



The Riksbank's Climate Report

Climate risks in the policy work

December 2021

Table of contents

| | | |
|-----|---|----|
| 1 | Why does the Riksbank work with climate-related risks? | 5 |
| 1.1 | Climate change – the major challenge of our time | 5 |
| 1.2 | Climate change in the context of the Riksbank's remit | 6 |
| 1.3 | The direction of the Riksbank's climate-related work | 7 |
| 2 | How does the Riksbank work with climate-related risks? | 9 |
| 2.1 | Monetary policy | 9 |
| 2.2 | Asset management | 10 |
| 2.3 | Financial stability | 14 |
| 2.4 | Payments | 16 |
| 2.5 | International cooperation | 17 |
| 2.6 | Research and analysis | 19 |
| 2.7 | The Riksbank's internal environmental work and sustainability reporting | 20 |
| 3 | The Swedish financial market from an international climate perspective | 21 |
| 3.1 | International regulations are developing at a rapid pace | 21 |
| 3.2 | How far has the Swedish financial sector come in its work on climate-related risks? | 24 |
| 3.3 | New actors contributing to the green transition | 26 |
| | Annex: The Riksbank's climate-related publications | 27 |
| | Glossary | 29 |

Foreword

The Riksbank is an independent public authority under the Riksdag and the state's core values guide the work of the Riksbank. The Riksbank has previously published a sustainability strategy that describes how sustainability is taken into account in its internal operations and in its policy work.

In this report, the focus is primarily on the Riksbank's climate-related work. The report describes why and how the Riksbank works with climate-related risks within its remit. The report also describes new international financial regulations in the field of sustainability and the Swedish financial sector's climate work.

The Executive Board of the Riksbank has approved this report.

IN BRIEF – The Riksbank’s Climate Report 2021



Climate change has consequences for all parts of society. Responsibility for taking policy measures against climate change lies primarily with politicians.



Climate change, and the measures taken to manage it, may affect the conditions for the Riksbank to fulfil its mandate. Furthermore, in its policy work, the Riksbank will act for sustainable development in line with the ambitions of the Riksdag and Government, assuming that this does not override the Riksbank’s tasks. It is therefore important for the Riksbank to follow, understand and take account of climate change in its work.



The Riksbank has a sustainability strategy that involves working systematically with the sustainability dimension in all its different operations. Based on the sustainability strategy, the Riksbank shall take account of climate change and promote an orderly transition to a sustainable economy within the framework of its mandate.



The Riksbank considers climate change in its monetary policy and asset management and in its work with financial stability and the payment market, as well as in other operations. The Riksbank is also actively involved in several international partnerships to help reduce the risks of climate change.



International regulations and standards that affect the Swedish financial market’s climate work are developing at a rapid pace. Despite many Swedish financial corporations having gradually begun to adapt their lending, risk management and reporting to include climate aspects, only a few companies have processes in place for the whole chain of identifying, measuring, assessing and managing climate risks.

1 Why does the Riksbank work with climate-related risks?

Climate change, and the measures taken to manage it, may affect the conditions for the Riksbank to fulfil its mandate. It is therefore important for the Riksbank to follow, understand and, as long as this is compatible with its remit, take account of climate change in its work.

1.1 Climate change – the major challenge of our time

Climate change affects everyone

Climate change and strategies for dealing with it form one of the most important social issues of our time. The latest report by the UN climate panel, the International Panel on Climate Change (IPCC), states: “It is unequivocal that human influence has warmed the atmosphere, ocean and land. Widespread and rapid changes in the atmosphere, ocean, cryosphere and biosphere have occurred”.¹ It has thus been established that human activities are causing climate change. To prevent climate change from continuing, changes are therefore needed in the way our societies and economies operate.

Climate change originates in greenhouse gas emissions. These have increased in such a way that the Earth's temperature is slowly rising. This, in turn, entails costs when we have more cases of severe drought and flooding, sea levels rise and ecosystems are destroyed. In economic terms, it is common to talk about the effects of the emissions as a *negative externality*, meaning that when individuals and companies emit for example, carbon dioxide (CO₂), they do not take into account the costs that emissions cause others. This can also be described as a market failure, as it is too cheap to emit greenhouse gases from society's point of view. Another important dimension regarding greenhouse gas emissions is that it does not matter where emissions occur. They spread rapidly throughout the atmosphere and contribute to global warming regardless of their origin. In turn, this means that we need to take action to combat climate change at a global level.

Action needs to be taken in many policy areas

There is a broad consensus that the most important single thing we can do to tackle greenhouse gas emissions is to make them more expensive, so that those who cause the emissions bear the full economic costs. One way of achieving this is through various kinds of taxes, primarily on CO₂. Another way is through overall quantitative limits, where allocation to companies takes place through the purchase of emission rights. The primary responsibility for taking policy measures against greenhouse gas

¹ See page 4 in “[Climate Change 2021: The Physical Science Basis. Summary for Policymakers](#)”, IPCC.

emissions lies with governments and elected parliaments because they control taxes and regulations that can have major distribution policy effects.

Climate change, and the measures needed to counter it, may have far-reaching effects on our economies. The transition to a less fossil-based economy entails structural changes in different parts of the economy. If politicians decide to increase taxes on CO₂ emissions or the prices of emission rights, this would lead to the phasing out of CO₂-intensive sectors in favour of more environmentally friendly sectors. However, it may also affect companies in the same sectors differently, depending on how well their operations are adapted to the climate transition. The transition to a less fossil-based economy may therefore have both short-term and long-term effects on prices and output. The extent of these effects is very difficult to predict, but they are likely to increase the longer the transition takes.

1.2 Climate change in the context of the Riksbank's remit

The Riksbank's remit

The responsibility for combating and reducing CO₂ and other greenhouse gas emissions through policy measures lies with the world's governments. But that does not mean that other authorities can ignore the issue. The Riksbank has several reasons to monitor, understand and take account of climate change because it may affect the conditions for the Riksbank to fulfil its mandate.

According to the Sveriges Riksbank Act, the Riksbank is to maintain price stability and promote a safe and efficient payment system. This means that the Riksbank shall maintain price stability, promote the stability of the financial system and ensure that payments can be made safely and efficiently. According to the preparatory works for the current Sveriges Riksbank Act, the Riksbank shall support the objectives of general economic policy, whose aim is to achieve sustainable growth and high employment. Consequently, in its policy work too, the Riksbank shall promote sustainable development in line with the ambitions of the Riksdag and Government, subject to the condition that this does not override the price stability objective and is compatible with the Riksbank's overall policy remit. The Riksbank's remit also includes using public finances prudently and taking account of the state's core values, which are based on democratic principles, in its work.^{2, 3}

² The state's core values are based on the Instrument of Government's fundamental requirements and consist of the six principles of democracy, legality, objectivity, free formation of opinion, respect, and efficiency and service.

