretary at the Ministry of Finance and Deputy Head of Department at the National Institute of Economic Research. He has worked at the Riksbank as Deputy Head of Department from 2003 to 2006 and as a Head of Division from 1996 to 2000.



Henry Ohlsson, term of office six years from 12 January 2015

Henry Ohlsson is Deputy Governor of the Riksbank. He represents the Riksbank on the ATC of the ESRB, on the International Relations Committee (IRC) of the ECB, and on the Regional Consultative Group (RCG) of the FSB. Mr Ohlsson is professor of economics at Uppsala University and his previous positions include Chair of the Economic Council of Swedish Industry, member of the board of the Swedish Public Employment Service and chairman of the Economic Council for the Manufacturing Industry.



Cecilia Skingsley, term of office six years from 22 May 2013

Cecilia Skingsley is Deputy Governor of the Riksbank. She represents the Riksbank on the Committee on the Global Financial System (CGFS) and on the Euro Retail Payments Board (ERP). She is also the Governor of the Riksbank's alternate on the Board of Directors of the BIS and chairs the retail payments council. In October 2016, Ms Skingsley was appointed to co-chair the World Economic Forum's working group Global Future Council on the Future of Financial and Monetary Systems. Ms Skingsley has a BSc in economics and a financial analyst diploma. She was previously Chief Economist at Swedbank and has also worked at Dagens industri, ABN Amro Bank and the Ministry of Finance.

The General Council of the Riksbank

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

The General Council consists of the following members: Susanne Eberstein (Chairperson), Michael Lundholm (Vice Chairperson), Hans Hoff, Peter Egardt, Caroline Helmersson Olsson, Olle Felten, Hans Birger Ekström, Anders Karlsson, Roger Tiefensee, Agneta Börjesson and Chris Heister. The deputy members are Catharina Bråkenhielm, Elisabeth Björnsdotter Rahm, Tommy Waidelich, Oskar Öholm, Ann-Kristine Johansson, Mikael Eskilandersson, Carl B Hamilton, ClasGöran Carlsson, Karin Nilsson, Esabelle Dingizian and Stefan Attefall.

The General Council's tasks

The General Council appoints the members of the Executive Board and decides on their salaries and other terms of employment. The General Council adopts the Riksbank's Rules of Procedure, which specify the Riksbank's overall organisation and the 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 from 1997/98 to amendments to the Sveriges Riksbank Act, 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. One of the ways the General Council can perform its supervisory role is through the Chairperson and Vice Chairperson attending the Executive Board meetings. The Chairperson and Vice Chairperson also have the right to speak at these 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 a procured consultant.

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 government amendments to statutes or other central government measures.

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

During the year, the General Council held nine meetings.

An account of the General Council's activities is presented in the General Council's submission to the Riksdag 2016/17:RB2 Proposal for the allocation of the Riksbank's profits for the accounting year 2016 and the General Council's annual report for 2016.



Many people came to the Riksbank on 3 October to exchange money for the new coins and the new 100-krona banknote.

MANAGEMENT OF ACTIVITIES

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

The Riksbank's vision is to be among the best in terms of quality and efficiency in order to maintain a high level of public confidence. This means that our tasks are to be fulfilled to a high standard and for a reasonable cost and that the Riksbank must be among the best in comparison with other central banks and other comparable authorities, academic institutions and private companies.

Operational follow-ups in recent years have shown that, in most areas, the Riksbank has lived up to the vision's level of ambition. It is, however, a challenge for a small central bank to defend this position and to contribute in the best possible way in a changing world. Changes to the financial system and the real economy are leading to new problems that need new solutions and this, in turn, places increasing demands on analysis and flexibility.

The vision is given more concrete form in operational objectives and result indicators for the Riksbank's different target areas. In 2016, the Riksbank's activities were divided into seven target areas: monetary policy, financial stability, the RIX payment system, cash provision, asset management, statistics and an overall Riksbank area. The bank-wide area was, in turn, divided up into seven parts: communication, employees, management and governance, IT, administrative support and service, environment and resources.

Activities developed on the basis of a strategic plan

The Riksbank's operational plan is based on a strategic plan that summarises the task and the vision, and specifies a strategic direction for future operational plans. The strategic plan used as a guide for 2016 has the theme A 350-year old at the forefront, aimed, among other things, at the Riksbank's jubilee in 2018. The plan was adopted in the autumn of 2014 and consists of three strategic objectives: that all areas of the Riksbank's operations are to be in line with the times and the rest of the world, that it is to have an inspiring working climate that contributes to setting the right priorities and effective work, and that it is to achieve results of high quality to earn a high level of public confidence. These strategic objectives are to be attained with the aid of ten strategic priorities which will, in turn, be given more concrete form with action plans in the annual operational plan.

Internal control

Pursuant to the provisions of the Sveriges Riksbank Act, the Executive Board of the Riksbank presents an assessment of the adequacy of internal control at the Bank in the Annual Report. See also page 83.

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

Box 2 Risks in the Riksbank's activities

There are different types of risk in the Riksbank's activities. Strategic risks, such as the overall risk of loss of reputation in the event of insufficient target fulfilment, for example, are managed as part of the business planning processes and in ordinary preparatory processes to avoid negative consequences in the longer term. Financial and operational risks are managed in a risk process that is coordinated by the Risk Division.

This Division reports its independent assessment of the Riksbank's financial and operational risks to the Executive Board three times a year. The financial risks arise above all in the management of the gold and foreign currency reserves and are described in more detail in Box 7 – The Riksbank's financial risks in the section Asset management.

Operational risks may damage the activities, assets or reputation of the Riksbank and 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.

To succeed in its tasks, it is important that the Riksbank can quickly

identify and manage both internal disruptions and external events. This applies to everything from managing changes in potential threats to cash operations or IT support to adjusting processes and systems to new conditions.

The Riksbank works systematically with the management of operational risks on the basis of an established, Bank-wide process. This process is subject to continuous development, and risk management and business planning are integrated through coordinated follow-up processes.

The risks that have been identified historically in the Riksbank's activities primarily relate to the handling of confidential information, IT support, internal processes and dependence on external parties. These risks can above all affect the Riksbank's efficiency and ability to attain its objectives.

Among other things, in 2016, operations managed risks linked to the banknote and coin changeover. The operations' annual risk analyses and incident reports indicate that the risk level for the Bank as a whole did not change significantly in 2016.

The Risk Division of the General Secretariat coordinates the follow-up of internal control on the basis of the governance and control environment, risk analysis, control mechanisms, information and communication, and follow-up and evaluation.

The Executive Board has also commissioned the Internal Audit Department to carry out an independent evaluation of internal control, including operational risks.

The Riksbank uses indicators to measure results

The seven target areas within the Riksbank's operations have their own targets, intended to put the implications of the Riksbank's vision into concrete terms for each area. One or more result indicators are linked to each target, and these are intended to give a view of how well the Riksbank is fulfilling its ambition levels. One example is the Riksbank's forecasting performance, where one of the indicators is an annual comparison with nine other forecasters. The vision of being among the best has been interpreted as being placed among the three best in the ranking. For natural reasons, several other targets are not as easy to quantify and follow up.

The Executive Board received two follow-up reports over the year summarising the status of the indicators, the action plans, the budget and the operational risks. Any measures or reprioritisation given rise to by the results were discussed in conjunction with these follow-ups. In total, 91 indicators were linked to the targets in the 2016 operational plan. Of the 86 indicators that could be evaluated, 85 per cent indicated positive results in the follow-ups.

Good confidence among the Riksbank's target groups

To monitor the development of public confidence and the confidence of various target groups in the Riksbank, the Riksbank uses regular external

surveys. Every year, TNS Sifo measures the reputations of Swedish authorities and MedieAkademin's confidence barometer measures and compares confidence in a number of different institutions and organisations in Sweden. In 2016, these surveys showed that the general public continues to have high confidence in the Riksbank. At the start of 2016, StrandbergHaage carried out interviews with target groups that are important for the Riksbank. This target group analysis showed that knowledge among the target groups on the Riksbank's activities in general is high and that there is a stable fundamental confidence in the Riksbank and its management.

Communication

Media reporting on the Riksbank decreased in scope in 2016, compared with the previous year, but monetary policy often remained in focus. The launch of the new banknotes and coins also received a great deal of media attention, as did financial stability. At the same time, media reporting included criticism of the highly-expansionary monetary policy and discussion of the possible negative consequences of the negative repo rate on the Swedish economy.

The Riksbank's monetary policy communication was characterised by the message that monetary policy has contributed towards strong economic activity and rising inflation in Sweden, and also that the Riksbank stands prepared to adopt more monetary policy measures if necessary. Over the year, the Riksbank also continued to highlight the risks inherent in households' high levels of indebtedness.

The campaign for the launch of the new banknotes and coins contributed towards recurring attention in the media over the year and the launch day on 3 October received a great deal of attention. An extra effort was made in May as a reminder that the old 20, 50 and 1,000-krona banknotes would cease to be a valid means of payment on 30 June. The campaign resulted in more than 90 per cent of the general public being aware that Sweden would be getting new banknotes and coins in October, according to an investigation conducted by TNS Sifo.

EMPLOYEES

At the end of 2016, the Riksbank had a total of 384 employees (336 full-time equivalents), compared with 386 employees (341 full-time equivalents) in 2015. The Riksbank's employees work in a dynamic environment where they deal with complex issues on a daily basis. According to the Riksbank's strategic plan, the working climate should be inspiring and should contribute towards setting the right priorities and working efficiently. A necessary condition for attaining this is that all employees and managers take responsibility for a good and sustainable working environment with smoothly functioning leadership and employeeship.

Major investment in leadership and employeeship

The strategic investment in the leadership and employeeship programme has been a central focus during the year. All managers and employees of the Riksbank have taken part in these programmes during the year. The programmes aim to further develop a cohesive, active and modern leadership and employeeship. The programmes have focused on self-awareness, a coaching approach, feedback and team development. This year's management conference had the theme of organisational challenges and leading organisational change. Over the year, the Riksbank's managers have also taken part in forums on more in-depth subjects such as organisational and social working environment and management with regard to alcohol and drug problems.

Focus on prevention work regarding health and working environment

As a continuation of the Riksbank's active work on preventive measures regarding health and keep-fit, and given the Swedish Work Environment Authority's new regulations on organisational and social working environment, all measures in this field have been gathered into an action plan with a number of prioritised focus areas. Communication and clarity in requirements and expectations, active work on creating time for recovery and an inclusive organisational culture are examples of themes on which the plan focuses. Over the year, we have also continued to prioritise keep-fit, in the form of exercise classes, lectures on mindfulness and subsidised massage. The sickness rate among the Riksbank's employees was 1.7 per cent in 2016, which is a reduction of 0.1 percentage points compared with 2015.

The Riksbank as an attractive workplace

The Riksbank has long worked on its brand as an employer, to be able to recruit, develop and retain competent staff. For the fourth year in a row, economics students have rated the Riksbank the most attractive employer in the public sector, according to Universum's company survey.

ENVIRONMENTAL WORK

As far as is possible and compatible with the tasks and duties of the bank, the Riksbank strives to work preventively and promote reduced environmental impact. Environmental work is an integral part of operations and is part of the responsibility of every manager. 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

Measure	2014	2015	2016
Carbon dioxide emissions from official travel (tonnes), total per employee	1.35	1.42	1.59
Energy usage, total per employee (MWh per square metre)	19.1 (0.27)	17.4 (0.22)	17.5 (0.23)

Source: The Riksbank.



Ernst Nordin (right), designer of the new coins, was present for their launch. Pictured here with Leif Jacobsson, the Riksbank's project manager for the banknote and coin changeover.

Maintaining the value of money – price stability

Growth in the Swedish economy was good in 2016. According to the Riksbank's assessment in December, GDP grew by 3.4 per cent during the year. Unemployment fell compared with the previous year and amounted on average to 6.9 per cent, according to the Riksbank's assessment in December. Measured as an annual average, both CPI and CPIF inflation rose. CPI inflation was 1.0 per cent and CPIF inflation was 1.4 per cent. To provide support to the upturn in inflation, the repo rate was cut from –0.35 to –0.50 per cent at the beginning of the year. In addition, the Riksbank decided in April and December to increase its purchases of Swedish government bonds, and the forecast for repo rate rises was postponed on a couple of occasions.

MONETARY POLICY DECISIONS

The Executive Board of the Riksbank normally holds six ordinary monetary policy meetings per year, at which it decides on the repo rate and other monetary policy measures. In conjunction with the monetary policy meetings, a Monetary Policy Report (MPR) is published, which includes forecasts for the repo rate, inflation and other economic variables. Two extraordinary monetary policy meetings were held in January. The aim of these was to enable the Riksbank to quickly intervene on the foreign exchange market if necessary, in order to safeguard the upturn in inflation. There were no foreign exchange interventions during the year, however.

During 2016 and similar to the previous year, monetary policy was characterised by low inflation, considerable uncertainty over international economic developments and low global interest rates. Important political events also took place during the year, including the United Kingdom's decision to leave the EU and the US presidential election. The eventual consequences of these events are difficult to forecast and are adding to the continued major uncertainty surrounding international developments as we move into 2017. There are differences between how things have developed in different countries, which is reflected in monetary policy. For example, the ECB expanded its bond purchasing programme while in December, the US Federal Reserve increased its policy rate for the first time in a year.

To safeguard the role of the inflation target as nominal anchor for price setting and wage formation, monetary policy in Sweden became more expansionary. The repo rate was cut in February and purchases of government bonds were increased in April and December. The Riksbank made the assessment that monetary policy needed to continue to be expansionary in order to secure the rising trend in inflation and safeguard the role of the inflation target as nominal anchor for price setting and wage formation. It was noted, however, that the low interest rates also entail risks such as increased indebtedness among households. The Riksbank emphasised that the risks associated with household indebtedness need to be dealt with using targeted measures within macroprudential policy, housing policy and tax policy to enable long-term sustainable development in the Swedish economy.

The remaining part of this section presents a more detailed description of economic development during the year and the background to the monetary policy decisions.

Decision on contingency for foreign exchange interventions

After the monetary policy meeting in mid-December 2015, the Swedish krona appreciated against most other currencies. One reason for this was that statistics indicated unexpectedly strong economic development in Sweden. The value of the krona in relation to other currencies is an important factor when it comes to assessing inflation. Inflation rose in January but it has been below the inflation target for a relatively long time. Too rapid a strengthening of the krona would jeopardise the ongoing upturn in inflation. To safeguard the role of the inflation target as benchmark in price-setting and wage formation, it was therefore important that inflation continued to rise.

At an extraordinary monetary policy meeting held on 4 January, the Executive Board of the Riksbank delegated the task of determining the more precise details of any interventions on the foreign exchange market to the Governor and First Deputy Governor. This meant that the Governor and First Deputy Governor could decide on interventions if there was no time to await a decision by the entire Executive Board. Martin Flodén entered a reservation against the decision on the grounds that it was appropriate to wait before employing further monetary policy stimuli and that foreign exchange interventions were not a suitable tool for making policy more expansionary in the current situation. At an additional extraordinary meeting on 19 January, the Executive Board decided to extend the Governor and First Deputy Governor's mandate for foreign exchange interventions. Martin Flodén entered a reservation against the decision on the same grounds as before.

Unexpectedly low inflation led to repo rate cut in February

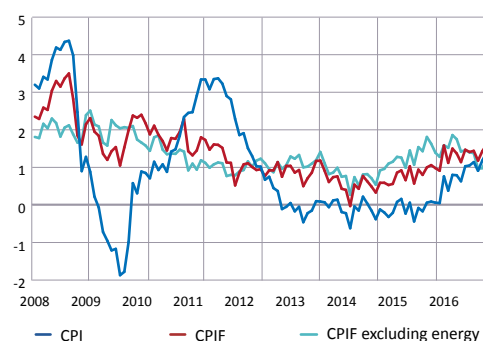
At the start of 2016, the Riksbank noted that uncertainty on the financial markets had increased and that global stock exchanges had fallen since the middle of December 2015. Even though global economic prospects as a whole had weakened slightly since the forecast in December, the Riksbank made the assessment that the recovery would continue in the more developed economies. Inflation remained low abroad, among other reasons due to a fall in the price of oil and other commodities. Monetary policy was also highly expansionary in several parts of the world.

In Sweden, economic activity had strengthened and unemployment had fallen, partly due to a highly expansionary monetary policy. Resource utilisation is deemed to be close to normal and is expected to become higher than normal in the period ahead. Underlying inflation (CPIF and CPIF excluding energy) had shown a rising trend since the start of 2014 (see Chart 1). The earlier depreciation of the krona was deemed to be an important explanation for this. The krona was expected to remain at about the same level for a time, before appreciating at a slow rate (see Chart 2).

However, the rise in inflation was unstable and low inflationary outcomes, together with lower energy prices and low rent increases, contributed towards expectations that inflation in 2016 would be lower than forecast in December 2015. This meant that the period of low inflation could become even more prolonged, which, in turn, increased the risk of confidence in the inflation target becoming weaker.

Chart 1

The CPI, CPIF and CPIF excluding energy, annual percentage change

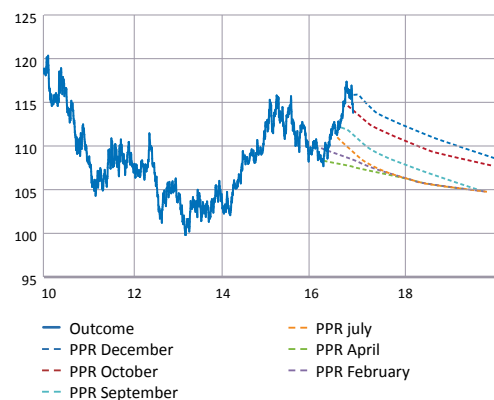


Note: The CPIF is the CPI with a fixed interest rate.

Source: Statistics Sweden.

Chart 2

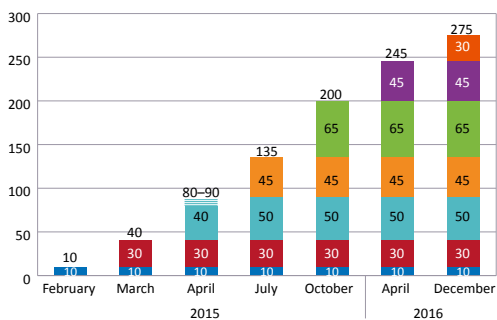
Exchange rate and exchange rate forecasts, competition-weighted nominal exchange rate, index 1 November 1992 = 100



Note: Outcomes are daily data and forecasts refer to quarterly averages. The krona appreciates if the KIX series goes down and depreciates if the KIX series goes up.

Sources: National sources and the Riksbank.

Chart 3
Purchases of government bonds decided by the Riksbank, SEK billions



Note: Government bond purchases will continue until mid-2017. As the Riksbank intends to reinvest coupon payments on holdings of nominal government bonds, the nominal amount will not total exactly SEK 275 billion.

Source: The Riksbank.

Against this background, the Executive Board made the assessment that monetary policy needed to become more expansionary. At the monetary policy meeting held on 10 February, the repo rate was cut by 0.15 percentage points to -0.50 per cent and the inflation forecast was revised downwards. The Executive Board also decided to reinvest maturity and coupon payments on the government bond portfolio until further notice. Martin Flodén and Henry Ohlsson entered reservations against the repo rate cut and advocated an unchanged rate. The delegated mandate for foreign exchange interventions was extended until the monetary policy meeting in July. Martin Flodén entered a reservation against this again, on the same grounds as before.

The Executive Board emphasised in February that it was still highly prepared to make monetary policy even more expansionary, even between ordinary meetings. This could be done by cutting the repo rate further or by extending purchases of securities. The Riksbank also emphasised that it was prepared to intervene on the foreign exchange market if the krona were to appreciate so quickly that it would threaten the upturn in inflation.

The Riksbank has long made it clear that the low level of interest rates entails risks. The Riksbank therefore emphasised the importance of clarifying Finansinspektionen's mandate for macroprudential policy and implementing reforms to create a better balance on the housing market and reduce households' willingness and ability to take on debt.

Further purchases of government bonds

Uncertainty over global developments remained at the monetary policy meeting in April. In some parts of the world, monetary policy had been made even more expansionary so that economic activity would improve and inflation rise. Among other things, in March, the ECB decided to cut its policy rates and extend its already comprehensive purchases of securities. The ECB's expansionary monetary policy was expected eventually to lead to higher resource utilisation and inflation in the euro area and thereby also in Sweden. However, in the short term, there was a risk that the krona would appreciate sooner and faster than in the forecast, which could restrain growth and inflation in Sweden and weaken confidence in the inflation target.

The forecast for international growth was slightly lower than in the assessment in February, primarily because of increased economic risks. These were based on factors including increased uncertainty over cooperation in the EU, mainly due to a lack of clarity over the United Kingdom's future EU membership and the management of refugee flows. In addition, there were questions over the stability and profitability of the European banking sector.

At the same time, economic activity had continued to strengthen in Sweden. Resource utilisation was deemed to be about normal and the situation on the labour market was expected to continue to improve. However, the large numbers of recent immigrants were expected to increase unemployment with their entry onto the labour market, as of 2018.

Inflation had long been low, despite gradually strengthening economic activity and, even if it had been rising for a time, the increase was unstable and prices were still not in line with the target. To safeguard the rising trend in inflation, it was deemed that monetary policy in Sweden needed to continue

to be expansionary. The Executive Board therefore decided to purchase government bonds for a further SEK 45 billion during the second half of 2016 (see Chart 3). These purchases were expected to reduce the risk that the krona would appreciate too quickly and interrupt the rise in inflation. To achieve a broad impact on different interest rates, it was decided that the purchases would include both nominal and real government bonds corresponding to SEK 30 billion and SEK 15 billion respectively. The repo rate was held unchanged at -0.50 per cent. Cecilia Skingsley entered a reservation against further bond purchases and advocated an unchanged monetary policy.

