

# **Financial Stability Report**

2025:1



### The Riksbank's Financial Stability Report

The Riksbank's Financial Stability Report is published twice a year. In the report, the Riksbank presents its overall assessment of the risks and threats to the financial system and evaluates the system's resilience to them. The work on the stability analysis is thus directly linked to the Riksbank's task of monitoring the financial system and the objective of contributing to its stability and efficiency. By publishing the results of its analysis, the Riksbank aims to draw attention to, and warn of, risks and events that may pose a threat to the financial system, and to contribute to the debate on this subject.

The Executive Board of the Riksbank has discussed the report on two occasions – on 14 May and 26 May 2025. The report is available on Sveriges Riksbank's website, www.riksbank.se. The Report takes into account developments up to and including 22 May 2025.

### The Riksbank and financial stability

A necessary condition for the economy to function and grow is a well-functioning financial system. To achieve this, the system needs to be able to mediate payments, convert savings into funding and manage risk. When shocks occur, the system needs to be resilient enough to maintain these functions to the highest degree possible. But the financial system is sensitive, as its key elements are vulnerable. For example, banks fund their activities on a short-term basis but lend on a longer-term basis, making them dependent on public and market confidence. If the banks lose the confidence of the general public, serious problems can quickly arise. Moreover, the participants in the financial system are interconnected, for example because they borrow from each other, obtain funding on the same markets or have similar operations. Consequently, problems that arise at one participant, in a market or in a particular system can quickly spread. Problems can spread both directly and via concerns that other participants might also encounter problems.

A crisis in the financial system risks leading to significant economic costs. The importance of the financial system, combined with its vulnerability, means that the state has a particular interest in preventing threats to financial stability. Banks and other market participants do not themselves have any incentive to take full account of the stability risks they may pose. Despite preventive measures, a crisis can occur. The state may then need to intervene, which, in such an eventuality, should be done at the lowest possible cost.

Under the Sveriges Riksbank Act, the Riksbank must contribute to the stability and efficiency of the financial system. A core task is therefore to oversee the financial system. This includes identifying risks of serious disturbances or significant efficiency losses, assessing whether the financial system is stable and efficient, and reporting its assessments. The Riksbank also has the special task of overseeing the financial infrastructure and other operations that are of particular importance for it. Twice a year, the Riksbank gives an account of its analyses and assessments of the financial system in its Financial Stability Report.

The Riksbank also has important tasks related to the provision of liquidity in the event of a financial crisis. To counteract a serious shock to the financial system in Sweden, the Riksbank is able to offer liquidity support to one or more financial companies or markets. Oversight of the financial system is also essential for the Riksbank to be able to act quickly and efficiently in the event of a financial crisis.

The Riksbank shares responsibility for the stability and efficiency of the financial system with the Ministry of Finance, Finansinspektionen (the Swedish financial supervisory authority) and the Swedish National Debt Office. Within the framework of shared responsibility, these authorities have different tasks, but the interaction between them is central to both preventive work and any crisis management. Cooperation with authorities in other countries is also important as the operations of financial companies are often cross-border.

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### IN BRIEF - The Riksbank's stability assessment



High political uncertainty abroad increases stability risks. The abrupt shifts in trade and security policies have led to unusually high levels of uncertainty. The risk of sudden and unforeseen events is high and in a global and interconnected financial system, the consequences of such events can be significant and quickly spread. The high level of debt and elevated asset valuations in many parts of the world also make the system vulnerable.



The resilience of the financial system must be safeguarded. Global regulatory standards have made the financial system more robust. Simplifying some regulation may be welcome, but in several countries powerful forces are trying to weaken regulations to give their own banks a competitive advantage. This could ultimately threaten financial stability. It is important that global regulatory standards, are fully and consistently implemented in all countries and that the regulation of both banks and non-banks is sufficiently comprehensive to mitigate stability risks.



Major Swedish banks are in a position to deal with turbulence. The major banks meet their capital and liquidity requirements by an ample margin and have high profitability. However, the dependence of the major Swedish banks on international capital markets constitutes a vulnerability, and foreign actors own a significant part of their covered bonds. It is important that the banks strengthen their resilience to operational risks such as cyber threats and third-party dependencies. At the same time, the activities of consumer credit banks remain associated with relatively high risks.



Households' margins have strengthened, but they are vulnerable to new shocks. Rising real incomes are benefiting households, and mortgagors are well able to meet their interest and amortisation payments. At the same time, economic activity is weak, and many households are still under financial pressure. Low-income households in particular state that they consume above their income. To prevent household debt from once again rising in a way that is not sustainable in the long term, it is important to have well-balanced macroprudential measures, such as amortisation requirements and mortgage caps.



Property companies and funds need to strengthen their resilience. Companies are weighed down by increased uncertainty and weaker growth prospects. Property companies are particularly vulnerable. While their financial conditions are relatively favourable, their debt levels are high and there is a risk of falling property values, especially given the continued weakness in the rental market. Corporate bond funds are an important source of financing for the sector. Large redemptions from these funds can thus create problems for the financing of property companies. New requirements for liquidity management in the funds help to reduce these risks. It is important that fund platforms adapt so that the new regulations have an impact.



**Banks need to have more active liquidity management.** It is important for the Riksbank's management of interest rates that the banks that are the Riksbank's monetary policy counterparties have operational capacity and are willing to borrow and lend liquidity among themselves on the overnight market. Banks should also be willing, if necessary, to borrow from the Riksbank by utilising its liquidity provision instruments.

### 1 Overall stability assessment

# 1.1 Unusually large level of uncertainty in the global economy

Developments since the previous Financial Stability Report have been marked by sharp shifts in US trade and security policy. As a consequence, market participants now expect a weaker economic development. This is especially true in the United States, but also in Europe. The uncertainty has left its mark on Swedish and international financial markets, as participants reacted strongly to the US administration's announcement that it would significantly increase a large number of tariffs. Both equity prices and interest rates fluctuated sharply at times and risk premiums on various assets increased. Recently, fluctuations have moderated, and asset prices have recovered.

However, uncertainty about trade policy and its effects, as well as geopolitical developments, remains high. This means that the risk of sudden and unforeseen events is high. This could lead to major market movements with potentially large losses or funding difficulties for several financial system participants. An increasingly large nonbank sector, where some players take risky positions, are highly leveraged and subject to less regulation and supervision, amplifies this risk. This applies, for example, to certain types of hedge funds and private credit providers.

The changing geopolitical landscape means that EU countries, among others, will increase defence spending in the coming years. Public deficits will thus increase in several countries. For countries with already weak public finances and high government debt, it could be particularly challenging. This is particularly true in the United States, where public debt is increasing, and a significant portion of public debt is refinanced in 2025. US government bond yields have risen this spring, and the dollar has depreciated against other countries' currencies. This may reflect a loss of confidence in the US economy. If the US fiscal situation deteriorates further, international confidence may decline even further and the role of the dollar as a reserve currency may be more seriously questioned. This would have significant consequences for the financial system.

In the United States, there is also a risk that inflation will rise as a result of the tariffs, at the same time as the economy enters a recession, what is known as stagflation. This would pose particularly serious problems for interest-sensitive and cyclically sensitive sectors. Since global interest rate markets are closely linked, the development of US interest rates can affect interest rates in other countries.

Overall, this means that stability risks to the global financial system have increased. However, it is worth emphasising that the financial system has so far proved resilient with financial markets functioning relatively well.

# 1.2 Regulation based on global standards has increased resilience

The resilience of the financial system depends to a large extent on the global standards developed in the wake of the 2008-2009 global financial crisis. This means, for instance, that the banks were subjected to higher capital requirements, new liquidity requirements and a resolution framework, as well as central clearing requirements for trading in many financial instruments. Thanks to these measures, the financial sector has managed to cope with periods of significant turbulence, for example in connection with the coronavirus pandemic. The banks were then able to continue lending to businesses and households, in stark contrast to the global financial crisis, when banks largely caused the crisis and were unable to support the economy with credit.

It is very important that this strengthening of the resilience of the financial system is safeguarded and not watered down. Some simplification of regulation may be justified and even welcome, to avoid an unnecessary regulatory burden on banks and other actors. However, in several countries – also within the EU – there are strong forces that see lighter regulation as a way to promote further lending and growth. If one or more large countries choose not to fully implement the Basel III standards, or loosen existing regulations, it could trigger a race among countries toward less strict regulation in the belief that it will create a short-term competitive advantage for domestic banks in relation to foreign banks. As a result, banks may choose to locate their operations in countries where the rules are lighter. Such a scenario would threaten financial stability.

It is also important not only to focus on the banks, but to ensure the stability of the entire financial system. Non-banks comprise an increasingly large and important part of both the Swedish and global financial system. To avoid a build-up of risk in that sector, the regulation of those parts of the non-banking sector that are currently less well-regulated needs to be reviewed. International work is under way to develop a macroprudential framework for non-banks at the EU level. While this work is still at an early stage, such a framework is important as it would reduce the vulnerability of the non-bank sector and minimise the risk of problems in the sector causing market disruption and spilling over to the banks. It can thus contribute to strengthening financial stability. The Riksbank therefore welcomes this work.

### 1.3 Swedish resilience needs to be safeguarded

In addition to the global financial regulatory standards, Sweden's stable economic policy framework and strong government finances contribute to good conditions for dealing with external pressures. But the Swedish financial system has also long had several structural vulnerabilities. It is therefore important that both authorities and

<sup>&</sup>lt;sup>1</sup> See "Targeted consultation on the adequacy of macroprudential policies for non-bank financial intermediation (NBFI)", Summary report, March 2025, European Commission.

market participants take the necessary measures to strengthen their resilience and be well prepared to counter severe disruptions.<sup>2</sup>

### Swedish banks are in a good starting position, but vulnerabilities remain

The Swedish banking system is large, concentrated and highly dependent on international capital markets. Although the banks' borrowing became slightly more expensive during the spring, they have continued to have good access to both short and long-term market funding, in both Swedish kronor and foreign currency.

The major Swedish banks still have high profitability and good margins to the regulatory requirements for capital and liquidity. This puts them in a good position to maintain their lending activities even in the event of losses due to unexpected shocks or deteriorating economic developments. The fact that Finansinspektionen has set the requirement for the countercyclical capital buffer at 2 per cent also contributes to this good preparedness. If necessary, Finansinspektionen can lower the requirement to make it easier for banks to maintain their lending without risking a breach of the established capital requirements.

At the same time, the consumer credit banks incur higher loan losses and have lower profitability than the major banks. Although these are smaller than the major banks, they can be systemically important as a group. See more in the section "The major banks are well placed to deal with increased uncertainty in the financial markets".

#### Banks and companies forced to manage more operational risks

The geopolitical situation also increases the operational risks. In particular, several banks and financial infrastructure companies have been subject to denial-of-service attacks (DDoS). At the same time, the risks associated with third-party dependencies remain high. During the spring, dependence on so-called cloud services from non-EU actors in particular has gained interest, not least because access to such services can be subject to politically determined restrictions and lead to data security vulnerabilities.<sup>3</sup>

Important steps to increase resilience have been taken with the EU's Digital Operational Resilience Act (DORA) coming into effect in January this year. The regulation requires, among other things, threat-led penetration testing (TLPT) for actors with system-critical operations and enhanced reporting of cyber incidents. According to the Swedish implementation of DORA, the Riksbank shall coordinate and monitor the tests. The DORA requirements will also highlight third-party dependencies and concentration risks. Centralised supervision will be introduced for third-party suppliers deemed critical from an EU perspective. Overall, DORA creates the conditions for better cyber surveillance and thereby increases resilience to cyber risks.

<sup>&</sup>lt;sup>2</sup> For a description of how the authorities in the Nordic-Baltic region have gradually strengthened their cooperation and crisis management capabilities, see D. Farelius and J. Forss Sandahl (2025), "Financial crisis preparedness in the Nordic-Baltic region", *Economic Commentaries*, No. 6, Sveriges Riksbank.

<sup>&</sup>lt;sup>3</sup> See "Fact box - Third-party risks in a more digital and interconnected financial sector", in *Financial Stability Report*, 2024:2, Sveriges Riksbank.

Preparedness also needs to be strengthened with regard to the possibility for the public to make payments under both normal conditions and in the event of a peacetime crisis and heightened alert, including in the event of major disruptions in data communications. Both the Riksbank and other actors need to strengthen their preparedness in the area of payments. For example, the Riksbank has a goal of enabling more card payments to be made offline by mid-2026.<sup>4</sup>

### Brighter prospects for households, but many still vulnerable

Households' economic margins have improved from a previously strained situation. However, real wages are still lower than before the rise in inflation and interest rates, making households vulnerable to new shocks. Despite this, the Riksbank assesses that mortgage borrowers generally have a good ability to pay their interest and amortisation payments. See more in the section "Households are vulnerable to new shocks".

