



Decision guidance

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Decision to reverse previous financial risk provisions

Decision by the Executive Board

The Executive Board decides to reverse previous financial risk provisions of SEK 5 billion to the Riksbank's financial results for the 2022 financial year.

Background

Since the 2020 financial year, the Riksbank has made an annual decision on provision for financial risks. A risk provision is an accounting measure that reduces the Riksbank's financial result and dividend, thus transferring part of the profit to a buffer for future losses. The possibility of making financial risk provisions and the amount of the provision for an individual financial year therefore depend to a large extent on the Riksbank's earnings and dividend. If the Riksbank makes losses, or if the risk-absorbing buffer is deemed to be too large, the Executive Board may decide to reduce the balance sheet item for risk provisions by reversing the allocated funds. A reversal will strengthen the reported and dividend-qualifying result.

In recent years, the Riksbank's balance sheet has increased considerably with the monetary policy-motivated asset purchases. The increased asset holdings have increased the financial risks for the Riksbank, mainly in the form of an increased interest rate risk, which makes the result more sensitive to changes in interest rates.

To manage the increased risk, the Riksbank has decided on risk provisions. For the 2020 financial year, SEK 5 billion was set aside, and for the 2021 financial year SEK 0 was set aside. On both of these occasions, however, the Riksbank considered that the need for

provisions or other buffers against future losses was greater than the provisions that were allowed by the results and that were therefore made.¹

According to preliminary figures, the Riksbank made a reported loss of SEK 86 billion (before this decision) for the 2022 financial year. During 2022, market interest rates have risen rapidly in the wake of rising inflation, both in Sweden and abroad. With higher market interest rates, the market value of the Riksbank's holdings of interest-bearing assets falls, which applies both to foreign holdings in the foreign exchange reserves and to domestic assets in Swedish kronor. Since the Riksbank's accounting principles are based mainly on market valuation, this means that the loss in value will affect the reported result for 2022, via a so-called write-down, even if the loss has not yet been realised.²

However, the Riksbank's mandate is not to make a profit but to contribute to sound and stable economic development by fulfilling the price stability objective, achieving safe and efficient payments and contributing to financial stability. The Riksbank's efforts to attain these objectives, including during the difficult pandemic years, have led to an unrealised loss for the Riksbank. But the Riksbank's measures have also created economic gains mainly in the form of a credible and well-anchored inflation target, but also in the form of lower public funding costs, higher economic activity and greater tax revenues.³

Considerations

The Riksbank has made financial risk provisions of SEK 5 billion and makes a preliminary loss of SEK 86 billion for the 2022 financial year 2022 (before this decision). As financial risk provisions of SEK 5 billion have been made in previous years in order to be able to reduce losses in a situation like this one, the Riksbank should now reverse previously allocated funds.

The decision to reverse SEK 5 billion improves the provisionally reported result for the 2022 financial year by the same amount, to SEK -81 billion. Even after the reversal, the result is negative and the Riksbank's equity is therefore expected to be very low. It is therefore appropriate to reverse the entire amount previously set aside.⁴

Prior to decisions on increasing or decreasing the financial risk provisions, the Riksbank performs an analysis of the financial risk picture and need for a buffer.⁵ Such an analysis is a recurring part of the decision guidance for provisions and reversals. Therefore, the usual risk analysis is presented in an annex to this decision-guidance document. However, this risk analysis shall not be seen as an assessment of the level of the Riksbank's future need for capital. Such an assessment requires a broader and more

¹See [Decision on provision for financial risk 2020](#) (dnr 2020-01285,) and [Decisions on provision for financial risk 2021](#) (dnr 2021-01343).

² See [Economic Commentary no. 8, 2022](#) (Kjellberg and Åhl) for a more detailed description.

³ See Kjellberg and Åhl (2022) and [Riksbank Study no.2, 2022](#) (Andersson et al.).