As before, the Executive Board emphasised that it was still highly prepared to make monetary policy more expansionary if necessary. It also emphasised the importance of adopting measures to manage the rising housing prices and households' increasing indebtedness.

Future rate rises to be postponed

Uncertainty over economic developments abroad increased further in July due to the result of the British referendum that the United Kingdom intends to withdraw from the EU. However, the Riksbank's assessment remained that global economic activity would continue to strengthen, but at a slower rate than according to the previous forecast.

Uncertainty over economic developments was also judged to have increased in Sweden as a result of international developments. However, the Swedish economy had developed as expected since the monetary policy decision in April and economic activity was also anticipated to continue to improve. This was expected to create the conditions for inflation to continue to rise, even if the growth forecast had been revised downwards slightly.

Due to this increased uncertainty, it was deemed that a highly expansionary policy would also continue to be necessary. The repo rate was held unchanged at -0.50 per cent, but the Executive Board deemed it appropriate to move the forecast for a future increase of the rate back. The rate was not expected to start to be raised until the second half of 2017, and then at a somewhat slower rate than the Riksbank had previously expected (see Chart 4).

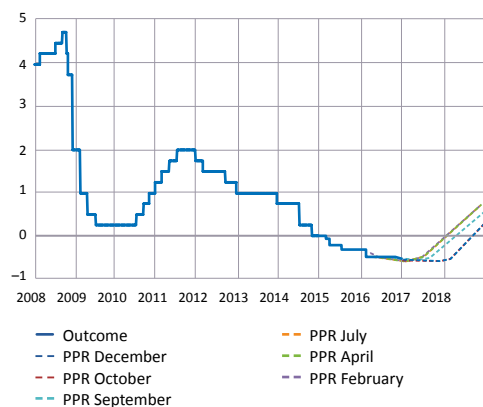
As earlier, it was emphasised that the Executive Board was still highly prepared to make monetary policy even more expansionary if necessary. The Executive Board also decided to extend the delegated mandate for foreign exchange interventions, against which Martin Flodén entered a reservation on the same grounds as previously.

Largely unchanged situation in September

By September, the situation had not changed a great deal. The international recovery continued at a moderate rate, but the economic policy uncertainty remained high.

Supported by the expansionary monetary policy, the Swedish economy had strengthened rapidly and growth was expected to continue to be strong over the next few years. CPI inflation had shown a rising trend since 2014 and was now just below 1.5 per cent. The situation on the labour market had continued to improve and unemployment had fallen. These develop-

Chart 4
 Repo rate and repo rate forecasts 2016, per cent



Note: The unbroken line represents outcome (daily data) and the broken lines represent the Riksbank's forecasts (quarterly averages). In the chart, the forecasts for February and April, July and September, and October and December, respectively, are almost identical.

Source: The Riksbank.



Deputy Governor Henry Ohlsson answered questions from the public.

ments were expected to have an effect on inflation with a certain time lag. Conditions were thus deemed to be good for a continued rise in inflation.

The prospects for economic activity and inflation in Sweden remained largely unchanged since the monetary policy meeting in July and again, the Riksbank's assessment was that an expansionary monetary policy was needed to maintain the rising trend in inflation. The Executive Board of the Riksbank therefore decided to leave the repo rate unchanged at -0.50 per cent. As with the decision in July, the Executive Board deemed that it would not be appropriate to begin to slowly raise the repo rate until the second six months of 2017. In accordance with previous decisions, purchases of government bonds continued so that they would amount to SEK 245 billion by the end of 2016.

Weaker inflationary pressures in October and postponed reparate increases

The overall picture of growth prospects had not changed considerably by the meeting in October. The international recovery was expected to continue at a relatively moderate pace and resource utilisation in the Swedish economy was expected to continue to rise and become higher than normal in the period ahead. On the other hand, unexpectedly weak inflationary outcomes in August and September had served to underline how much uncertainty there was in the expected rise in inflation. The Riksbank revised its view of inflationary pressures downwards and calculated that it would take more time for inflation to reach 2 per cent.

However, the Riksbank deemed that conditions were in place for the rise in inflation to continue, despite the restrained development so far over the year. One factor that was assumed to suggest gradually higher inflation was the high level of resource utilisation in the economy. One effect of the stronger economic activity will be to make it easier for companies to raise the prices of their products, after a certain time lag.

However, the upturn in inflation was assumed to need continued strong support. The Executive Board judged that the repo rate would have to be held at -0.50 for six months longer than indicated in the forecast from September and, at the same time, increased the likelihood of a repo rate cut (see Chart 4). The Executive Board also emphasised that, ahead of the monetary policy meeting in December, it was ready to extend government bond purchases and that it was highly prepared to make monetary policy even more expansionary if the rising inflation should be threatened.

Unchanged repo rate but decision for further purchases of government bonds

In December, the Riksbank noted that the international recovery had continued and that this development seemed to be slightly stronger than according to the assessment made in October. The recovery was being supported by the expansionary monetary policy and, to some extent, also the more expansionary fiscal policy.

In Sweden, growth for the third quarter had been higher than forecast in October. Confidence indicators pointed to rising optimism both in the busi-

ness sector and among households and growth for 2017 was therefore expected to be slightly stronger than according to the assessment in October. The prospects for a continued rise in inflation were deemed to be good.

However, inflation had been somewhat weaker than expected in recent months, and it was deemed to still be uncertain how quickly inflation would rise going forward. The ECB decided to extend the rescue purchase plan by a further nine months and the krona was expected to slowly appreciate in the period ahead, two factors that influence inflation. The upturn in inflation was assumed to need continued support from monetary policy and the Executive Board therefore decided to extend the purchases of both real and nominal government bonds by SEK 15 billion and SEK 30 billion respectively during the first half of 2017. Reinvestments of maturities and coupon payments on the government bond portfolio were initiated after the start of 2017 and will amount to about SEK 30 billion over 2017. The repo rate was held at -0.50 per cent but the interest rate forecast continued to reflect a greater probability, over the short term, that the repo rate would be cut rather than raised. As with the forecast in October, the repo rate was expected to start to be raised slowly at the start of 2018.

Martin Flodén, Henry Ohlsson and Cecilia Skingsley entered reservations against the decision to extend the purchases of government bonds by SEK 30 billion. Mr Flodén advocated that the purchases should be extended by SEK 15 billion and only cover real government bonds. Mr Ohlsson and Ms Skingsley felt that the purchases should not be extended as monetary policy did not need to be made more expansionary in the current economic situation.

Follow-up

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 after the first Monetary Policy Report of the year. Among other things, this gives an account of the development of inflation and the real economy over the past year. The report for 2016 will be submitted to the Riksdag in March 2017.

Rise in inflation due to higher energy prices, among other factors

CPI inflation increased over 2016 and amounted to an average of 1.0 per cent from a level of 0.0 per cent in the previous year (see Table 2 and Chart 1). The repo rate cuts reduced household mortgage costs, which had a dampening effect on CPI inflation and led to it temporarily becoming lower than CPIF inflation, which disregards this effect. However, this gap closed in 2016. Both CPIF inflation and CPIF inflation excluding energy started to show rising trends in 2014. However, in 2016, the rise in CPIF inflation excluding energy seemed to be slowing down. On average, CPIF inflation was 1.4 per cent, while CPIF inflation excluding energy amounted to 1.4 per cent (see Table 2 and Chart 1). This means that CPIF inflation was higher than in 2015, while inflation measured as the CPIF excluding energy was more or less unchanged. This is because prices for electricity and oil increased, which contributed towards the increase in the CPIF, but did not affect the measure excluding energy.

Table 2
Comparison of different measures of inflation, annual percentage change

	Annual average		
	2014	2015	2016
CPI	-0.2	0.0	1.0
CPIF	0.5	0.9	1.4
CPIF excluding energy	0.7	1.4	1.4

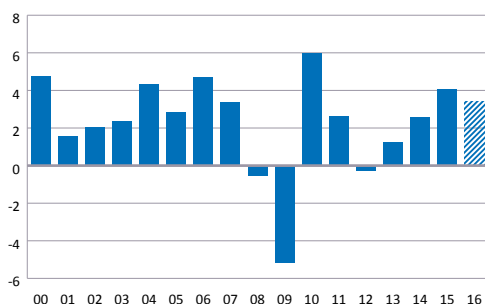
Sources: Statistics Sweden and the Riksbank.

Chart 5
Inflation expectations among money market participants, per cent



Source: TNS Sifo Prospera.

Chart 6
GDP in Sweden, annual percentage change



Note: The striped bar represents the Riksbank's forecast from December 2016.

Sources: Statistics Sweden and the Riksbank.

In 2016, inflation expectations continued to rise and long-term inflation expectations, five years ahead, were close to the inflation target of 2 per cent (see Chart 5).

Continued good growth and increasing employment

Economic growth has been strong in Sweden for some time and unemployment has fallen for the last couple of years. In 2015, GDP grew by over 4 per cent. Growth slowed down slightly in 2016 and amounted to 3.4 per cent according to the Riksbank's assessment in December (see Chart 6). Growth is also expected to be good in the coming years.

This strong growth was reflected by the positive development of the labour market. The number of people in employment and, above all, the number of hours worked increased. Unemployment fell to an average of 6.9 per cent in 2016, according to the Riksbank's assessment in December, which was 0.5 percentage points lower than in the previous year (see Chart 7). However, over the course of 2016, unemployment did not change particularly much. The employment rate (the proportion of the population of working age in employment) and the labour force participation rate (the proportion of the population of working age in the labour force) were also largely unchanged over the year (see Chart 7).

To measure the level of activity in the economy, the Riksbank uses different measures of resource utilisation, such as the GDP gap and the hours gap, which measure the deviations of GDP and the number of hours worked from their respective long-term trends. The Riksbank also calculates its own measure of resource utilisation, known as the RU indicator, which summarises the information in survey and labour market data. The overall view given by the measure is that resource utilisation has risen in recent years and was normal or slightly above normal in 2016 (see Chart 8). In the years ahead, GDP and hours worked are expected to grow fast enough for resource utilisation to increase slightly more.

MONETARY POLICY ANALYSIS

Over the year, the Riksbank continued to develop the monetary policy analysis. One issue that was analysed and discussed both internally at the Riksbank and in the general economic policy debate was whether the Riksbank should change target variable or reintroduce an interval around the inflation target. Another area analysed was experiences of the negative repo rate. The work on deepening the analysis of inflation and its determinants that was started in 2015 also continued in 2016. More information on the inflation target can be found on page 16.

Analysis of target variables and intervals

The Riksbank has used the CPI inflation rate as the target variable since the inflation target entered into force in 1995. Ever since then, the choice of target variable has been discussed. One reason for this is that changes in the repo rate – via household mortgage rates – have a direct effect on CPI

inflation which has nothing to do with the underlying inflationary pressure. The effect is in the opposite direction in that rate cuts aimed at pushing up inflation instead lead to a further fall in CPI inflation in the near term, when household mortgage costs go down. This problem has been exacerbated in recent years, as strong and persistent interest rate fluctuations have led to the gaps between the CPI and other price indices, on which interest rate adjustments have no such direct impact, becoming particularly wide and prolonged. The best-known and most widely-used of these price indices is the CPIF (the CPI with a fixed interest rate) and the HICP (the EU-harmonised index for consumer prices).

The Riksbank again raised the issue of whether the inflation target should be modified in a speech in December 2015. In April 2016, the Riksbank published an economic commentary in which different conceivable target variables were discussed.

The review of the Riksbank's monetary policy 2010–2015 conducted by Professor Marvin Goodfriend and Lord Mervyn King on behalf of the Riksdag Committee on Finance proposed that the inflation target be formulated in terms of the CPIF. In their consultation responses to the review, practically all instances considered that the CPI should be exchanged for another measure of inflation, with several recommending the CPIF. In its annual review of the economic situation in Sweden, published in November, the IMF advocated a switch to the HICP.

Discussion of interval around the inflation target

Another issue concerning the framework for monetary policy in Sweden that was discussed over the year was whether the inflation target should be complemented with an interval. Previously, there was a tolerance band of ± 1 percentage points around the Riksbank's inflation target. However, this interval was removed in 2010 as it was not considered to serve any great purpose. There was considered to be widespread understanding among the participants in the economy that inflation can deviate from target, sometimes for quite a long time, without the credibility of the target being questioned. Recently, however, both members of the Executive Board and external debaters have taken up the issue of whether an interval should be reintroduced as a way of marking that the inflation outcome is uncertain.

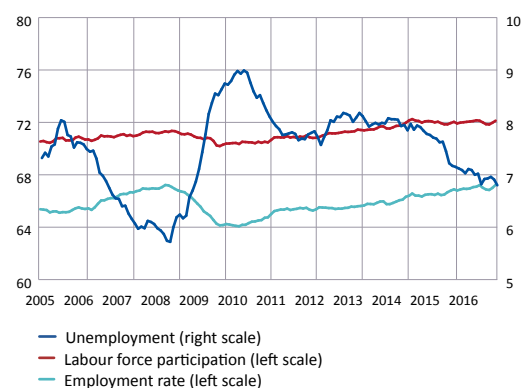
In September, the Riksbank published a Riksbank Study on the advantages and disadvantages of various target variables and intervals. This study was intended as the basis for a broad and open discussion on possible changes and contained no recommendations from the Executive Board. In the autumn, the Riksbank's Executive Board and officials held discussions on these issues with participants on the financial markets and other authorities and organisations.

Early experiences of the current monetary policy

In recent years, several central banks have cut their policy rates to below zero in the wake of the prolonged downturn. The Riksbank's repo rate has been negative since February 2015. Real interest rates around the world have

Chart 7

Labour force participation, the employment rate and unemployment, per cent

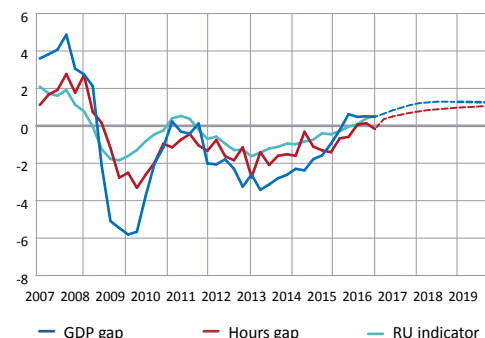


Note: Seasonally-adjusted data. Three-month moving average. This data refers to persons aged 15–74. The labour force participation rate and employment rate are measured as a percentage of the population. Unemployment is measured as a percentage of the labour force.

Sources: Statistics Sweden and the Riksbank.

Chart 8

GDP gap, hours gap and RU indicator, per cent and standard deviation



Note: The GDP gap refers to the deviation from trend in GDP, calculated using a production function. The hours gap refers to the difference between the actual number of hours worked and the Riksbank's assessment of the trend for the number of hours worked. The RU indicator is a measure of resource utilisation. It is normalised so that the mean value is 0 and the standard deviation is 1. The broken lines represent the Riksbank's forecast from December 2016.

Sources: Statistics Sweden and the Riksbank.

been falling for a long time and have historically been negative now and again. On the other hand, negative nominal rates are a new phenomenon.

In Sweden, a debate has arisen on the consequences of the negative repo rate. In light of the highly expansionary monetary policy being conducted in many parts of the world, an international discussion has also arisen on whether negative policy rates are a way of increasing the scope for monetary policy. There is thus great international interest in the experiences of Sweden and other countries with negative policy rates. Over the year, the negative repo rate has been examined in two articles in the Monetary Policy Report and in a speech made by Per Jansson in December.

Box 3 Statistics

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). The Riksbank is responsible for the quality, content and development of the statistics.

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

Three times a year, the Riksbank conducts interviews with 40–45 companies to gain a rapid and up-to-date view of developments in prices and economic activity for non-financial corporations.

In 2016, two analyses were conducted in conjunction with the interviews. These looked into the role of interest rates in companies' investment decisions and asked in-depth questions on company pricing. As regards the significance of the interest rate for investment decisions, companies reported that the hurdle rates used in investment calculations are relatively unaffected by the general level of interest rates. One conclusion reached was that the direct relationship between the level of interest rates and the effects on companies' investment decisions appeared to be weak for most of the compa-

nies investigated. At the same time, companies indicated that a lower level of interest rates is positive for general demand and is thus beneficial for sales.

The second analysis into company pricing was based on the fact that companies, for several years, had stated that they were finding it difficult to raise prices despite rising demand and increased cost pressures. One overall conclusion is that the tough competition in many sectors is restraining price increases. Among other things, increased e-commerce and the accompanying possibility of comparing prices on the Internet had led to increased competition and put pressure on prices.

Evaluation and development

The amount of data that can be used in the Riksbank's analyses is increasing very rapidly, among other reasons due to increased global regulations that generate data for central banks and supervisory authorities, but also due to the amounts of information that can be gathered from the Internet and which are usually known as big data.

Within the framework of its responsibility for statistics, the Riksbank has commissioned Statistics Sweden to produce statistics within several different statistical areas. Among other demands, this client relationship is to be characterised by cost efficiency. In 2016, an external consultant was engaged to compare the production of statistics within the area of foreign trade in services with other countries. Comparisons were made with Denmark, Ireland and Norway, where the greatest focus was on the efficiency of produc-

tion in relation to the quality of the statistics.

Among other things, the results of these comparisons show that the quality of the Swedish statistics on foreign trade in services holds up well compared with the other countries. However, the report includes a few suggested improvements that could increase the quality and efficiency of production. For example, Statistics Sweden should better integrate foreign trade in services with the National Accounts to achieve greater comparability between statistical areas. A couple of other recommendations includes comparing statistics with corresponding statistics from other countries to a greater extent and investigating whether it would be possible to reduce the number of smaller and medium-sized companies in the surveys so as to instead devote more resources towards controlling the quality of major companies.

In 2015, the Riksbank commissioned Statistics Sweden to prepare and conduct two new statistical investigations, one of credits and one of securities holdings. This assignment will be executed in the form of a project and the Riksbank will participate in the entire development phase until mid-2018. Information from the investigations will be used in the Riksbank's analytical work on financial stability and monetary policy. In October, the Riksbank decided on a new regulation covering the compilation of information on securities. The decision was preceded by communication with reporting entities and their sector representatives, among other things in the form of a consultation process.

The reason that the repo rate is negative is that inflation has undershot the target for a long time and that long-term inflation expectations have been below two per cent. There has thereby been a need for a highly expansionary monetary policy. The Riksbank therefore considered that it was necessary to cut the repo rate below zero to safeguard the role of the inflation target as nominal anchor for price-setting and wage formation. At the same time, the Riksbank has carried out purchases of government bonds.

So far, the below-zero repo rate has had no major negative consequences

Previously, the prevalent opinion was that the policy rate could not be cut below zero. If households and companies were to face negative interest rates on their deposit accounts, they could withdraw their funds from the bank and instead keep them as cash which, per definition, gives a zero nominal interest rate – they would choose to “stuff their money under the mattress”. However, in both Sweden and other countries, it has turned out that the policy rate can be negative without this happening. This is because the fact that the repo rate is negative does not mean that general interest rates in Sweden are negative. So far, banks have refrained from introducing negative deposit rates for households and most companies. Only a few economic agents, primarily other financial institutions, large companies and some municipalities have experienced a negative deposit rate, and, in some cases, these can also borrow at a negative interest rate. The Riksbank therefore assesses that there is little risk that banks, companies or households will begin to withdraw large volumes of cash under the current circumstances.

Another argument against negative interest rates is that these reduce the banks’ profitability if they contribute towards the interest rate for funding not falling as much as the lending rate. This discussion has been particularly common in the euro area and Japan, where the banks are already burdened with low profitability. However, Swedish banks’ profitability has remained high and stable during the recent rate cuts. In Sweden, banks largely obtain financing through wholesale funding. Low and negative interest rates therefore lead to a fall in costs for a large share of the funding. In the euro area and Japan, however, banks’ funding comes from deposits to a greater degree.

Another concern is that the negative repo rate increases uncertainty among economic agents, as it can be perceived as a crisis signal. From a psychological perspective, negative interest rates are also often met with a certain scepticism, as they are considered to go against social and economic conventions. However, there are few signs of falling demand as a result of unease among households, companies or financial market participants. Domestic demand has, on the whole, been a driving force behind the improved economic activity in Sweden.

All in all, cutting the repo rate to below zero has functioned largely as the Riksbank expected. It has contributed towards making monetary policy more expansionary, without the concerns over the side effects of a negative repo rate having, as yet, been realised.

At the same time, the generally low level of interest rates, which is to say the globally low level of interest rates, including in terms of real interest rates, entails risks which, in Sweden, are primarily associated with households' high and rising levels of indebtedness. Measures are therefore needed within other political remits to reduce these risks in different ways, something the Riksbank has been highlighting for a long time.

Experiences of purchases of government bonds

In February 2015, the Riksbank decided to purchase government bonds as a complementary measure to increase the expansiveness of monetary policy, a measure that had already been tested in other countries. These bond purchases were expected to influence monetary policy via a number of channels. For example, the Riksbank's bond purchases would contribute towards making the available volume of the outstanding stock of government bonds shrink. Competition over the remaining bonds would presumably lead investors to accept an ever-lower yield from government bond investments. This was expected to affect the expansiveness of monetary policy, among other means through the foreign exchange channel.

By the start of 2017, the Riksbank had decided, for monetary policy purposes, to purchase government bonds to a nominal value of SEK 275 billion, excluding reinvestments.