The uncertain world situation underlines the importance of households having good resilience. The combination of amortisation requirements, mortgage caps and bank credit assessments contributed to households being better equipped when inflation and interest rates increased sharply. It is therefore important to have well-balanced macroprudential measures in place. Otherwise, there is a risk that when the economy strengthens, both household debt and housing prices will again start to rise in a way that is not sustainable in the long term.

However, macroprudential measures do not remedy the underlying problems of the housing market. A well-functioning housing market requires policy decisions that facilitate housing construction and favour mobility in the housing market. Such a policy would in the long-term benefit those who want to enter the housing market. Moreover, better information on the distribution of household debt and assets would strengthen the authorities' ability to assess the stability risks associated with household indebtedness.

#### A weak rental market is a challenge for the property companies

Swedish companies are weighed down by the recession and increased uncertainty in the world around them. However, the companies' financial conditions remain relatively favourable. While risk premiums in the corporate bond market rose during the turmoil, they remain at comparatively low levels.

A weaker rental market means that it is more difficult for property companies to find tenants for their premises, resulting in rising vacancy rates. This can put downward pressure on property values, weakening companies' performance and financial strength. The vulnerabilities linked to the financing of property companies also persist. One such vulnerability is that corporate bond funds, which own a growing share of property companies' bonds, are vulnerable to large investor redemptions. If this happens, property companies could have trouble refinancing their bonds. In addition, the property companies have relatively short interest-rate fixation periods and debt

<sup>&</sup>lt;sup>4</sup> See *Payments Report*, March 2025, Sveriges Riksbank.

maturities. If global uncertainty were to lead to a sharp deterioration in economic activity and higher market interest rates, property values could fall while financing opportunities would deteriorate. Some property companies could then relatively quickly face major challenges. More information about this can be found in the section "Recession and uncertainty weigh on the corporate sector".

The stability of the financial system would benefit if property companies increased duration of their interest-rate fixation periods and debt maturities. This would constitute a valuable insurance policy that would mean that property companies were better equipped to deal with various disruptions. It is also important that property companies provide clearer information in their external communications about the assumptions applied in property valuations and the terms agreed in commercial property purchase and sale transactions.

### New rules introduced to strengthen funds' liquidity management

The spring financial turmoil led to the largest outflow from Swedish corporate bond funds since the coronavirus pandemic. Although the outflow in April had no major impact on the Swedish corporate bond market, it highlights the need for stronger liquidity management in these funds. In times of stress, large redemptions may force fund managers to sell bonds to meet investor redemptions, which could significantly impair the functioning of the corporate bond market. This, in turn, could lead to higher financing costs for companies and make it more difficult for them to refinance maturing debt.

Major legislative changes are now being implemented to, among other things, strengthen liquidity management in funds by introducing new liquidity tools, see the box "New rules aim to make funds more resilient". This is welcome as it creates the conditions for the resilience of corporate bond funds to be strengthened going forward. However, for the legislative changes to have full impact, it is important that the various platforms where the funds are distributed allow the funds to use notice periods towards their unit holders.

### 1.4 Banks need to have more active liquidity management

Many of the banks that are the Riksbank's monetary policy counterparties currently have large liquidity surpluses as a consequence of the Riksbank's supply of central bank liquidity to the banking system. Banks often choose to place a large part of this liquidity as overnight deposits at the Riksbank (reserves). This suggests that banks have too little incentive to lend to other banks in need of liquidity. It also suggests that there are frictions affecting the banks' liquidity management. As a result, liquidity is not being efficiently redistributed between banks with surpluses and those with deficits. Several banks report that they are reluctant to use the Riksbank's standing lending facility or to sell back certificates, as they are concerned that other banks may perceive this as a sign of weakness. In addition, many banks lack the operational capacity to participate actively in the overnight market.

For monetary policy to be effective, the Riksbank must be able to influence market interest rates. It is therefore important that reserves can be redistributed efficiently through interbank lending on the overnight market. For this to happen, banks need to have the operational capacity and willingness to be active in the overnight market. This includes having established credit limits with other banks.

The Riksbank can promote activity in the overnight market by ensuring that the opportunity cost of holding liquidity is sufficiently high. As monetary policy counterparties, the banks also have a purely operational need to be able to use the Riksbank's liquidity supply instruments as intended. Here the Riksbank can require them to participate in test transactions to ensure that they have the necessary capability. Banks should, when needed, be able to use the Riksbank's standing lending facility seamlessly as a natural part of their day-to-day liquidity management. Read more in the article "Banks need to have more active liquidity management".

### 2 The macrofinancial situation

The increased trade tariffs have created unease and led to turbulence in financial markets around the world after a period in which valuations have long risen. In addition, there have been geopolitical shifts that mean Europe needs to increase its defence spending, and that sovereign debt will grow. In the United States, the budget deficit is expected to remain large and government debt to increase, while a significant portion of government debt will soon be refinanced. For countries with already weak public finances and high government debt, debt financing can be particularly challenging. If there is no credibility for how debt can be stabilised, interest rates may rise and become more volatile.

### 2.1 Elevated risk in global financial markets

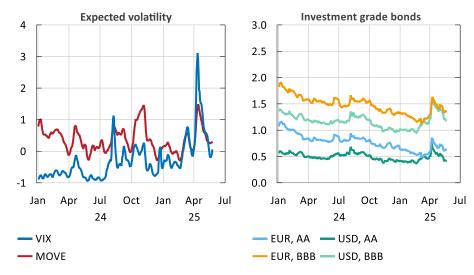
### Severe turbulence on the financial markets following the increased tariffs

Recent months have been characterised by sharp shifts in US trade policy, and by both the US and Europe changing their security policies. This has led to uncertainty and dampened growth prospects in both the United States and Europe. The markets reacted strongly to the US administration's announcement of increased tariffs, and at times there was considerable turbulence in both the equity and fixed income markets, at the same time as the dollar weakened (see chart 1, left). Risk premiums on various assets increased, reflecting a reduced risk appetite among investors as a result of the high uncertainty and expectations that higher global tariffs will reduce corporate profits.

More recently, the markets have stabilised, and asset prices have recovered in a short period of time following more positive signals around tariffs. However, the uncertainty remains and the premiums that investors demand to hold risky assets are still somewhat higher than at the beginning of 2025. This applies, among other things, to the corporate bond market, especially in the United States, where companies with lower credit ratings have periodically experienced difficulty in issuing new bonds (see chart 1, left).

Chart 1. Equity and fixed income market volatility and risk premiums for European and US firms

Standard deviations, per cent



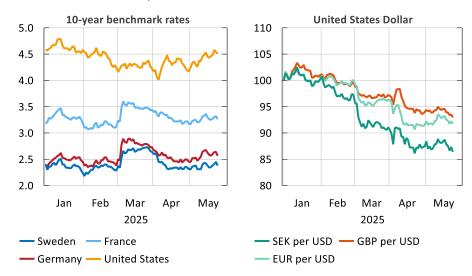
Note. The left chart refers to the Volatility Index (VIX) which shows the expected volatility of the US stock exchange based on option prices and the Merrill Lynch Option Volatility Estimate (MOVE) index which shows expected volatility in the US bond market based on option pricing. The series are standardised and are displayed as a one-week moving average. The chart on the right shows the yield spread between 5-year investment grade corporate bonds and the corresponding swap rate.

Sources: Chicago Board Options Exchange (CBOE), ICE BofAML, Macrobond Financial AB and US Department of Treasury.

Interest rates on US long-term government bonds rose rapidly in connection with the tariff announcements. This differed from the interest rates for several European government bonds which instead continued going down after the rise in rates that occurred after the announcement of increased defence spending at the beginning of March (see chart 2, right). The rise in US long-term government bond yields that started during the most turbulent period in April could reflect a loss of confidence in the US economy and its public finances. Another sign of this is that the US dollar, which usually strengthens in times of global financial turmoil, has lost in value against other countries' currencies, including the Swedish krona.

Chart 2. Government bond yields and exchange rates

Per cent, index, 01 January 2025 = 100



Sources: Macrobond Financial AB, US Department of Treasury and the Riksbank.

### High leverage can reinforce stress in the financial system

Over the past decade, the non-banking sector has grown faster than the banking sector. At the same time, there has also been an increase in leverage among non-bank sector participants, to some extent through bank loans. One example of such actors is US hedge funds, which have increased their presence in the US government bond market in recent years. They pursue different types of arbitrage strategies involving leverage.

One such strategy is the swap spread trade. It consists of speculating on the difference in yield between a US Treasury bond and an interest rate swap of the same maturity (the swap spread). As US Treasury yields began to rise, the strategy became less profitable and many investors chose to close their positions at the same time, amplifying the rise in yields. Another common strategy is the cash-future basis trade, which exploits the price difference between an underlying asset, in this case a US government bond, and a futures contract on the bond for arbitrage. The number of such contracts was at a historically high level during the spring (see diagram, left). The hedge funds finance purchases on the repo market with the government bonds as collateral in order to have a leverage effect and be able to take larger positions. Their leverage through the repo market has increased in recent years (see chart 3, right).

US government bonds are an important component of the functioning of many asset and loan markets globally, for example in pricing derivatives or as collateral for loans. As a result, liquid and well-functioning US government bond markets are crucial to the

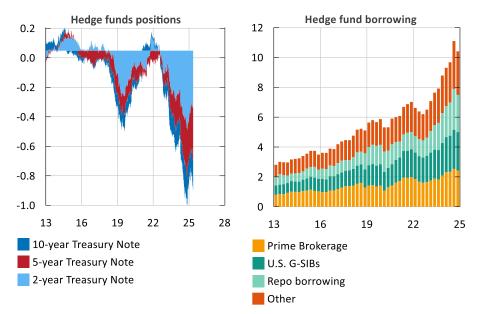
<sup>&</sup>lt;sup>5</sup> The non-banking sector includes funds, private venture capital and credit funds, for example. See *Global Financial Stability Report*, April 2025, International Monetary Fund.

<sup>&</sup>lt;sup>6</sup> See speech by R. Perli (2025), 9 May 2025, Federal Reserve Bank of New York. <u>Recent Developments in Treasury Market Liquidity and Funding Conditions</u>

<sup>&</sup>lt;sup>7</sup> The hedge fund gains from the position when the interest rate on the repurchase transaction is lower than the price difference between the futures contract and the government bond.

smooth functioning of the global financial system as a whole. In normal times, agents such as hedge funds contribute to this. However, in a situation of large changes in asset prices, their strategies can quickly become unprofitable and collateral requirements increase. Hedge funds may then need to quickly unwind positions and sell assets to meet these demands. If they are highly leveraged, even small changes in requirements can have significant effects. If several agents need to act in a similar way, this can lead to a negative spiral in which the hedge funds' sales strengthen market movements and lead to even higher demands. Even if such a scenario has not materialised during the spring turbulence, continued high leverage in the system could nevertheless impair the functioning of the US government bond market in the event of market turmoil.<sup>8</sup>

Chart 3. The net position of US hedge funds in government bonds and their leverage Thousand billion dollars



Note. The left-hand chart shows the nominal value of outstanding futures contracts on US Treasury securities of various maturities held by hedge funds, commodity trading advisers (CTAs), commodity pool operators (CPOs) and other non-registered funds identified by the US derivatives market regulator. Positive values indicate net purchases of government bond futures, while negative values indicate net sales. The right-hand chart shows other lenders' loans from foreign G-SIBs (globally systemically important banks), smaller US institutions and other secured loans.

Sources: The Commodity Futures Trading Commission (CFTC) and the Office of Financial Research (OFR).

<sup>&</sup>lt;sup>8</sup> This probably took place in connection with the stress on the repo market in September 2019 and probably also in connection with the so-called *Dash-for-Cash* in March 2020, when investors demanded cash and sold government bonds. For a further description of the risks associated with the strategy, see M. Fransson and C. Oreland (2024), "Basis trade in US government bonds and stability risks", Commentary No. 3, Swedish National Debt Office (only in Swedish).