³ On 28 October 2021, the Government submitted a proposal for a new Sveriges Riksbank Act (Government Bill 2021/22:41). The main objective of the Riksbank's activities will remain maintaining price stability. Without neglecting this objective, the Riksbank shall also consider the real economy by contributing to a balanced development of output and employment. The new Act is intended to enter into force on 1 January 2023. In view of the priorities of the Government and Riksdag regarding sustainability and climate change adaptation in the Swedish economy, the new Act explicitly supports taking sustainability considerations into account in the Riksbank's monetary policy, provided that this does not override the price stability objective. The proposal for a new Sveriges Riksbank Act also states that the Riksbank, as part of its monitoring of general economic developments, should identify threats to sustainable development.

Climate change affects the Riksbank's responsibilities

The Riksbank's remit provides several reasons for the Riksbank to consider climate change.

- Climate change and the measures taken to counter it will have an impact on economic developments, perhaps mainly in the longer term but also in the short term. Monetary policy is guided by forecasts of how inflation and the economy in general will evolve. This analysis will therefore need to be developed in order to better incorporate climate change.
- The risks arising from climate change – which are usually divided into physical risks and transition risks – are a source of financial risk. In its asset management, that is, in the management of the foreign exchanges and the assets that the Riksbank buys as part of monetary policy, the Riksbank considers financial risks.
- The Riksbank needs to analyse and monitor climate-related risks and vulnerabilities in the financial system as these can create financial risks such as liquidity, credit and market risks.

In other words, to fulfil its remit, the Riksbank must consider climate change in monetary policy, asset management and its work of promoting financial stability and safe and efficient payments, as well as in its internal activities. In line with its mandate, the Riksbank supports Sweden's economic policy and promotes sustainable economic development. The Riksbank does this without disregarding the primary objective of maintaining price stability and its other policy tasks. The Riksbank shall not counteract initiatives from other policy areas either. The measures taken by the Riksbank to take account of climate change complement, rather than substitute, the measures required. The next chapter in this report describes how the Riksbank works with climate-related risks in practice.

1.3 The direction of the Riksbank's climate-related work

The Riksbank works on behalf of Sweden's citizens for a strong and secure economy by conducting a monetary policy with price stability as its main objective and by promoting safe and efficient payments and a stable financial system. Since climate change affects the Riksbank's areas of responsibility, long-term sustainability is important for the Riksbank. There is a sustainability committee at the Riksbank that coordinates and develops work on the basis of a sustainability strategy. The Riksbank strives to work systematically with sustainability in all its different activities.⁴

⁴ See [The Riksbank's work on sustainability](#).

Based on the sustainability strategy, the Riksbank shall take account of climate change and promote an orderly transition to a sustainable economy within the framework of its mandate. To achieve this, the Riksbank will

- work to ensure that its own operations gradually align with international agreements such as the Paris Agreement
- help to increase knowledge of the effects of climate change on the economy by contributing its own research and analyses
- take a sustainability perspective in its asset purchases and in the management of the foreign exchange reserves, while remaining within the framework of the Riksbank's mandate
- promote increased transparency and reporting related to climate footprints
- promote regulations in the financial markets to reduce the risks climate change may entail for the financial system
- actively participate in various international networks and partnerships to help reduce the risks of climate change at a global level.

2 How does the Riksbank work with climate-related risks?

To fulfil its remit, the Riksbank takes account of climate change, and the risks associated with it, in its work on monetary policy and asset management and in its work on financial stability and the payment market, as well as in other activities. The Riksbank is also actively involved in several international partnerships to help reduce the risks of climate change.

2.1 Monetary policy

New risks for the economy – new challenges for monetary policy

Climate change entails new types of risk for the economy that monetary policy needs to take into account in order to maintain the objective of price stability. According to the IPCC's latest report of 2021, extreme weather is expected to become more common as global average temperatures rise. This means more heatwaves, storms and weather disasters such as forest fires and floods. The effects of extreme weather are liable to harm people's welfare and the production possibilities of companies. From a monetary policy perspective, the fluctuations in prices and output risk becoming larger.

Political decisions on raised taxes on CO₂ emissions or increased prices for emission rights in the transition to a less fossil-based economy may lead to some sectors of the economy becoming unprofitable and to prices for energy, for example, rising. Monetary policy does not aim to influence prices of individual goods such as energy. However, if rising energy prices were to find their way more permanently into the inflation process, monetary policy might have to consider this. The transition to a less fossil-based economy can thus affect both inflation and output.

The Riksbank's monetary policy work on climate-related risks

The Riksbank participates in the global Network for Greening the Financial System (NGFS), which works to ensure that financial undertakings and authorities integrate climate and environmental risks into their work.⁵ In the summer of 2021, the NGFS published several scenarios for how climate change may affect economic developments. The Riksbank has presented an overview of these scenarios in an Economic Commentary focusing on global and Swedish developments.⁶ According to the scenarios, economic costs are relatively small in terms of reduced GDP on a global level, which is in line with previous studies. This also applies to Sweden, where the costs are

⁵ Read more about the NGFS in section 2.5 on international cooperation.

⁶ E. Bylund and M. Jonsson (2021), "[An overview of the economic consequences of the NGFS climate scenarios](#)", *Economic Commentaries*, No. 14, Sveriges Riksbank.

even smaller. The calculations have taken the costs of extreme weather and the climate transition into account. However, the risk of tipping points, which may involve considerable costs in all scenarios, has not been taken into account.

The risks of climate change imply that the economic developments will become more uncertain and that the likelihood of natural disasters will increase. Regarding this, the Riksbank has published a study investigating how climate change may affect the long-term real interest rate.⁷ According to the study, greater uncertainty about economic developments and increased risks of natural disasters may lead to a lower long-term real interest rate. Monetary policy does not affect the long-term real interest rate. Instead, this interest rate is determined by other factors in the economy. Nevertheless, in order for the inflation target to be met, the policy rate needs to take changes in the long-term real interest rate into account. The study does not address the adjustment of the long-term real interest rate to a new long-term equilibrium. Such an analysis is more complex and is an important area for future research.

In an ongoing project, the Riksbank is studying how changes in the weather can affect variations in prices and output in Sweden. The study uses historical weather data to study the relationships between rising temperature, prices and output. The Riksbank will publish the results of the study in 2022.

2.2 Asset management

The Riksbank's management of financial assets and the application of sustainability considerations

As part of its monetary policy remit, the Riksbank has purchased assets in Swedish kronor.⁸ These assets include bonds issued by Swedish non-financial corporations. In these purchases the Riksbank applies a sustainability perspective.