Box 4 The Riksbank's research in 2016

The Riksbank's research is primarily focused on areas of direct significance to the Bank's activities, such as monetary policy, the banking system and financial markets. The aim of this research is to provide better material for the Riksbank's policy decisions.

The results of the Riksbank's research are published in international scholarly journals. This guarantees that the quality of the research is evaluated objectively in accordance with international standards. The research results are communicated through presentations at other central banks and universities, as well as at international conferences. A selection of research results is also presented in the Riksbank's journal *Economic Review*.

Those researchers who are specialised in financial stability study Swedish households and companies with the aim of understanding their economic behaviour. One example of this research is a paper analysing the effects of an amortisation requirement in

Sweden that was published in the *European Economic Review*. The paper sheds light on the consequences of various types of amortisation requirement on the development of debt in the economy. Another paper, published in the *Journal of Monetary Economics*, investigates how frictions on the labour market affect the long-run optimal rate of inflation. One result shown in the paper is that larger frictions within price and wage formation or larger search frictions on the labour market tend to lead to a higher optimal rate of inflation.

Those researchers who focus on macroeconomic research also contribute towards facilitating the understanding of a complex reality. As an example, there was an article in the *Economic Review* on whether the current level of Swedish house prices are sustainable in the long run. Researchers from the Research Division also collaborate with other members of the staff at the Riksbank with the aim of developing material for policy

decisions. One example of this is an article in *Economic Review* that investigates the accumulation of household debt and risks associated with this. Among other things, the article analyses how household indebtedness affects the impact of monetary policy on inflation. The higher indebtedness is, the greater the effect of an interest rate increase on borrowers' interest expenditure and disposable incomes. The effects of an interest rate rise on demand – and thus on inflation – would therefore be greater today than when inflation targeting was introduced in the mid-1990s.

In addition to this, the Riksbank's researchers have also taught doctoral students and master's students at Swedish universities over the year. This reflects the Riksbank's willingness to collaborate with the academic world and other central banks to exchange knowledge and to safeguard the future supply of competence.

Since the introduction of bond purchases, the Riksbank has regularly monitored and analysed the effects of the bond purchases. The Riksbank's assessment is that government bond yields, both longer and shorter, are, as expected, lower than they would have been without the Riksbank's bond purchases. The purchases have also contributed towards lowering Swedish government bond yields in relation to foreign ones and is also deemed to have led to the krona being weaker than it would otherwise have been. The purchases have thus made a valuable contribution to the expansiveness of monetary policy.

The Riksbank's regular evaluations cover the assessment of both monetary policy effects and effects on the functioning of the market. An important part of this work is the compilation of information from new and previously existing channels, such as the Riksbank's counterparties and other market participants, as well as from surveys. The Riksbank considers that the purchases of government bonds have not had any unintentional effects on the government bond market.

Continued in-depth inflation analysis

The work of deepening and refining the inflation analysis continued over the year. The short-term model analysis has been developed by complementing existing models with more indicators. There are now also models on a more detailed level.

A project in which techniques for collecting price data from the Internet has also been expanded over the year. Specially-added questions in the Riksbank's business survey have been used to obtain more information on companies' pricing behaviour. One sub-project launched in 2016 concerned the determinants of inflation. Among other things, this resulted in the article *The correlation between resource utilisation and inflation* in the Monetary Policy Report from October. A large amount of analysis has also been made of the exchange rate's impact on inflation.

Box 5 The Riksbank's conferences and workshops

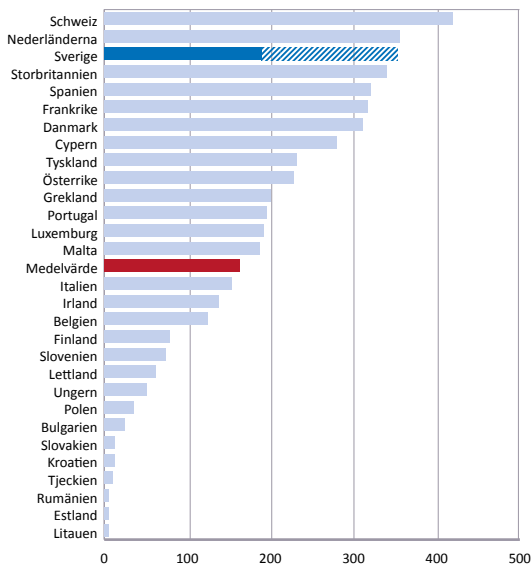
In June, the Riksbank arranged the conference *Rethinking the Central Bank's Mandate*. Developments in the global economy and on the financial markets in recent years have led to a more in-depth, international debate among both researchers and politicians on the central bank's mandate. At the conference, leading international experts shared new insights and inspiration for the continued discussion of the subject.

In June, the Riksbank also arranged, for the second year in a row, a conference on macroprudential policy, systemic risks and central bank issues. The conference was arranged in cooperation with the Swedish House of Finance and Vinnova. Policymakers, representatives of the private sector and academics participated and shared their experiences of the area. For example, subjects discussed included the management of banks in crisis and macroprudential policy measures to reduce the risks of rising property prices.

In September, the Research Division arranged a conference on how links within the financial system between households, companies and banks affect the economy. Such links can spread and worsen shocks to the financial system, for example due to crossownership and counterparty risks, but can also facilitate the redistribution of capital and access to credits. Leading researchers in this area discussed the consequences for the credit supply and capital formation, as well as regulations to address market failures. In addition, they touched on lessons from periods in which problems arose, for example the financial crisis of 2008–2009.

A safe and efficient payment system

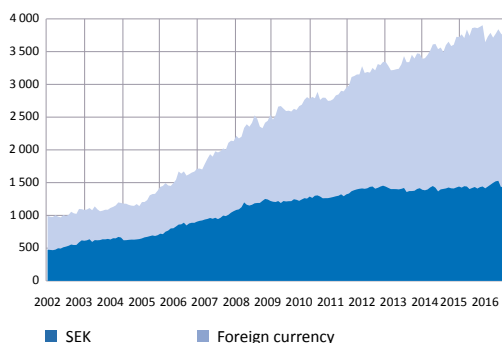
Chart 9
The banks' assets, percentage of GDP



Note: Banking assets includes all of the assets of the national banking groups, that is both foreign and domestic. The banks' insurance operations are, however, excluded. The shadowed part of the dark blue bar shows the four major Swedish banks' assets in foreign subsidiaries and branches in relation to Sweden's GDP. The figures refer to December 2015.

Sources: ECB, Swiss Bankers' Association, Swiss Statistics, bank reports and the Riksbank.

Chart 10
The major Swedish banks market funding, SEK billion



Sources: Statistics Sweden and the Riksbank.

The financial system in Sweden functioned well in 2016. However, the Riksbank judged that vulnerabilities in the structure of the Swedish banking system, risks linked to household indebtedness in Sweden and the globally low interest rates could eventually threaten financial stability. The Riksbank continued its work on influencing the financial regulatory framework in national and international forums. In addition, the Riksbank continued to deepen its analyses of important stability issues.

The financial infrastructure in Sweden was deemed to be safe and efficient to a high degree. The Riksbank's payment system RIX functioned well over the year. The banknote and coin changeover continued with major information campaigns.

FINANCIAL STABILITY

The Riksbank's financial stability work in 2016 largely consisted of monitoring developments in Sweden and abroad so as to analyse any risks that may be accumulating in the financial system and threatening stability. The analysis mainly concerned risks linked to the Swedish banking system, the globally low levels of interest rates and household indebtedness in Sweden. The Riksbank also proposed measures to reduce these risks.

Otherwise, work continued on influencing the formulation and implementation of national and international financial regulations. For these purposes, the Riksbank participated in international work and also submitted several consultation responses (see also Appendix 2). The Riksbank also participated in the Financial Stability Council.

National work to strengthen the financial system

The Riksbank deemed that the Swedish financial system functioned well in 2016, but that there were vulnerabilities in the structure of the Swedish banking system and risks linked to the low level of interest rates and high household indebtedness. These vulnerabilities are described in more detail in the following section.

A large and closely interlinked banking system in Sweden

There are several vulnerabilities in the Swedish banking system that make it particularly sensitive to various shocks. The Swedish banking system is large in relation to the Swedish economy (see Chart 9), which means that any problems in the banking system may be costly for the government to manage. In addition, the banking system is concentrated around a few participants with close links to each other. Consequently, should problems arise in one of the banks, it is likely that the entire Swedish banking system, and thereby the entire financial system, would be impacted negatively. As the major Swedish banks have a large proportion of mortgages on their balance sheets, there also exists a strong connection between the banking system and the Swedish housing market.

In addition, the major Swedish banks are highly dependent on wholesale funding, a large part of which is in foreign currency (see Chart 10). This further increases vulnerability by making the banks sensitive to disrup-

tions on the international financial markets and vulnerable to any impairment of confidence in the Swedish banking system. In addition, the assets and liabilities of the major banks have significant maturity differentials and at times, certain banks also have comparatively small liquidity buffers in Swedish kronor and certain significant currencies. All in all, this means that the banks are exposed to excessive liquidity risks, making them more vulnerable to any funding problems that may arise.

Low interest rates may lead to increased financial risk-taking

Over the year, the Riksbank was able to observe that the expansionary monetary policies conducted in several parts of the world in recent years have contributed to economic growth. However, an extended period of low interest rates may lead to high risk taking by financial agents, companies and households. For example, the risks in the financial system may increase if assets become too highly valued and financial risks are incorrectly priced. Any disruptions leading to a sudden and sharp decrease in demand for these assets could bring about heavy price falls, increase volatility and force investors to realise losses that they are unable to manage. Such a development in the global financial system could also impact financial stability in Sweden. Above all, this is because both access to and the price of the Swedish banks' wholesale funding could be affected negatively in a situation of increased stress.

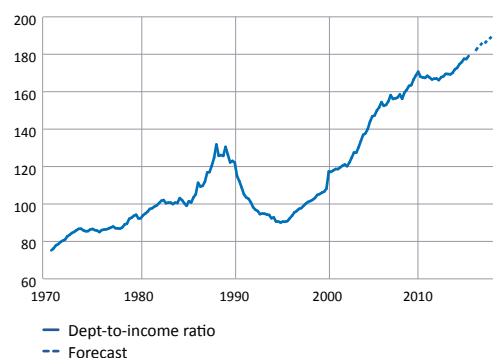
High and growing indebtedness among Swedish households

The Riksbank assessed that the high and growing indebtedness among Swedish households constitutes a risk that may threaten both macroeconomic and financial stability in Sweden in the long run. The aggregate debt ratio, which is to say debts in relation to disposable incomes, is at a high level from both historical (see Chart 11) and international perspectives (see Chart 12).

Historical experience indicates that financial crises have often been preceded by rapid growth in credit and property prices. In the event of a shock occurring that for example affects household incomes, interest expenditure or the value of housing, consumption may fall since more households may choose to save and amortise their debts. The higher the debts are, the greater these effects may be. As a consequence, demand in the economy could be weakened, which, in turn, would impact the development of the economy. It could also lead to higher loan losses on lending by the banks to companies. Hence it could also impact financial stability in the society.

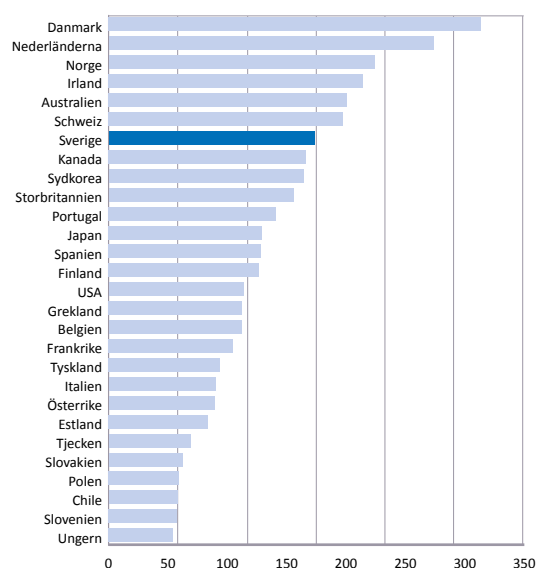
In the Riksbank's judgement, the direct loan losses on the banks' lending to households would probably remain small in such a situation. But, as a large portion of the banks' lending consists of mortgages, which, in turn, are funded by covered bonds to a great extent, there is a strong link between the banking system and the Swedish housing market. Confidence in the Swedish banking system could therefore become impaired if housing prices were to fall. Lower confidence in the Swedish banks could have a negative impact on their access to wholesale funding. Financial stability could also be affected directly as a result of falling housing prices.

Chart 11
Household debt-to-income ratio, percentage of disposable income



Note: The dashed line represents the Riksbank's forecast.
 Sources: Statistics Sweden and the Riksbank.

Chart 12
Household debt-to-income ratio in various countries, percentage of disposable income



Note: Note that data has been collected under different years for different countries. Data for Austria, Canada, the Czech Republic, Denmark, Finland, France, Germany, Italy, Korea, Latvia, the Netherlands, Norway and Poland is from 2015, while data for other countries is from 2014.

Source: OECD.



The Riksbank's employees were treated to a beautiful cake, decorated with a coin motif, in the staff dining hall.

Over the year, the Riksbank therefore recommended the Government and responsible authorities to take measures to reduce the risks in the household sector as soon as possible. For example, the Riksbank considered that measures directly targeting the housing market are necessary to create a better balance between supply and demand. Reforms that make households less willing or able to take on debt are also important, such as a gradual reduction of the tax relief on interest expenditure. The Riksbank also considered it essential that Finansinspektionen adopt macroprudential policy measures. A debt-to-income limit (a cap on how much debt one can have in relation to disposable income) is an effective measure to reduce the risks of household indebtedness. Another example of an appropriate measure is the introduction of minimum levels for the standard values that the banks use in their discretionary income calculations. Another conceivable reform would be to restrict the proportion of variable rate loans.

It has become evident, however, that the regulatory framework does not give Finansinspektionen a sufficiently clear mandate to take measures to counteract financial imbalances. Over the year, the Riksbank therefore recommended that the Government and Riksdag urgently clarify Finansinspektionen's mandate and tools for macroprudential policy. The Government announced in October that a broad political agreement had been reached on an extended mandate for macroprudential policy for Finansinspektionen. This will clarify and shorten the process when macroprudential policy measures are to be implemented. Furthermore, Finansinspektionen will be given a formal mandate to draft proposals for measures which will then have to be approved by the Government. The next step involves proposed new legislation being circulated for consultation by the Ministry of Finance. The Riksbank considers it positive that the mandate is to be set out in law and that quicker processes are to be introduced for the allocation of new tools to Finansinspektionen. However, the Riksbank considers it unfortunate that Finansinspektionen has not been given a mandate to independently decide on the application of these tools.

Since spring 2014, the Riksbank has also recommended that an amortisation requirement be introduced. This recommendation was fulfilled when the amortisation requirement for new mortgages that Finansinspektionen had previously announced entered into force on 1 June 2016.

It is important that the banks hold a sufficient amount of capital

The previously mentioned structural vulnerabilities in the Swedish banking system make it sensitive to shocks. To ensure high resilience, it is therefore important that banks hold sufficient amounts of capital. The major Swedish banks' risk-weighted capital requirements have been increased in recent years and are currently higher than the international minimum requirements. However, there are flaws in the risk-weighted capital requirements, which may mean that banks are underestimating their risks and therefore not holding enough capital. Since the autumn of 2014, the Riksbank has recommended Finansinspektionen to introduce a non risk-weighted capital requirement in the form of a so-called leverage ratio requirement as a complement as soon as possible. The leverage ratio requirement ensures that banks hold a certain amount of capital in

relation to their total assets. According to the recommendation, the requirement should initially be set at 4 per cent before being raised to 5 per cent in 2018. In September 2016, the major Swedish banks' leverage ratios were between 4.1 and 4.6 per cent.

The Riksbank also recommended that the countercyclical capital buffer value be set at 2.5 per cent with the aim of increasing the banks' resilience. In March 2016, Finansinspektionen decided to raise the countercyclical capital buffer value from 1.5 per cent to 2 per cent. The new level shall apply as from 19 March 2017. However, the Riksbank's recommendation of a level of 2.5 per cent still stands.

Over the year, the Riksbank analysed the regulations on Total Loss Absorbing Capacity (TLAC), which is aimed at ensuring that globally systemically important banks have sufficient capital and debt instruments to cover losses and recapitalise the bank if necessary. These rules mean that losses must be borne by the bank's shareholders and creditors instead of by the taxpayers. The Riksbank's calculations show that, if TLAC was to be introduced for all the major Swedish banks today, these banks would have to increase either their capital or their eligible liabilities to fulfil the requirement. However, it seems entirely possible for the banks to comply with these requirements before they become binding in 2019.

The Riksbank also submitted its views on the Swedish National Debt Office's proposal for how a minimum requirement for eligible liabilities (MREL), resembling TLAC, could be introduced for Swedish banks. In a consultation response, the Riksbank welcomed the Swedish National Debt Office's stance on how such a requirement should be calibrated in Sweden. However, among other things, the Riksbank pointed out that the requirement should not be one-sidedly based on the risk-weighted capital requirement but should also consider a leverage ratio requirement.

It is important that the banks manage their liquidity risks

The Riksbank also considered that it is important to have rules in place to ensure that the Swedish banks manage their liquidity risks in Swedish kronor. The banks need to be able to cope with shorter periods of liquidity stress in all currencies that constitute a significant proportion of their funding. Considering that the Swedish krona is the single most important currency in which the Swedish banks obtain funding, the Riksbank recommended that Finansinspektionen expand the current requirements for the liquidity coverage ratio (LCR) to also cover Swedish kronor.

In the autumn, the Riksbank also recommended that Finansinspektionen place requirements on the major Swedish banks' LCRs in all significant currencies. According to the Basel Accord and the European Commission's delegated Regulation 2015/61 on the LCR, a currency that constitutes more than five per cent of a bank's total liabilities is considered to be significant for the bank in question.

The LCR is a measure of a bank's ability to handle a liquidity outflow over a period of 30 days. Extending requirements for the LCR would ensure that the banks have a certain minimum level of liquid funds in a given currency. Although the major Swedish banks certainly have improved their LCRs in recent years, for example in Swedish kronor, placing a formal requirement would allow a return to lower levels to be avoided.

A requirement would also ensure that the banks do not fall below the minimum levels on certain days, as the LCR requirement must be fulfilled at all times when the markets are functioning normally.

The financial infrastructure was safe and efficient

The Riksbank analyses the financial infrastructure in Sweden every year and deemed that, in 2016, it was largely safe and efficient, but that it could be further strengthened by various measures. For example, there was room for improvements both in the financial infrastructures and in the regulations covering the financial infrastructures and their participants. A large part of the work on the financial infrastructure is carried out internationally and is described on page 45 under the heading International work to strengthen the financial system.

The Financial Stability Council

The Financial Stability Council met twice in 2016. At the council's first meeting in June, there was a broad consensus that measures need to be adopted to reduce the risks inherent in household indebtedness. The Riksbank emphasised the need for a combination of measures within several different policy areas. The council also discussed the United Kingdom's referendum on the EU and its possible negative effects on the financial markets. It was noted that the authorities were prepared for such a situation. At the council's second meeting in December, the council continued to discuss household indebtedness and agreed that further measures may be needed to restrain the accumulation of debt. In addition, proposals were discussed for minor adjustments to the Stability Council's working methods, as were lessons learned from a joint scenario exercise in which the new framework for crisis management was tested. A Memorandum of Understanding on matters of financial stability and crisis management was also signed in conjunction with the meeting. The MoU describes the authorities' remits, tasks and roles in the work of promoting financial stability and in crisis management. The MoU replaces a previous one from 2009. The Stability Council also has a preparatory group that met 13 times in 2016.

The retail payments council

Within the framework of its coordination responsibility for the Swedish retail payments council, the Riksbank continued the work of coordinating the activities prioritised in the retail payments council's work programme. In 2016, five working groups were formed under the retail payments council. Over the year, these worked with issues concerning money laundering, data protection, crises and vulnerabilities in the payment system, access to payment instruments and secure electronic payments.

The IMF assessed the Swedish financial sector and the economy

Over the year, the IMF carried out a special assessment of the financial sector in Sweden, a so-called FSAP (Financial Sector Assessment Program). The assessment involved the IMF analysing the financial sector, authorities, legislation and supervision. In the assessment, the IMF also brought up the deficiencies and risks discovered and proposed measures

to deal with them. Given the rising house prices and increased indebtedness among Swedish households, it was noted in the assessment that the risks that may threaten financial stability in Sweden have increased since the previous assessment in 2011. Among other things, the IMF recommended that the Riksbank's role within the area of financial stability should be clarified, that the role of the Financial Stability Council should be strengthened and that the Riksbank should be given clear responsibility for the analysis of systemic risk to be conducted within the framework of the stability council's work.

The IMF also visited Sweden for the annual Article IV consultation in September. This involved the IMF discussing the Swedish economy with various authorities and evaluating the policy conducted. In its statement on Sweden's economy, one of the views the IMF expressed was that economic growth is good, supported by the policy conducted, but it recommended further measures to stem the build-up of debt in the economy. As an example of appropriate measures, the IMF mentioned the phasing out of tax relief on interest expenditure, the gradual wind-down of rent regulations and further macroprudential policy measures such as, for example, a debt-to-income ratio, a leverage ratio requirement and tighter requirements for the liquidity coverage ratio in foreign currency.