⁴ For the 2022 financial year, the previous legislation on the allocation of profits and dividends to the state still applies. The dividend principle means that the Riksbank distributes 80 per cent of the average profit over the past five years (provided that the average is greater than zero). The dividend-qualifying profit is an adjusted profit measure that includes unrealised price effects and excludes all gold and foreign currency effects. Due to the large loss for 2022, the dividend is expected to be zero regardless of whether or not the Riksbank makes a reversal.

⁵ See dnr 2020-01285 and dnr 2021-01343



comprehensive analysis. The analysis also needs to take into account economic development and its effect on the Riksbank's financial position and long-term earning capacity.

Annex: The Riksbank's need for capital as a buffer against financial risk

This year's decision to reverse previous provisions for financial risks is motivated by the Riksbank making a loss for the 2022 financial year. However, decisions on risk provision or reversal should take into account an analysis of the risks to the Riksbank's capital and how much more capital is needed in the long term to ensure a reasonable buffer against possible losses. Although this is not the primary reason for this year's decision for a reversal, we include the latest risk analysis in this annex. The analysis is performed according to the same principles as previously but shall not be seen as a comprehensive assessment of the need for capital going forward. Please note also that the risk analysis below is based on information available up to the end of November 2022.

The analysis of risks and the need for a buffer is based on a number of components. First, an assessment is made of what can be regarded as a minimum level of capital, which capital should not fall below even after a not too unlikely period of losses. The Riksbank shall be able to reach this minimum level and still have sufficient cost-free debt and earnings to build up a buffer of capital.⁶ Then an evaluation is made of how the current capital relates to the assessed minimum level. In addition, the Riksbank's assets and liabilities are analysed to assess the level of losses we can expect with a certain probability. With all these components in place, an assessment of the need for capital, based on specific assumptions, including the need for buffers against possible losses. The Riksbank considers the results and then adjusts the accumulated provisions for financial risks as far as possible to the capital need, in order to safeguard the Riksbank's longer-term financial independence. This annex goes through the various components of the analysis.

An appropriate minimum level for the Riksbank's capital

The Riksbank needs earnings that both cover management costs and generate an average profit that can be used to build up a risk buffer. The risk buffer should ensure a sustainable level of equity in the event of losses. The most important source of earnings is the Riksbank cost-free capital (the interest-free debt) that can finance interest-bearing assets and thus create positive so-called net interest income.

Calculations in the Riksbank's earlier decision on provisions for financial risks indicated that SEK 60 billion is an approximate minimum level of reported equity to achieve sufficient earnings.⁷ The new Sveriges Riksbank Act (2022:1568) also specifies a target level for the Riksbank's reported equity of SEK 60 billion for 2023, which is also motivated by the need for cost-free capital for the Riksbank to be considered self-financed. The analysis below still assumes that SEK 60 billion is an appropriate minimum level for the Riksbank's capital.

However, in view of the unrealised losses reported by the Riksbank for the 2022 financial year, and the increase in administrative costs, while earnings capacity has weakened with the reduction in cost-free capital, there is reason to return in the future

⁶ Reported equity is a cost-free liability on the Riksbank's balance sheet. There are also other items that constitute cost-free debt, such as banknotes and coins, and their size affects what is a minimum satisfactory amount of reported equity.

⁷ See dnr 2020-01285 and dnr 2021-01343

with a deeper and more detailed analysis of a sustainable level of capital. It will not least be important for such an analysis to precede any petition made to the Riksdag on restoring the Riksbank's equity. The provisions in the new Sveriges Riksbank Act on capital state that the Riksbank shall submit such a petition if its capital falls too low. However, this rule does not enter into force until the 2023 financial year.

Current capital is lower than target level

The Riksbank's capital consists of reported equity, unrealised gains on revaluation accounts, accumulated provisions for financial risks, and net income for the year. Please note that this analysis was carried out at the end of 2022, before a reported result for the full year is fully known.