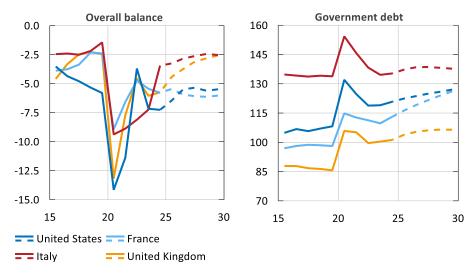
### 2.2 Public debt is expected to increase globally

### Risk that public debt will become unsustainable if growth deteriorates

Large public debts in key economies are a vulnerability for global economic stability. Several large and important economies, such as the United States, France and the United Kingdom, currently have strained public finances with large budget deficits and high government debt (see chart 4, left). The changing security policy landscape also means that many European countries will significantly increase their defence and infrastructure investments in the coming years. The increased investment will be financed in large part through increased government borrowing, resulting in continued large budget deficits and increasing government debt (see chart 4, right). The US budget deficit is also expected to be large and amount to 6.5 per cent of GDP in 2025. If growth deteriorates, government debt as a share of GDP could increase further. In a situation where confidence in the ability of highly indebted countries to finance public debt is rapidly deteriorating, interest rates may rise rapidly. This may mean that fiscal policy must be tightened, even though the economy needs stimulation. The likelihood of such a scenario has increased as trade concerns have weakened the growth outlook.

Chart 4. Public finances abroad





Note. In the left-hand chart, dotted lines refer to the IMF's general budget balance forecasts (overall balance) as a percentage of GDP. In the right-hand chart, dotted lines refer to the IMF's projections of government debt relative to GDP. All forecasts are from the IMF Fiscal Monitor, April 2025.

Source: International Monetary Fund (IMF).

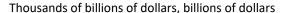
<sup>&</sup>lt;sup>9</sup> The deterioration in the fiscal outlook as a result of the administration's budgetary stance has led Moody's, the last of the three major rating agencies, to downgrade the US credit rating from its previous highest level. See Moody's press release, May 2025. <u>Moody's Ratings downgrades United States ratings to Aa1 from Aaa; changes outlook to stable</u>

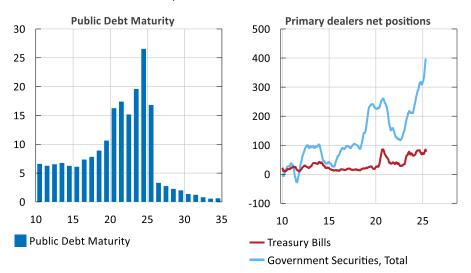
## Increased debt in the USA could have consequences in the rest of the world

The increased government debt means that the supply of government bonds in the market will increase. At the same time, supply is increasing as central banks are normalising their asset portfolios by letting their bond holdings mature. This means that other investors need to finance a larger share of government borrowing. <sup>10</sup> In recent years, a large proportion of the US deficits have been financed to a greater extent with short-term government bonds, which means that there is a relatively large share of the total debt that needs to be refinanced in 2025 (see chart 5, left).

In Europe, the market has so far been able to absorb the increased supply. In the United States, however, there are some concerns that market makers will not manage to increase their holdings and pass on government bonds during periods of market stress if the supply increases. <sup>11, 12</sup> This is because their stock of US government bonds has already increased rapidly in recent years (see chart 5, right). If other actors, such as US hedge funds, also need to sell government bonds quickly, this could lead to a deterioration in market liquidity and larger price movements.

## Chart 5. Maturity of US Treasury debt and US market makers' holdings of Treasury bonds





Note. The left-hand chart refers to annualised maturities until 2035, and includes treasury bills, government bonds and Treasury Inflation Protected Securities (TIPS). The right-hand chart refers to the 30-month moving average.

Source: Federal Reserve Bank of New York and US Department of Treasury.

<sup>&</sup>lt;sup>10</sup> This spring, the Federal Reserve has reduced the share of Treasuries maturing without being reinvested, which has meant that holdings (in the asset portfolio) are declining more slowly. The ECB does not reinvest maturing government bonds, which means that the holdings decrease as the bonds mature.

<sup>&</sup>lt;sup>11</sup> See *Financial Stability Report*, April 2025, Federal Reserve.

<sup>&</sup>lt;sup>12</sup> Primary dealers are monetary policy counterparties to the US central bank and are usually large investment banks or financial institutions. They are also expected to act as market makers in the US government securities market.

A quarter of the US government debt is owned by foreign actors, of which the three largest holdings are in Japan, the United Kingdom and China (see chart 6). China has been reducing its holdings in US government bonds for years. At the same time, there are signs that fund flows have been re-allocated from US equities to European ones. If this reflects US assets no longer being regarded as safe and attractive investments, it could mean higher US interest rates and thus increased interest costs for US government debt. This means that the fiscal situation in the United States could deteriorate rapidly. Yields have already risen on long-term US Treasuries as US government debt is expected to increase further. If the market loses confidence in economic policy, interest costs could increase sharply, as in the United Kingdom in 2022.<sup>13</sup>

In normal cases, movements in the global fixed-income markets show a high degree of covariation. This means that a higher interest rate in the United States could lead to higher global interest rates, given the size and dominance of the US government bond market. For Swedish financial stability, this could entail strains for interest-rate-sensitive parts of the economy, such as the household sector and the commercial property sector (see the box "Greater uncertainty abroad creates risks in Sweden" and sections 3.1 and 3.2).

Thousand billion dollars

10

8

6

4

2

2002 2004 2006 2008 2010 2012 2014 2016 2018 2020 2022 2024

Chart 6. International holdings in US government bonds

Note. The value of US government bonds owned by private and public investors outside the United States.

Source: US Department of Treasury.

Japan United Kingdom China Rest of the world

<sup>&</sup>lt;sup>13</sup> See Financial Stability Report November 2022, Sveriges Riksbank.

# FACT BOX – Greater uncertainty abroad creates risks in Sweden

In recent years, the world economy has undergone revolutionary changes that have increased both economic and geopolitical uncertainty. During the spring, this uncertainty has increased, mainly as a result of an increasingly confrontational US trade policy and changes in the US security policy stance. In this rapidly changing environment, the risk of financial instability increases, with large and unforeseen market movements potentially having serious consequences for the global financial system.

One particular risk is that confidence in the US dollar and US government bonds will deteriorate rapidly. This could be triggered by political announcements, growing concerns about the US public deficit, or by how large holders of US government securities act. As the dollar has a special status as the world's reserve currency – where a large part of world trade is conducted in dollars and US government bonds are used as collateral in the global financial system – such a crisis of confidence could lead to greatly increased market volatility, rising transaction costs and higher global interest rates. The effects can be exacerbated if this coincides with a period of stagflation, that is, low growth combined with high inflation. For the United States, whose economy plays a key role in the global system, this risk is particularly acute. Stagflation is difficult to manage, as measures to dampen inflation risk at the same time worsening a recession. The result may be a prolonged period of weak growth and high interest rates.

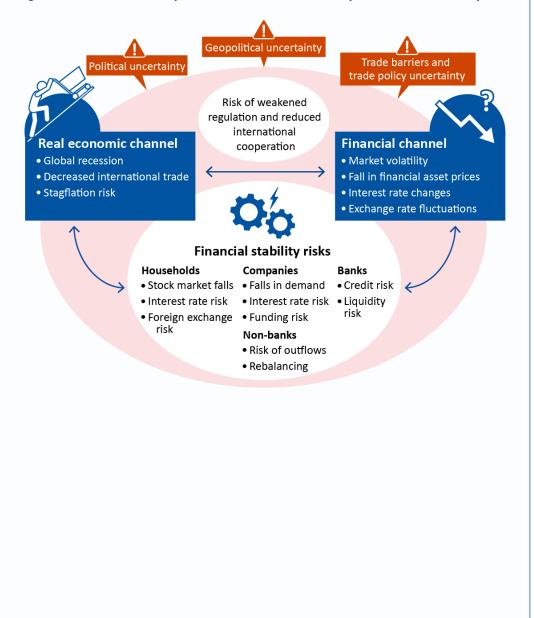
Such disruptions risk being exacerbated if there are already vulnerabilities in the global system that amplify the effects. Indebtedness is an example of this. It is high in many countries and sectors, reducing the scope for manoeuvre in the event of an economic downturn. At the same time, the financial system has become increasingly complex and interconnected, increasing the risk of contagion effects. The fast-growing and often less transparent non-banking financial sector, such as private credit, contributes to uncertainty and makes it more difficult to assess resilience in stressed scenarios.

Sweden is fundamentally in a good position to handle the turbulence that is currently taking place globally, partly thanks to our low government debt and well-capitalised banks. However, there are several domestic vulnerabilities that mean that financial unrest in the outside world could rapidly spread to Sweden (see Figure 1). As a small export-dependent country, Sweden is sensitive to changing trade conditions and global economic activity. Swedish households and insurance and pension companies also have large holdings in foreign assets, often in dollars, which makes them sensitive to stock market falls, real economic disturbances and exchange rate movements. As financial actors partly hedge their holdings via banks, a well-functioning dollar market is important. A disturbance in this market could affect Swedish banks' ability to obtain funding, which in turn could make it difficult for banks to offer their customers dollars. In addition, agents using leverage in their financing may be forced to provide additional collateral in the event of strong market volatility.

Another vulnerability for Sweden is that private indebtedness is high, especially among households and commercial property companies, making them sensitive to rising interest rates. For the property sector, for example, sharp increases in risk premiums could make it more expensive for firms to borrow and more difficult to renew their loans. This could push down property values, especially given that office vacancies are already high.

In the longer term, there is also a risk that increased geopolitical uncertainty will weaken global financial cooperation. This can lead to increased fragmentation and new frictions in international regulations. For developed countries like Sweden, which is dependent on stable global capital flows and predictable game rules, such a development can have major negative consequences.

Figure 1: Global uncertainty and risks to the real economy and financial stability



### 3 The household and corporate sector

Swedish households' incomes are rising, and companies' financial conditions are relatively favourable. At the same time, the outlook for the Swedish economy has weakened over the year. Uncertainty about the economic outlook is high and higher US tariffs could push down profitability among Swedish companies. Households are highly exposed to the stock market, especially the US stock market. The stock market fall in the spring and a weakened dollar therefore hit Swedish households doubly, as both factors reduced the value of shares when measured in Swedish kronor. Real wages are still lower than before the rise in inflation, and many households still have limited margins, making them more vulnerable to new shocks. The continued weakening of the rental market for office properties in particular poses a risk to property values, and the international situation risks putting even more pressure on property companies.

### 3.1 Households are vulnerable to new shocks

#### Households' financial assets declined when the stock market fell

Swedish households hold a significant share of their financial assets in the stock market, through directly owned shares, mutual fund units and insurance and pension savings (see chart 7, left). Stock markets have been volatile this spring. Share prices fell sharply in March and April but have since recovered. When the stock market fell, the value of households' financial assets declined. At the same time, the dollar weakened, further reducing the value of US equities measured in Swedish kronor. Slightly more than one-fifth of households' directly held equity and mutual fund holdings are invested in US dollar-denominated assets (see chart 7, right).

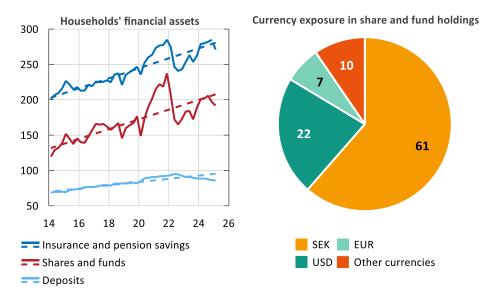
Household wealth is unevenly distributed. According to a report from Finansinspektionen, five per cent of households own about half of all financial assets, while every second person has no financial assets at all or very small ones. <sup>14</sup> Due to the skewed distribution of financial assets, the largest losses, in terms of kronor, are borne by the wealthiest households. Studies have shown that these households do not tend to adjust their consumption very much when equity prices change. <sup>15</sup> On the other hand,

<sup>&</sup>lt;sup>14</sup> See *Household savings in Sweden*, March 2025, Finansinspektionen.

<sup>&</sup>lt;sup>15</sup> Analysis of Swedish register data from 1999–2007 shows that households in the top 30 per cent of the wealth distribution increase their consumption by SEK 3 per SEK 100 in unrealised capital gains. Households in the bottom half increase their consumption by SEK 23 per SEK 100, but these households owned only 7 per cent of total equity holdings. Households react more strongly to changes in dividends than to capital gains, with an increase in consumption of SEK 40-60 per SEK 100 change in dividends. See M. Di Maggio et al. (2018) "Stock market returns and consumption", *Working Paper* No 24262, NBER.

equity market declines can dampen household confidence. Although Swedish households have become more pessimistic about the future, the overall assessment is that equity market falls will have limited effects on household consumption, and thus on the real economy.<sup>16</sup>

**Chart 7. Households' financial assets and currency exposure**Per cent



Note. The left-hand chart shows financial assets as a percentage of disposable income (expressed as a four-quarter moving sum). For 2025Q1, the forecast for disposable income from the Monetary Policy Report, March 2025, is used. Linear trends are estimated from 2010. The right-hand chart shows the percentage distribution of households' equity and fund holdings in different currencies. The currency breakdown is based on the aggregate level, i.e. the breakdown of all investment funds. Households' holdings via foreign insurance policies, pension institutions or holdings in custody accounts in foreign banks are not captured.