The Riksbank prepared for the referendum in the United Kingdom

During the spring, the Riksbank made preparations for the United Kingdom's referendum on continued EU membership. These preparations included both monitoring of the financial markets and analysing the potential effects on the Swedish financial system of a withdrawal and of general unease in conjunction with the referendum. As well as monitoring and analysis, the Riksbank also worked on operational preparedness to have the possibility to rapidly adopt measures should the situation call for it. This operational preparedness included regular dialogue with other affected authorities and contacts with the Swedish banks and other central banks. Afterwards, the National Audit Office reviewed several authorities' preparations ahead of the British referendum and made the assessment that the Riksbank's preparations had been sufficient. The overall conclusions in the report were that the Riksbank and other reviewed authorities had made preparations to a reasonable extent and that crisis preparedness was good ahead of the British referendum.

International work to strengthen the financial system

Like other authorities with responsibility for financial stability in Sweden, the Riksbank is also engaged in issues dealing with the financial regulatory framework. Sweden is a small open economy that is highly affected by the development of the global economy. In addition, 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 to participate 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 global and EU levels. Normally, different countries' central banks and supervisory



Mårten Gomer of the Riksbank described security features of the banknotes.

authorities participate in these international discussions to gain a long-term perspective and to be able to take appropriate account of the level of technical detail. In many of these issues, the Riksbank also cooperates with Finansinspektionen, the Swedish National Debt Office and the Ministry of Finance in particular. This international work takes place primarily within the scope of the Basel Committee, the Committee on Payments and Market Infrastructures (CPMI), the 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

The Basel Committee is a global committee that both discusses banking supervisory issues and drafts standards, guidelines and recommendations for banks. Over the year, the Basel Committee worked towards finalizing the revisions to the so-called Basel III package of regulatory standards for banks. The Riksbank actively participated in this work on several levels. Governor Stefan Ingves is chairman of the Basel Committee. First Deputy Governor Kerstin af Jochnick is the Riksbank's representative on the Committee and, over the year, she also led the Committee's review of how Indonesia has implemented the Basel standards. The Riksbank's officials also participated in several of the Basel Committee's working groups.

Box 6 International commitments

Apart from the international and European cooperation in various regulatory issues, the Riksbank also has other international commitments.

The International Monetary Fund

The Riksbank's work with the IMF includes developing Sweden's position in cooperation with the Ministry of Finance ahead of discussions in and decisions by the IMF's Executive Board. For four years as of January 2016, Sweden will chair the Nordic-Baltic constituency and Thomas Östros will be Executive Director of the IMF Executive Board for the constituency.

The Riksbank contributes to the IMF's funding through capital contributions and temporary lending arrangements. In December 2010, IMF member countries adopted a number of reforms that affect the Fund's governance and lending capacity. The Swedish Riksdag approved these reforms in 2011 but in order for the decision to enter into force, acceptance was required by member countries having 85 per cent of the Fund's total voting power. This condition was not

fulfilled until December 2015, when the United States Congress approved the reforms. The decision formally entered into force at the end of January 2016.

One of the reforms entailed the doubling of the member countries' quotas, which can be likened to a capital contribution to the IMF. Countries' quotas determine their voting power and funding commitments in the IMF. In practice, this functions as a guaranteed line of credit in which the IMF can ask the Riksbank to provide funds from its foreign currency reserve, up to the amount promised, when needed for onward lending to other countries. The decision means that Sweden's capital contribution to the IMF will rise by SDR 2,035 million (Special Drawing Rights) to SDR 4,430 million (the equivalent of about SEK 54 billion at the exchange rate applicable on 31 December 2016).

The reform also means that a number of emerging market economies will receive relatively larger quotas and hence have more voting power as a result of their greater significance in the global economy. After the quota increase, Sweden's voting power in the

IMF has decreased from 1 per cent to 0.93 per cent. At the same time, the Riksbank's commitments under the IMF's New Arrangements to Borrow (NAB) decreased to a roughly equivalent extent as the NAB was temporarily increased in 2011 pending the entry into force of the quota increase. The Riksbank also wrote a proposal to the Riksdag, asking its permission to enter into an agreement on loans to the IMF of SDR 500 million (equivalent to about SEK 6 billion) for the funding of loans to low income countries under the framework of the IMF's Poverty Reduction and Growth Trust (PRGT). This was approved by the Riksdag on 17 March 2016 and, on 17 November 2016, the agreement was signed by both parties.

Technical assistance

In 2016, the Riksbank provided expert assistance in central bank issues, so-called technical assistance. Most activities took place in Ukraine, but expert assistance also covered initiatives in Albania, Kenya, Namibia and Palestine. The activities were financed by funds from the Swedish International Development Cooperation Agency, Sida.

Among other things, the work of the Basel Committee in 2016 covered matters such as the development of two new standardized approaches, one for calculating credit risk and one for calculating operational risk. It also worked on tightening the limits on certain parameters that the banks can use if they are allowed to use internal models to calculate their credit risk. The Basel Committee also continued its work on areas such as the level of the leverage ratio requirement and the floor for risk-weighted assets (the so-called output floor). In all these areas, the Riksbank actively participated in the work of drafting the standards that will ultimately apply also to Swedish banks.

Sweden is not a member of the FSB, which is an international organisation that oversees and makes recommendations for the global financial system. Over the year, the Riksbank participated in a number of the FSB's sub-groups and in the FSB's regional group for Europe. Governor Stefan Ingves participated in the FSB's meetings as part of his role as chairman of the Basel Committee. Over the year, the Riksbank was involved in initiatives such as the FSB's work on developing crisis management for financial infrastructure, which focused on central counterparties (CCPs). In addition, the Riksbank participated in the FSB's work of developing guidelines for how banks needing to be wound up or reconstructed may nevertheless be able to obtain funding and continue to have access to services that are of key importance to the group as a whole.

Global cooperation on financial infrastructure

Over the year, the Riksbank also participated in the work of the CPMI, which, together with the International Organisation of Securities Commissions (IOSCO), largely focused on the work of strengthening CCPs' resilience. The Committee evaluated how well a selection of CCPs complied with a selection of the international principles applying to these companies. In addition, a consultation document was published which proposed clearer guidance for CCPs regarding certain principles, such as those covering governance and stress tests. Over the year, the CPMI and IOSCO have also worked on raising awareness of cyber risks and increasing resilience against cyber threats within the financial infrastructure. Finally, the CPMI is to present a report on real-time payments, an area in which Sweden is far ahead, primarily due to the payment service Swish.

Over the year, the Riksbank also participated in the international oversight arrangements for several financial infrastructures in which payments and transactions with financial instruments are managed. These cover the two CCPs LCH Clearnet Ltd. and EuroCCP, as well as the settlement system for foreign exchange transactions, CLS. The Belgian Euroclear group, which includes the Swedish central securities depository Euroclear, is also included in the oversight arrangement. The Riksbank also participated in the oversight of SWIFT, which is a global supplier of secure financial messaging services, which are inter alia used by banks and central banks around the world.

European cooperation

Over the year, the Riksbank also participated in the EFC. Among other matters, the EFC discussed the Capital Markets Union and the EU banking union. The aim of the Capital Markets Union is to get non-financial corpo-



One of the younger visitors is happy to show off one of the new 100-krona banknotes featuring Greta Garbo.



One of the visitors studies a sheet of new 500-krona banknotes.

rations to obtain funding on the capital markets to a greater extent and thereby to reduce their dependence on the banks. The Riksbank welcomed this work but emphasised that the Capital Markets Union cannot replace the work being conducted to manage the problems in the banking sector or the work on improving supervisory requirements.

The Riksbank also responded to a consultation from the Commission aimed at evaluating the regulations for the financial sector put into place since the financial crisis. The Riksbank's response emphasised the importance of not watering down existing agreements. The Riksbank responded to the consultation together with Finansinspektionen and the Ministry of Finance.

European cooperation on macroprudential policy

The ESRB identifies, analyses and counteracts financial systemic risks in the EU. The Riksbank contributes to the ESRB's work by participating in the ESRB's General Board and in the Advisory Technical Committee (ATC), led by Governor Stefan Ingves, as well as in a number of expert groups.

In 2016, the Riksbank contributed to the ESRB's in-depth analysis of the EU countries' housing markets. The ESRB issued warnings on risks on the housing market to eight countries, including Sweden. Over the year, the ESRB also issued a recommendation to close data gaps for both the housing market and the commercial property market in the EU countries. The Riksbank also contributed to several of the reports published by the ESRB in 2016. These included a comprehensive report on the risks to financial stability that may be caused by a long period of low interest rates and structural changes in the EU financial system and possible measures to reduce these risks. In addition, it also published a report on the systemic risks that could arise as a result of the interoperability between CCPs and a new annual report that describes the development in the part of the financial sector that is not formed of banks and the potential systemic risks that could arise there. The Riksbank's experts also contributed towards the macroeconomic scenarios that the ESRB develops and which form the basis for the stress tests in the banking and insurance sector and the stress test of CCPs.

Through its participation in the European System of Central Banks (ESCB), the Riksbank was active in issues connected with the design of the future payment infrastructure in Europe, particularly as regards real-time payments like Swish and secure electronic payments. There was a particular focus on the European Central Bank's work on promoting a European regulatory framework for real-time payments between private individuals as well as solutions for the clearing and settlement of real-time payments. Within the framework of the cooperation between the European Central Bank and the European Banking Authority (EBA), the Riksbank discussed the level of security that should be applied to electronic payments under the new payment services directive.

Nordic-Baltic cooperation

Over the year, the Riksbank continued with the Nordic and Baltic cooperation in the field of financial stability. In 2016, two meetings of the NBMF were held. 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. Governor Stefan Ingves is chairman of the NBMF. 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 for the management of cross-border financial stability issues in the Nordic-Baltic region.

Detailed analysis

Within certain selected areas, the Riksbank worked to deepen its analysis of the financial system.

Market liquidity on the Swedish bond market

Over the year, the Riksbank studied how market liquidity on the Swedish bond market has evolved since the financial crisis and whether its development has affected the risks to financial stability. Market liquidity reflects how quickly and at what cost it is possible to convert a financial asset into liquid funds on the secondary market. This is important for how well the bond market functions, and lower market liquidity may ultimately lead to risks to financial stability.

The Riksbank found that different quantitative measures of market liquidity provided divergent pictures of the development and it was thus difficult to draw any unequivocal conclusions about the extent to which market liquidity has changed after the financial crisis. However, the development did not seem to have led to any deterioration of the functioning of the Swedish bond market or to have posed greater risks to financial stability.

Evaluation of the major Swedish banks' structural liquidity risks

Over the year, the Riksbank evaluated the major Swedish banks' structural liquidity risks. The study showed that the major Swedish banks are taking greater structural liquidity risks than many other European banks. This is due to the fact that Swedish banks have a greater proportion of illiquid assets and a smaller proportion of stable funding in comparison with other European banks. It was also noted that the upcoming regulation of the Net Stable Funding Ratio (NSFR) will not be sufficient to reduce the banks' structural liquidity risks. The study therefore presented a number of proposed measures.

The central banks' role as liquidity providers

A review of central banks' role as provider of liquidity was published in the Riksbank's journal *Economic Review*. Among other things, the article presented the tools that central banks have at their disposal to provide liquidity support and discussed the challenges and considerations arising under various types of liquidity shortage that can impact participants in the financial system. The article also discussed how the role of liquidity supplier was affected by the financial crisis, as well as by new regulations, structural changes in the financial sector and progress within financial technology.

Access to payment accounts with basic features

During spring, the Riksbank issued an opinion on the Ministry of Finance's consultation to the report Access to payment accounts with basic features. In its statement, the Riksbank largely welcomed the payment services inquiry's proposals for the implementation of the EU directive on access to payment accounts with basic features. However, in contrast to the inquiry, the Riksbank considered that the credit institutions' responsibility for servicing their customers' needs for payment services, including withdrawals and deposits of cash, needed to be clarified in law. Consequently, the Riksbank's statement recommended the Government and Riksdag to introduce a statutory obligation for credit institutions to offer their customers access to payment accounts with basic features. The Riksbank stated that the ongoing structural transformation is positive but needs to proceed at a pace that neither causes problems for certain groups nor excludes anyone from the payments market. The Riksbank also proposed that companies and associations should be covered by the right to open payment accounts with basic features.

Nordea's planned reorganisation

During the year, the Riksbank analysed the consequences of Nordea's plans to reorganise its operations at the start of 2017 (this reorganisation was implemented on 2 January 2017). The reorganisation meant that large parts of Nordea's banking operations in Denmark, Finland and Norway, which, prior to January 2017, were conducted via a separate subsidiary in each country, will instead be conducted through branches of the Swedish parent company. In its analysis, the Riksbank concluded that a reorganisation could entail some benefits but that, at the same time, it would mean an increase of the scope of the Swedish government's commitments, regarding both possible liquidity support from the Riksbank and possible government crisis management measures. Consequently, the Riksbank's opinion on Finansinspektionen's consultation regarding Nordea's applications for permission to implement their merger plans stated that there was reason to increase the bank's resilience by measures including strengthening liquidity and capital requirements. The Riksbank also pointed out that Finansinspektionen should be given sufficient resources to allow it to expand its supervision of the bank to the extent needed by the reorganisation.

THE RIX PAYMENT SYSTEM

The RIX payment system is a system for large-value payments in Swedish kronor, provided by the Riksbank. RIX handles large payments between banks and other players in a safe and efficient way. 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. For RIX to function in a safe and efficient manner requires sufficient credit limits among the participants, well-functioning management of collateral and well-functioning technical systems. In addition, the Riksbank continually exercises, on its own and together with the participants, the implementation of payments in a situation in which the technical system does not function.

Participants, transactions and turnover

In 2016, three new participants joined RIX and no participants chose to leave, meaning that at year-end there were a total of 29 participants in the system.

On average, RIX handled 17,951 transactions per day in 2016. This is an increase of 3.4 per cent compared with the previous year.

Daily turnover, adjusted for monetary policy instruments, averaged about SEK 439 billion. This implies an increase of 1.3 per cent compared with the previous year. The average transaction amounted to around SEK 35 million. The corresponding figure for 2015 was SEK 31 million. Every second year, the Riksbank conducts a survey to measure customer satisfaction. The purpose of the survey is to evaluate how the users of RIX perceive the Riksbank's services. No customer survey was carried out in 2016. The customer survey carried out in 2015 showed that customer satisfaction was very high. 100 per cent were satisfied or very satisfied. The target value for this is 80 per cent.

All costs relating to the provision of services in RIX are to be covered by fees paid by the participants. In 2016, these costs amounted to SEK 65.8 million, 81 per cent of which was covered by fees. Over a three-year period (2014–2016), cost coverage was 97 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 +/- 10 per cent.

On 1 March 2016, the additional fee, which is paid by participants with domestic revenues of at least SEK 1 billion, was raised from SEK 1,100,000 to SEK 1,500,000 per month. The increase of the additional fee was primarily due to increased costs for the new functions, EMS (cooperative platform) and BI (new report generator), which were added in 2015. Other fees were left unchanged.

Management of collateral and credit limits

To reduce the risk of transfers through the RIX system failing because of a participant lacks liquidity, the Riksbank supplies 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. The Riksbank's system for managing collateral is called COLIN.

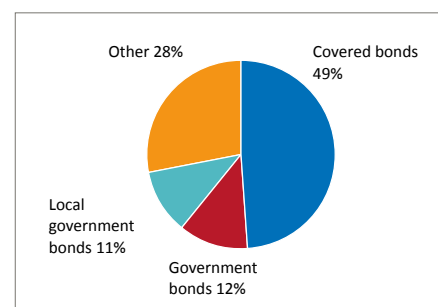
Swedish securities transactions are settled in special accounts provided by the Riksbank. Euroclear Sweden, the Swedish central securities depository, manages these accounts and credits on behalf of the Riksbank.

On average, the RIX participants had a credit facility of around SEK 172 billion per day, which is a decrease of around SEK 7 billion compared with the previous year. This credit facility was equivalent to the value of collateral which was pledged by the participants to the Riksbank. The sum of the maximum credit that each participant utilised per day was equivalent on average to 53 per cent of this credit facility.

In 2016, the conditions for collateral for loans have gradually changed. The aim of this has been to reduce the Riksbank's credit risk by tightening the conditions for covered bonds as collateral for loans at the Riksbank.

Chart 13

Collateral value pledged for credit in RIX per 31 December 2016, by type of security



Note: The total value of collateral pledged for credit in RIX amounted to SEK 130 billion on 31 December 2016.

Source: The Riksbank.

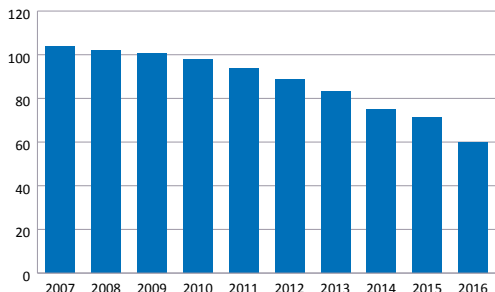
At the close of 2016, covered bonds comprised 49 per cent of the value of all collateral pledged to the Riksbank (see Chart 13). The corresponding figure for 2015 was 74 per cent.

The technical systems works well

To ensure that RIX continues to function securely and efficiently, the Riksbank needs to develop the systems continually. In 2016, RIX’s operating system was upgraded and minor corrections of the systems EMS (cooperative platform) and BI (data stores) were implemented. In COLIN, corrections of minor errors and an upgrade of the operating system and databases were carried out over the year. The work of introducing a new system for collateral is proceeding, but has been delayed slightly and is not expected to be concluded until the first part of 2017.

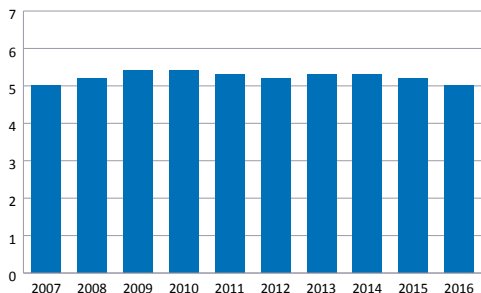
One of the targets for RIX concerns technical availability, which is to say the time in which the system functions and payments are settled. The target value for this is 99.85 per cent. The outcome for 2016 was 100 per cent. An interruption in RIX and adjacent systems can impact operations in different ways depending on how comprehensive the interruption is and the time of day at which it occurs. In 2016, no incidents meaning that RIX was unable to process payments occurred.

Chart 14
Average value of banknotes in circulation, SEK billion



Source: The Riksbank.

Chart 15
Average value of coins in circulation, SEK billion



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

Source: The Riksbank.

Crisis management, preparedness and cooperation 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 2016, as in previous years, the Riksbank carried out exercises of varying scope, both independently and with the participants. For example, three 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 any consequences, exercise cooperation with others and take the right decisions in a crisis.

In 2016, together with the Swedish National Debt Office, clearing organisations and major banks, the Riksbank established a routine for cooperation that can be used if a serious operational disruption occurs in the central functions for clearing and settlement in the Swedish payment system.

The Riksbank also participates in the financial sector’s private-public cooperation group (FSPOS), which is chaired by a representative of the Riksbank’s Cash and Payment Systems Department. This is a voluntary forum with members from both the public and private segments of the Swedish financial sector. The aim of FSPOS is to strengthen the financial sector’s ability to counter threats and manage operational crises.

CASH PROVISION

In 2016, the Riksbank continued to provide banknotes and coins to the banks and to follow the development of the value of cash in circulation. In October, the Riksbank entered the second stage of the changeover of Sweden’s banknotes and coins and, over the year, three of the older banknotes became invalid.

The value of cash in circulation has decreased

The Riksbank continually monitors the development of the amount of cash in circulation. The value of cash in circulation has decreased heavily in 2016 (see Table 3 and Chart 14 and 15). The decrease in the amount of cash in circulation has probably been highly affected by the Riksbank's changeover of banknotes and coins. Some banknotes and coins that have probably been saved by members of the public will not be replaced by new ones. The total value of cash in circulation was SEK 62 billion at year-end 2016. The value is governed by the demand for banknotes and coins, which varies over the course of a year. Another 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 the month over the twelve months of the year. This average value amounted to SEK 65 billion in 2016, of which the value of banknotes amounted to SEK 60 billion (see Chart 14) and the value of coins amounted to SEK 5 billion (see Chart 15). At the end of 2016, the value of banknotes amounted to SEK 58 billion and the value of coins to SEK 5 billion (see Table 3).

One issue that the Riksbank has started to investigate over the year is whether the Riksbank, considering the heavy decrease in the use of cash, will in future, start to issue electronic cash as a complement to banknotes and coins.

Table 3

Value of banknotes and coins in circulation, SEK billion

	2012	2013	2014	2015	2016
Total value on 31 December	96	86	83	73	62
Banknotes	91	80	78	68	58
Coins	5	5	5	5	5
Total value, average during the year	94	88	80	77	65
Banknotes	89	83	75	71	60
Coins (excluding commemorative coins)	5	5	5	5	5

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

Source: The Riksbank.

The banknote and coin changeover continues

The Riksbank started to issue the new 20, 50, 200 and 1,000-krona banknotes in October 2015. In June 2016, the older 20, 50 and 1,000-krona banknotes became invalid. Following this, the banknotes could be deposited in bank accounts until 31 August 2016. Since the changeover started, older 20, 50 and 1,000-krona banknotes to a value of just over SEK 6 billion have been returned to the Riksbank.

The Riksbank has conducted a great deal of work in the dissemination of information to the general public, banks and retail trade. In the spring, the Riksbank conducted the campaign Efterlyst ("Wanted") to inform the public that three banknotes were to become invalid.