The Riksbank also manages assets consisting of gold and foreign exchange reserves. These account for a large part of the Riksbank's total assets and are worth approximately SEK 460 billion. The gold and foreign exchange reserves exist so that the Riksbank, in times of financial stress, can offer banks liquidity support in foreign currency and so that the Riksbank can perform foreign exchange interventions. The Riksbank also uses the foreign exchange reserves when it lends money to the IMF. In turn, these policy needs form a starting point for identifying contingency requirements for foreign exchange. A sustainability perspective is also applied in the selection of assets in the foreign exchange reserve.

⁷ E. Bylund and M. Jonsson (2020), "[How does climate change affect the long-term real interest rate?](#)", *Economic Commentaries*, No. 11, Sveriges Riksbank.

⁸ For monetary policy purposes, the Riksbank holds assets consisting of Swedish covered bonds (mortgage bonds), municipal bonds and corporate debt securities (corporate bonds and commercial paper). Assets consisting of treasury bills and government bonds are also included. This is a consequence of the Riksbank's measures in connection with the coronavirus pandemic in 2020 aimed at keeping the level of interest rates low. These assets also include the Swedish nominal and real government bonds that the Riksbank purchased over the period 2015–2020 for monetary policy purposes.

Norms-based negative screening in the purchase of corporate bonds

When purchasing assets for monetary policy purposes, the Riksbank needs to consider the financial risks arising from this measure. Since January 2021, the Riksbank has therefore considered sustainability in its purchases of corporate bonds. This takes place through so-called norms-based negative screening, which means that the Riksbank only buys bonds issued by companies deemed to comply with international standards and norms for sustainability. The principles with which companies must comply span the areas of human rights, working conditions, the environment and anti-corruption.⁹

The basis of the Riksbank's negative screening is that it is riskier to purchase bonds issued by companies that are in breach of these principles. One aim of this screening is thus to limit the Riksbank's financial risk linked to sustainability. Applying negative screening also allows the Riksbank to manage government funds prudently and contributes to good management based on the state's core values. At the same time, the Riksbank must comply with the rules of monetary policy when selecting corporate bonds.¹⁰

Carbon footprint of the holdings of corporate bonds to be reported

Since 2021, the Riksbank has reported the carbon footprint of its holdings of corporate bonds every quarter.¹¹ In this way, the Riksbank aims to help promote the transparency of climate-related information. This reporting can also be seen as the first step of the Riksbank's process towards increased reporting of climate-related information.

The Riksbank has undertaken to work towards publishing its own climate-related financial reporting in line with the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD).¹² As a next step, the Riksbank also intends to calculate and account for the carbon footprint of other financial assets. Among other things, the Riksbank is looking at how to calculate the carbon footprint of the foreign exchange reserves and the holdings of government bonds. Calculating the carbon footprint also gives a first indication of the CO₂ intensive assets to which the Riksbank is exposed. This analysis is part of the Riksbank's work of calculating and measuring climate-related risks for the Riksbank's financial assets.

⁹ See M. Andersson and M. Stenström (2021), "[Sustainability considerations when purchasing corporate bonds](#)", *Economic Commentaries*, No. 3, Sveriges Riksbank.

¹⁰ The civil law principles need to be taken into account, which means, among other things, that companies that are similar shall be treated equally and that departures or exemptions from this shall only be made on factual grounds. In addition, the positive effects of a decision to exclude a company should be in reasonable proportion to the possible damage that the measure may cause. Sustainability considerations will also be implemented with a view to avoiding distorting effects on the Swedish market for corporate bonds.

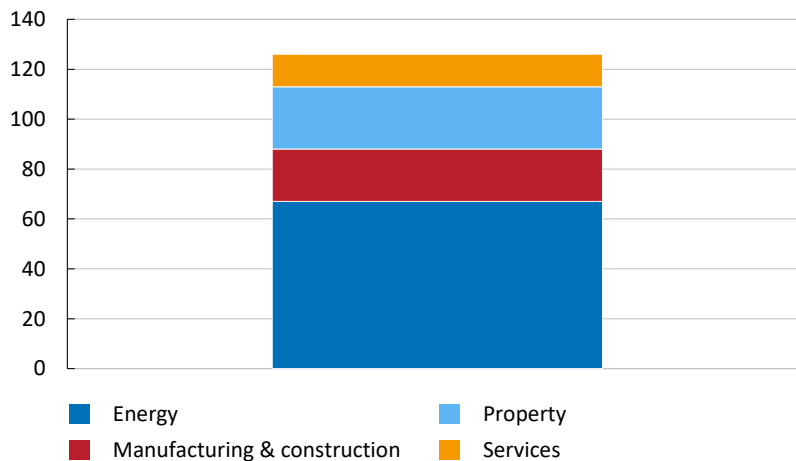
¹¹ See the Riksbank's website on [the carbon footprint for its holdings of corporate bonds](#).

¹² See "[Joint pledge from the Swedish members of the NGFS, Finansinspektionen and Sveriges Riksbank, at the occasion of the NGFS Glasgow Declaration during COP26](#)", 3 November 2021.

When the Riksbank reports the carbon footprint of its holdings of corporate bonds, it uses weighted average carbon intensity, which is a measure that sums up each company's carbon intensity. At present, only a minority of companies report their emissions. This means that the carbon footprint is partly calculated on the basis of estimates of emissions, which means that the measure gives more of an indication of the carbon footprint of the Riksbank's holdings (Figure 1).¹³ At the same time, the number of companies reporting their emissions is increasing. As more companies report their emissions, the reliability of the measure will also increase. Table 1 shows how the availability of carbon dioxide emissions data differs between listed and non-listed companies. Of the listed companies that meet the Riksbank's purchase criteria, almost 80 per cent report emission data, while for the non-listed companies it is only 12 per cent.

Figure 1. Weighted average carbon intensity for the Riksbank's corporate bond holdings

Tonnes of CO₂ per USD million of revenue



Note. The figures apply per 30 September 2021. The weighted average carbon intensity is reported for all companies the Riksbank has in its portfolio of corporate bonds, and is calculated on the basis of companies' reported emissions of greenhouse gases and estimates made by Sustainalytics. Of all the companies that the Riksbank has in its holdings of corporate bonds as of September 30, approximately 48 per cent report their greenhouse gas emissions.

Sources: The Riksbank and Sustainalytics.

¹³ For more information on how the carbon footprint is calculated, see J. Blixt, E. Brattström and M. Ferlin (2021), "[Sustainability reporting - need for greater standardisation and transparency](#)", *Economic Commentaries*, No 4, Sveriges Riksbank.