Sources: Statistics Sweden and the Riksbank.

### Many households still have limited margins

Household financial margins improved last year. Even this year, real wage increases combined with tax cuts are expected to contribute positively to their incomes, and thus also their ability to service their debt. However, real wages are still lower than before the rise in inflation and interest rates (see chart A.1 in the Appendix) and unemployment is high. This contributes to many households still being under financial pressure. For example, the Riksbank's calculations show that many families with children who took out a mortgage in 2021 have had to consume less than a family with children does on average (see the fact box "Many mortgagors have significantly less scope for consumption"). Survey data from the National Institute of Economic Research also indicate that there are still many households who state that they consume

 $<sup>^{16}</sup>$  However, there are factors that can negatively affect both the equity market and consumption, such as increased uncertainty and weaker confidence. It may therefore appear that there is a link between equity market developments and consumption, when in fact other factors explain the correlation.

above their income. This is particularly true for those with the lowest incomes (see chart 8).

Per cent

25

20

15

10

2005

2010

2015

2020

2025

— 1st quartile — 2nd quartile — 3rd quartile — 4th quartile

Chart 8. Proportion of households taking on debt and/or utilising savings

Note. This refers to the percentage of surveyed households within each income quartile and shows seasonally adjusted data expressed as a three-month moving average. It is a combination of the response options "We take on debt and/or utilise savings to a large extent" and "We take on debt and/or utilise savings to a limited extent" in the Economic Tendency Survey.

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

The Swedish Enforcement Authority's statistics show that a larger proportion of the population has difficulty paying their bills. One reason for this may be that more households have taken out loans from institutions that conduct less extensive credit assessments. This has meant that many households with small margins have received loans that exceed their debt-servicing ability. The risk of payment problems is higher for borrowers from consumer credit institutions, than for borrowers from niche banks or major banks.<sup>17</sup>

Swedish households showed resilience during the recent cycle of inflation and interest rate hikes. The liquid buffers built up during the coronavirus pandemic were likely a contributing factor. However, some households may now have used up their buffers due to the weak growth in real wages. This may mean that households have become more sensitive to new shocks such as loss of income, rising interest rates or falling housing prices. While mortgagors are still well capable of servicing their debt, the high level of indebtedness and short-term fixed-rate periods may pose risks to the stability of the macroeconomy and, in a bad scenario, to financial stability.

<sup>&</sup>lt;sup>17</sup> See M. Andersson and M. Üye "Share of consumer credit debt registered with Swedish Enforcement Authority increases during economic downturns", *FI Analysis* Number 48 (Report in Swedish with a summary in English), Finansinspektionen.

<sup>&</sup>lt;sup>18</sup> Household savings as a share of disposable income increased in 2024, but savings have not been deposited in bank accounts to the same extent as during the pandemic and are thus less liquid.

# FACT BOX - Many mortgagors have significantly less scope for consumption

Many households have had to make major adjustments to their personal finances in recent years. About half of all households have a mortgage, and mortgages account for more than 80 per cent of total household loans from monetary financial institutions (MFIs). This box discusses how the financial margins of different groups of mortgagors may have been affected by higher inflation and higher interest expenditure. The financial margins examined refer to the share of household income that is left after paying interest, amortisation and other living costs, i.e. their consumption.

The calculations are based on households that took out a new mortgage in 2021 and data on their income at the time of the loan, loan amount and interest rates from Finansinspektionen's Mortgage Survey. However, there is no data on how the income and interest rates of these households have developed since then. The analysis therefore uses the average development of interest rates and wages in the economy to derive the corresponding quantities for the households in question. As a standardised measure for households' other living expenses, Household expenditure from Statistics Sweden is used, which is intended to reflect the actual consumption of different household groups. The statistics only extend to 2021 and to capture the cost increases that have occurred since then, each consumption item is projected with the respective cost item in the CPI. The starting point is that households consume according to the average of the group to which they belong.

Based on this, it is possible to derive the financial margins that households had when they took out a new mortgage in autumn 2021, i.e. how much of their income they had left after interest, amortisation and other living expenses had been paid. This is the starting point for the lines in chart 9.

The analysis shows that the higher prices and interest rates in 2022 and 2023 led to reduced margins for all household groups in the survey. New mortgagors who were single without children or cohabiting with children had negative margins, i.e. cash flow deficits, according to the calculation. Until mid-2023, it was mainly rising living costs that had a negative impact on households' finances. After that, it was higher interest rates that weighed most heavily on the economy. For households living in one-or two-dwelling buildings, the margins were smaller than for households living in tenant-owned apartments, mainly due to high electricity prices (see chart 9, right-hand panel). Since the calculations are based on several simplifying assumptions, deficits

<sup>&</sup>lt;sup>19</sup> See *The Swedish mortgage market*, March 2021, Finansinspektionen. For each household, there is data on income, loan size, amortisation payments, any housing association fees, interest rates and the fixed-rate mortgage period when the mortgage is paid out. When the fixed-rate period of the loan expires, it is assumed here that households opt for a variable rate.

<sup>&</sup>lt;sup>20</sup> The projection of household interest rate and wage developments with the average development of the economy constitutes a simplification that needs to be considered when interpreting the results. Another simplification is that capital income and changes in taxes and transfers are not included in the calculations.

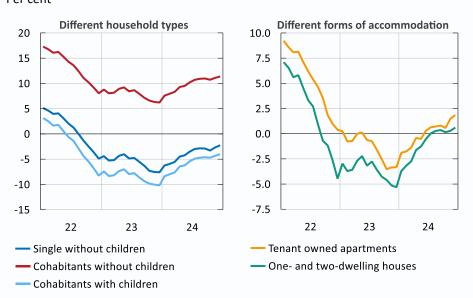
<sup>&</sup>lt;sup>21</sup> The household groups used are single persons without children, cohabitants without children and cohabitants with children. There is no data on single persons with children in *Household expenditure*.

should not be interpreted as meaning that households needed to draw on savings or borrow to make ends meet.

In 2024, households' financial margins improved as a result of higher real wages and lower interest rates.<sup>22</sup> But their scope for consumption was still smaller than before the rise in inflation and interest rates. The calculations illustrate how households with substantial debt can quickly be adversely affected when interest rates rise. If inflation also increases, it may force households to make significant adjustments to their consumption, potentially posing risks to macroeconomic stability.

Chart 9. Financial margins in the cash flows of different mortgagors

Per cent



Note. The charts refer to the surplus or deficit in the cash flow calculation as a share of net household income. It is the median of the financial margins that is shown.

Sources: Finansinspektionen, Statistics Sweden and the Riksbank.

### Uncertainty in the housing market

The demand for housing increased in 2024, which both raised housing prices and increased turnover in the housing market. However, developments have been weaker in the beginning of 2025. The number of homes for sale remains very high, the time to sale is long and slightly fewer homes have been sold. Seasonally adjusted, housing prices were 2.5 per cent lower in April than at the start of the year. Price expectations have also declined. SEB's house price indicator is still higher than its historical average but fell by 16 points between February and May. Overall, this points to a hesitant housing market. In the slightly longer term, however, housing prices should increase slightly as household incomes continue to recover.

In contrast to housing prices, growth in household mortgage lending has picked up in the beginning of the year. However, households' loans are still growing more slowly

<sup>&</sup>lt;sup>22</sup> Amortisation has also contributed to lower expenditure.

than their income, causing their debt-to-income ratio to continue to decline. If the amortisation requirement and mortgage cap are relaxed, there is a risk that both mortgages and housing prices will start to rise again rapidly when the economy strengthens.<sup>23</sup> Indebtedness also remains high by international standards.

# 3.2 Recession and uncertainty weigh on the corporate sector

### Tariffs negatively affect companies, but stability risks are limited

Sweden has been in a recession for some time and the recovery has been slow. High costs and subdued demand have contributed to company bankruptcies remaining at an elevated level.<sup>24</sup> At the same time, uncertainty and turbulence have increased in financial markets. Companies are increasingly uncertain about the future and sentiment is subdued.<sup>25</sup> Increased tariffs risk disrupting global supply chains, raising costs and reducing demand for companies' goods, which would reduce their earnings. This can affect companies even if they have no direct exports to the US, especially if they are sub-suppliers to larger companies that trade heavily with the US. It also includes trade in services, which has become increasingly important for the Swedish economy. 26 In the Riksbank's Business Survey, over 80 per cent of the companies surveyed state that their operations are affected to some extent by increased import tariffs in the US, albeit to a small extent. They mostly say they will be affected indirectly, for example through exchange rate changes, cost increases or lower demand due to a slowdown in economic activity. But even if the direct impact is not so great, the uncertainty surrounding global trade policy may mean that company bankruptcies in Sweden will remain at an elevated level.

Sweden's most important export goods are in the manufacturing industry and include mostly motor vehicles and machinery (see chart 10).<sup>27</sup> The majority of Swedish exports go to Nordic or European countries, but the United States is the third largest single export country and last year accounted for just over nine per cent of total goods exports. Swedish banks have limited exposures to the industrial sector as a whole, although individual exporters may have large loans. In general, however, manufacturing companies have larger loans via issued securities and from non-bank lenders. This means that the credit risk is spread across more lenders, both Swedish and foreign, who together may be better able to manage loan losses than if all loans had been held

<sup>&</sup>lt;sup>23</sup> See "Macroprudential measures safeguard the resilience of the household sector", in *Financial Stability Report*, 2024:2, Sveriges Riksbank.

<sup>&</sup>lt;sup>24</sup> As before, the companies that have gone bankrupt since the last stability report often have few or no employees and almost a fifth of these have had small loans, leading to limited consequences for the banks.

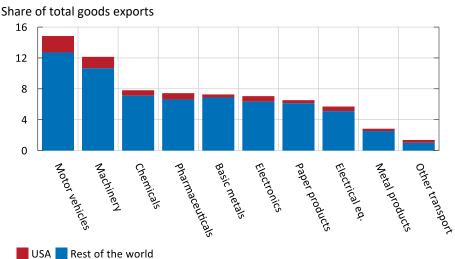
<sup>&</sup>lt;sup>25</sup> See chart A2 in the Chart Appendix.

<sup>&</sup>lt;sup>26</sup> See J. Camacho and L. Hakimi Fard (2025), "Large companies behind growing foreign trade in services", *Staff memo*, March, Sveriges Riksbank.

<sup>&</sup>lt;sup>27</sup> This refers to the most important commodity groups based on Sweden's total goods exports. See also "Analysis - Effects of trade tariffs on Swedish companies" in *Money Policy Report*, March 2025, Sveriges Riksbank.

by the banks. Even if several borrowers within the manufacturing sector were to experience payment problems, the risks for Swedish banks would be relatively limited.

Chart 10. Swedish export of goods



Note. The chart refers to the branches of activity (SPIN) with the highest exports of goods to the United States in 2024.

Source: Statistics Sweden.

#### Corporate financial conditions remain relatively favourable

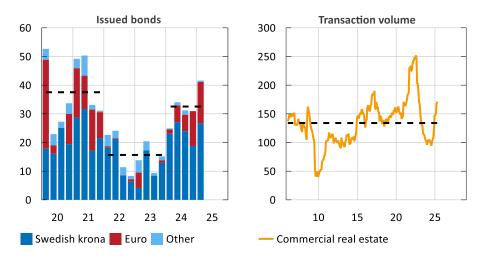
Despite increased uncertainty and low activity in the economy, corporate financial conditions remain relatively favourable. Corporate bond market risk premiums have indeed risen, but from low levels, and are now around the levels they were at in the second quarter of 2024. Despite this, the availability of borrowed funds from both banks and the capital market is expected to remain favourable. So far in 2025, companies have issued SEK 60 billion of new bonds denominated in Swedish kronor, which is roughly the same as in the same period in 2024.<sup>28</sup> Real estate companies have accounted for just over half of total corporate bond issuance in Swedish kronor during the first quarter of 2025 (see chart 11, left).

However, overall corporate borrowing is weak, and the growth rate has been negative since early 2024. Both developments in bank loans and securities borrowing have been subdued and contributed to this. The fact that the volume of issuance in the bond market remains high, while total borrowing is weak, suggests that many companies are mainly taking out new loans to replace their existing ones. The fact that they are not taking out more loans is partly due to fewer new investments and acquisitions due to weaker economic activity. The uncertain global environment may continue to contribute to companies postponing their investment decisions also in the future, and demand for loans will therefore remain low.