The Riksbank's equity is both a cost-free debt, which in the long term can be expected to benefit earnings capacity, and a risk-absorbing buffer against financial losses. Current equity is SEK 63 billion, but since the reported result for 2022 is expected to be negative, the equity is likely to be significantly lower after the Riksdag decides on the allocation of profits in 2023.

Unrealised gains refer to increases in value relative to the adjusted acquisition value of the Riksbank's assets and are recorded in so-called revaluation accounts. Instead, if the value of an annual financial statement is less than the acquisition value, this unrealised loss is transferred to the reported results instead of the revaluation account being negative (via a so-called write-down).⁸ The revaluation accounts can be divided into the categories interest rate effects, foreign currency effects and gold value effects. The unrealised gains on the revaluation accounts are to be regarded as a buffer against any future depreciation.⁹ However, there may be times when unrealised profits can form a permanent part of the cost-free capital (and not just as a buffer against losses).

Accumulated provisions for financial risks are by definition part of the Riksbank's risk buffer. The decision to reverse all previous risk provisions of SEK 5 billion means that the net result for the year will improve by SEK 5 billion and the item for reserved funds will be zero in the balance sheet.

In order to assess the relevant cost-free debt, we summarise the Riksbank's various types of capital. Since the Riksbank's gold holdings are not an interest-bearing asset, it is reasonable to exclude gold when analysing the need for capital and cost-free debt.¹⁰ The large gold revaluation account can also be seen as a very abundant buffer for the gold price risk, which also helps to exclude the gold from the other risk analysis.¹¹

⁸ This asymmetry in the accounting rules is motivated by the fact that the central bank should not need to distribute unrealised profits, while the value development of the assets is reported in a transparent manner.

⁹ In any case, until the profit can be realised and transferred to the reported result.

¹⁰ The expected real return from commodity assets such as gold can in theory be seen as zero. Historically, however, the return on gold has been high during certain periods. The Riksbank's gold holdings are largely managed passively and do not yield any ongoing returns in the form of coupon or interest payments. Therefore, no profits are generally realised from the gold and the gold revaluation account and these should therefore not be regarded as part of the long-term cost-free capital or as a buffer for other risks on the Riksbank's balance sheet.

¹¹ Under the accounting principles, unrealised gains on a revaluation account, for a specific asset, can only constitute a direct buffer for future loss of value on the same asset.

The Riksbank's relevant risk-absorbing buffer consists of equity (SEK 63 billion), unrealised profits excluding gold (SEK 52 billion), previous provisions (SEK 5 billion) and the 2022 financial result (SEK -86 billion), which adds up to SEK 34 billion.¹² This is significantly lower than the SEK 60 billion that constitutes the minimum level for the Riksbank's capital in this analysis. Moreover, the current level of capital is maintained by large unrealised foreign exchange gains on revaluation accounts, which is not normally to be regarded as part of the long-term cost-free debt. At the same time, large unrealised losses from falling market values on bond holdings contribute to a reduction in the level of capital. It is therefore difficult to draw a definitive conclusion as to how much of the capital can be regarded as a permanent part of the cost-free debt.

Risks on the Riksbank's balance sheet

There are various types of risk for future losses on the Riksbank's balance sheet. The most important is market risk, which in turn can be divided into interest rate risk and currency risk.¹³ Interest rate risk means that the value of the Riksbank's bonds, which constitute a significant part of the Riksbank's assets, may fall as a result of rising market interest rates. Currency risk means that the value, measured in Swedish kronor, of the Riksbank's assets in foreign currency (foreign exchange reserves) may fall as a result of the Swedish krona strengthening against other currencies.

In addition to market risk, there is also credit risk on the Riksbank's balance sheet. This means that the Riksbank holds securities where there is a risk that the issuer cannot meet their payment obligations.

The market risk is dealt with as in previous years using three approaches: a stressed scenario, a simulation using a macro-financial time series model, and so-called "Economic Capital" (EC). These approaches are outlined below and are also compared with two more likely scenarios (called "Baseline" and "BVAR/BRA median").¹⁴ The credit risk is managed separately and is reported separate from the market risk.