Table 1. Number of companies that meet the Riksbank's purchase criteria and report information on CO₂ emissions

| | Number | Report emissions of greenhouse gases |
|----------------------|--------|--------------------------------------|
| Listed companies | 30 | 23 (77 per cent) |
| Non-listed companies | 26 | 3 (12 per cent) |

Note. The table shows the companies with bonds that meet the Riksbank's purchase criteria as of 31 October 2021, that is, the criteria for purchasing corporate bonds set up by the Riksbank. These include credit ratings, direct financing and maturity, market neutrality and sustainability.¹⁴

Sources: The Riksbank and Sustainalytics.

The Riksbank considers sustainability in its choice of assets in the foreign exchange reserves

The Riksbank's financial risk and investment policy acts as a framework for the management of the foreign exchange reserves and defines the requirements placed on the foreign exchange reserves so that readiness to use them is good. For example, the policy states that the assets in the foreign exchange reserves should have ample liquidity. This is why the foreign exchange reserves largely consist of government bonds issued by states with high credit ratings. The policy also states that the foreign reserve reserves should contribute to safeguarding the Riksbank's financial independence and that asset management should be conducted efficiently and in such a way that it will not damage the reputation of the Riksbank. Since 2019, the policy also says that the Riksbank must consider sustainability in the choice of assets in the foreign exchange reserves.¹⁵

This takes place in various ways. For example, the Riksbank assesses new assets on the basis of sustainability factors such as climate, social responsibility and governance before they can be included in the foreign exchange reserves. This assessment lets the Riksbank take good management based on the state's core values into account. In addition, the Riksbank also measures the carbon footprint of assets in the foreign exchange reserves. As far as is possible, the Riksbank chooses a composition of assets that limits the total carbon footprint of the foreign exchange reserves, without this having an excessively negative impact on return. As a result of these sustainability considerations, the Riksbank has made some adjustments to its holdings in recent years.¹⁶ However, sustainability considerations must not impair the Riksbank's readiness to offer liquidity support or to be able to buy and sell currency for monetary and exchange rate policy purposes.

¹⁴ For more information on the requirements to be followed, see D. Hansson and J. Birging (2021), "[The Riksbank's asset purchases during the coronavirus pandemic](#)", *Economic Commentaries*, No. 12, Sveriges Riksbank.

¹⁵ The [financial risk and investment policy](#) establishes the principles for the Riksbank's investments in the gold and foreign currency reserves. Taking the contingency requirements as a starting point, the policy defines the permitted composition of assets and currencies, and acts as a framework for management.

¹⁶ In 2019, the Riksbank decided only to invest in Australian states and Canadian provinces with the same or lower carbon footprint as their respective countries.

The Riksbank owns green bonds

Green bonds are included in the Riksbank's assets in both foreign currency and Swedish kronor. This is because green bonds form a natural part of the markets in which the Riksbank is active and the Riksbank therefore currently assesses green bonds on the same grounds as other assets in its administration.

2.3 Financial stability

The financial sector is important for stimulating sustainable investment

The financial sector plays a vital role in the climate transition. This is because it is through this sector that capital and savings are allocated to the sustainable investments needed to achieve the climate target of net zero emissions by 2045. In order to use capital to support the changeover in an efficient way, it is crucial that climate-related risks be taken into account in interest rates and asset prices. If the prices do not reflect these risks, the likelihood of large and rapid price adjustments will increase in the future, once the risks materialise. This applies both to physical risks such as forest fires, which could, for example, affect the prices of mortgages, properties or forests, and to risks resulting from the transition, which could, for example, affect possibilities for obtaining loans by companies in CO₂-intensive industries.

Participants in the financial system, such as banks, insurance companies, pension companies, asset management companies and financial market infrastructures, may also be exposed to such climate-related risks in various ways. In order to safeguard the stability of the financial system, it is important that banks and other financial agents deal with the climate-related risks to which they are exposed.

The need for better sustainability reporting is increasing

In order to measure, analyse and price climate-related risks in the financial system, there must be usable and comparable financial data. The availability of reliable financial data is a prerequisite if interest rates and asset prices are to reflect climate-related risks, and forms the basis of all analysis made by the Riksbank under the framework of the financial stability analysis. Without data, analysis becomes more complicated and it becomes more difficult to understand the risks present in the system. The Riksbank therefore supports the international work that is now under way to develop an international global standard for climate-related reporting. More information about this is presented in the third chapter of the report, which describes the basic work of the TCFD. The Riksbank has also initiated a number of projects at home in order to understand climate-related risks in the Swedish financial sector better and to follow up their management.¹⁷

¹⁷ In line with the Riksbank's remit, the focus is primarily on the banking sector and its main borrowers (because they are a central part of the financial system), but also on other participants and markets from a systemic risk perspective.

Climate-related risks in the banks' assets

The banks play an important part in the Riksbank's stability analysis because of their central role in the financial system. Among other things, the loans the banks give to companies and households expose them to climate-related risks. The size of these exposures depends on how vulnerable different borrowers are to different climate risks. In addition, the banks' other operations, such as fund operations, also expose them to climate-related risks.

The Riksbank has analysed the extent to which the Swedish banking system is exposed to various business sectors with high CO₂ emissions. This analysis uses 2020 data from the credit database KRITA and Statistics Sweden's data on greenhouse gases.¹⁸ The analysis indicates that approximately 12 per cent of the banks' corporate lending went to companies in sectors with high or medium CO₂ emissions.¹⁹ The analysis indicates that a significant proportion of these loans (about a quarter) went to companies with weak financial positions. This study indicates how important it is to take into account the impact that climate-related risks, and transition risks in particular, along with other financial vulnerabilities, may have on the Swedish banking sector.

At present, the Riksbank is also conducting a preliminary study of available relevant climate-related data in combination with various tools and methods. Its aim is to see how much it is possible, for instance by using scenario analysis, to further develop the analysis and learn more about how financial stability may be affected by the climate transition. One way of gaining an idea of the risks the transition entails for the banks is to explore how their climate-related exposures stand up under different scenarios. Together with Finansinspektionen, the Riksbank has therefore launched an analysis of the loan portfolios of the three major Swedish banks. This analysis uses a tool called Paris Agreement Capital Transition Assessment (PACTA).²⁰ PACTA is used to assess how well companies are complying with the transition that needs to take place in each sector to meet various transition targets. It does this by combining data on the banks' loan exposures with data from a variety of sources. The Riksbank then applies the transition targets to various climate scenarios developed by the International Energy Agency (IEA). We expect the results of the analysis to provide a snapshot of a limited but relevant portion of the banks' exposures to climate-affected sectors and the compatibility of these exposures with the transition targets.

Rising sea levels may affect financial stability

A physical risk that is already present in some areas of Sweden is the risk of flooding in coastal areas. For example, in some areas it is difficult or almost impossible to obtain planning permission and insurance for buildings too close to the sea. The Riksbank has therefore analysed how much flooding may affect coastal housing in Sweden when

¹⁸ See C. Cella (2021), "[Banking and climate-related risks, implications for financial stability in Sweden](#)", *Staff memo*, May, Sveriges Riksbank.