<sup>&</sup>lt;sup>28</sup> Data for corporate bond issues in Swedish kronor are up to and including April 2025.

Chart 11. Bond issuance and transaction volume

SEK billion



Note. The left-hand chart refers to new issues by commercial property companies. The dashed lines represent the mean value over the period. The right-hand chart refers to transaction volume, rolling 12 months. The dashed line represents the mean values 2006–2025.

Sources: Statistics Sweden and Catella.

### Property companies' large loans make them vulnerable

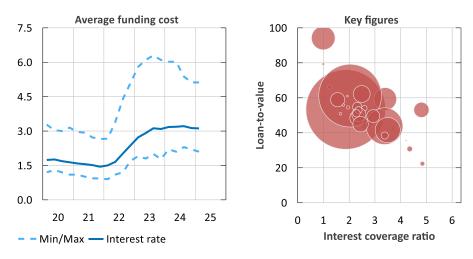
The commercial property sector is sensitive to economic cycles and interest rates, while many financial agents have large exposures to it. Taken together, this means that the commercial property sector poses a systemic risk. In recent years, property companies have faced major challenges related to their funding situation and their ability to pay higher interest costs. However, the situation has improved as interest rates have fallen. Lower interest rates help reduce financing costs. At the same time, some property companies may face higher interest expenses when refinancing loans that were originally taken out in a lower interest-rate environment (see chart 12, left). In addition, their earnings have been relatively stable despite the increase in vacancies, which is linked to the fact that leases are indexed to inflation. As a result, the interest coverage ratio of many property companies has stabilised, albeit at a lower level than before the rise in inflation and interest rates. However, there is a wide variation in property companies' key performance indicators. Some are both highly leveraged and have low earnings relative to their interest costs (see chart 12, right).

Although the short-term refinancing risks of property companies have decreased, the fundamental vulnerabilities related to their funding remain. This applies not least to the dependence on corporate bond funds that own an increasing share of property companies' bonds in Swedish kronor. The funds are still vulnerable to large redemptions from their shareholders, and property companies may therefore relatively suddenly find it difficult to refinance their maturing bonds. Funds experienced some outflows in April, while property companies issued fewer bonds. In addition, property companies have relatively short interest-rate fixation periods and debt maturities,

which have also decreased slightly after the rise in interest rates in 2022.<sup>29</sup> This means that higher interest rates would affect property companies faster today than in the past. Longer interest-rate fixation periods and debt maturities provide a valuable form of insurance, making property companies better equipped to cope with various shocks over the long term.

Chart 12. Variation in real estate companies' key performance indicators

Per cent



Note. The left-hand chart shows the volume-weighted average funding cost for 34 property companies. The right-hand chart shows the loan-to-value and interest coverage ratios for the same sample of companies. The size of the bubbles reflects the size of the companies' total interest-bearing liabilities.

Sources: Sedis and the Riksbank.

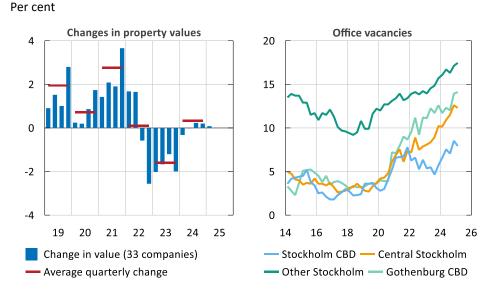
The balance sheets of several property companies have improved somewhat after they took measures such as selling properties, reducing their investments and raising new equity via new share issues. For those property companies that have continued to need to sell properties to strengthen their balance sheets, lower short-term market rates have helped by slightly increasing activity in the transaction market (see chart 11, right). One reason why activity has not been higher may be that property values, in some geographical areas, have not been adjusted downwards sufficiently for buyers and sellers to find common ground. The turbulence in financial markets has led to lower equity prices and may also reduce turnover in the transaction market in the future. As the value of listed property companies' equities declines, it becomes more difficult to use them as a means of payment for property acquisitions, and this may make companies less inclined to buy new properties.

<sup>&</sup>lt;sup>29</sup> The short interest-rate fixation periods and debt maturities are mainly a consequence of steep yield curves. As a result, many property companies have opted for short maturities on new loans to reduce funding costs.

## Property values could be negatively affected by rising vacancies and weak rental market

Following previous downward revisions in 2022 and 2023, commercial property values have been relatively stable, rising marginally at the end of 2024 across all segments (see chart 13, left). The increase in value was mainly due to higher rent levels resulting from inflation-indexed leases, while yield requirements remained relatively unchanged overall. However, demand in several rental markets has been weak due to subdued economic activity, cost-cutting among tenants and increased teleworking. This has resulted in more vacancies, especially in logistics and office space, but also in retail and rental housing. In the office segment, financial vacancy rates are now at their highest levels since at least the late 1990s. The upturn in office floor vacancies is broad-based and covers several cities in Sweden, including in the most central areas (see chart 13, right).

Chart 13. Property values and office vacancies



Note. The left-hand chart shows quarterly changes in value among 33 property companies. Average quarterly change is based on data from MSCI and covers a wider range of property companies. The right-hand chart shows floor vacancy rates for office properties measured as vacant space. CDB refers to the central business district, which is the city's centre for shops, offices and services.

Sources: Sedis, MSCI and Citymark.

A key factor in the assessed value of commercial property is its current and expected earning capacity. The models used to value properties therefore include various assumptions about future earning capacity. Minor adjustments to these can have relatively large effects on the assessed value. As a result of the weaker office rental market, assumptions about the expected development of vacancies and their long-term level may need to be adjusted. The long-term rent level in the models may also need to be adjusted downwards, as there are signs that property companies are receiving less and less rental income in relation to the assessed rental value of office buildings

<sup>&</sup>lt;sup>30</sup> According to data from MSCI (Notice & Disclaimer - MSCI).

(see chart 14). This is partly due to more vacancies, but probably also to more, and larger, temporary rent discounts in newly signed leases.<sup>31</sup> In the past, large rent indexations have contributed to rent levels in some existing leases being higher than the market rent. This is unlikely to continue after future renegotiations, especially for office properties in less favourable geographical areas. If there is no long-term willingness to pay that justifies the rent levels used by property companies in their valuations, these may need to be adjusted downwards.

Index, 1998=100 400 300 200 100 O 2001 2004 2007 2010 2013 2025 1998 2016 2019 2022 Estimated market rent used in valuations — Gross rental income

Chart 14. Estimated market rent in valuations and actual rental income

Note. The chart refers to office properties.

Source: MSCI.

Overall, a small downward adjustment in property values is not currently deemed to affect financial stability per se. However, there are risks to the property sector that could exacerbate a situation of lower property values. In a scenario where global uncertainty were to lead to a sharp deterioration in economic activity and higher risk premia, property values could fall while financing opportunities would deteriorate. Some property companies could then relatively quickly face challenges similar to those that characterised the sector in 2022–2023.<sup>32</sup> Such a scenario could affect financial stability.

<sup>&</sup>lt;sup>31</sup> Introducing a temporary discount in a new lease is a way for property companies not to have to adjust the rental value downwards over the model's calculation period. However, a discount is usually offered in return for the new lease having a slightly longer duration than would otherwise have been the case and is not necessarily negative.

<sup>&</sup>lt;sup>32</sup> See *Financial Stability Report* 2023:2 Sveriges Riksbank.

### 4 The Swedish financial system

The Swedish financial system has coped well with the turbulence of the spring. While the major Swedish banks depend on international capital markets for their financing and foreign actors own a significant part of their covered bonds, the turbulence has only had a small impact on the borrowing costs of the major banks. The major banks also have high profitability and a good margin to the requirements for capital and liquidity. Swedish funds, insurance companies and pension companies have a large exposure to the US stock market. Nevertheless, contagion risks are limited should the value of their assets decline, as the stock market is liquid, and these players do not generally use leverage. The ongoing increased presence of Swedish corporate bond funds in the corporate bond market is increasing the vulnerability of companies' market funding. Large redemptions from the funds may, in turn, make corporate financing more difficult.

# 4.1 The major banks are well placed to deal with uncertainty in the financial markets

#### Access to dollar funding is important for the major Swedish banks

Major Swedish banks mainly obtain funding through deposits and various types of market funding (see chart A.3 in the appendix). Deposits are usually a stable source of funding and are not as affected by financial turmoil as market funding can be. Market funding largely consists of banks issuing covered bonds and different types of instruments with shorter maturities. Those with a maturity of up to one year consist mainly of certificates in dollars (see chart 15).<sup>33</sup> A portion of the dollars that banks borrow is invested with the US central bank and serves as a liquidity buffer in dollars. But the banks also lend a large part of their dollars via currency swaps with Swedish pension and insurance companies, which means they exchange dollars for Swedish kronor.<sup>34</sup>

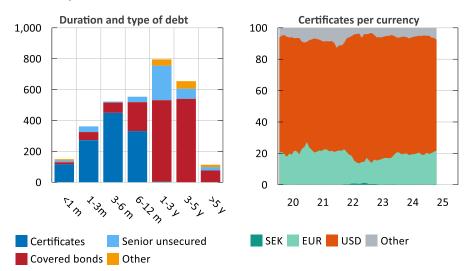
Financing through covered bonds is made at longer maturities and approximately 80 per cent is issued in Swedish kronor. Swedish actors own most covered bonds in Swedish kronor, but around 20 per cent are owned by foreign actors (see chart 16). Historically, foreign owners have been less long-term oriented than Swedish owners, and more likely to shift their investments to other types of assets in times of turmoil.

<sup>&</sup>lt;sup>33</sup> The Riksbank has recently increased the share of US dollars in its foreign exchange reserves; see press release, April 2025. New strategic allocation of gold and foreign exchange reserves and unchanged currency hedging | Sveriges Riksbank

<sup>&</sup>lt;sup>34</sup> See the article "The interconnectedness of insurance companies, National Pension Insurance Funds and banks via the foreign exchange market", *Financial Stability Report*, 2020:1, Sveriges Riksbank.

Chart 15. Market funding

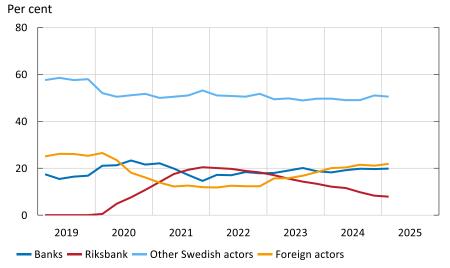
SEK billion, per cent



Note. Data per 30 April 2025 for Handelsbanken, SEB and Swedbank at group level.

Source: The Riksbank.

Chart 16. Holdings in covered bonds denominated in Swedish kronor



Note. The proportions refer to the market value of covered bonds issued in Swedish kronor up to and including the first quarter of 2025.

Source: The Riksbank.

### Banks' borrowing costs remain stable despite the turmoil

A CDS is a type of contract that acts as a kind of insurance against a bank being unable to pay its debts.<sup>35</sup> CDS premiums can be used as an indicator of what it costs the banks to obtain funding through senior unsecured bonds. The increased unrest in financial markets has caused CDS premiums to increase slightly but they are still at relatively low levels (see chart 17). Moreover, it has not become much more expensive for banks to obtain funding with covered bonds. This means that the banks' overall cost for market funding has not been overly affected by the recent turmoil. The Swedish banks' CDS premiums are also lower than those of European banks, which suggests that they are considered safer than European banks.

Basis points

120
100
80
60
40
20
2020
2021
2022
2023
2024
2025

— Swedish banks — European banks

Chart 17. Five-year CDS premiums for banks

Note. Average of comparable major banks domiciled in Sweden and Europe respectively. The CDS premium for Swedish banks refers to a non-volume-weighted average for the three major banks.

Sources: S&P Capital IQ and the Riksbank.

#### The major Swedish banks have good liquidity in all significant currencies

The major banks are interconnected, for example by obtaining funding in the same markets, borrowing from each other and having similar operations. They also own large portions of one another's covered bonds in their liquidity portfolios. Problems arising at one actor or one market can therefore spread rapidly between banks.