As a rule, we use a five-year horizon as a basis for the risk analysis, but for technical reasons the EC approach focuses on a one-year horizon. We believe that five years is a suitable horizon, as short-term variations have generally waned during that time. At the same time, it is a short enough horizon to allow planning for provisions and provide leeway for various risk scenarios.

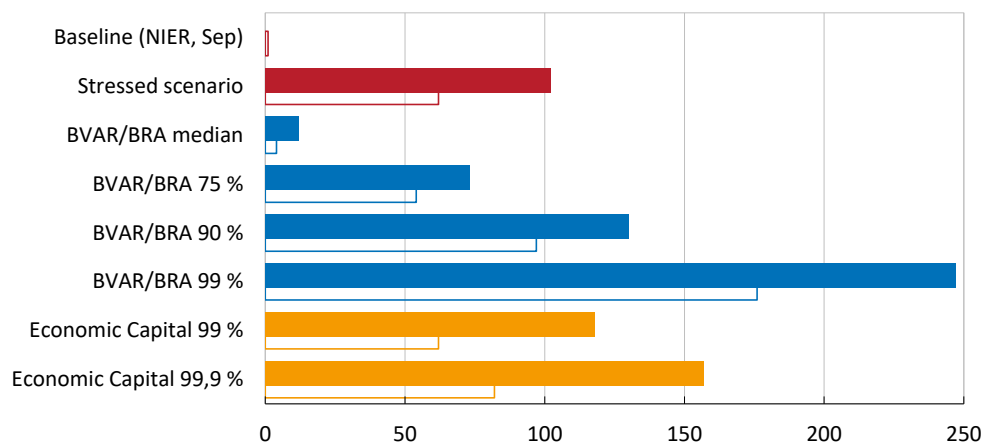
¹² The reported result for 2022 is transferred to the Riksbank's reported equity when the Riksdag adopts the Riksbank's profit allocation, which will happen during spring 2023.

¹³ Gold price risk is also included here, but as the Riksbank's gold holdings are not generally realised (see footnote 10), we disregard this in the analysis.

¹⁴ The two more likely scenarios are based on the National Institute of Economic Research (NIER) forecasts from 28 September 2022 for a number of financial variables for Sweden, the United States and the euro area (see <https://www.koni.se/english/publications/swedish-economy-report.html>) and the median of the simulation in the macro-financial model.

Diagram 1. Accumulated losses five years ahead (one year for Economic Capital)

SEK billion



Note. Observe that the figure does not show the market value losses that the Riksbank has incurred up to the end of October 2022. For BVAR/BRA and Economic Capital, probabilities are given that the loss will not be greater than the bars indicate. Hollow bars show the corresponding analysis in the 2021 financial risk provision decision.

Sources: The Riksbank's calculations are partly based on the NIER's forecasts and surveys from Bloomberg and Kantar Prospera.

Stressed scenario

The stressed scenario is based on the spread of survey responses concerning interest rates in Sweden, the United States and the euro area and the krona exchange rate. We use as a base those parts of the distribution of responses that are compatible with the fastest increases in interest rates and the fastest strengthening of the krona exchange rate. In the scenario, the Riksbank's policy rate rises to just over three per cent in 2023 and the Swedish krona strengthens by about 15 per cent in five years' time. The US policy rate peaks at about 5.5 percent in 2023.

Figure 1 shows that, in the stressed scenario, the Riksbank makes additional losses, in addition to those made so far this year, of just over SEK 100 billion over the next five years. This is a significant increase compared to the corresponding scenario analysis in the 2021 financial risk provision decision.¹⁵ However, in the more likely scenario from the National Institute of Economic Research, there will be no further losses in the coming years beyond those arising in 2022.