In October 2016, the Riksbank began to issue new 100 and 500-krona banknotes, and new 1, 2 and 5-krona coins. On 3 October, members of the public were offered the opportunity to exchange money for the new 100-krona banknote and the new coins at the Riksbank and visit an exhibition on the new banknotes and coins. For a time, it will be possible to pay with both the older and the new banknotes and coins. The 10-krona coin will remain unchanged. At the end of 2016, there were new banknotes in a value of SEK 23 billion and older banknotes in a value of SEK 32 billion (see Table 4). The value of new coins amounted to SEK 0.2 billion and the remaining part consists of older coins (see Table 5).



Governor Stefan Ingves walking to the nearest bank branch to deposit coins that will become invalid after 30 June 2017.



Almost time for the press conference on the new coins and the new 100 and 500-krona banknotes.

Over the autumn, the Riksbank continued the work of informing the public of the second stage of the changeover. In October, the Riksbank's pamphlet "The banknote and coin changeover continues" was distributed to all Swedish households. The pamphlet was translated into 30 different languages. It was also made available in braille and as a CD, and is available in sign language on the Riksbank's website.

Table 4

Value of banknotes in circulation per 31 December 2016, allocated by new and older banknotes, SEK million

Denomination	New banknotes	Older banknotes	Total
20	1 032		1 032
50	988		988
100	1 509	3 662	5 172
200	6 513		6 513
500	9 543	28 397	37 940
1 000	3 299		3 299
Banknotes invalid 2016*			1 209
Other invalid banknotes**			1 383
Total	22 884	32 059	57 535

* The item banknotes invalid 2016 includes banknotes that ceased to be legal tender at the end of June 2016.

** The item other invalid banknotes includes banknotes that ceased to be legal tender at the end of 2013.

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

Source: The Riksbank.

Table 5

Value of coins in circulation per 31 December 2016, allocated by new and older coins, SEK million

Denomination	New coins	Older coins	Total
1	40	1 209	1 249
2	53	8	61
5	89	1 103	1 191
10			2 320
Commemorative coins			37
Total	182	2 320	4 858

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

Source: The Riksbank.

Over the year, the Riksbank has also issued information on the banknote and coin changeover via printed material, including stickers and posters, to make it easier for banks and shops to inform their customers of the changeover. The Riksbank has actively worked on informing social groups that may find it more difficult to obtain information through the usual channels to ensure that everybody has a chance of obtaining information on the changeover.

Other information channels used are the app "Kolla pengarna", the Riksbank's website and the Facebook page "Kolla pengarna". Over the year, the changeover received great attention in the media. The Riksbank also launched the website myntkartan.se over the year. At myntkartan.se, it is possible to look for information on the closest place where coins can be deposited by users holding large amounts of these.

In 2016, the Riksbank worked on various practical preparations ahead of the second stage of the changeover and consulted with cash market agents, including banks, the retail industry and cash-in-transit companies.

The Riksbank offered companies manufacturing equipment for banknote and coin handling access to the new banknotes and coins to help adjust their equipment. Over the year, the Riksbank also started to receive larger amounts of coins which were no longer needed in society due to the changeover. These coins are sold and melted down for metal recycling.

The Riksbank's assessment, after contacts with cash market agents, is that the introduction of the two new banknotes and the three new coins went smoothly. Among other things, the distribution and adjustment of equipment for handling banknotes and coins worked well. The older banknotes and coins will be gathered in continuously over the changeover period.

Cash in society

The Riksbank receives regular updates on how the provision of cash in society is functioning from the Riksbank's Cash Handling Advisory Board and the working groups linked to the Board. The Board includes representatives of the banks, bank-owned companies, cash-in-transit companies, the retail trade, trade unions and the authorities concerned. The Cash Handling Advisory Board held one meeting in 2016. The banknote and coin changeover was the main issue addressed there.

There was little counterfeiting of Swedish banknotes in 2016 (see Table 6). The value of counterfeit notes removed from circulation between January and November amounted to SEK 193,540. The number of counterfeit banknotes over this period amounted to 364. Just over 40 per cent of the number of counterfeits consisted of 1,000-krona banknotes.

The Riksbank deems that cash provision functioned well in 2016, that the quality of the banknotes was good and that confidence in banknotes and coins was high in Sweden. A survey of the Swedish people's payment patterns, conducted in 2016, shows that, out of every ten people asked, nine feel secure when they use cash and that most consider that the banknotes are of good quality. The survey also showed that cash is used by most people in Sweden, with eight out of ten reporting that they had used cash over the last month. One in three also reported that it would not be possible to cope without cash in society as it is at present. The survey showed, in general, that access to payment services is good and that most payments in Sweden are made using a debit card, closely followed by cash and online banking. The survey also showed that mobile payments are becoming increasingly common.

Table 6

Number of banknotes and coins

	2012	2013	2014	2015	2016
Number of banknotes in circulation (millions)	336	334	325	317	288
Number of coins in circulation (millions)	1 889	1 911	1 918	1 917	1 823
Number of counterfeited banknotes	533	1 048	246	295	364

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 counterfeit banknotes for 2016 refers to the months January–November.

Source: The Riksbank.

Asset management

During 2016, asset management was marked by the Riksbank's expansionary monetary policy, which included purchases of Swedish government bonds. These extensive bond purchases led to a considerable increase in the balance sheet total. The fall in Swedish and European interest rates over the year also caused the value of the assets to increase. The foreign assets were also positively affected by the Swedish krona weakening on average against the currencies in the foreign currency reserve.

FINANCIAL ASSETS AND LIABILITIES

The Riksbank manages financial assets to ensure that it can fulfil its statutory objectives and perform its tasks (see the section The tasks and role of the Riksbank). The financial assets largely consist of the gold and foreign currency reserves. This gives the Riksbank the possibility to supply temporary liquidity assistance in foreign currency if necessary and to be prepared to intervene on the foreign exchange market. The foreign currency reserve consists 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 nominal and real government bonds that the Riksbank purchased in 2015 and 2016 for monetary policy purposes (see the section Maintaining the value of money – price stability). The Riksbank's assets also include receivables from the IMF, as the Riksbank 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 (see Box 6 – International commitments).

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. 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 Swedish National Debt Office in order to strengthen the foreign currency reserve.

Over the year, the balance sheet total increased by SEK 181.4 billion to SEK 844.8 billion, primarily due to the Riksbank's purchases of Swedish government bonds (see Chart 16). The Riksbank's equity (including the financial result for the year and the revaluation accounts) increased by SEK 21.2 billion to SEK 118.7 billion, mostly due to an increase of the value of the gold and foreign currency reserves. At the end of 2016, the total return on the Riksbank's financial assets and liabilities amounted to SEK 24.4 billion (see Table 7).

A more detailed description of the various components of asset management and their development over the year can be found in the following section.

Table 7

The Riksbank's asset management at the end of 2016, SEK million

	Assets	Liabilities	Return	Return excl. exchange rate effects
Gold and foreign currency reserves incl. the IMF	541 267	296 857	16 929	1 888
Gold reserve	42 412	–	6 171	–
Foreign currency reserve	469 782	269 307	10 795	1 887
IMF	29 073	27 550	–37	1
Derivative instruments	–	917	75	17
Monetary policy transactions	11	365 112	1 563	1 563
Standing facilities	–	198	2	2
Fine-tuning transactions	2	144 143	559	559
Riksbank Certificates	9	220 771	1 002	1 002
Loan to central bank	–	–	3	3
Securities in SEK	302 068	–	5 875	5 875
Total	843 346	662 886	24 445	9 346

Note: 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 primarily to be 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 assistance to Swedish banks, to fulfil Sweden's part in the IMF's international lending and to intervene in the foreign exchange market. Secondly, management strives to achieve a good risk-adjusted return. In 2016, the Riksbank assessed that the composition of the gold and foreign currency reserves was appropriate for the Riksbank's purposes at the same time as it achieved a good risk-adjusted return. The overall distribution of assets in the gold and foreign currency reserves was therefore held unchanged over the year.

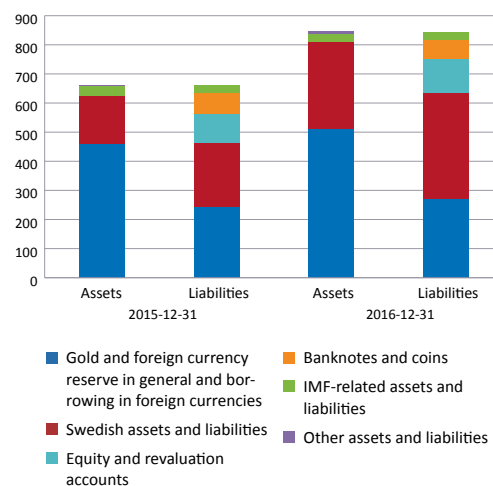
Being able to provide temporary liquidity assistance in foreign currency at short notice places heavy demands on the composition of the gold and foreign currency reserves. Most of the foreign currency reserve is maintained in those currencies in which emergency liquidity assistance may be needed and in such assets as can rapidly be converted into liquid funds. Consequently, the foreign currency reserve focuses on assets in US dollars and euro. At the end of the year, the assets in US dollars and euros amounted to 50 per cent and 31 per cent respectively of the gold and foreign currency reserves (see Chart 17).

In 2016, in order to spread the risks, the Riksbank followed the procedure of previous years and invested a small part of the reserve in other currencies than the US dollar and the euro. These investments were mostly made in British government bonds, Australian government and federal state bonds and Canadian government and provincial bonds.

As the Riksbank's assets mainly consist of US dollars and euro, the bank's financial result is affected by the way the value of these two currencies develops in relation to the Swedish krona. However, the effect on the

Chart 16

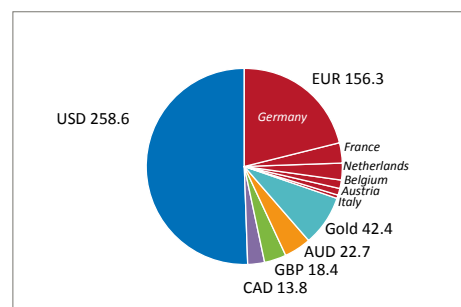
The Riksbank's balance sheet at the end of 2015 and 2016, SEK billion



Source: The Riksbank.

Chart 17

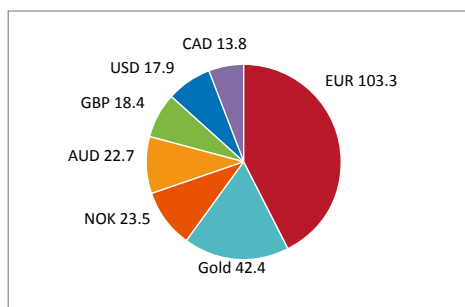
Composition of the foreign currency reserves at the end of 2016, SEK billion



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

Source: The Riksbank.

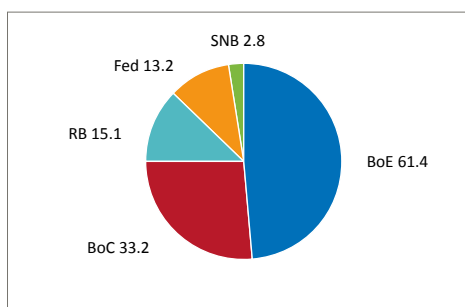
Chart 18
The Riksbank's foreign currency exposure at the end of 2016, SEK billion



Note: The figures in the chart show the Riksbank's foreign currency exposure including accrued interest. The calculation of foreign currency exposure is based on both assets and liabilities (including currency swaps) and is reported in the chart for the Riksbank's net receivables.

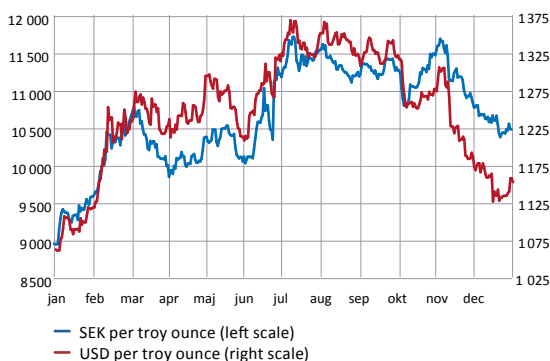
Source: The Riksbank.

Chart 19
Storage of the gold reserve at the end of 2016, tonnes



Source: The Riksbank.

Chart 20
Gold price movements, 2016



Note: One troy ounce is equivalent to about 31 grammes.

Source: Reuters.

result is counteracted by the Riksbank also having liabilities in US dollars and euro. To further reduce the effect of exchange rate changes, over the year the Riksbank converted some of its exposure to US dollars to exposure to Norwegian kroner with the aid of what are known as currency swaps. A currency swap is an agreement to exchange one currency for another currency over a predetermined period of time. Chart 18 shows the Riksbank's currency exposures at the end of the year.

Due to the internationally-low interest rates and the increased risk of an increase in interest rates, the Riksbank decided, over the year, to retain the interest-rate sensitivity of the foreign currency reserve at a fairly low level around 3, measured as modified duration. The measure shows how sensitive the value of a debt security is to changes in the interest rate. A modified duration of 3 means that the value of the foreign exchange reserve would fall by almost 3 per cent if interest rates increased by 1 percentage point, and the reverse if interest rates were to fall by 1 percentage point.

The size of the gold reserve was held unchanged in 2016 at 125.7 tonnes. The Riksbank's gold reserve is stored with 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), Switzerland (the Swiss National Bank) and at the Riksbank (see Chart 19). As in previous years, the Riksbank also stored gold on behalf of others in 2016.

Positive return on the gold and foreign currency reserves

The return on the foreign currency reserve amounted to SEK 10.8 billion, which corresponds to 6.5 per cent. The positive return is mainly due to the fact that the currencies in the foreign currency reserve strengthened on average against the Swedish krona over the year. The total exchange rate effect, which is to say return attributable to exchange rate fluctuations, amounted to SEK 8.9 billion or 4.9 per cent. The return excluding exchange rate effects amounted to SEK 1.9 billion or 1.5 per cent, primarily because interest rates in general fell on the European markets where the Riksbank had invested parts of its assets.

Gold is traded and priced in US dollars, and, in 2016, the price of gold expressed in dollars increased by 8.5 per cent (see Chart 20). As the dollar strengthened against the Swedish krona, the price of gold in kronor increased by 17.0 per cent. The value of the Riksbank's holdings of gold thus increased by SEK 6.2 billion over the year.

Over the year, the Riksbank's liability to the Swedish National Debt Office was, in principle, held unchanged in foreign currency. However, the value of this liability, measured in kronor, increased by SEK 16.5 billion, reaching SEK 258.0 billion by the end of the year. Loans in US dollars and euros amounted at year-end to 79 per cent and 21 per cent respectively of the liability to the Swedish National Debt Office.

At the end of the year, the total value of the Riksbank's derivative instruments was negative and entailed a liability of SEK 0.9 billion. The return on these derivative instruments excluding exchange rate effects amounted to SEK 17 million over the year (see Table 7). More information on derivative instruments can be found on page 66.

February saw the conclusion of the six-month long swap agreement that the Riksbank had entered into with the National Bank of Ukraine in September

2015. The lending to Ukraine had a positive impact on the Riksbank's net interest income in 2016 to an amount equivalent to SEK 3 million.

Evaluation of the management of the foreign currency reserve in 2016

The Riksbank's management of the foreign currency reserve is evaluated by making a comparison of the risk-adjusted return on the foreign currency reserve with an equivalent return on what is known as a reference portfolio. This reference portfolio is composed of the securities that are particularly important if the Riksbank is to be able to carry out its tasks without considering the return. In 2016, the reference portfolio therefore consisted exclusively of 60 per cent US and 40 per cent German government bonds, whose overall interest-rate sensitivity, measured as modified duration, was 4.0. The risk-adjusted return is calculated both excluding and including exchange rate effects.

The risk-adjusted return in Swedish kronor was higher for the foreign currency reserve than it was for the reference portfolio (see Table 8). The foremost reason for this was that the diversification to more currencies entailed a lower risk in the foreign currency reserve measured in terms of volatility.

Measured in local currency, it was primarily the foreign currency reserve's lower interest rate sensitivity that contributed towards the risk-adjusted return on the foreign currency reserve being higher than that of the reference portfolio (see Table 8). The foreign currency reserve's more diversified composition also contributed towards the higher risk-adjusted return in local currency.

Table 8

Return, risk and Sharpe ratio at the end of 2016, return and risk as a percentage

	Foreign currency reserve	Reference portfolio
Measured in Swedish kronor		
Return	6.5	7.9
Risk	4.7	6.2
Sharpe ratio	1.5	1.4
Measured in local currency		
Return	1.5	1.3
Risk	1.5	2.3
Sharpe ratio	1.2	0.6

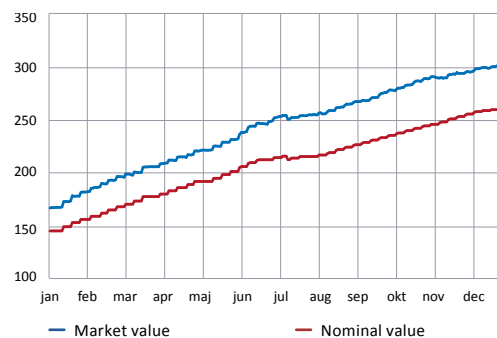
Source: The Riksbank.

SECURITIES IN SWEDISH KRONOR

Over the year, the Riksbank purchased Swedish nominal and real government bonds for monetary policy purposes to a nominal value totalling SEK 119 billion (see the section Maintaining the value of money – price stability). The greater part of this amount, SEK 104 billion, referred to purchases of nominal government bonds. Over the first six months, purchases of nominal bonds were complemented by purchases of real bonds to attain a broad impact on various Swedish interest rates. In addition, the Riksbank started to reinvest maturities and coupon payments on the government bond portfolio to maintain the expansionary monetary policy. All bond purchases over the year were conducted on the secondary market at a total of 66 auctions (see Chart 21).

Chart 21

The Riksbank's holdings of Swedish government bonds 2016, 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.

Source: The Riksbank.

The market value of the holdings of Swedish government bonds was positively impacted by the fall in Swedish interest rates over the year and the return on the holdings amounted to SEK 5.9 billion (see Table 7). However, the comprehensive purchases of Swedish government bonds have also meant that the risks on the Riksbank's balance sheet have increased and that the Riksbank's return is now more sensitive to interest rates (a more detailed risk analysis can be found in the section Analysis of the Riksbank's financial result and equity). At the end of the year, the market value of the Riksbank's holdings of Swedish government bonds amounted to SEK 302.1 billion. The remaining time to maturity on the bonds varied from 7 months to 22 years and the bonds' total interest-rate sensitivity, measured as modified duration, amounted to 5.0. As a proportion of the outstanding stock of Swedish nominal and real government bonds, the Riksbank's holdings amounted to 32 per cent.

MONETARY POLICY TRANSACTIONS

The Swedish banking system has a structural liquidity surplus that is regularly deposited at the Riksbank through various monetary policy transactions. The Riksbank mainly borrows the liquidity surplus either via overnight loans, so-called fine-tuning transactions, or by issuing Riksbank Certificates. This borrowing means that the Riksbank has a debt to the banks. The Riksbank also provides so-called standing facilities, which means that the banks can borrow money from or deposit money with the Riksbank over-night.

Deposits from the banking system amounted to SEK 365.1 billion at year-end, which is an increase of SEK 150.8 billion from the previous year (see Table 7). This increase is largely due to the Riksbank's purchases of Swedish govern-

Box 7 The Riksbank's financial risks

The financial risk policy of the Riksbank establishes the overall frameworks for the risk the Riksbank is prepared to accept in asset management. The follow-up of the risks the Riksbank is exposed to is mainly carried out in the Markets Department, where the Middle Office is responsible for day-to-day risk control and for calculating the return on the Riksbank's assets. There is also a Risk Division in the Riksbank, which is part of the General Secretariat and is responsible for overall risk control (see the section "Organisation and governance").

The Riksbank's financial risks consist of liquidity risks, market risks and credit risks. Liquidity risk is defined as the risk that the Riksbank will be unable to perform its tasks and meet its commitments because the assets in the gold and foreign currency reserves cannot be sold in time or can only be sold at a significantly reduced price and/or higher cost. Market risk, which can in its turn be divided into foreign exchange risk, interest rate risk and gold price risk, is the risk that the market value of the Riksbank's assets will fall. Credit risk is the risk of losses due to the Riksbank's counterparties or issuers of the securities in which the Riksbank has invested failing to meet their financial commitments.

The Riksbank follows up the risks in its asset management on a

continuous basis using Value-at-Risk (VaR) as the main measurement of market risk. VaR measures the potential loss that may arise, with a particular probability, from an investment as a result of price movements during a given period of time. The measure is based on historical data. The return on the assets in the foreign currency reserve is also measured taking into account the risk the Riksbank takes when managing these assets. The risk-adjusted return is calculated with the aid of what is known as a Sharpe ratio. The measure specifies the portfolio's return in excess of the risk-free rate in relation to its risk measured as a standard deviation.

In addition to regularly following up the risks in the asset management, the Riksbank also regularly stress tests the sensitivity of the gold and foreign currency reserves to unexpected market events. The stress tests show how much the value might decline if a particular scenario, imagined or historical, were to occur.

In addition to financial risks, there are operational risks. These risks exist in all activities and can lead to losses if, for instance, someone makes a mistake or does something unlawful, or if an error arises in the technical systems (see Box 2 – Risks in the Riksbank's activities).

ment bonds for monetary policy purposes (see the section Maintaining the value of money – price stability). The increased deposits can also be explained by a decline in the value of outstanding banknotes and coins of SEK 11.1 billion (see the section Cash provision) and by the Riksbank transferring SEK 2.8 billion to the Treasury in April. Over the year, negative deposit rates led to total deposits generating SEK 1.6 billion in interest income. Average deposits during the year via Riksbank Certificates and fine-tuning transactions amounted to SEK 204.2 billion and SEK 94.2 billion respectively.