¹⁹ Loans to the property sector are not included in the study.

²⁰ The Paris Agreement Capital Transition Assessment (PACTA) has been developed by a global think tank, 2 DEGREES Initiative, supported by the European Commission and the UN body UN Principles for Responsible Investment (UNPRI), among others.

sea levels rise due to climate change, as well as the impact this may have on financial stability.²¹ If extensive flooding affects a house and causes it to fall in value, the borrower's loan-to-value ratio will rise due to the lender's collateral losing value. Higher loan-to-value ratios for households and lower collateral quality for credit institutions may have a negative effect on financial stability. The Riksbank's analysis shows that the risks associated with floods in Sweden will increase in the future. How much the risks will increase depends on the severity of climate change. The extent to which this will affect financial stability also partly depends on how society adjusts to the new level of risk.

2.4 Payments

The Riksbank takes the climate into account in its handling of banknotes and coins

The Riksbank has the exclusive right to issue banknotes and coins in Sweden and is responsible for the provision of cash. This means that the Riksbank both supplies and destroys banknotes and coins, as well as redeeming banknotes that are no longer legal tender. Here, the Riksbank works on several aspects of sustainability, such as the design of banknotes and coins, procurement and contracts, and its handling of banknotes and coins. For example, the Riksbank has issued coins in the lower denominations because coins last longer than banknotes. Lower denominations are used more often and are thus exposed to more wear and tear than higher denominations. The new coins are also lighter than the previous versions, which means lower transport costs. The Riksbank has also abandoned nickel and other alloys that were present in older coins. Steel, which has a lower environmental impact from mining, is mostly used today. Nickel and other alloys can also cause allergy problems for people using the coins.

The Riksbank also requires some of the cotton used in banknote paper to be organic, that is, produced without pesticides and with regard to nature and human beings. The Global Organic Textile Standard (GOTS) certifies this cotton. The paper in Swedish banknotes is also designed to be as physically sustainable as possible and to withstand dirt and wear. This ensures that the banknotes last a long time and do not need to be replaced so often. When the Riksbank finally destroys worn and invalid banknotes, Swedish heating plants burn the waste material and use it for district heating. Worn and invalid coins are sold so that the metal can be melted down and recycled.

²¹ M. Danielsson (2020), "[Rising sea levels due to global warming will entail increased risks to housing](#)", *Economic Commentaries*, No. 10, Sveriges Riksbank.

ISO certification requirements for manufacturers

The Riksbank requires the manufacturers of our banknotes and coins to have ISO certification concerning quality, the environment and the working environment, in addition to which they must have well developed CSR work.²² Both the banknote manufacturer and the coin manufacturer are certified according to ISO 14001, an environmental management system that provides a structured and systematic approach that helps different types of organisation reduce their environmental impact but also acts as a support for business development. With this certification, the manufacturers of banknotes and coins have introduced targets to reduce their environmental impact, for example by limiting discharges to sewers and landfills and reducing their water and energy use.

Climate perspective in the payment infrastructure

The Riksbank also follows developments on the payment market and continually analyses the use of cash and alternative means of payment in the economy in order to stand prepared to adapt its operations to changes in society in the most sustainable way for the environment and individuals. In the Payments Report for 2021, the Riksbank assesses whether payments in Sweden are safe and efficient.²³ One factor in the assessment of efficiency is that the costs to society, including energy consumption, for various methods of payment should be low. The report describes the energy consumption of various payment methods and estimates that the energy consumption of card payments is lower than that of cash, and that some cryptoassets have extremely high resource consumption.

In May 2022, the Riksbank will launch a new service, RIX-INST, which will allow banks or payment service providers to offer more services in which payment is made immediately. The Riksbank has signed an agreement to use the Eurosystem's platform for instant payments, known as TIPS (Target Instant Payment Settlement), for the system. TIPS has a low climate impact, especially in comparison to cryptoassets such as Bitcoin. Comparisons with the Visa card network also indicate that TIPS is a more energy efficient alternative.

2.5 International cooperation

The Riksbank actively participates in several international forums where measures to point out, manage and counteract climate-related financial risks are increasingly being addressed. International cooperation is important for the national work described above, but also because an effective response to the challenges posed by climate change requires action at a global level.

²² The ISO (International Organization for Standardization) is an independent, non-governmental international organisation with over 160 national standardisation bodies as members that aims to develop a global standard. Corporate Social Responsibility (CSR) is a company's work to integrate human rights, the environment, social responsibility, and anti-corruption and laws into its operations.

²³ See [Payments Report 2021](#), Sveriges Riksbank.

The Riksbank has been a member of the NGFS since 2018. This is a group of central banks and financial supervisory authorities who cooperated by develop the analysis of environment and climate risk management in the financial sector. Over the past year, the Riksbank has participated actively in the work of the NGFS, which deals partly with climate considerations in the implementation of monetary policy and partly with central bank reporting of climate-related risks. Together with Finansinspektionen, the Riksbank has also published a commitment to continue integrating climate-related risks into its activities and analysing how climate-related risks can affect the financial system and its stability.²⁴ The purpose of this commitment is to contribute to the global efforts presented by the NGFS in the Glasgow Declaration at the COP26 climate summit. With this, the NGFS wishes to demonstrate how it can contribute to meeting the goals of the Paris Agreement.

In 2019, the Basel Committee formed the Task Force on Climate-Related Financial Risks (TCFR), in which the Riksbank participates.²⁵ The TFCR works to promote the Committee's mandate to strengthen the regulation and supervision of banks worldwide and to ensure that the banks are better prepared to manage risks related to climate change. The TFCR is now analysing the extent to which climate-related financial risks can be managed under the Basel regulatory framework, identifying potential gaps in the current framework and considering possible measures to address any gaps identified. The current work includes regulation, supervision and reporting, in which the Riksbank is involved in leading the regulatory group.

In addition, the Riksbank has been involved in the work of the European Systemic Risk Board (ESRB) on climate risk monitoring and has contributed, among other things, to the group that carried out stress tests with climate scenarios at banks and financial institutions.

Within the European Banking Authority (EBA), the Riksbank participates in the Sustainable finance network. In addition, the Riksbank participates in the group working with transparency that aims, among other things, to produce harmonised climate data with which EU banks must comply. Since the Capital Adequacy Directive requires banks to provide information on climate risks from June 2022, this group is working on the development of harmonised reporting templates so that banks report in a comparable way.

The climate issue also arises in the Economic and Financial Committee (EFC), which has discussed the Commission's proposed strategy for sustainable finance.