Macro-financial time series model

The time series model in the second approach is a so-called BVAR model with GDP, inflation, interest rates and exchange rates for Sweden, the euro area and the United States. The model simulates thousands of scenarios for developments in interest rates and the Swedish krona. These are then used to calculate probability distributions for the

¹⁵ Comparison is made here against what is known as "Scenario C" in [Decision on provision for financial risk 2021](#) (Ref.no 2021-01343).

Riksbank's balance sheet items and results over different time horizons (in this case for a five year horizon).

Figure 1 shows that in a very unlikely scenario, losses over the next five years could be as large as SEK 250 billion. A more likely but still bad scenario leads to losses of around SEK 70 billion. All of the risk measures in the approach have worsened since the corresponding analysis in the 2021 financial risk provision decision. In the most likely scenario of the application, which is the median of the simulations, future losses are limited to just over SEK 10 billion.

Economic Capital (EC)

Finally, the measure Economic Capital, which is only estimated one year ahead, is also used. This model is based on historical variances and correlations for financial prices and used to calculate a probability distribution for the Riksbank's total return. Based on this, a potential maximum loss (Value-At-Risk) is calculated at various probability levels. The model does not include accounting and dividend rules, which is an important reason why it is only calculated up to one year.

Figure 1 shows that the EC approach implies losses of up to SEK 120-160 billion in the coming year, depending on the probability level being considered. These calculations certainly include more unlikely outcomes, but show losses that may occur within a year's horizon.

Credit risk

In addition to market risk, there is also a risk that the Riksbank will make credit losses on its assets. In the market risk assessments, no credit risk is calculated, so we treat it separately. This is done using a similar Economic Capital model as the one used for market risk.

In the decision on the provision for financial risk for 2021, i.e. one year ago, it was estimated that credit losses with a probability of 95 per cent would not exceed SEK 1 billion within one year.¹⁶ With a probability of 99 per cent, the corresponding amount was SEK 7 billion. At that time no specific calculation was made of how the credit risk affects the buffer requirement, since its contribution to the Riksbank's total financial risks was judged to be small. The Riksbank's analysis shows that the credit risk has declined marginally in 2022 and therefore this year we do not explicitly include credit risk in the calculation of the need for capital buffers. However, the Riksbank does not rule out the possibility of credit risk providing motivation for future decisions on provisions.

Need for a larger risk buffer

One conclusion of the above analysis is that the risks on the Riksbank's balance sheet have increased in the past year. The increased risk is not due to an increase in the balance sheet total, which has in fact contracted somewhat during the past year, but rather to increased uncertainty about the future and very large movements in financial

¹⁶ See Ref.no. 2021-01343. In calculating the credit risk, it is assumed that all the mortgage institutions that issue (covered) mortgage bonds have the highest credit rating (AAA) and thus are to be regarded as low-risk issuers. In addition, the credit risk is set to zero for the Swedish government as issuer.

prices. In addition, the Riksbank's capital and earning capacity have fallen as a result of the large reported loss in 2022, which affects the risk of future capital falling further. The level of market risk depends on the approaches we use and how improbable scenarios we want to consider. If we exclude the most unlikely scenarios and focus on the stressed scenario and on the scenarios from BVAR/BRA with a 75 per cent probability, the losses in the coming years can be approximately SEK 70-100 billion. The Riksbank's risk-absorbing buffers should be able to handle about such a development, but are not intended to handle the most unlikely developments.

The Riksbank's capital, including relevant risk-absorbing buffers, is now SEK 34 billion, which can be compared with the SEK 60 billion that constitutes the target level for equity according to the new Sveriges Riksbank Act, and with last year's level of SEK 86 billion. Despite the Riksbank's capital now having fallen to a low level, the Riksbank can continue to perform its tasks effectively in the near term. In the long term, however, the Riksbank requires equity that can fund our operations and safeguard our financial independence. This illustrates the need for further and in-depth analysis of the Riksbank's need for equity in the longer term.¹⁷

¹⁷ See [Staff Memo](#), Sveriges Riksbank. (Nordström and Vredin, 2022).