SWEDEN'S FINANCIAL COMMITMENTS TO THE IMF

Asset management is also affected by the Riksbank's responsibility for the financial obligations ensuing from Sweden's membership of 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 to the Fund. The Riksbank's commitments to the IMF are described in more detail in Box 6 – International commitments and in the section Balance sheet and profit and loss account.

Over the year, Sweden's capital contribution (quota) to the IMF were increased by 2,035 million special drawing rights (SDR). In conjunction with the quota increase, Sweden's commitments under the NAB arrangement to borrow decreased by a roughly corresponding amount, meaning that Sweden's total commitment to the IMF did not increase as a result of the quota increase. However, total commitments to the IMF increased when the Riksbank entered into an agreement on loans to the IMF of SDR 500 million for the funding of loans to low-income countries within the framework of the IMF's Poverty Reduction and Growth Trust (PRGT). The Riksbank's other transactions with the IMF, which is to say those related to the IMF's onward lending to other countries, contributed towards the utilised part of Sweden's commitments to the IMF decreasing over the year. All in all, the IMF only utilises a small part of the maximum commitment, corresponding to just over SEK 252 billion (see Table 9).

The value of the Riksbank's receivables from the IMF was SEK 29.1 billion at the end of the year, while the value of the Bank's liabilities to the IMF was SEK 27.6 billion (see Table 7). The return on the net receivables amounted to SEK 1 million over the year, excluding exchange rate effects.

Table 9

Sweden's financial commitments to the IMF at the end of 2016, SEK million

	Utilised	Maximum	Unutilised
Capital contribution (quota)	1 065	54 249	53 184
NAB	3 371	27 627	24 256
Credit agreement	–	82 047	82 047
PRGT	–	6 123	6 123
SDR	24 399	82 622	58 223
Total	28 836	252 668	223 833

Note: The utilised part of Sweden's commitment to the IMF does not include in the item PRG-HICP lending, which means that the value of the utilised part differs from the value of the Riksbank's receivables from the IMF (see also Note 2 in the section Balance sheet and profit and loss account).

Source: The Riksbank.



Two of the approximately 1,100 external visitors who took the opportunity to change money for a 'Garbo' and a selection of coins at the coin launch on 3 October.

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 securities mature and are replaced by new ones. However, at the same time, the value of the Riksbank's securities will fall, which is expected to impair the total return from asset management (interest income plus change in market value). In 2016, the total return on the Riksbank's foreign securities was positive. However, in the long run, interest rates are expected to rise from the current very low levels. In addition, the krona is expected to appreciate gradually, reducing the value in Swedish kronor of assets denominated in foreign currency. The analysis shows that, over the next five-year period, the Riksbank can be 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 the latter case, the Riksbank's ability to make dividend payments to the government will decrease.

The purchases of Swedish government bonds made by the Riksbank in 2015 and 2016 also affect its result. The bond purchases were funded by increased deposits 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), fine-tuning transactions (the repo rate minus 0.10 percentage points) and deposit facilities (the repo rate minus 0.75 percentage points). The repo rate is currently negative, meaning that deposits from the banks are making a positive contribution to the Riksbank's result. In addition, in 2016, Swedish bond yields fell, increasing the value of the Riksbank's government bonds. If the repo rate rises, the cost of funding the holdings of government bonds will increase, impairing the Riksbank's result. A higher level of interest rates than is currently priced on the bond market additionally means that the value of the Riksbank's Swedish government bonds will decrease.

The buffers in the form of unrealised profits that have been built up in recent years may be utilised if market rates rise over the next few years. Sufficient resources are a precondition for the Riksbank to be able to carry out its tasks independently in all situations. The current amount of equity is deemed to be sufficient to carry out the complementary monetary policy measures already decided upon and also to adopt further measures without jeopardising the Riksbank's financial independence.

Box 8 Performance 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, "result" is not a clear-cut concept. There are several ways to calculate the result of the Riksbank's operations and different measures are used in different contexts.

The broadest measure of the result can be termed total result and describes how the Riksbank's equity (including the revaluation accounts) has changed over the year. In 2016, equity increased by SEK 21,150 million. In that equity fell by SEK 2,800 million when the Riksbank made dividend payments to the government over the year, the total result for 2016 amounted to SEK 21,150 + 2,800 million = SEK 23,950 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, when it sells previously purchased securities or when it pays 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 10, the total result for 2016, that is SEK 23,950 million, has been divided into four parts. The realised result from interest rates and securities amounted to SEK 3,554 million. This includes the Riksbank's interest income and interest expense 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, and costs for personnel, administration and depreciation. The realised result from gold and currency transactions, including write-downs, amounted to SEK 3,456 million. The unrealised result as a result of falling interest rates amounted to SEK 5,297 million, while the result relating to rising gold prices and exchange rates was SEK 11,643 million.

Table 10

Result matrix, SEK million

	Interest and securities	Gold and currency
Realised result	3 554	3 456
Unrealised result	5 297	11 643

Source: The Riksbank.

The Riksbank's reported result, that is the result taken up in the Riksbank's income statement, comprises all the realised results stemming from interest rates and securities transactions as well as from gold and foreign exchange transactions. The Riksbank's reported result for 2016 amounted to 3,554 + 3,456 = SEK 7,010 million.

The result on which the dividend to the State is based comprises both realised and unrealised results linked to interest rates and securities, but excludes all results relating to gold and foreign exchange. In 2016, this result amounted to 3,554 + 5,297 = SEK 8,851 million. The size of the dividend itself is arrived at 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 11.

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 2016, this value amounted to SEK 62,393 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 913 million, SEK 247 million were costs for managing banknotes and coins.

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 8.4 per cent of the balance sheet, it is assumed that 8.4 per cent of the total earnings come from the assets corresponding to banknotes and coins. Calculated in this way, SEK 357 million of the Riksbank's total interest income from assets of SEK 4,244 million (SEK 5,829 excluding interest income regarding deposits from the Riksbank's counterparties of SEK 1,585 million) can be said to come from these assets. Similarly, SEK 450 million of the total net result of financial transactions, excluding write-downs, of SEK 5,360 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 357 + 450 - 247 = SEK 560 million. It is this sum that is referred to as the Riksbank's seigniorage.

Table 11

Result measures 2016, SEK million

	Total	Reported	Basis for dividend
Interest income	5 829	5 829	5 829
Interest expense	-2 431	-2 431	-2 431
Net result of financial transactions and write-downs	4 152	4 152	696
of which, sale of securities	1 904	1 904	1 904
and gold and currency respectively	3 456	3 456	-
of which, write-downs of securities	-1 208	-1 208	-1 208
and gold and currency respectively	-	-	-
Net result of changes in value (unrealised result)	16 940	-	5 297
of which, changes in value of securities	5 297	-	5 297
and gold and currency respectively	11 643	-	-
Other income	373	373	373
Total net income	24 863	7 923	9 764
Personnel and administration costs and depreciation	-913	-913	-913
of which, costs for managing banknotes and coins	-247	-247	-247
other costs	-666	-666	-666
Result for the year	23 950	7 010	8 851

Source: The Riksbank.

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 (ECB/2016/34). Under Chapter 10, Article 3 of the Sveriges Riksbank Act the Riksbank must apply the accounting guidelines of the European System of Central Banks (ESCB) where relevant. The Riksbank's rules for bookkeeping and annual accounts were updated following the updating of the guideline of the European System of Central Banks with a number of clarifications.

Changes in accounting policies

No changes in accounting policies were made in 2016.

Basic accounting policies

The following basic 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 in 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 economic benefit associated

with the asset or liability item will flow to or from the Riksbank and that substantially all of the risks and rewards associated with the asset or liability have been transferred to 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 booked 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:

	31.12.2016	31.12.2015
EUR/SEK	9.5824	9.1689
USD/SEK	9.1092	8.4424
GBP/SEK	11.2431	12.4471
AUD/SEK	6.5732	6.1482
CAD/SEK	6.7815	6.0860
SDR/SEK	12.2458	11.6989
UAH/SEK	–	0.3514
NOK/SEK	1.0544	0.9539
JPY/SEK	7.7927	0.0702

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. Direct staff costs attributable to IT investments developed in-house 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 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 profit or loss earlier if only a small amount is expected to remain to be redeemed and a provision is made 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 recognised in the profit and loss account.

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

Unrealised losses are recognised in profit and loss if they exceed unrealised gains that may have been previously recorded 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 currency 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 assets and groups with a negative value as liabilities.

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.

Gold options are booked on the trade date in an amount corresponding to the premium paid or received. On the closing day the book value is adjusted to a value corresponding to the number of troy ounces in the contract translated at the closing day option price and exchange rate. The option price is calculated on the basis of a recognised calculation model.

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

Balance sheet

<i>SEK million</i>	Note	31.12.2016	31.12.2015
ASSETS			
Gold	1	42 412	36 241
Claims on residents outside Sweden denominated in foreign currency		496 033	456 969
Receivables from the IMF	2	29 063	34 115
Balances with banks, loans and security investments	3	466 970	422 854
Lending to credit institutions in Sweden related to monetary policy operations denominated in Swedish kronor		0	–
Marginal lending facility	4	0	–
Securities of residents in Sweden denominated in Swedish kronor	5	298 645	163 762
Other assets		7 722	6 409
Tangible and intangible fixed assets	6	667	670
Financial assets	7	522	522
Derivative instruments	8	–	–
Prepaid expenses and accrued income	9	6 268	4 900
Other assets	10	265	317
Total assets		844 812	663 381

<i>SEK million</i>	Note	31.12.2016	31.12.2015
LIABILITIES AND EQUITY			
Banknotes and coins in circulation		62 393	73 451
Banknotes	11	57 535	68 193
Coins	12	4 858	5 258
Liabilities to credit institutions in Sweden related to monetary policy operations denominated in Swedish kronor		144 341	70 922
Deposit facility	13	198	96
Fine-tuning operations	14	144 143	70 826
Debt certificates issued	15	220 771	143 420
Liabilities to residents outside Sweden denominated in Swedish kronor	16	232	8 292
Liabilities to residents in Sweden denominated in foreign currency	17	256 723	240 537
Liabilities to residents outside Sweden denominated in foreign currency	18	11 264	–
Counterpart of Special Drawing Rights allocated by the IMF	19	27 540	26 310
Other liabilities		2 371	2 832
Derivative instruments	20	910	1 619
Accrued expenses and prepaid income	21	1 424	1 174
Other liabilities	22	37	39
Provisions	23	503	93
Revaluation accounts	24	60 313	43 373
Equity		51 351	52 197
Capital	25	1 000	1 000
Reserves	26	50 351	51 197
Profit for the year		7 010	1 954
Total liabilities and equity		844 812	663 381

Memorandum items, see Note 38

Profit and loss account

<i>SEK million</i>	Note	2016	2015
Interest income	27	5 829	4 936
Interest expense	28	-2 431	-2 164
Net result of financial transactions and write-downs	29	4 152	-45
Fees and commission income	30	53	53
Fees and commission expense	31	-17	-18
Dividends received	32	44	45
Other income	33	293	34
Total net income		7 923	2 841
Staff costs	34	-403	-379
Administrative expenses	35	-368	-338
Depreciation of tangible and intangible fixed assets	36	-54	-51
Banknote and coin expenses	37	-88	-119
Total expenses		-913	-887
Profit for the year		7 010	1 954

Cash flow statement

<i>SEK million</i>	31.12.2016	31.12.2015
OPERATING ACTIVITIES		
Cash flow from operating activities, profit and loss	6 836	4 863
Interest received	4 525	3 238
Interest paid	-2 195	-2 103
Net received from financial transactions	5 360	4 491
Fees and commissions received	53	53
Fees and commissions paid	-17	-18
Other income	29	16
Administrative expenses paid	-919	-814
Cash flow from operating activities, assets	-141 209	-174 438
Receivables from the IMF	3 207	4 390
Securities in foreign currency	-14 994	-20 594
Securities of residents	-129 417	-158 227
Other assets	-5	-7
Cash flow from operating activities, liabilities	145 960	171 040
Banknotes and coins in circulation	-10 366	-9 755
Liabilities to credit institutions in Sweden related to monetary policy operations denominated in Swedish kronor	73 419	56 119
Debt certificates issued	77 351	108 416
Liabilities to residents outside Sweden denominated in Swedish kronor	-8 060	6 309
Liabilities to residents in Sweden denominated in foreign currency	1 109	61
Other liabilities	12 507	9 890
Cash flow from operating activities	11 587	1 465

The table continues on the next page

<i>SEK million</i>	31.12.2016	31.12.2015
INVESTING ACTIVITIES		
Acquisition and disposal of tangible and intangible fixed assets	-51	-50
Acquisition and disposal of financial assets	-	-
Dividends received	44	45
Cash flow from investing activities	-7	-5
FINANCING ACTIVITIES		
Transfer to the Treasury	-2 800	-4 100
Cash flow from financing activities	-2 800	-4 100
Cash flow for the period	8 780	-2 640
Cash and cash equivalents at beginning of period	11 082	16 116
Cash flow from operating activities	11 587	1 465
Cash flow from investing activities	-7	-5
Cash flow from financing activities	-2 800	-4 100
Exchange rate difference on cash and cash equivalents	5 564	-2 394
Cash and cash equivalents at end of period	25 426	11 082
<i>SEK million</i>	31.12.2016	31.12.2015

SPECIFICATION OF CASH AND CASH EQUIVALENTS

Bank accounts, bank lending and reverse repurchase agreements denominated in foreign currency, see Note 3	25 426	11 082
Marginal lending facility	0	-
Total cash and cash equivalents	25 426	11 082

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 cash flow statement is divided into payments from operating activities, investing activities and financing activities.

Operating activities

Cash flows attributable to operating activities originate from the Riksbank's main operations. Cash flow from operating activities is based on operating profit. Adjustments are made for items that do not affect cash flow or do not belong to operating activities. In addition, cash flow 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 Financial assets. Dividends received 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 2015.

Note 1 Gold

	31.12.2016	31.12.2015
Quantity		
Troy ounces (million)	4.0421	4.0421
Price		
USD/troy ounce	1 151.8454	1 061.9800
SEK/USD	9.1092	8.4424
Book value	42 412	36 241

As of 31 December 2016, the Riksbank holds 4 million troy ounces (troy/oz) of gold (4), which is equivalent to 125.7 tonnes. No gold was sold in 2016.

Note 2 Receivables from the IMF

	31.12.2016	31.12.2015
Special Drawing Rights	24 399	25 349
Reserve position in the IMF		
Capital contribution (quota)	54 249	28 025
IMF krona account	-53 184	-24 502
PRG-HIPC lending	228	218
NAB New Arrangements to Borrow	3 371	5 025
Total	29 063	34 115

The Riksbank's holding of Special Drawing Rights amounts to SDR 1 992 million (2 167). An amount corresponding to the total SDR allocated by the International Monetary Fund (IMF) is reported as a liability (see Note 19).

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. In February 2016 the Riksbank's quota increased by SDR 2 034.5 million, now amounting to SDR 4 430 million. The increase to the quota was granted by the Riksdag as early as in 2011.

The item 'PRG-HIPC lending' refers to an interest-free deposit with the IMF as manager of contributions to the IMF's share of the debt relief initiative HIPC (Heavily Indebted Poor Countries) and to the Fund's concessional lending. The deposit of a total of SDR 18.6 million is to be repaid by 1 January 2019.

At the close of 2016 the Riksbank's NAB lending amounted to SDR 275 million (430).

At the close of 2016 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

	31.12.2016	31.12.2015
Bank accounts	4 128	5 173
Bank lending	10 034	5 909
Reverse repurchase agreements	11 264	-
Bonds	437 901	402 238
Short-term securities	3 643	9 534
Total	466 970	422 854

Bank deposits and securities are issued in euro, US dollars, Pounds sterling, Australian dollars, Canadian dollars, Norwegian kroner and Japanese yen. The balance at 31.12.2015 in Ukrainian hryvnia is obtained in the exchange of US dollars according to swap agreements with Ukraine's central bank. The distribution is shown in the table below. The securities have been recorded at quoted prices.

	31.12.2016	31.12.2015
Euro	154 725	141 870
US dollars	257 740	224 725
Pounds sterling	18 298	18 661
Australian dollars	22 483	20 483
Canadian dollars	13 724	12 249
Ukrainian hryvnia	-	4 866
Norwegian kroner	0	0
Japanese yen	0	0
Total	466 970	422 854

The distribution of balances with banks and security investments is shown below:

Maturity	Balances with	
	banks	Securities
Up to 1 month	21 785	24 621
Over 1 month, up to 3 months	3 641	38 718
Over 3 months, up to 1 year	-	111 269
Over 1 year, up to 5 years	-	214 441
More than 5 years	-	52 495
Total	25 426	441 544

The Riksbank did not participate in any automatic securities lending programmes in 2016.

Note 4 Marginal lending facility

This item is used to report overnight loans to banks on their RIX accounts at the Riksbank.

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. In 2016 the Riksbank acquired further securities in SEK in order to make monetary policy even more expansionary.

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	Securities
Up to 1 month	–
Over 1 month, up to 3 months	–
Over 3 months, up to 1 year	27 587
Over 1 year, up to 5 years	108 696
More than 5 years	162 362
Total	298 645

Note 6 Tangible and intangible fixed assets

	31.12.2016	31.12.2015
Land and buildings		
Cost of acquisition, 1 January	594	587
Acquisitions during the year	3	7
Divestments during the year	–	–
Cost of acquisition, 31 December	597	594
Acc. depreciation, 1 January	–209	–193
Depreciation for the year	–17	–16
Divestments during the year	–	–
Acc. depreciation, 31 December	–226	–209
Book value	371	385
Machinery and equipment		
Cost of acquisition, 1 January	605	637
Acquisitions during the year	48	43
Divestments during the year	–12	–75
Cost of acquisition, 31 December	641	605
Acc. depreciation, 1 January	–320	–360
Depreciation for the year	–37	–35
Divestments during the year	12	75
Write-down for the year	–	–
Acc. depreciation, 31 December	–345	–320
Book value	296	285
Total book value	667	670
Tax assessment value		
Buildings	–	–
Land	–	–

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

Acquisitions in 2016 include IT applications of SEK 39 million (33).

The item 'Book value, machinery and equipment' includes intangible fixed assets in the form of application systems in an amount of SEK 122 million (101).

Note 7 Financial assets

	31.12.2016	31.12.2015
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 9 226 559.46	80	80
Swift		
16 shares at a par value of EUR 125	1	1
Total	522	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 amounts to 2.2729 per cent (2.2729) and the ECB's total subscribed capital amounts to EUR 10 825 007 069.61 (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 have no obligation to cover any losses in the ECB.

At 1 January 2014, the latest adjustment was made to Riksbank's capital subscription and subscription amount due to the capital keys being updated, which takes place once every five years. Following this adjustment, the Riksbank's capital subscription is thus 2.2729 per cent and the paid-up subscription amount is EUR 9 226 559.46.

Note 8 Derivative instruments

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

Note 9 Prepaid expenses and accrued income

	31.12.2016	31.12.2015
Receivables from the IMF	10	3
Bank accounts and bank lending	0	–
Reverse repurchase agreements	4	–
Bonds in foreign currency	2 808	2 696
Derivative instruments	–	20
Bonds in Swedish kronor	3 423	2 166
Fine-tuning operations	2	1
Debt certificates issued	9	1
Other	12	13
Total	6 268	4 900

Note 10 Other assets

	31.12.2016	31.12.2015
Staff loans	250	296
Accounts receivable	3	2
VAT recoverable	8	6
Balances with banks	4	13
Other	0	0
Total	265	317

Note 11 Banknotes

Value of banknotes in circulation, by denomination

	31.12.2016	31.12.2015
1 000 krona	3 299	4 198
500 krona	37 940	49 789
200 krona	6 513	932
100 krona	5 171	8 045
50 krona	988	1 114
20 krona	1 032	1 850
Commemorative banknotes	–	2
Invalid banknotes	2 592	2 263
Total	57 535	68 193

The item 'Invalid banknotes' contains banknotes in circulation that ceased to be legal tender at the end of 2013 and in June 2016. 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. In 2016 SEK 669 million was written off referring to banknotes that became invalid at the end of 2005, of which SEK 428 million was recorded in 'Provisions' (see Note 23) and the remaining SEK 241 million was recorded in 'Other income' (see Note 33). In addition, SEK 2 million was written off referring to issues of commemorative banknotes that are older than ten years, which was recorded in 'Other income' (see Note 33).

Note 12 Coins

Value of coins in circulation, by denomination

	31.12.2016	31.12.2015
10 krona	2 320	2 492
5 krona	1 191	1 310
2 krona	61	8
1 krona	1 249	1 390
Commemorative coins	37	58
Total	4 858	5 258

In 2016 the item 'Commemorative coins' was written off by SEK 21 million (18) referring to issues of commemorative coins that are older than ten years, which was recorded in 'Other income' (see Note 33).

Note 13 Deposit facility

Overnight deposits from the banks in their RIX accounts at the Riksbank are reported here.

Note 14 Fine-tuning operations

This item is used to report deposits for the purpose of fine tuning liquidity in the financial system.

Note 15 Debt certificates issued

This item is used to report the Riksbank's issuance of debt certificates aimed at 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 16 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.

Note 17 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 exchange reserve. The distribution of foreign currency deposits is shown in the following table:

	31.12.2016	31.12.2015
Euro	52 514	50 248
US dollars	204 209	190 289
Total	256 723	240 537

Note 18 Liabilities to residents outside Sweden denominated in foreign currency

Amounts corresponding to purchase amounts in foreign currency for deposit repos are recorded under this item.