The Riksbank, together with the Ministry of Finance, represents Sweden in the IMF. Sweden and the Nordic-Baltic constituency have long been pushing the IMF to include climate issues in its work within the framework of its macroeconomic mandate. This

²⁴ See [Joint pledge from the Swedish members of the NGFS, Finansinspektionen and Sveriges Riksbank, at the occasion of the NGFS Glasgow Declaration during COP26.](#)

²⁵ The Basel Committee on Banking Supervision (Basel Committee) develops global standards, guidelines and recommendations for the supervision and regulation of banks. The Basel Committee's standards are introduced by the national legislative systems of the members. For Sweden, this takes place under the framework of the EU.

view has gained increasing support and work is now under way within the IMF to increase the level of ambition in the climate field. In October, the IMF's International Monetary and Financial Committee, the IMFC, supported the establishment of a fund at the IMF for longer-term lending than traditional IMF loans, with the aim of helping countries meet long-term structural challenges. The macroeconomic aspects of climate transition are expected to be a key objective of the fund. The design of the fund will be discussed at the beginning of 2022 and the Riksbank will participate actively in this work.

The Financial Stability Board (FSB) coordinates international initiatives to analyse and address the financial risks arising from climate change and published a plan on this theme this summer.²⁶ The Riksbank is not a member of the FSB but is a member of its consultation group for Europe and is therefore following the work of the FSB on this matter.

Figure 2. The Riksbank's international cooperation on climate-related issues



2.6 Research and analysis

The Riksbank's research

An important assignment for research at the Riksbank is to provide models, tools and analyses to enable the Riksbank to perform its tasks. This research and the analyses carried out also aim to build and develop knowledge in general on various socio-economic issues. The interaction between climate change and economic development and policy is one such area.

The interaction between the climate and our economies

The Riksbank has been researching various aspects of how climate change affects economic development for several years, often in cooperation with researchers from

²⁶ See [FSB roadmap for addressing climate-related financial risks](#).

Swedish and foreign universities.²⁷ It is now clear that human beings are affecting the climate, primarily by releasing greenhouse gases into the atmosphere. It is also clear that climate change affects our economies and us in a number of ways. We expect this impact to be extensive and it is therefore important that central banks and other policy makers have the models and tools needed to make forecasts and analyse the various policy measures they wish to implement. The Riksbank's researchers have contributed to the development of models for this purpose. Among other things, this research provides indicative estimates of how GDP and consumption will develop, depending on where and how CO₂ emissions are taxed in the world. The IMF and others have used these models to make forecasts.²⁸

The role of energy in the economy

As the link between climate and the economy goes through fossil energy use, the Riksbank has focused a large part of its climate-related research on understanding how to incorporate the energy sector into macroeconomic models. The Riksbank's research analyses whether technological developments will be strong enough to lead to continued high growth in GDP and consumption, despite the fact that we have to use less fossil fuels. The results show that we can expect marginally lower growth.

2.7 The Riksbank's internal environmental work and sustainability reporting

The Riksbank has an environmental policy that, among other things, stipulates that the Riksbank shall take into account the direct environmental impact of its energy and water consumption, its waste management and its official travel, for example. The Riksbank shall also consider its indirect environmental impact through procurement by setting and following up environmental requirements on the goods and services purchased, or by choosing eco-labelled goods and services where appropriate. When possible, the Riksbank shall choose goods with less environmental impact from a life-cycle perspective and suppliers who have systematic environmental work.

The Riksbank has been measuring its emissions of CO₂ from official travel and energy consumption for several years and reporting these in its annual report. An innovation for 2021 is that the Riksbank also measures and publishes the carbon footprint of its corporate bonds portfolio. The Riksbank has also begun work on further developing its own sustainability reporting in accordance with the recommendations of the TCFD. Among other things, this means that the Riksbank now more clearly describes how climate-related risks affect its policy remit.

²⁷ The annex lists some of the scientific publications.

²⁸ See Chapter 3 in World Economic Outlook, IMF 2019, September.

3 The Swedish financial market from an international climate perspective

International regulations and standards that affect the Swedish financial market's climate work are developing at a rapid pace. Despite many Swedish financial corporations gradually having begun to adapt their lending, risk management and reporting to include climate aspects, only a few companies have processes in place for the whole chain of identifying, measuring, assessing and managing climate risks.

3.1 International regulations are developing at a rapid pace

Additional sustainability-related EU regulations are being introduced in Sweden

The EU has decided to introduce new rules on sustainability reporting, which primarily concern financial market participants and larger companies.²⁹ It is also introducing new criteria for classifying activities as "environmentally sustainable". An important part of the new rules is that companies are to concentrate on more sustainable investments. The new rules will be important for reforming the financial market in terms of sustainability and improving access to data and the possibility of pricing climate risks. The new rules will probably also help to reduce the possibility of so-called greenwashing, which is when companies try to create an image of their activities as environmentally friendly, for example, through marketing that exaggerates individual environmental efforts.

At present, the Non-Financial Reporting Directive (NFRD, 2014/95/EU) applies, which requires some larger companies to report on environmental and social sustainability factors in a sustainability report. The NFRD was incorporated into Swedish law through the Annual Report Act (ÅRL), which states that companies shall provide information on sustainability.^{30, 31}

Recently, the EU introduced a new regulation, the Disclosure Regulation, which requires transparency on sustainability information for financial market participants

²⁹ Regulation (EU) 2019/2088 of the European Parliament and of the Council on sustainability-related disclosures in the financial services sector (the "Disclosure Regulation") and Regulation (EU) 2020/852 of the European Parliament and of the Council on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088 (the "Taxonomy Regulation").

³⁰ Those covered by the sustainability reporting requirement in accordance with the Annual Report Act (1995:1554) are companies that meet at least two of the following three criteria: (1) more than 250 employees, (2) turnover in excess of SEK 350 million and (3) a balance sheet total in excess of SEK 175 million.

³¹ The Annual Report Act addresses the following areas: the environment (for example the use of energy, water and land), social conditions and personnel (gender equality, working conditions, health and safety), respect for human rights and counteracting corruption.

(such as UCITS, insurance companies and financial advisers), among others.³² The Disclosure Regulation entered into force as of March 2021. It requires financial market participants to present harmonised sustainability-related disclosures on the activities they finance.

In January 2022, the EU Taxonomy Regulation enters into force. The EU's taxonomy of sustainable investments contains detailed regulations to assess whether a business can be defined as environmentally sustainable. This makes it possible to identify and compare different investments on the basis of how well they contribute to a sustainable economy.

Towards a common international standard for climate-related reporting

In order for investors and lenders to be able to manage the risks of climate change and fund the transition to a less fossil-based economy, they need access to accurate and comparable information. It is therefore positive that a global standard for sustainability reporting is being developed at a rapid pace.³³ One important cornerstone of sustainability reporting is the work that the TCFD, commissioned by the G20, produced in 2017.³⁴ The TCFD is an international working group with the task of developing recommendations for more effective climate-related financial reporting. Compliance with the recommendations is voluntary and they are aimed at both financial and non-financial corporations and other organisations. Companies that wish to comply with the TCFD recommendations should report their own direct greenhouse gas emissions as well as indirect emissions, for example, from the company's customers. They should also describe the targets they set to manage climate-related risks and report how well they are meeting these targets.