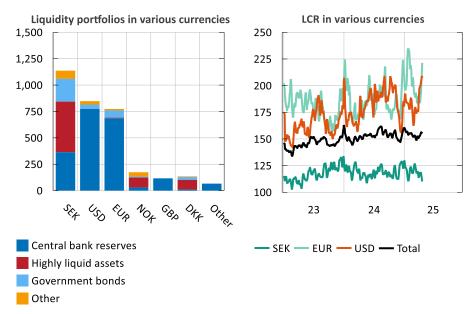
In recent times, the proportion of covered bonds in the major Swedish banks' liquidity portfolios has increased (see chart A.4 in the appendix). This is partly due to the banks lending money to investors who want to buy covered bonds and the banks then taking the covered bonds as collateral for the loans. This means that the banks can use the collateral in their liquidity portfolios and the investors can fund their purchases with the loans (see the box "Concentrated and leveraged foreign holdings in the

<sup>&</sup>lt;sup>35</sup> CDS is short for Credit Default Swap, a contract between credit market participants that aims to transfer the credit risk of an underlying asset from one participant to another.

banks' covered bonds"). The liquidity of the covered bond market is usually high. However, if investors need to sell bonds quickly, a large supply may be created that must be absorbed by new buyers. This could lead to lower prices, which could have a negative impact on the functioning of the market – and thus on the banks' funding costs.

However, the majority of the major Swedish banks' liquidity portfolios consist of central bank reserves and other highly liquid assets, of which large parts are in euros and dollars (see chart 18, left). This indicates that the banks are relatively well placed to deal with a situation with reduced access to euro and dollar funding. The Swedish banks also have good margins to the requirements for liquidity coverage (LCR), both in total and in individual significant currencies (see chart 18, right).

Chart 18. The major banks' liquidity portfolios and LCRs in different currencies SEK billion, per cent



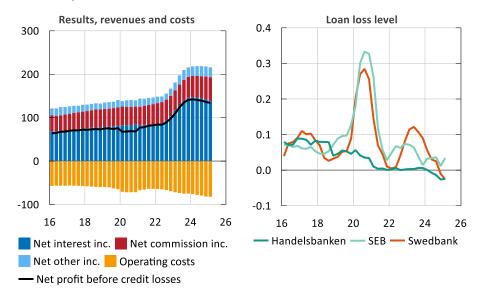
Note. The left chart shows the liquidity portfolios for Handelsbanken, SEB and Swedbank as per 16 May 2025. The right chart refers to Handelsbanken, SEB and Swedbank and shows 1-week volume-weighted rolling averages of the liquidity measure LCR in total and in significant currencies.

Source: The Riksbank.

#### The major Swedish banks are well-placed to meet the uncertainty

The major Swedish banks have good profitability, with high net interest incomes and low credit losses (see chart 19). The fact that net interest incomes continue to be high is partly because the banks have lowered their deposit rates faster than they have lowered lending rates. The major Swedish banks also have a good margin to the requirements for capital and liquidity, and thus good possibilities for handling any consequences, should uncertainty increase.

Chart 19. Financial result and loan loss level for the major Swedish banks SEK billion, per cent



Note. Data in the chart to the left refers to Handelsbanken, SEB and Swedbank. The chart to the right shows loan loss provisions as a percentage of lending to the general public. Both charts show figures for rolling 4 quarters.

Sources: Interim bank reports.

### Lower liquidity ratios for consumer credit banks but above requirement

Swedish consumer credit banks generally need to obtain funding through more deposits than the major banks do. For some of them, loans are largely channelled through digital deposit platforms. The Riksbank's previous analyses have shown that such deposits tend to be flightier than traditional deposits. In autumn 2024, Finansinspektionen also clarified that deposits from digital platforms are to be regarded as more flighty than ordinary deposits in the regulatory framework for liquidity. This means that a bank that has deposits from a digital platform needs more liquid assets to ensure that the level of the liquidity measures net stable funding requirement (NSFR) and liquidity coverage ratio (LCR) does not fall. Consumer credit banks use deposit platforms to different extents and have also adapted to the new regulatory interpretation in different ways. On an aggregated level, liquidity measures have fallen slightly but they are still above the requirements (see chart 20).

The consumer credit banks incur higher loan losses and have lower profitability than the major banks. However, this differs across consumer credit banks, and their margins for capital adequacy and liquidity requirements also vary in size. In addition, there are consumer credit banks with close links to risky sectors such as the commercial property sector. If problems were to arise in an individual consumer credit bank,

<sup>&</sup>lt;sup>36</sup> See "FACT BOX – Saving via platforms", *Financial Stability Report*, 2024:1, Sveriges Riksbank.

<sup>&</sup>lt;sup>37</sup> See Finansinspektionen's legal opinion, September 2024. <u>2024:2 Inlåning genom digitala inlåningsplatt-formar</u> [Deposits via digital deposit platforms]

this would not necessarily pose a problem for financial stability, but it could affect confidence in the sector.

Per cent

300
250
200
150
100
50
LCR

NSFR

Third quarter 2024
Fourth quarter 2024
First quarter 2025

Chart 20. The liquidity ratios of consumer credit banks

Note. The consumer credit banks in the sample include Avida Finans, ICA Banken, Ikano Bank, Marginalen Bank, MedMera Bank, NOBA Bank Group, Norion Bank, Northmill Bank, Qliro, Resurs Bank, Svea Bank and TF Bank.

Source: The Riksbank.

# FACT BOX – Concentrated and leveraged foreign holdings in the banks' covered bonds

The covered bond market is important for the banks' financing and liquidity and therefore plays a significant role in the financial system. In December 2024, the outstanding volume in Swedish kronor was around SEK 2,000 billion, which corresponds to approximately 30 per cent of GDP. Since 2021, foreign investors have increased their holdings in covered bonds issued in Swedish kronor from 12 to 21 per cent, which corresponds to an increase of about SEK 185 billion.<sup>38</sup>

Generally, the business model of foreign investors when they buy Swedish covered bonds is to earn a return in the form of the risk premium and through the increase in value that arises from holding the covered bond over time. They largely finance their holdings in covered bonds via repos, short-term loans with which the investor borrows money to buy an asset that is simultaneously provided as collateral for the loan. It is clear that the foreign holdings of covered bonds correlate with the banks' outstanding reverse repos (see chart 21, to the left).<sup>39</sup> This picture is confirmed by the

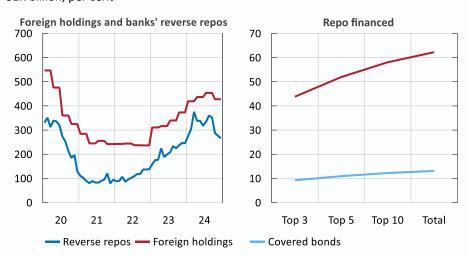
<sup>&</sup>lt;sup>38</sup> The distribution of total holdings can be seen in chart 19 in FSR 2024:2.

<sup>&</sup>lt;sup>39</sup> In this fact box, the counterparty of a foreign investor's repo is a bank. On the bank's balance sheet, these transactions are defined as reverse repurchase agreements, in short 'reverse repos'.

Riksbank's discussions with market actors.<sup>40</sup> This becomes a way for foreign investors to access the covered bond market in Swedish kronor, without needing a balance sheet in Swedish kronor or increasing their currency risk. For the banks, it increases the number of investors who can buy their covered bonds, making the banks' funding more liquid.<sup>41</sup>

The foreign investors consist largely of Danish hedge funds.<sup>42</sup> If we assume that all collateral in the banks' reverse repos against foreign investors in Swedish kronor consists of covered bonds, just over 40 per cent of the holding is concentrated to only three counterparties (see chart 21, right). This also means that about 60 percent of foreign ownership is financed by loans. In turn, this corresponds to about 13 per cent of the total outstanding volume of covered bonds in Swedish kronor.

Chart 21. Leveraged and concentrated foreign holdings of covered bonds SEK billion, per cent



Note. Foreign holdings, reverse repos and covered bonds refer to volumes in Swedish kronor. Data on reverse repos shows only loans in Swedish banks and their foreign branches, which means that loans from foreign banks and their Swedish branches are not included. Top 3 to total refers to the cumulative share of the largest foreign investors in each series.

Source: The Riksbank.

During periods of high uncertainty or financial stress, foreign investors have been shown to be flighty. This happened both during the global financial crisis and at the beginning of the coronavirus pandemic, when foreign investors sharply reduced their holdings of Swedish covered bonds. If there are large and rapid sales of covered bonds, the banks may need to buy them, for example as market makers. However, this requires that the banks have are willing and able to absorb a large volume of covered bonds in a short period of time. In a worst-case scenario, such a sequence of

<sup>&</sup>lt;sup>40</sup> The foreign holding is calculated as the difference between total and Swedish holdings in covered bonds in Swedish kronor from the VINN database and therefore includes limited details. The KRITA database contains microdata on Swedish banks' loans and their counterparties, and the amount of reverse repos can be observed here. By combining the databases, it is possible to get a better overview of the foreign actors.

 $<sup>^{41}</sup>$  The bank receives the covered bonds as collateral through the repo and these are classified as a high-quality liquid asset (HQLA). The bank may therefore include the covered bonds in its liquidity portfolio in order to meet the liquidity coverage ratio (LCR) requirement.

<sup>&</sup>lt;sup>42</sup> Data refer to year-end 2024 and refer to reverse repos against foreign investors in Swedish kronor.

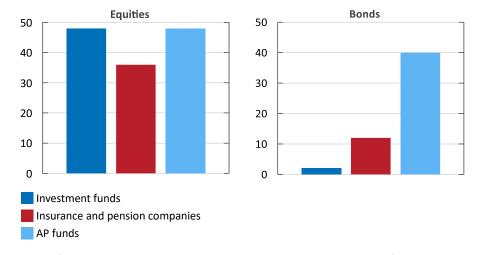
events could impair both the functioning of the covered bond market and the liquidity and funding position of the banks. The fact that foreign ownership is also concentrated to a small number of counterparties with strong similarities reinforces this risk.

# 4.2 Market turbulence is increasing the risks in the nonbanking sector

## Swedish non-banks have large dollar assets

Swedish investment funds, national pension (AP) funds and insurance and pension companies have a large proportion of equities in their asset portfolios, which may make them sensitive to price falls in the stock market. A large proportion of the shareholding is in US equities. At the end of 2024, investment funds, and the collective of AP funds, had about half of their total shareholdings in dollars. Insurance and pension companies had slightly more than a third of their shareholdings in dollars (see chart 22). The Swedish non-banking sector's total holdings of US dollar equities and bonds amounted to just over SEK 4,300 billion. Typically, the Swedish funds' foreign holdings in equities or bonds are not hedged. The AP funds and insurance and pension companies usually hedge all or large parts of their foreign bond holdings, but only a smaller part of their foreign equity holdings.

Chart 22. Swedish non-banks' holdings of equities and bonds in dollars Per cent



Note. Refers to 31 December 2024. At the time, the total nominal value of the shareholdings in USD was SEK 3,869 billion and that of the bond holdings was SEK 417 billion.

Sources: Statistics Sweden and the Riksbank.

Sharp price falls on the stock market can cause wealth losses, for example for unit holders in equity funds (see Chapter 3 "Household and corporate sector"). These could be relatively large losses but would not necessarily pose problems for financial stability. Stock markets are normally very liquid, even under stress, and the largest types of Swedish non-banks do not use leverage to any great extent.<sup>43</sup>

# Fund unit holders have reduced their holdings in funds with North American exposure

Since the beginning of the year, unitholders in Swedish equity funds have been redeeming capital from North America funds and certain other types of funds that invest heavily in the United States, such as technology funds. At the beginning of the year, capital was instead invested in funds that invests mainly in Sweden and Europe funds, for example, which then received large net inflows. Subsequently, flows have returned to more normal levels compared to recent years (see chart 23). At its peak, outflows from North America funds accounted for just over 4–5 per cent of the assets of these funds. Inflows to Sweden funds corresponded at most to just over 1–2 per cent of fund assets.

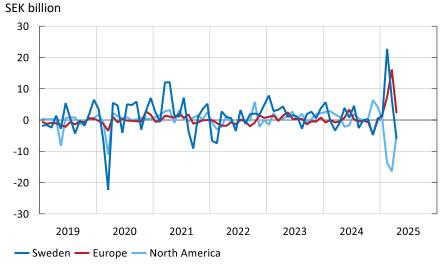
The rotation away from US equities and dollar exposure is not just a Swedish phenomenon, but part of a larger global trend that basically involves an increased demand for currencies other than the dollar.<sup>44</sup> Recently, many currencies, including the Swedish krona, have also strengthened considerably against the US dollar. It is likely that a decline in interest in US assets is at least partly behind this development. This, in turn, may have implications for asset managers' currency hedging strategies, which may also affect exchange rates. In the case of the krona, this may involve, for example, Swedish insurance and pension companies and AP funds choosing to reduce their currency hedging as a result of a fall in the price of foreign assets or increasing their hedging ratio to reduce their currency risk in the future.<sup>45</sup>

<sup>&</sup>lt;sup>43</sup> For example, during the 1929 stock market crash, many investors had taken on debt to buy equities. See for example K.J. Borowiecki et al. (2023), "The great margin call: The role of leverage in the 1929 Wall Street crash", *The Economic History Review*, 76(3).