The distribution of foreign currency deposits is shown in the following table.

	31.12.2016	31.12.2015
US dollars	11 264	–
Total	11 264	–

Note 19 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 1 992 million (2 167) and is reported under the item 'Receivables from the IMF' (see Note 2).

Note 20 Derivative instruments

	31.12.2016	31.12.2015
Foreign exchange forwards, USD	-7	-
Foreign exchange forwards, NOK	17	-
	10	-
Foreign exchange swaps, USD	832	581
Foreign exchange swaps, NOK	68	1 148
Foreign exchange swaps, UAH	-	-110
	900	1 619
Total	910	1 619

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 kronor. At year end, as at 31.12.2015, the purpose was also to lend in USD to the central bank of Ukraine, secured by Ukrainian hryvnia.

The nominal amounts of the derivative contracts, translated into SEK, are shown in the table below:

	31.12.2016	31.12.2015
Foreign exchange forwards, USD	1 002	-
Foreign exchange forwards, NOK	-992	-
	10	-
Foreign exchange swaps, USD	23 388	16 048
Foreign exchange swaps, NOK	-22 488	-19 295
Foreign exchange swaps, UAH	-	4 866
	900	1 619
Total	910	1 619

Note 21 Accrued expenses and prepaid income

	31.12.2016	31.12.2015
Fine-tuning operations	-	-
Debt certificates issued	-	-
Deposit repos	4	-
Derivative instruments	7	-
Deposits, Swedish National Debt Office	1 316	1 042
Counterpart of Special Drawing Rights	10	2
Other	87	130
Total	1 424	1 174

Note 22 Other liabilities

	31.12.2016	31.12.2015
Accounts payable – trade	19	21
Other	18	18
Total	37	39

Note 23 Provisions

	31.12.2016	31.12.2015
Pension provision	71	78
Banknotes invalid after 31.12.2005	204	-
Banknotes invalid before 31.12.2005	88	14
Commemorative coins written off	140	-
Job Security Foundation	0	1
Total	503	93

The pension provision has been calculated by the National Government Employee Pensions Board (SPV). SEK 69 million (75) refers to PA-91 pensioners with a date of retirement prior to 2003, and SEK 2 million (3) 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.

The item 'Provisions' also includes SEK 432 million (14) for the estimated future cost of banknotes and commemorative coins written off that the Riksbank still may redeem. In 2016 SEK 204 million was recorded in 'Provisions' referring to the banknotes that became invalid at the end of 2005, SEK 84 million referring to banknotes that became invalid at the end of 1998, and SEK 140 million referring to commemorative coins written off.

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 24 Revaluation accounts

	31.12.2016	31.12.2015
Price effect	12 431	7 134
Exchange rate effect	17 267	11 795
Gold value effect	30 615	24 444
Total	60 313	43 373

With effect from 2004, unrealised gains and losses are reported in special revaluation accounts, which consist of the difference between the cost of acquisition value and the market value. 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.

Exchange rate effects are shown in the following table:

	31.12.2016	31.12.2015
Euro	7 757	4 016
US dollars	2 225	2 601
Pounds sterling	1 010	2 824
Australian dollars	2 582	1 178
Canadian dollars	1 424	41
Special Drawing Rights	191	1 135
Ukrainian hryvnia	-	-
Norwegian kroner	2 078	-
Japanese yen	0	0
Total	17 267	11 795

Note 25 Capital

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

Note 26 Reserves

	31.12.2016	31.12.2015
Reserve fund	500	500
Contingency fund	31 798	30 628
Balancing fund	18 053	20 069
Total	50 351	51 197

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 Riksbank's gold reserve was written up to market value on 31 December 1998 and fixed assets were capitalised in the balance sheet in 1994 at cost of acquisition less depreciation. In 2016 a reposting was made of SEK 39 million (2) from the sub-item 'Write-up of fixed assets' to 'Allocation of profit', due to the year's divestments and depreciation of the written-up assets, as well as adjustments to previous depreciation. The value of the BIS shares was written up in 1996 to correspond to the market value of the gold used as payment for the share allocation in that year.

The above-mentioned allocations and write-ups are shown in the table below:

	31.12.2016	31.12.2015
Allocation of profit:		
Exchange rate effect	-2 144	-2 966
Gold value effect	7 356	7 356
Other allocation of profit	17 693	17 306
Write-up of assets:		
Gold reserve	8 604	8 604
Fixed assets	54	93
BIS shares	235	235
Total	31 798	30 628

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

	Capital	Reserves	Profit for the year
Balance, 31 December 2014	1 000	52 030	3 267
Transfer to the Treasury	-	-	-4 100
Transfer to/from:			
Balancing fund	-	-1 892	1 892
Contingency fund	-	1 059	-1 059
Profit for the year	-	-	1 954
Balance, 31 December 2015	1 000	51 197	1 954
Transfer to the Treasury	-	-	-2 800
Transfer to/from:			
Balancing fund	-	-2 016	2 016
Contingency fund	-	1 170	-1 170
Profit for the year	-	-	7 010
Balance, 31 December 2016	1 000	50 351	7 010

Note 27 Interest income

	2016	2015
From foreign assets:		
SDR	20	13
Reserve position in the IMF	0	1
NAB (New Arrangements to Borrow)	4	3
Bank accounts	12	1
Bank lending	38	21
Reverse repurchase agreements	16	-
Bonds	3 701	3 982
Short-term securities	18	45
Derivative instruments	20	169
	3 829	4 235
From domestic assets and liabilities:		
Fine-tuning operations	-	-
Marginal lending facility	2	1
Bonds	409	259
Other	24	3
Staff loans	4	4
Negative interest fine-tuning operations	559	177
Negative interest debt certificates issued	1 002	257
	2 000	701
Total	5 829	4 936

Note 28 Interest expense

	2016	2015
From foreign liabilities:		
Deposits, Swedish National Debt Office	-2 397	-2 149
Deposit repos	-11	-1
Counterpart of Special Drawing Rights	-23	-14
Derivative instruments	-	0
	-2 431	-2 164
From domestic liabilities:		
Fine-tuning operations	-	-
Debt certificates issued	-	-
Deposit repos	-	-
Bank accounts	-	-
Cash depots	-	-
	-	-
Total	-2 431	-2 164

Note 29 Net result of financial transactions and write-downs

	2016	2015
Price effect	696	-867
Exchange rate effect	3 456	822
Gold value effect	-	-
Total	4 152	-45

The price effect consists of realised gains and losses on securities of SEK 1 904 million (1 771) and unrealised losses on securities of SEK -1 208 million (-2 638), which have been transferred to profit and loss due to write-down of the securities holding.

The exchange rate effect includes realised exchange rate gains and exchange rate losses of SEK 3 456 million (2 720) and unrealised exchange rate losses of SEK 0 million (-1 898) that were recognised in the profit for the year due to write-down of the foreign currency holding. When calculating the Riksbank's allocation of profit, the exchange rate effect is excluded from reported profit.

Note 30 Fees and commissions income

The item includes annual and transaction charges for the RIX system of SEK 53 million (53).

Note 31 Fees and commissions expenses

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

Note 32 Dividends received

In 2016 the Riksbank received a dividend from the BIS of SEK 44 million (45).

Note 33 Other income

	2016	2015
Reimbursement for the redemption of invalid banknotes	4	3
Unredeemed cash received	2	8
Reimbursement for discoloured banknotes etc.	0	1
Banknotes written off	241	-
Commemorative banknotes written off	2	-
Commemorative coins written off	21	18
Sold for scrap	18	-
Sida (Swedish International Development Cooperation Agency)	4	2
Other	1	2
Total	293	34

In 2016 banknotes in circulation that have been invalid for over 10 years were written off by SEK 669 million, of which SEK 241 million was recorded as income and SEK 428 million as a provision. In 2016 the item 'Coins in circulation' was also written off by SEK 21 million (18) referring to issues of commemorative coins in circulation that are older than ten years. In addition, commemorative banknotes that are older than ten years were written off by SEK 2 million.

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

Note 34 Staff costs

	2016	2015
Salaries and benefits	-243	-231
Salary recorded as assets	1	2
Social security contributions	-77	-73
	-319	-302
Pension premiums	-50	-45
Pension payments	-10	-11
Change in pension provision	9	12
Special payroll tax	-15	-14
	-66	-58
Training	-6	-4
Staff representation	-2	-2
Other	-10	-13
	-18	-19
Total	-403	-379

Pension premiums were paid in accordance with pension agreements for central government employees and others, PA 03 and PA-91.

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.

Staff representation expenses of SEK 1.7 million (2.2) refer to costs for board, lodging and activities in connection with internal courses, conferences, staff parties and information meetings.

Salaries and benefits to the members of the Executive Board in 2016 amounted to SEK 13.5 million, broken down as follows:

	2016	2015
Stefan Ingves	2.1	2.1
Kerstin af Jochnick	2.3	2.2
Martin Flodén	2.2	2.2
Per Jansson	2.3	2.3
Cecilia Skingsley	2.3	2.2
Henry Ohlsson	2.3	2.2
Total	13.5	13.2

In addition, the Governor of the Riksbank received a board fee in 2016 of SEK 0.6 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.

The General Council decided on 28 October 2011 that during the statutory qualification period, members of the Executive Board shall receive a full salary for a maximum period of six months following the end of employment. However, deduction will be made for any income from other employment during this period. Executive Board members elected prior to that date will receive remuneration for a maximum of 12 months.

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.

The General Council has, however, decided on an exception for Stefan Ingves, such that if he receives a pension, before he turns 65 years of age, ensuing from the position he held with the IMF, which he had before he was appointed Governor of the Riksbank, there will be no reduction in the income guarantee. 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.

The average number of employees (full-time equivalents, FTEs) in 2016 was 336 (332), of which 149 (151) women and 187 (181) men. The number of FTEs at the end of the year was 320 (341). Total sick leave in 2016 corresponded to 1.7 per cent (1.8) of employees' total working hours. Sick leave over a continuous period of 60 days or more in 2016 was 36 per cent (40.0) of total sick leave. Women's sick leave in relation to total regular working hours for women amounted in 2016 to 2.3 per cent (2.5), while the corresponding figure for men in 2016 was 1.3 per cent (1.2).

The table below shows sick leave for each age group in relation to the total regular working hours for the group:

	2016	2015
29 years or younger	1.7 %	1.0 %
30–49 years	1.5 %	1.4 %
50 years or older	2.1 %	2.6 %

Note 35 Administrative expenses

	2016	2015
Information, representation	-22	-20
Transport, travel	-15	-16
Consultancy assignments	-42	-37
Other external services	-99	-93
IT operations	-120	-105
Economics prize	-13	-13
Office and property maintenance	-47	-45
Other	-10	-9
Total	-368	-338

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

Representation expenses amounted to SEK 4.9 million (3.4).

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

Consultancy assignments amount to SEK 42 million (37). This amount includes the costs of IT consultants of SEK 16 million (17).

The cost of statistics deliveries of SEK 58 million (63) is the largest single item in 'Other external services'. It refers mainly to remuneration to Statistics Sweden for production of 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 45 million (37) and IT services of SEK 71 million (64).

The 'Economics prize' item includes the prize sum of SEK 8 million (8) and administration costs for the prize of SEK 5.2 million (5.2).

The largest single items in the cost group 'Office and property maintenance' consist of refurbishment and maintenance of the Riksbank's premises of SEK 12 million (11), and rent of premises of SEK 7 million (9).

Note 36 Depreciation of tangible and intangible fixed assets

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

Note 37 Banknote and coin expenses

Of the total cost of banknotes and coins of SEK 88 million (119), SEK 47 million (83) refers to circulation banknotes and SEK 41 million (36) to circulation coins. No commemorative coins were bought in 2016 (-).

Note 38 Memorandum items

Pledged assets

At the close of 2016, securities equalling a market value of SEK 11 228 million were pledged in connection with foreign securities repos (-).

Contingent liabilities

Outstanding claims for compensation amounted to SEK 7 million (6) at the close of 2016.

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 administration expenses for this prize. This commitment amounted to SEK 13.2 million in 2016 (13.2).

A commitment 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.

Contingent assets

At the end of 2016 the Riksbank has no outstanding compensation claims (-).

Lending and exchange commitments in relation to the IMF

	31.12.2016	31.12.2015
Special Drawing Rights	58 223	53 583
Reserve position	53 184	24 502
GAB, NAB	24 256	46 915
Credit agreement	82 047	78 383
PRGT agreement	6 123	-
Total	223 833	203 383

The table above shows the Riksbank's remaining lending and exchange commitments under agreements in relation to the IMF in addition to what is reported on the balance sheet (see Note 2). The Riksbank's total commitment and utilised part of the commitment are shown below.

Special Drawing Rights

Under the IMF by-laws the commitment referring to Special Drawing Rights means that the Riksbank, through what is known as designation, 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, i.e. 3 x SDR 2 249 million. This equals SEK 82 622 million (78 932). 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 24 399 million (25 349), see Note 2, the outstanding commitment amounts to SEK 58 223 million (53 583).

Reserve position

The commitment concerning the reserve position (capital contribution minus the IMF krona account) means that the Riksbank is obliged to exchange the balance in the IMF's krona account to foreign currency if the IMF needs such funds for lending to other countries.

At year-end the balance in the IMF's krona account was SEK 53 184 million (24 502), see Note 2.

In the autumn of 2011, the Riksdag granted authorisation to increase Sweden's capital contribution (quota) in the IMF by SDR 2 034.5 million such that it amounts to a total of SDR 4 430 million. The decision came into force at the end of January 2016 and the Riksbank paid in its share in February 2016.

GAB and NAB

The commitment concerning GAB (General Arrangements to Borrow) and NAB (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 (4 439.7), which is equivalent to SEK 27 627 million (51 940). Because the Riksbank's NAB lending at year-end amounted to SEK 3 371 million (5 025), see Note 2, the outstanding commitment amounts to SEK 24 256 million (46 915).

These arrangements are only activated under special circumstances and are aimed at temporarily strengthening the IMF's lending capacity over and above the funds available under the capital contribution.

Credit agreement

In February 2013 – after receiving the consent of the Riksdag – the Riksbank signed an agreement on credit to the IMF in the amount of SDR 6 700 million, which is equivalent to SEK 82 047 million (78 383). The term of this agreement extends to February 2017. In December

2016 the Riksbank made a submission to the Riksdag to request permission to enter a new loan agreement with the IMF in the amount of SDR 7 400 million. Assuming that the Riksdag grants such authorisation, it is expected that the new agreement can be entered in the first half of 2017. In order for the IMF to use this new agreement, the IMF's remaining funds for lending must, like before, be less than a lower limit of SDR 100 000 million. In addition, 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 6 123 million, under a programme known as the Poverty Reduction and Growth Trust (PRGT). The funds which the Riksbank may lend in the context of the programme may be used by the IMF for lending to low-income countries.

Payment agreements

A commitment 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 796 million (757) at the end of 2016.

The Riksbank's swap agreement with the Ukrainian central bank – National Bank of Ukraine (NBU) – expired on 16 March 2016.

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. This credit commitment was renewed in 2016 and is valid through 25 April 2017.

Agreement with BIS entailing that the Riksbank may, subject to a specific agreement, enter repurchase agreements with BIS regarding securities denominated in USD, EUR and GBP. The term of the agreement extends to 13 July 2017.

Swap agreement with the ECB implying that 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	2016			2015		
	Net income	Expenses	Results	Net income	Expenses	Results
Monetary policy	3	-185	-182	2	-175	-173
Financial stability	47	-191	-144	49	-181	-132
Payment system	53	-65	-12	53	-53	0
Cash handling	288	-247	41	30	-263	-233
Asset management	7 505	-118	7 387	2 702	-101	2 601
Statistics	0	-90	-90	0	-97	-97
Economics prize and General Council, etc.	27	-17	10	5	-17	-12
Total	7 923	-913	7 010	2 841	-887	1 954

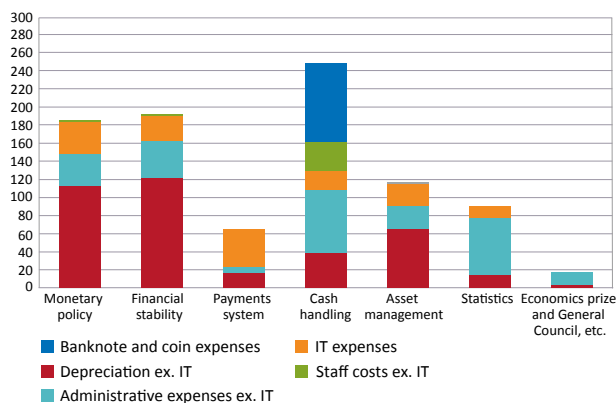
The breakdown should reflect as closely as possible the actual use of resources for each function. The principle used is for expenses and income to be allocated as far as possible directly to the respective function without use of any cost allocation key.

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 2016 amounts to SEK 7 010 million (1 954) and assets and liabilities to SEK 844 812 million (663 381).

Chart 22

Allocation by nature of expense by function, 2016, SEK million



Source: The Riksbank

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. The payroll expenses for employees in support functions have been allocated according to a cost allocation key. The most common key is the number of directly involved employees in relation to the total number of directly involved employees in all functions. Altogether about 209 employees, or 65 per cent of the total of 320, are directly involved in one of the functions. The other 111 employees are in support functions, mainly IT, communications and internal services.

Administrative, 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.

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 the number of directly involved employees per function in relation to the total number of directly involved employees.

Banknote and coin expenses

Costs for purchasing banknotes and coins amounted to SEK 88 million (119) in 2016. The costs are allocated in their entirety to the Cash handling 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 IT expenses is primarily based on the following principles: 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. Expenses for application operation of business systems and

server operation, and other IT expenses (staff, consultants, licences, etc.) are allocated on the basis of the fixed expense of the business system for application operation divided by the total fixed expense for application operation for all business systems. Depreciation for business systems belonging to one or more functions is allocated directly to each system.

Allocation of net income

Allocation of net income by function has been done from an operational perspective. Income has been allocated to the function with the greatest potential to influence and manage it. Consequently, the fact that seignorage derives from cash handling has not been taken into consideration. Instead seignorage income has been allocated to asset management. Seignorage for 2016 amounted to SEK 560 million (894).

The net income in the Financial stability function mainly consists of 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 7 505 million (2 702). Total return from the Riksbank's asset management for 2016 was SEK 24 445 million (–7 036). See also table 7 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 table below).

	2016	2015
Interest income	5 801	4 929
Interest expense	–2 431	–2 164
Net result of financial transactions and write-downs reported in the profit and loss account	4 152	–45
Fees and commission expense	–17	–18
Net income, asset management	7 505	2 702
Net result of financial transactions reported in revaluation accounts in the balance sheet	16 940	–9 738
Total return, asset management	24 445	–7 036
Net interest earnings on administration	28	7
Income from administration	390	132
Cost of administration	–913	–887
Profit/loss including income recognised in the balance sheet	23 950	–7 784
Reversal of income recognised in the balance sheet	–16 940	9 738
Reported profit for the year	7 010	1 954

Net interest earnings on administration in the table above consist of interest income from the Riksbank's staff loans of SEK 4 million (4) and loro interest income of SEK 24 million (3).

The net result of financial transactions reported in revaluation accounts in the balance sheet corresponds to the change during the year to 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	31.12.2016		31.12.2015	
	Assets	Liabilities	Assets	Liabilities
Financial stability	441	–	441	–
Cash handling	–	62 825	–	73 451
Asset management	843 346	662 886	661 859	483 852
Unallocated	1 025	119 101	1 081	106 078
Total	844 812	844 812	663 381	663 381

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 unallocated liabilities mainly contain equity, revaluation account 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. No restatement has been necessary for the last four years.