In conjunction with the UN climate conference COP26 in November, the IFRS Foundation 2021 launched a management structure for sustainability reporting which, based on the TCFD recommendations, will develop a standard for how companies should report climate-related information.³⁵ The IFRS's new sustainability reporting must be in accordance with the IFRS financial reporting standards. At present, all listed companies in the EU are obliged to apply IFRS financial reporting standards, while others may do so voluntarily. The IFRS Foundation is currently working on the development of a harmonised global sustainability standard. This means that it wishes to achieve a uniform and comparable global standard for how companies report sustainability information. The IFRS Foundation has announced that it intends to have a sustainability standard ready in 2022.

Work is under way within the EU on a new Corporate Sustainability Reporting Directive (CSRD). It will replace the existing EU Non-Financial Reporting Directive

³² Disclosure requires companies to make information available to investors and other stakeholders.

³³ See "[Sustainability-related reporting](#)", IFRS Foundation. Retrieved 29 October 2021.

³⁴ The TCFD was set up by the Financial Stability Board, which issues recommendations in the financial area.

³⁵ See "[Global sustainability disclosure standards for the financial markets](#)", IFRS Foundation. Retrieved 3 November 2021.

(NFRD). The CSRD covers all large companies and listed companies in the EU.³⁶ The CSRD means three things compared to the NFRD. Firstly, more companies will be subject to the requirement for sustainability reporting within the EU. However, we do not expect this to have a significant impact on Swedish companies, since the requirement in Swedish legislation already covers a wider range of companies than the current EU directive. Secondly, it introduces a third party audit requirement (auditor). Thirdly, harmonised disclosure standards are also being introduced to improve comparability. The CSRD is planned to enter into force in 2023, with the first reporting of sustainability information for major companies in 2024.³⁷

At present, neither the design of the IFRS sustainability standard nor the CSRD's disclosure requirements have been decided, but both will be based on existing sustainability frameworks such as the TCFD. In the case of climate-related information, the requirements of the two different frameworks should ultimately be similar. Table 2 provides an overview of these sustainability standards.

Table 2. Overview sustainability standards

| | NFRD | ÅRL | CSRD | IFRS sustainability reporting | TCFD |
|--|---|--|--|--------------------------------------|----------|
| Companies included | Public interest entities with more than 500 employees. | More than one of: Employees >250 Assets >SEK 175 million Turnover >SEK 350 million Applies to all large companies, including public interest entities. | All large companies and all listed companies (except listed micro enterprises) | All (listed) companies that use IFRS | Optional |
| Number of companies¹ | EU27: about 11,600 (47% of the turnover of all limited companies) | About 1,600 | EU27: 49,000 (75% of the turnover of all limited companies) | About 29,000. | 1,505 |
| Standardised reporting | No | No | Yes | Yes | No |
| Quality assurance (audit) | No | No | Yes | ? | No |
| Implementation² | 2014 | 2017 | Planned for 2023 | Planned for 2022 | 2017 |
| Jurisdiction | EU | Sweden | EU | Global, not US | Global |

Note. ¹ The number of companies for the NFRD and CSRD is from the Commission's CSRD proposal (April 2021), ÅRL estimate from KPMG (2019), IFRS from [IFRS.org](https://www.ifrs.org) and TCFD estimate for 2020 from [spglobal.com](https://www.spglobal.com). ² [IFRS Foundation](https://www.ifrs.org).

³⁶ Large companies have: a balance sheet total exceeding EUR 20 million, turnover exceeding EUR 40 million or over 250 employees.

³⁷ For small and medium-sized enterprises (SMEs), this means those companies that fall outside the definition of large companies but that are listed on the stock exchange, first reporting is planned for 2026. SMEs will also have lower reporting requirements, as the CSRD is based on proportionality.

3.2 How far has the Swedish financial sector come in its work on climate-related risks?

Financial companies' core activities are increasingly adapted to climate aspects

The banks in Sweden have gradually worked to adapt their advice, credit granting and savings products to support projects with high climate benefit and to correctly price higher risk in the form of negative climate effects in projects.³⁸ However, incentives and transparency also need to be strengthened going forward to enable an efficient allocation of capital and to support the transition to a low-carbon economy. According to the Swedish Bankers' Association, the Swedish banks aim to be in the forefront by taking into account the EU's taxonomy of sustainable investments in the granting of credit and to comply promptly with the TCFD recommendations on climate-related financial information. Several banks have already begun this work and others are being asked to follow suit. Earlier this year, the Swedish Bankers' Association published a Climate Roadmap to complement the work already undertaken by banks to integrate climate aspects into their business operations. The Climate Roadmap contains a structure for following up how the banks' action plans contribute at an aggregate level to the aims of the banking sector. However, the main climate work takes part in the respective bank, in that they compete to produce effective and reasonably priced green banking products.

Twelve Swedish banks, and now also the Bankers' Association, have joined as a supporting organisation to Principles for Responsible Banking - an initiative of the United Nations Environment Programme where banks commit to ensuring that their own strategy is consistent with the vision society has set for its future in the global goals for sustainable development and the Paris climate agreement.³⁹

Finansinspektionen has received an additional assignment from the government to follow up how far Swedish financial companies have come in measuring and providing information about their climate risks and impact. Finansinspektionen's survey, which it sent to the majority of insurance companies as well as a sample of major banks and UCITS, shows that the companies are still in a start-up phase. Only a few companies have processes in place for the entire chain of work to identify, measure, assess and manage climate risks. Companies indicate, among other things, that they lack tools and data, and that this is an important reason why it is taking a long time. The survey also shows that the TCFD is the most important voluntary recommendation that companies follow.

Finansinspektionen has also analysed in a pilot study, using the PACTA tool, the extent to which insurance companies' portfolios of financial assets are in line with the Paris agreement's climate targets. Overall, the analysis indicates that Swedish insurance companies' assets are not in line with them. The calculations indicate that a majority

³⁸ See the Swedish Bankers' Association Climate Roadmap.

³⁹ At present, 250 banks, which together represent 40% of bank assets worldwide, are affiliated to the [Principles of Responsible Banking](#).

of insurance companies deviate negatively from a climate scenario in line with the Paris agreement. The analysis also shows that insurance companies generally have small exposures to carbon-intensive sectors in relation to their total assets. This may indicate that their direct transition risks are limited in the portfolio. However, there are individual insurance companies that have relatively large exposures, which may involve high direct transition risks.