<sup>&</sup>lt;sup>44</sup> See, for example, Bank of America's Global Fund Manager Surveys for April and May 2025.

 $<sup>^{45}</sup>$  Increased hedging of existing foreign holdings could lead to a strengthening of the krona, depending on how this is done.

Chart 23. Net fund flows to different categories of Swedish equity funds



Note. The categories refer to the region in which the Swedish equity funds, including the premium pension system, invest. Net fund flows are the difference between sales and redemptions from unit holders in the funds.

Source: Swedish Investment Fund Association.

# Largest outflows from corporate bond funds since the coronavirus pandemic

Net inflows into Swedish corporate bond funds continued in early 2025, which has also pushed the fund wealth of these funds to new record levels. But in April, unitholders redeemed capital instead. This net outflow was the largest in a single month since the outbreak of the coronavirus pandemic (see chart 24). The outflows have mainly been from corporate bond funds that invest mainly in bonds with lower credit ratings (high yield).

SEK billion 250 25.0 200 12.5 150 0.0 100 -12.5 50 -25.0 2018 2020 2022 2024 2026 Fund wealth (left axis)
 Net fund flows (right axis)

Chart 24. Net fund flows and fund wealth in Swedish corporate bond funds

Note. Including the premium pension scheme. Net flows are the difference between deposits and redemptions from fund unit holders.

Source: The Swedish Investment Fund Association.

The net inflows to corporate bond funds for an extended period of time before the market turmoil erupted has benefited companies' ability to obtain funding. For example, the funds have continuously been able to be major buyers of companies' newly issued bonds, which has facilitated companies' refinancing and reduced their funding costs. 46 However, the funds are at risk of large and sudden redemptions, especially in an uncertain market environment, as evidenced by the outflow in April 2025. The important role of the funds in financing companies may thus also make the companies more vulnerable if redemptions from the funds lead to higher funding costs for the companies or difficulties in refinancing maturities at all. However, there is scope to strengthen the resilience of corporate bond funds in some respects going forward. See the fact box "New rules aim to make funds more resilient".

<sup>&</sup>lt;sup>46</sup> See also *Financial Stability Report*, 2024:2, Sveriges Riksbank.

## FACT BOX – New rules aim to make funds more resilient

In March 2024, the European Parliament and the Council decided on amendments to the two main directives governing fund legislation, namely the UCITS Directive and the AIFM Directive.<sup>47</sup> The amendments aim partly to provide fund managers with effective tools to counteract liquidity-driven divestments arising, for example, as a result of the market turmoil at the beginning of the coronavirus pandemic, thereby reducing financial stability risks and strengthening investor protection. They also aim to further harmonise fund regulations within the EU.

A central part of the amended directives are rules on liquidity tools. Since 2023, Swedish funds have had the opportunity to use a variant of so-called swing pricing. Swedish funds have also had the opportunity to temporarily postpone subscription and redemption of trust units. For example, several corporate bond funds did so during the outbreak of the coronavirus pandemic because the fund unit value could not be reliably calculated in the prevailing environment. In addition, Swedish mutual funds have had relatively few tools to choose from. However, with the amended directives, new and harmonised tools will become available, and it will be mandatory for the funds to choose a certain number of them. This may therefore help strengthen the resilience of Swedish corporate bond funds, for example.

A government enquiry has been tasked with analysing and making proposals on how the Swedish rules should be designed.<sup>48</sup> The inquiry shall also propose measures to strengthen the competitiveness of the Swedish fund market, including rules on funds under company law, as well as reviewing the rules on redemption rates and notice periods. The issue of notice periods has the potential to strengthen resilience among funds that invest in less liquid assets, such as Swedish corporate bond funds. However, it relies on the fact that the distribution platforms ('fund platforms') technically also enable funds to use notice periods towards their unitholders. The enquiry's final report is due in November 2025. An interim report was presented in May 2025.<sup>49</sup>

<sup>&</sup>lt;sup>47</sup> UCITS stands for Undertaking for Collective Investment in Transferable Securities and AIFM stands for Alternative Investment Funds Manager. In Sweden, the directives are implemented through the Investment Funds Act (2004:46) and the Alternative Investment Fund Managers Act (2013:561).

<sup>&</sup>lt;sup>48</sup> See Committee terms of reference Ett moderniserat regelverk för att stärka konkurrenskraften och motståndskraften på svensk fondmarknad [A modernised regulatory framework to strengthen the competitiveness and resilience of the Swedish fund market], Dir. 2023:163, and Tilläggsdirektiv till Fondmarknadsutredningen [Additional directives to the Swedish fund market inquiry (Fi 2023:13), Dir 2025:45.

<sup>&</sup>lt;sup>49</sup> SOU 2025:60 En starkare fondmarknad [A stronger fund market].

## Private credit is a growing risk factor

Private credit is not a well-defined concept. Sometimes it is narrowly described as lending from investment funds to private equity-sponsored activities, and sometimes broadly as all lending to the real sector from the non-banking sector. A large proportion of private credit loans globally are de facto linked to private equity, but not all. Generally, lending outside the banking sector has grown sharply in recent years, particularly in the United States. In Sweden, lending via Swedish private credit operators has not grown as fast. Some Swedish private equity portfolio companies obtain funding via private credit, but then mainly from abroad. Sweden has a large private equity sector, which could mean faster growth of private credit also in Sweden in the future. St

Many central banks and other international actors have highlighted the risks of the private credit development.<sup>52</sup> The lack of transparency and openness in this type of lending is one factor. The valuations of the loan portfolios are uncertain as they are typically not very liquid and there is also a lack of transparency regarding credit quality and loan terms. In order not to lose market share, banks globally have tended to want to keep up with this growing form of lending, either by providing loans directly to private credit providers or through their own private credit funds. In the long term, the resilience of the financial system may decrease as a result of these developments, as private credit does not comply with the same strict regulatory framework as the banking sector.

However, private credit not only entails increased risks but can also have some advantages as a form of lending. In particular, it may facilitate the access of small and medium-sized enterprises to loans, especially those which may have difficulties obtaining a bank loan. More sources of funding mean that the credit risk is distributed among more lenders. This means that the financial system can have better opportunities to handle loan losses, compared to if all loans had been with the banks. In addition, these types of debt have a long maturity, and lending takes place with locked-in capital from investors, which is good from a risk perspective.

# 4.3 Central counterparties have performed well during the spring market turbulence

#### Increased volatility leads to higher intraday margin calls

Central counterparties (CCPs) play an important role in financial markets and reduce counterparty risks between market participants. However, they can also increase the risk of liquidity problems for participants in the event of severe market turbulence in

<sup>&</sup>lt;sup>50</sup> See *Global Financial Stability Report*, April 2024, International Monetary Fund.

<sup>&</sup>lt;sup>51</sup> For a deeper analysis of the Swedish private equity market, see M. Andersson, A. Kärna and S. Myers (2025), "Private equity in Sweden: a financial stability perspective", *Staff Memo*, February, Sveriges Rikshank

<sup>&</sup>lt;sup>52</sup> See, for example, *EU Non-bank Financial Intermediation Risk Monitor ("NBFI Monitor")*, June 2024, European Systemic Risk Board; *Global Financial Stability Report*, April 2025, International Monetary Fund; and *Financial Stability Report*, April 2025, Federal Reserve.

the markets cleared by CCPs. As volatility increases, they may be forced to require additional collateral from their members at short notice to cover increased risk exposures, known as intraday margin calls. <sup>53</sup> Margin requirements include initial margin, which is collateral that a member needs to provide to cover future losses that may arise if the member defaults and variation margin, which is collateral to cover losses due to a change in the market value of a position. <sup>54</sup> The amount of margin collateral that a CCP needs to collect from its members is procyclical under certain conditions, i.e. the requirements are positively correlated with market volatility. This may affect members' need for liquidity and further exacerbate market stress.

As a result of the market turbulence that occurred in early April, intraday margin calls for the members in the Swedish central counterparty Nasdaq Clearing increased (see chart 25). However, the margin requirements in the form of initial margins decreased during the same period. This suggests that the increase in intraday margin calls was driven by an increase in variation margins. The size of the intraday margin calls was in line with those observed during the market turbulence in spring 2020 and the bank turbulence in spring 2023. Market participants managed to meet the increased requirements and Nasdaq Clearing's system worked well despite the turbulence. Similar patterns for intraday margin calls have been observed for LCH and Cboe Clear Europe, which are two other important CCPs for the Swedish market.

Chart 25. Initial margin requirements and intraday margin calls for Nasdaq Clearing's members
SEK billion



Note. The chart shows the aggregate initial margin requirements and intraday margin calls of Nasdaq Clearing's members in the financial clearing.

Source: Nasdag Clearing.

<sup>&</sup>lt;sup>53</sup> See *Financial Stability Report*, 2022:1 Sveriges Riksbank. See also "Fact Box - What does it entail to be a participant in a CCP?" in *Financial Stability Report*, 2022:2, Sveriges Riksbank.

<sup>&</sup>lt;sup>54</sup> See A. Blanck (2025), "The role of margin collateral in centrally cleared derivatives markets", *Staff memo*, May, Sveriges Riksbank.

# The financial infrastructure works well but has interconnections that make it vulnerable

Financial agents and various infrastructure systems are closely linked. A disruption in one system can therefore rapidly affect other parts of the infrastructure. One example is the disruption that occurred on the Eurosystem's Target Service platform in February, which lasted up to eight hours. The disruption affected the ability of both Swedish banks and financial infrastructure to make payments in euros. In addition, the Riksbank's own settlement system RIX-RTGS has been affected by disruptions. Although these were mainly due to internal problems, the system was partly affected by an incident in the SWIFT network. See Swish is also dependent on several systems. Swish's own system has been affected by both internal disruptions and external denial-of-service attacks, and in addition, individual banks' disruptions have affected their customers' ability to pay by Swish (see chart 26, right). In addition to the RIX-RTGS disruptions and disruptions linked to instant payments, the availability of infrastructure systems has generally been good, and the disruptions that have occurred have not had any significant impact on financial stability (see chart 26, left).

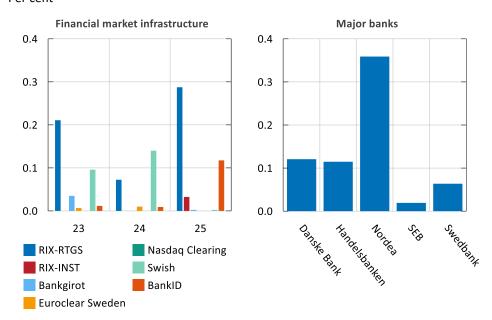
<sup>&</sup>lt;sup>55</sup> The platform includes T2, T2S and TIPS on which the settlement of large payments, securities transactions and instant payments is carried out.

<sup>&</sup>lt;sup>56</sup> SWIFT (Society for Worldwide Interbank Financial Telecommunication) provides the global payment messaging infrastructure.

<sup>&</sup>lt;sup>57</sup> For a Swish payment to be carried out, several systems must be available, Getswish's own systems, Financial ID technology's BankID service and the banks' systems. Settlement takes place in the Riksbank's RIX-INST service, which in turn is dependent on the Eurosystem's technical platform for instant payments, TIPS.

Chart 26. Disruption of the financial infrastructure systems and the banks' disruption of Swish payments

Per cent



Note. Disruption refers to the percentage of total availability. O per cent means full availability. 0.2 per cent means approximately five hours of interruption during one year. For Swish, BankID, RIX-INST and the banks, 0.2 per cent refers to 17.5 hours since the services are available 24/7. RIX-INST was launched in 2024. 2025 refers to the period January-April. The right-hand chart shows disruptions between April 2024 and May 2025. Disruption time means that a system is completely unavailable and does not include disruptions where some of the transactions are still being processed.

Sources: Bankgirot, Euroclear Sweden, Financial ID Technology, Getswish, Nasdaq Clearing and the Riksbank.

## Several important changes in the payment infrastructure

Several projects are under way to ensure that the financial infrastructure remains stable and meets the needs of both society and banks. All these are important to achieve better resilience. For example, Bankgirot is developing together with the participating banks a new solution for mass payments that is intended to come into use in 2026. In addition, the Swedish securities market is being harmonised with international standards to enable a transition to the Eurosystem's technical platform for securities settlement, T2S. Another important change is RIX-RTGS's transition to the ISO 20022 messaging standard in May. This makes it easier for participants to share more detailed information, which, among other things, strengthens the work against money laundering. Finally, the European Commission has proposed a shorter settlement time for securities transactions in the EU (see the fact box "Faster settlement for securities transactions").