Balance sheet

<i>SEK million</i>	31.12.2016	31.12.2015	31.12.2014	31.12.2013	31.12.2012
ASSETS					
Gold	42 412	36 241	37 529	31 425	43 720
Claims on residents outside Sweden denominated in foreign currency	496 033	456 969	448 840	385 784	294 079
Receivables from the IMF	29 063	34 115	34 684	32 873	34 196
Balances with banks, loans and security investments	466 970	422 854	414 156	352 911	259 883
Lending to credit institutions in Sweden related to monetary policy operations denominated in Swedish kronor	0	–	33	–	0
Marginal lending facility	0	–	33	–	0
Securities of residents in Sweden denominated in Swedish kronor	298 645	163 762	11 126	9 534	3 152
Other assets	7 722	6 409	4 873	4 884	4 788
Tangible and intangible fixed assets	667	670	671	690	655
Financial assets	522	522	522	522	521
Derivative instruments	–	–	–	–	662
Prepaid expenses and accrued income	6 268	4 900	3 323	3 314	2 609
Other assets	265	317	357	358	341
TOTAL ASSETS	844 812	663 381	502 401	431 627	345 739
LIABILITIES AND EQUITY	31.12.2016	31.12.2015	31.12.2014	31.12.2013	31.12.2012
Banknotes and coins in circulation	62 393	73 451	83 224	85 700	96 441
Banknotes	57 535	68 193	77 887	80 294	91 056
Coins	4 858	5 258	5 337	5 406	5 385
Liabilities to credit institutions in Sweden related to monetary policy operations denominated in Swedish kronor	144 341	70 922	14 803	21 665	26 154
Deposit facility	198	96	130	580	339
Fine-tuning operations	144 143	70 826	14 673	21 085	25 815
Debt certificates issued	220 771	143 420	35 004	24 989	2 998
Liabilities to residents outside Sweden denominated in Swedish kronor	232	8 292	1 983	707	156
Liabilities to residents in Sweden denominated in foreign currency	256 723	240 537	228 331	193 117	88 413
Liabilities to residents outside Sweden denominated in foreign currency	11 264	–	–	–	–
Counterpart of SDR allocated by the IMF	27 540	26 310	25 504	22 265	22 505
Other liabilities	2 371	2 832	4 032	1 008	384
Derivative instruments	910	1 619	2 905	197	–
Accrued expenses and prepaid income	1 424	1 174	1 063	763	306
Other liabilities	37	39	64	48	78
Provisions	503	93	112	169	184
Revaluation accounts	60 313	43 373	53 111	25 677	43 363
Equity	51 351	52 197	53 030	58 341	63 207
Capital	1 000	1 000	1 000	1 000	1 000
Reserves	50 351	51 197	52 030	57 341	62 207
Profit for the year	7 010	1 954	3 267	–2 011	1 934
TOTAL LIABILITIES AND EQUITY	844 812	663 381	502 401	431 627	345 739

Profit and loss account

<i>SEK million</i>	2016	2015	2014	2013	2012
Interest income	5 829	4 936	4 193	4 113	4 280
Interest expense	–2 431	–2 164	–1 761	–1 684	–1 196
Net result of financial transactions and write-downs	4 152	–45	1 631	–3 784	–603
Fees and commission income	53	53	64	65	71
Fees and commission expense	–17	–18	–15	–12	–8
Dividends received	44	45	39	55	56
Other income	293	34	33	26	34
Total net income	7 923	2 841	4 184	–1 221	2 634
Staff costs	–403	–379	–361	–375	–366
Administrative expenses	–368	–338	–322	–316	–269
Depreciation of tangible and intangible fixed assets	–54	–51	–62	–48	–47
Banknote and coin expenses	–88	–119	–172	–51	–18
Total expenses	–913	–887	–917	–790	–700
Profit for the year	7 010	1 954	3 267	–2 011	1 934

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. In the Annual Report, the Executive Board shall present an assessment of whether internal control is considered satisfactory. 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 2016 has met the requirements in the Sveriges Riksbank Act and its conclusion is that the internal control is satisfactory.

Stockholm, 8 February 2017



Stefan Ingves
Governor of Sveriges Riksbank



Kerstin af Jochnick
First Deputy Governor



Martin Flodén
Deputy Governor



Per Jansson
Deputy Governor



Henry Ohlsson
Deputy Governor



Cecilia Skingsley
Deputy Governor

Auditor's report for Sveriges Riksbank 2016

Report on the annual report

Pursuant to section 5 of the Act on the Audit of Central Government Activities, etc. (2002:1022), the Swedish National Audit Office has audited the annual report for Sveriges Riksbank for 2016, dated 2017-02-08.

Opinion

In the opinion of the Swedish National Audit Office, the authority has, in all material respects:

- prepared the annual report in accordance with the Sveriges Riksbank Act (1988:1385) and in accordance with the rules for bookkeeping and annual accounts adopted by the Executive Board of the Riksbank.
- given a true and fair view of the economic result, funding and financial position of Sveriges Riksbank as at 31 December 2016.
- provided an administration report and information in general that is consistent with and supports a true and fair view of the annual report as a whole.

The Swedish National Audit Office therefore recommends the Riksdag to adopt the balance sheet and the profit and loss account.

Basis for opinion

The Swedish National Audit Office conducted its audit in accordance with the International Standards of Supreme Audit Institutions and the Swedish National Audit Office's instructions for the audit of the profit and loss account and other information in the annual report (RRI). Our responsibility under these standards is described in more detail in the section *Responsibility of the auditor*. We are independent from the authority in accordance with ISSAI 30 Code of Ethics and have fulfilled our commitments in accordance with these ethical regulations. We believe that the audit evidence we have received is sufficient and appropriate to provide a basis for the Swedish National Audit Office's opinion.

Information other than the annual report

The authority also prepares a printed directors' report after the issuance of the auditor's report. This document also includes information other than that in the annual report. Management is responsible for this information.

Our statement regarding the annual report does not cover this directors' report and we make no statement of assurance regarding this information.

Responsibility of the Executive Board for the annual report

The Executive Board is responsible for preparing an annual report that gives a true and fair view in accordance with the Sveriges Riksbank Act (1988:1385) and in accordance with the rules for bookkeeping and annual accounts adopted by the Executive Board. The Executive Board is also responsible for the internal controls they deem necessary to prepare an annual report that is free from material misstatement, whether due to fraud or error.

In preparing the annual report, the authority's management is responsible for its assessment of the authority's ability to continue

operations. They shall disclose, when appropriate, circumstances that may affect the authority's ability to continue operations and to utilise the going concern assumption, unless there exists particular reason not to do so.

Responsibility of the auditor

Our objective is to obtain reasonable assurance that the annual report as a whole does not contain material misstatement, whether due to fraud or error, and to present an auditor's report containing the statement of the Swedish National Audit Office. Reasonable assurance is a high degree of assurance but is no guarantee that an audit conducted in accordance with ISSAI and RRI will always discover material misstatement if such is present. Misstatement may arise due to fraud or error and is considered to be material if, together or separately, it can reasonably be expected to affect the economic decisions made by the user on the basis of the annual report.

As part of an audit in accordance with ISSAI, we use professional judgement and apply an approach of professional scepticism throughout the entire audit. Furthermore:

- we identify and assess risks of material misstatement in the annual report, whether these are due to fraud or error, design and perform our audit procedures on the basis of these risks, among others, and obtain audit evidence that is sufficient and appropriate to form a basis for our opinion. The risk of not detecting a material misstatement due to fraud is higher than it is for a material misstatement due to error, as fraud may involve collusion, falsification, wilful omissions, false information or neglect of internal governance or control.
- we obtain an understanding of that part of the authority's internal controls that is significant to our audit so as to design audit procedures that are appropriate in the circumstances, but not to express an opinion on the effectiveness of the authority's internal control.
- we evaluate the appropriateness of the accounting principles used and the reasonableness of estimates used by management in the annual report and related disclosures.
- we draw a conclusion on the appropriateness of management using the going concern assumption in the preparation of the annual report. We also draw a conclusion, with basis in the acquired audit evidence, as to whether there is any material uncertainty related to such events or conditions that may lead to significant doubts about the authority's ability to continue operations. If we conclude that there is a substantial element of uncertainty, our auditor's report shall draw attention to the disclosures in the annual report concerning this material uncertainty and the assessment made or, if such information is insufficient, we shall modify our opinion on the annual report.
- we evaluate the overall presentation, structure and content of the annual report, including the disclosures, and whether the annual report reasonably represents the underlying transactions and events in a manner that provides fair presentation.

As part of an audit in accordance with RRI, we plan and perform the audit so as:

- for essential information of financial or non-financial nature given

in the administration report, to obtain sufficient and appropriate audit evidence that such information has been prepared, together with the other parts of the annual report, with a view to providing an accurate picture of operations based on the rules.

- to implement necessary measures regarding other information to assure ourselves that this is consistent with the other parts of the annual report and free from material misstatement, based on our knowledge of the authority.

Our communication with management includes the planned scope and focus of the audit, and significant results of the audit, including any significant deficiencies in internal governance and control that we have identified.

Report on other requirements in accordance with laws and other statutes

Administration of the General Council and the Executive Board

In addition to the annual report, the Swedish National Audit Office shall also express an opinion on the administration of the General Council and the Executive Board of Sveriges Riksbank for 2016.

Opinion

On the basis of the audit procedures undertaken, the Swedish National Audit Office recommends to the Riksdag that the General Council of the Riksbank be discharged from liability for its activities and that the Executive Board be discharged from liability for its administration of the Riksbank in 2016.

Basis for opinion

We have carried out our audit in accordance with ISSAI and RRI. Our responsibility under these is described in more detail in the section *Responsibility of the auditor*.

We believe that the audit evidence we have received is sufficient and appropriate to provide a basis for the Swedish National Audit Office's opinion.

Responsibility of the General Council and the Executive Board

The General Council and the Executive Board are responsible for the administration under the Sveriges Riksbank Act (1988:1385).

Responsibility of the auditor

The responsibility of the Swedish National Audit Office is to express an opinion with reasonable assurance based on its audit. The Swedish National Audit Office carried out this audit in accordance with ISSAI, with the application of relevant parts of RevR 209: audit of the administration of the board of directors and managing director.

As a basis for the Swedish National Audit Office's opinion concerning discharge from liability, the Swedish National Audit Office has examined significant decisions, actions taken and circumstances of the Riksbank to be able to determine the liability, if any, to the Riksbank of any member of the General Council or Executive Board. Our audit covered:

- the Rules of Procedure, instructions and any division of duties of the General Council and the Executive Board.
- the essential administrative measures undertaken by the Chair of the General Council and the Governor of the Riksbank.
- supervision of the organisation to ensure that bookkeeping, management of funds and economic conditions in general are subject to satisfactory internal control. Supervision also covers risk-taking, other risk exposures and protection against risk.

- measures to ensure the legal accounting and prudent management of funds, including the appropriate organisation, including responsibilities, systems and procedures for handling receipts and accounts, monitoring, supervision and control of accounting records and financial statements including adaptation to new conditions.
- management's ongoing assessment of the bank's financial situation.
- the work of the General Council and the Executive Board on minutes, decisions and decision-making material.
- individual management measures which, with regard to the scope and nature of the bank's activities are of an unusual nature and of major importance.
- other areas resulting from the bank's operations and the provisions of the Sveriges Riksbank Act (1988:1385).

The Executive Board's assessment of internal governance and control

Opinion

In our audit of the annual report, we have found nothing to indicate that management's assessment of internal governance and control has not complied with the Sveriges Riksbank Act (1988:1385).

Basis for opinion

We have carried out our audit in accordance with ISSAI and RRI. Our responsibility under these is described in more detail in the section *Responsibility of the auditor*.

We believe that the evidence we have received is sufficient and appropriate to provide a basis for the Swedish National Audit Office's opinion.

Responsibility of the Executive Board for internal governance and control

In accordance with the requirements of the Sveriges Riksbank Act (1988:1385), the Executive Board has issued an opinion on the internal governance and control of the authority.

Responsibility of the auditor

Our responsibility is to express an opinion on the annual report based on our audit. We have carried out our audit in accordance with ISSAI and RRI. The planning and performance of the audit have considered the parts of the internal governance and controls relevant to the authority's preparation and fair presentation of the annual report. Our responsibility does not include conducting an audit of the efficiency of the authority's internal governance and control. Our statement regarding management's assessment of internal governance and control is therefore based on the actions we have taken to examine the annual report and consequently does not have the same assurance as a statement based on an audit.

The auditor in charge, Anders Herjevik, made the decision on this matter. Engagement leader Canan Jeppsson presented the report.

Stockholm, 10 March 2017

Anders Herjevik

Jesper Fagerberg

1. THE DEPARTMENTS OF THE RIKSBANK AND THEIR TASKS

Cash and Payment Systems Department

The Cash and Payment Systems Department is responsible for cash provision, the RIX payment system and the coordination of crisis preparedness in the central payment system.

Head of Department: Christina Wejshammar

Number of full-time equivalents (number of employees) at year-end: 35 (36)

Financial Stability Department

The Financial Stability Department is responsible for analysing the stability and efficiency of the financial system. It provides a basis for the 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.

Head of Department: Kasper Roszbach

Number of full-time equivalents (number of employees) at year-end: 63 (79)

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 transactions in accordance with the monetary policy decisions. In addition, the department is responsible for the ongoing monitoring of the markets.

Head of Department: Heidi Elmér

Number of full-time equivalents (number of employees) at year-end: 37 (41)

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.

Head of Department: Marianne Nessén

Number of full-time equivalents (number of employees) at year-end: 85 (104)

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, book-keeping and payroll administration.

Head of Department: Marianne Olsson

Number of full-time equivalents (number of employees) at year-end: 62 (66)

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 and work on operational and financial risks. The department also contains functions for regulatory compliance assurance, business continuity coordination and legal support and the Riksbank's Communications Division.

Head of Department: Anders Vredin

Number of full-time equivalents (number of employees) at year-end: 43 (46)

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.

Head of Department: Åsa Nilsson (acting head)

Number of full-time equivalents (number of employees) at year-end: 4 (5)

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 (www.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 2016, the Riksbank answered 39 consultation responses, concerning, among other matters, supervision in the financial area and proposed measures to strengthen the stability of the financial system. One consultation response concerned regulations on public access and secrecy. Most consultation responses were issued by the head of the appropriate department.

The Executive Board's consultation responses

Over the year, the Executive Board has responded to 10 consultation documents of special importance and in two cases the General Council has also presented its own consultation response. The consultation responses are listed below. For information on the content of the responses, see the Riksbank's website.

- Long-term survey of the Swedish economy 2015 – Ministry of Finance
- Access to payment accounts with basic functions, Interim report 2 from the 2015 Payment Services Inquiry (also the General Council) – Ministry of Finance
- Nordea's applications for permission to implement merger plans – Finansinspektionen
- Capital requirements within Pillar 2 for maturity assumptions and FI's supervision of the banks' calculations of risk weights for corporate exposures – Finansinspektionen
- Proposal to amend regulations on countercyclical capital buffer value – Finansinspektionen
- Proposal on new regulations on amortisation requirements for new mortgages – Finansinspektionen
- Application of the minimum requirement for eligible assets – Swedish National Debt Office
- Review of the Riksbank's Monetary Policy 2010–2015 (also General Council) – Riksdag Committee on Finance
- Guidelines for the management of the national debt 2017–2010 – Ministry of Finance

3. PUBLICATIONS

The Riksbank issues a number of publications each year. These include:

Monetary Policy Report

Published six times per year. This report forms a basis for monetary policy decisions. By publishing this report, the Riksbank makes its assessments generally accessible. In this way, the Riksbank can stimulate interest in and facilitate understanding of monetary policy.

Account of Monetary Policy

Yearly report on the monetary policy conducted by the Riksbank in the immediately preceding years. Contains data and assessments that enable the Riksdag to evaluate monetary policy. This publication was previously entitled "Material for Assessing Monetary Policy".

Financial Stability

Published twice per year. In this report, the Riksbank presents its assessment of the development of the financial system, highlights potential risks to financial stability and makes recommendations concerning measures to reduce risks.

Financial Infrastructure Report

Published once per year. Contains the Riksbank's assessments of the stability and efficiency of the financial infrastructure in Sweden.

The Swedish Financial Market

Provides an annual presentation of basic statistics on the various parts of the financial sector and contains instructive explanations of how these markets, institutions and systems function.

Riksbank Studies and Economic Commentaries

These are longer and shorter analyses and studies within one of the Riksbank's fields of activity. They are published on an ongoing basis over the year.

Sveriges Riksbank Economic Review

Published two to four times per year. Contains in-depth articles related to the Riksbank's fields of activity.

Annual Report

Provides an account of the Riksbank's activities during the past year. It also includes the annual accounts.

Working Paper Series

Presents research with a connection to the Riksbank's fields of activity that is also considered to be of interest to readers outside the bank.

Publications from the European Central Bank (ECB)

Includes Swedish versions of the ECB's monthly bulletins, annual reports and convergence reports.

The Riksbank's Business Survey

This report is issued three times a year and reflects developments in prices and economic activity in the business sector. The survey takes the form of Riksbank staff interviewing representatives of the companies' management groups and the results are then compiled into a report. The interviews provide the Riksbank with in-depth information on how the companies perceive the situation in the Swedish economy and what plans they have for the future.

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, articles and minutes from the meetings of the Executive Board and the General Council on its website. As of 2009, it is also possible to download the results of the Riksbank's business surveys and risk surveys as separate publications in PDF format.

4. THE SVERIGES RIKSBANK PRIZE IN ECONOMIC SCIENCES IN MEMORY OF ALFRED NOBEL 2016

The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel for 2016 was awarded to Oliver Hart and Bengt Holmström for their contributions to contract theory. Modern economies are held together by innumerable contracts. The new theoretical tools created by Hart and Holmström are valuable to the understanding of real-life contracts and institutions. Hart and Holmström launched contract theory as a useful framework for basic research in social science. In recent decades, they have also studied important applications of the theory. Their analysis of optimal contractual arrangements lays an intellectual foundation for designing policies and institutions in many areas, from bankruptcy legislation to political constitutions.



Bengt Holmström was born in Helsinki in 1949 and took his PhD in 1978 at Stanford University. He is currently professor at Massachusetts Institute of Technology (MIT).

The Sveriges Riksbank Prize in Economic Sciences was established in connection with the Riksbank's 300th anniversary in 1968. In making its donation, the Riksbank committed itself to giving the Nobel Foundation each year in perpetuity the prize money and the amount necessary to cover the Foundation's administrative expenses for the prize. 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. As of 2012, the prize amount is SEK 8 million, in accordance with the Nobel Foundation's decision to lower the prize amount for the other Nobel Prizes. 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 (www.riksbank.se).



Oliver Hart was born in London in 1948. He did his PhD in Princeton University in 1974 and is now professor at Harvard University.

5. GLOSSARY

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 of 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 III International regulatory framework for financial institutions that mainly sets standards for 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.

Basel Committee Global forum for cooperation on issues relating to bank supervision for supervisory authorities and other bodies responsible for financial stability work.

BIS, Bank for International Settlements Coordinating body for central banks with its headquarters in Basel.

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

Cash Handling Advisory Board The Cash Handling Advisory Board was established by the Riksbank in 2006 and is headed up by First Deputy Governor Kerstin af Jochnick. The purpose of the council is to function as a forum for discussing issues concerning cash management in society. Besides the Riksbank, the Board is made up of representatives from banks, cash depot companies, cash-in-transit companies, the retail trade, trade unions and the authorities involved.

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

CEBS, Committee of European Banking Supervisors Independent organisation founded in 2004 with representatives for supervisory authorities and central banks in the EU. It was replaced by the European Banking Authority (EBA) in 2009.

Countercyclical buffer Reserves of capital that banks are to maintain to protect themselves against losses that may follow a period of excessive credit growth.

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 (SCB).

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.

Deposit facility See Standing facilities.

Derivative instruments Financial instrument that entails agreements on commitments, rights or other prerequisites 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.

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

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

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

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 Subsidiary of Euroclear that holds registers of almost all shares and debt securities 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 during the financial crisis to help the banks gain access to liquidity, ease the workings of the money market 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.

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 Transactions that the Riksbank uses to even out fluctuations in the banking system's loan or investment needs with the Riksbank. As a rule, these deposits are made overnight at an interest rate equal to the repo rate minus 0.10 percentage points.

Foreign exchange risk The risk that the market value of assets, measured in Swedish krona, will fall when the krona strengthens against the currencies that the assets are invested in.

FSB, Financial Stability Board International committee that coordinates the work between national authorities and international regulatory bodies in the field of financial stability.

GDP, Gross Domestic Product Value of all goods and services produced in a country to be used for consumption, export and investments during a period, usually one year or one quarter.

Gold price risk The risk that the market value of the gold reserve will fall as a result of a fall in the price of gold.

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 188 member countries, provides technical assistance and lends money to countries carrying out economic adjustment programmes.

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. The CPI and CPIF are examples of inflation measures.

Interest rate risk Risk that the value of an interest-bearing security will fall due to a rise in market rates.

Interest rate swap See Swap agreement.

Interoperability When two or more central counterparties enable their participants to buy and sell equity from one another despite not being participants in the same central counterparty.

IOSCO, International Organization of Securities Commissions An international organisation dealing with the oversight of securities.

LCR, Liquidity Coverage Ratio Measure of a bank's ability to handle a liquidity outflow over a period of 30 days. In simple terms, an LCR of 100 per cent means that a bank's liquidity reserves are adequate to enable the bank to manage an unexpected liquidity outflow for 30 days without collapsing.

Lending facility See Standing facilities.

Liquidity Measure of the ability of a company or organisation to meet its payment obligations in the short term. Can also describe how quickly it is possible to convert an asset into money.

Main transactions Transactions at the repo rate that the Riksbank normally carries out each week. If the banking system has a need to deposit money, the Riksbank issues Riksbank Certificates. If the banking system instead needs to borrow money from the Riksbank, monetary policy repos or loans (against collateral) are used.

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 rises by one percentage point.

Monetary policy Measures that a central bank takes to maintain price stability in the economy.

Monetary policy repo Main transaction in which the Riksbank lends money by purchasing securities from monetary policy counterparties. At the same time, the Riksbank undertakes to sell back these securities on a set date at a slightly higher price, where the difference in price corresponds to the repo rate. The Riksbank then receives back the funds, and the securities are returned to the original owner.

Monetary policy transactions The main, fine-tuning and structural transactions as well as standing facilities that the Riksbank uses to steer the overnight rate, the shortest market rate on the money market.

NSFR, Net Stable Funding Ratio Measure of how much stable funding a bank has in relation to its illiquid assets in a stress scenario that covers a period of one year.

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

Price stability Condition where the prices of goods and services increase only moderately or not at all.

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

Repo rate The Riksbank's most important policy rate, see Main transactions.

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 provides a forum for consultation and dialogue. Members include both public authorities and private actors.

Riksbank Certificates Main transaction, see the section Balance sheet and profit and loss account, note 15.

Riksdag Committee on Finance Parliamentary committee that prepares matters concerning economic issues, including the activities of the Riksbank and the central government budget.

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

SNS, Centre for Business and Policy Studies Politically-independent, non-profit organisation comprising opinion-formers and decision-makers in the private and public sectors.

Standard deviation Statistical measure that describes the extent to which the different values for a variable deviate from the mean value.

Standing facilities Banks and certain other financial participants may borrow money from or deposit money with the Riksbank overnight at the repo rate +/- 75 basis points. The interest the counterparty receives 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.

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.

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