As financial companies promote their environmental work, it is also important to avoid so-called greenwashing, where companies create a picture of themselves in their marketing as environmentally friendly, despite the fact that they have activities that, in practice, may be more or less harmful to the climate. According to Finansinspektionen, which has gathered information from Swedish funds to see how they meet the requirements imposed on them in the Disclosure Regulation, some fund managers may in future need to adapt their information to describe the fund's investment strategy better.

More companies need to report climate-related information

As mentioned above, better reporting of climate-related information is an important step in giving greater consideration to climate risks in the financial sector. To date, companies have applied TCFD recommendations to a very varied extent around the world. If one looks at the Swedish companies that the Riksbank has in its holdings of corporate bonds, only 7 out of 52 of them currently explicitly support the recommendations of the TCFD, even if there are more who use them or are working on beginning to do so. Of the three major Swedish banks, all have endorsed the TCFD's recommendations, which means that they intend to report their climate-related risks and opportunities.⁴⁰ However, it is difficult to compare these, as there are substantial differences between the Swedish banks with regard to their accounting, according to a recent pilot study carried out by the Riksbank, which followed Handelsbanken, SEB and Swedbank. The challenges include, on the one hand, the lack of basic data, particularly on indirect emissions, and, on the other hand, the fact that accounting is not yet standardised. The Riksbank has therefore advocated in its Financial Stability Reports that the banks should start reporting standardised measurements in accordance with TCFD's recommendations as a matter of urgency.⁴¹

Market for green bonds is growing

Major investments have been made to support the green transition, which has led to the development of new products by financial system participants to market sustainable investments. One such product that has grown rapidly in Sweden is green bonds. In recent years, the market for green bonds has grown significantly and, in Sweden, the market is large, seen from an international perspective.⁴² Financially and technically, green and traditional bonds are similar, but there is a difference. With regard to

⁴⁰ See the TCFD status report 2021 for information on which companies and organisations support the TCFD.

⁴¹ See [Financial Stability Report](#), 2021:2, Sveriges Riksbank.

⁴² See also M. Ferlin and V. Sternbeck Fryxell (2020), "[Green bonds – big in Sweden and with the potential to grow](#)", *Economic Commentaries*, No. 12, Sveriges Riksbank.

green bonds, the issuer produces a so-called green framework, where they describe how the investments on which the issue is based are chosen, evaluated, reported and how their impact is reported. It is important for the continued development of the market for green bonds to have clear and common definitions of what are green and brown projects, and for investors to have good access to climate-related information. This is also necessary for investors to be able to allocate capital more efficiently from brown to green operations and thereby support a transition to a less fossil-based economy.⁴³

3.3 New actors contributing to the green transition

As Sweden and other countries implement new regulations regarding sustainability, the need for technical solutions is also increasing so that companies and individuals can work together in the green transition. In recent years, several new actors have launched green technical solutions to help banks and companies calculate their climate footprint. There is also an increasing number of technical solution to assist consumers and companies in changing their behaviour and becoming more aware of their climate footprint. These technical solutions aim to facilitate the financial markets' green transition.

⁴³ During 2021, the European Commission has proposed a regulation regarding a voluntary EU standard for green bonds. The aim of this proposal is to create a "gold standard" for green bonds that can raise the level of ambition regarding the environment. It also aims to facilitate comparisons between green bonds and to avoid greenwashing.

Annex: The Riksbank's climate-related publications

Strategy

Sustainability strategy, December 2020.

Published speeches

Breman, Anna (2020), "How the Riksbank can contribute to climate policy", speech on 3 March at the Royal Swedish Academy of Engineering Sciences.

Flodén, Martin (2019), "Riksbank selling bonds for climate reasons", speech on 13 November at the University of Örebro.

Articles in Monetary Policy Reports

"How is the Riksbank's work affected by climate change?", November 2020.

Articles in Financial Stability Reports

"Climate-related risks are a source of financial risk", no. 2, 2020.

Economic Commentaries

Bylund, Emma and Magnus Jonsson (2021), "An overview of the economic consequences of the NGFS climate scenarios", *Economic Commentaries* No. 14, Sveriges Riksbank.

Blixt, Johan, Emma Brattström and Maria Ferlin (2021), "Sustainability reporting - need for greater standardisation and transparency", *Economic Commentaries* No. 4, Sveriges Riksbank.

Andersson, Magnus and Mikael Stenström (2021), "Sustainability considerations when purchasing corporate bonds", *Economic Commentaries*, No. 3, Sveriges Riksbank.

Ferlin, Maria and Vanessa Sternbeck Fryxell (2020), "Green bonds – big in Sweden and with the potential to grow", *Economic Commentaries*, No. 12, Sveriges Riksbank.

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Olovsson, Conny (2018), "Is climate change relevant to a central bank?" *Economic Commentaries*, No. 13, Sveriges Riksbank.

Sveriges Riksbank Economic Review

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Cella, Cristina (2021), "Banking and climate-related risks, implications for financial stability in Sweden", *Staff memo*, May, Sveriges Riksbank.

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Hassler, John, Per Krusell and Conny Olovsson (2021c), "Suboptimal Climate Policy: non-uniform and indirect taxation of CO₂". Mimeo, Stockholm University.

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Gars, Johan and Conny Olovsson (2019), "Fuel for economic growth?" *Journal of Economic Theory*, Vol. 184.

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Hassler, John, Per Krusell and Conny Olovsson (2010), "Oil Monopoly and the Climate", *American Economic Review: Papers and Proceedings*, Vol. 100, No.2, May 2010. pp: 460-464.

Glossary

CSRD, Corporate Sustainability Reporting Directive: A new directive within the EU on corporate sustainability reporting. Planned to come into force in 2023.

EU taxonomy: The EU's taxonomy of sustainable investments contains detailed regulations to assess whether a business can be defined as environmentally sustainable. Enters into force in January 2022.

IFRS, International Financial Reporting Standards: Global accounting standard that has been developed by the International Accounting Standards Board (IASB), and which all listed companies in the EU are obliged to apply.

IFRS Foundation, International Financial Reporting Standards Foundation: A non-profit accounting organisation with the primary objective of developing and promoting IFRS through the International Accounting Standards Board (IASB), which it oversees.

NGFS, Network on Greening the Financial System: International network where central banks and financial supervisory authorities cooperate to help develop the analysis of environmental and climate-related risks in the financial sector.

NFRD, Non-Financial Reporting Directive: EU directive on reporting by non-financial corporations. The NFRD was incorporated into Swedish law through the Annual Report Act (ÅRL 1995:1554).

TCFD, Task Force on Climate-related Financial Disclosures: Created in 2015 by the Financial Stability Board for the purpose of developing recommendations for voluntary and consistent reporting of climate-related financial risks and opportunities.



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