In addition to these projects, it is also important that financial agents strive for a high level of cyber security. During the spring, the availability of Swish and BankID has been affected by denial-of-service attacks. Although the financial infrastructure systems have generally shown high resilience to denial-of-service attacks, the attacks are

increasing in number and becoming more widespread. The requirements imposed on financial agents by the DORA regulation are expected to help strengthen the system's resilience to cyber risks. In Sweden, instant payments are an alternative to card payments that rely on foreign payment infrastructures. For example, Visa and Mastercard, as well as payment apps such as Apple Pay, Samsung Pay and Google Pay, are owned by non-EU operators. In an uncertain world and a changing security environment, it is important to be able to rely on high availability in all types of payments.

## FACT BOX – Faster settlement of securities transactions

In a securities transaction, the security is transferred from the seller to the buyer, while the payment is made in the opposite direction. The stage at which the transaction is finalised is called settlement and the time between the buyer and seller entering into a transaction until the security and payment have changed hands is called settlement time.

The European Commission has now proposed that the settlement of securities transactions within the EU be completed one bank day after the trading day (T+1), instead of two days (T+2), which is the standard today. The goal is to implement this throughout the EU by the end of October 2027. The UK and Switzerland have decided to move to a shorter settlement cycle at the same time as the EU. The US, Canada and Mexico already did so in spring 2024.

Shorter settlement times will reduce counterparty risks, allow capital to be used more efficiently and harmonise the European market with global standards. A transition within the EU is seen as necessary to both reduce risks and strengthen the EU's competitiveness in global financial markets. At the same time, shorter settlement times place higher demands on market participants to have efficient and automated processes, which may require them to make significant investments in IT systems. At the beginning of the transition period, market participants may also face greater operational challenges in correcting errors. Moreover, the transition within the EU may be more complex compared to, for example, the US, as the EU financial infrastructure is more fragmented.

The transition means that legislation and regulatory frameworks will also need to be revised. The Swedish financial market is well integrated with the rest of the EU, and a smooth transition without disruptions requires close cooperation with European agents. Swedish authorities and market participants are already actively working to ensure that the infrastructure and regulatory frameworks are adapted in line with the EU timetable.

# ARTICLE – Banks need to have more active liquidity management

Banks need to adapt to an environment where central bank liquidity decreases as the Riksbank reduces its asset holdings. This places greater demands on banks to redistribute liquidity more efficiently among themselves. However, the banks that are the Riksbank's monetary policy counterparties choose to hold a liquidity buffer in the form of central bank reserves instead of placing all the liquidity surplus in certificates or using the overnight market. Many of them have also never participated in the overnight market. This suggests that banks have insufficient incentives to redistribute liquidity in the overnight market and that there may be frictions affecting banks' liquidity management. It is important for interestrate management that the banks utilise the overnight market and use the Riksbank's instruments for liquidity provision as intended. Banks should also feel free to use the Riksbank's standing facilities - they are there to be used when needed.

# Banks' liquidity management is too passive

# The operational framework should contribute to effective liquidity management

The Riksbank's operational framework for the implementation of monetary policy is based on steering the short-term market rate towards the policy rate. To do so, the Riksbank mainly uses standing facilities and various types of market operations.

The Riksbank conducts weekly market operations at the policy rate. When the banking system has a structural liquidity surplus, the banks that are monetary policy counterparties can place central bank liquidity in reserves and certificates. <sup>58</sup> If banks do not place all the liquidity surplus in certificates, a surplus of reserves remains. If the banking system instead has a structural deficit, the Riksbank provides reserves via monetary policy repos or lending against collateral. The aim is to balance the liquidity position of the banking system so that reserves are close to zero during the term of the certificate or repo, and to signal the level of interest rates that should be established in the short-term market in Swedish krona.

<sup>&</sup>lt;sup>58</sup> Reserves are the banks' money placed as overnight deposits at the Riksbank (account-held means of payment), and certificates are the Riksbank's issued transferable securities, normally with a term of one week, which can be converted into reserves. Central bank liquidity surplus refers to total reserves and certificates. For more information, see <u>Counterparties | Sveriges Riksbank</u> and <u>The Riksbank's monetary policy operational framework - overall description</u>.

The Riksbank's standing facilities allow banks to place or borrow an unlimited amount of reserves with an overnight maturity at a deposit rate 10 basis points below the policy rate or a lending rate 10 basis points above. <sup>59</sup> The difference between the deposit and lending rate is known as the interest-rate corridor.

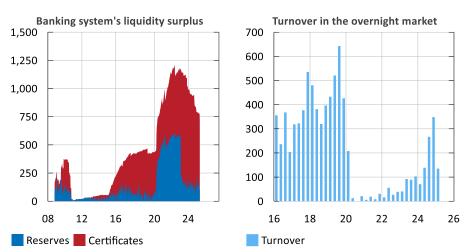
The idea is that the interest-rate corridor will create incentives for banks to balance surpluses or deficits among themselves as far as possible in the overnight market, as they can offer each other more attractive interest rates. The interest-rate corridor should therefore be wide enough to incentivise banks to borrow from each other in the overnight market. In this way, the overnight rate can end up close to the decided level of the policy rate at the centre of the corridor. If the overnight rate fulfils its function as an anchor for longer-term interest rates, the level of the policy rate propagates through the economy.

### Incentives for market-based liquidity management are too weak

Between 2015 and 2022, the Riksbank injected large amounts of liquidity into the banking system.<sup>60</sup> This means that the banking system has had a structural liquidity surplus vis-à-vis the Riksbank for some time (see chart 27, left).

Chart 27. The banking system's liquidity surplus and overnight money market activity





Note. Turnover in the overnight market refers to volumes of unsecured overnight loans in Swedish kronor between monetary policy counterparties.

Source: The Riksbank.

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<sup>&</sup>lt;sup>59</sup> In practice, monetary policy counterparties' surpluses in the RIX system are automatically converted into placements in the deposit facility at the end of the day, while an end-of-day deficit is interpreted as a request to borrow in the standing lending facility. Reserves are borrowed against eligible collateral.

<sup>&</sup>lt;sup>60</sup> This took place partly through the Riksbank's purchases of Swedish securities, which was a complementary monetary policy measure known as quantitative easing (QE), and partly as a result of the Riksbank self-financing its foreign exchange reserves with Swedish kronor since January 2021. Both of these have been financed by the Riksbank borrowing Swedish kronor from the banks.

Over the same period, the number of monetary policy counterparties increased from 15 to 29 banks. The increase has mainly consisted of smaller banks. This means that most counterparties have only been counterparties when the system has had structural liquidity surplus. Since 2020, 14 of them have never participated in the overnight market. In addition, 9 counterparties currently have no collateral with the Riksbank, and 14 counterparties have never borrowed in the Riksbank's lending facility. This means that these banks do not have active liquidity management but only place in the Riksbank in the form of certificates and reserves.

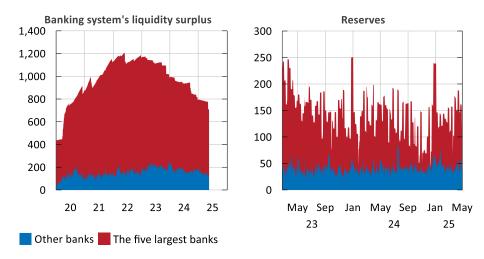
Banks' demand for certificates and reserves has fluctuated over the period (see chart 27, left). Between 2015 and 2019, the banking sector had between 1 and 175 billion in reserves. During the coronavirus pandemic, the Riksbank limited the volume of certificates offered, forcing banks to increase their placements in reserves. At that point, overnight market activity also declined rapidly (see chart 27, right). Since 2023, banks have once again been able to place all the structural liquidity surplus in certificates. Yet the reserves still amount to between 50 and 250 billion. While activity in the overnight market has increased slightly since 2023, it remains low. The amount of available reserves thus affects banks' need to utilise the overnight market.

So banks choose to hold a liquidity buffer in the form of central bank reserves instead of also placing these in certificates and obtaining a higher interest rate or using the overnight market, as intended.

### The liquidity surplus is unevenly distributed among banks

The five largest banks hold around 80 per cent of the banking system's current liquidity surplus (see chart 28, left). The Riksbank is now reducing the structural liquidity surplus through quantitative tightening (QT), where the Riksbank sells securities or allows them to mature. So far, liquidity has declined mainly for the five largest banks, while it has remained broadly unchanged for the other banks (see chart 28, left and right). This indicates that the smaller banks are passive in terms of both the choice between placing in certificates or reserves and participating in the overnight market. Therefore, it is mainly the liquidity management of the five largest banks that determines activity in the overnight market. However, as the liquidity surplus in the banking system diminishes, there will be greater demands on all banks, large and small, to be active and contribute to effective redistribution of reserves.

Chart 28. The liquidity surplus and reserves distributed among banks
SEK billion



Note. The banking system's liquidity surplus vis-à-vis the Riksbank is the sum of reserves and certificates. The five largest banks are also the five largest monetary policy counterparties.

Source: The Riksbank.

# Why do banks choose to hold central bank reserves?

If a bank were to experience a sudden liquidity deficit, it could borrow reserves from other banks in the overnight market. It can also use eligible collateral, including Riksbank certificates, to borrow reserves in the Riksbank's standing overnight lending facility. If the bank has certificates, it can also sell them back to the Riksbank to convert the certificates into reserves. <sup>61</sup> However, banks largely opt out of these options and instead hold reserves as buffers. This suggests that the incentives for market-based liquidity management are either too weak, that there are frictions in banks' daily liquidity management, or that both these factors are in play. This may be due to a number of reasons.

### Opportunity cost may be too low

Banks' retention of a surplus of reserves may be due to the fact that the opportunity cost - in the form of the interest-rate corridor - is too low, i.e. the cost of 10 basis points that a bank incurs by placing central bank liquidity as reserves compared with placing it in certificates. If it is too small, it does not contribute to an effective redistribution of liquidity.

### Some banks are reluctant to use the Riksbank's lending facility

There are a number of banks that state that they do not want to use the Riksbank's standing lending facility or sell back certificates because they are concerned that

<sup>&</sup>lt;sup>61</sup> When certificates are resold to the Riksbank, the bank receives the reserves on the next bank day. If, on the other hand, the bank uses the certificates as collateral for loans in the standing lending facility, it receives the reserves on the same day.

other banks will perceive this as a sign of weakness. This in turn affects banks' willingness to lend reserves in the overnight market, as they do not want to risk running a deficit.

## Operational capacity of several banks is lacking

Several banks lack the operational capacity to participate actively in the overnight market and to use the Riksbank's monetary policy instruments. For these banks, it may be rational to hold reserves at the Riksbank. But if an individual bank hoards reserves, it creates problems for the system as a whole because the reserves are then not distributed efficiently to the banks that need them at the time. This in turn can lead to undesirable volatility in interest-rate setting in short-term markets. By improving their operational capabilities, banks can help prevent volatility in short-term market rates.

# Banks need to contribute to efficient liquidity redistribution and interest-rate setting in the overnight market

Banks that are monetary policy counterparties need to adapt to an environment of reduced structural liquidity surplus by taking an active part in efficient and market-oriented liquidity management. Banks should endeavour to manage their liquidity balancing among themselves, but it is essential that they, if necessary and to maintain market functioning, should be able to use the Riksbank's lending facility unhindered to obtain reserves. This is how the operating framework is meant to work, and it should not be constrained by stigma.

The liquidity surplus will still be significant after the end of quantitative tightening. However, this does not mean that all banks have access to the amount of reserves they need for their daily liquidity management. Banks therefore need to have the expertise and infrastructure, including limits vis-a-vis other banks, to be able to borrow and lend reserves in the overnight market.

As monetary policy counterparties, the banks need to be able to pledge collateral and borrow reserves from the Riksbank, and release reserves by selling certificates back to the Riksbank. Here, the Riksbank can require them to participate in test transactions to regularly test and ensure that they are able to do provide collateral and borrow reserves from the Riksbank.<sup>62</sup> The Riksbank can also promote activity in the overnight market by ensuring that the opportunity cost of money is sufficiently high.

<sup>&</sup>lt;sup>62</sup> In its consultation "<u>Transitioning to repo led operating framework</u>", the Bank of England emphasises that requiring its counterparties to participate in regular test transactions is an important tool to ensure the operational capacity of counterparties to use its facilities.



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