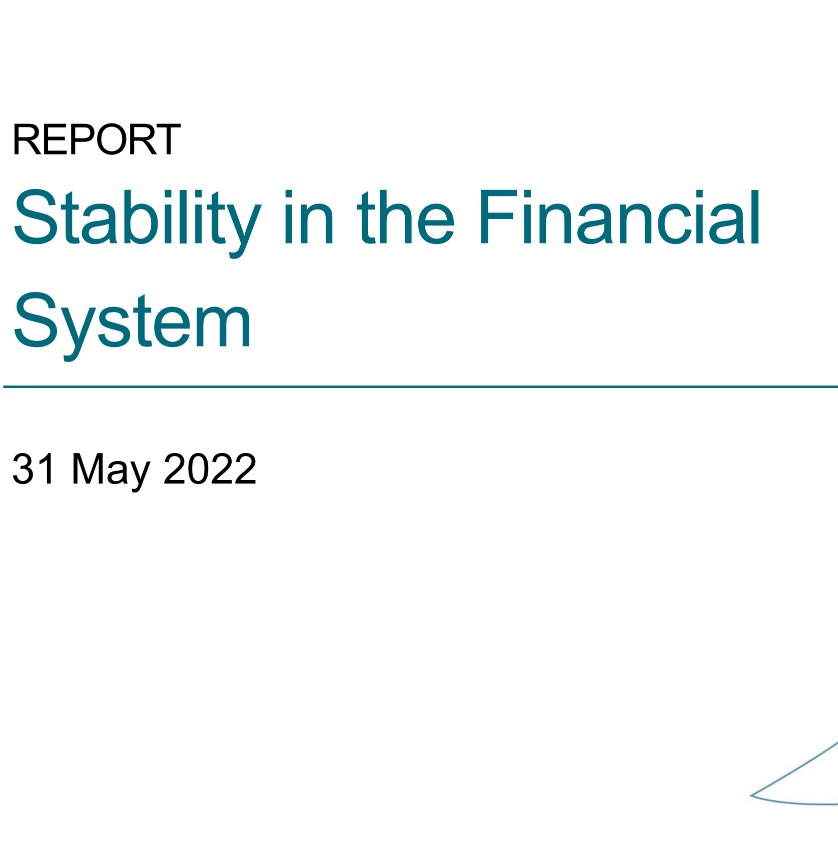
REPORT

Stability in the Financial System



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Stability assessment

In 2021 and at the start of 2022, global inflation increased sharply. Russia's invasion of Ukraine caused widespread human suffering. From a financial perspective, this further exacerbates inflation and contributes to the slow-down in global economic growth this year. The uncertainty resulting from the pandemic has declined significantly. Many countries no longer consider the pandemic to be a threat to society and have therefore lifted restrictions. However, the new and continued lockdowns in China are affecting logistics chains and thus also inflationary pressure. The high inflation has meant higher interest rates and rapidly rising interest rate expectations. How inflation and interest rates develop will have a major impact on financial stability.

In the short term, the transition to higher interest rates will lead to elevated uncertainty and greater risks. An extended period of very low interest rates has resulted in high risk-taking, which is evident in part in rapidly rising debt and high prices for housing, real estate and financial assets. Greater uncertainty in the valuation of assets has already resulted in sharp downturns on equity markets. Large and rapid falls in asset prices can have a negative impact on financial stability, but, in the long term, rising interest rates that lead to more normalised interest rates can also contribute to a decrease in risk-taking among households, firms and in the financial system. Higher interest rates mean higher financing costs and higher risk premiums, which normally results in a more restrictive valuation of assets and lower asset prices. Borrowing also becomes more expensive, which can slow debt growth. Therefore, the current developments could lead to a decrease in the risks posed to financial stability in the long term.

One sector that is particularly vulnerable to higher interest rates is the commercial real estate sector. In this sector, higher interest rates mean both impaired profitability from higher financing costs and potentially weaker balance sheets due to lower real estate prices. The large debts in the commercial real estate sector mean that both the banking system and other parts of the financial system are highly exposed to the sector. Finansinspektionen (FI) has previously highlighted the risks the commercial real estate sector poses to financial stability. These risks have further increased through the combination of continued growth in debt and higher credit risk premiums on the bond market.

Even households have taken large loans that make them sensitive to higher interest rates. For households with large debt and small margins, the effect of higher interest rates can be significant. FI still makes the assessment that household debt is a macroeconomic risk rather than a risk to financial stability.

Central banks around the world are about to face difficult trade-offs in their monetary policy over the next few years. Inflation is high at the same time as

growth is slowing. Monetary policy can be tightened through both interest rate increases and reduced quantitative easing. FI has previously emphasised that long-term quantitative easing and holdings of securities can lead to stability risks by applying downward pressure on risk premiums, which leads to increased risk-taking and higher debt. Quantitative easing can also contribute to impaired liquidity on the bond market. FI therefore welcomes the start of the Riksbank's reduction in its securities holdings during the second half of the year.

Overall, the financial stability risks in the immediate future have increased. This demonstrates the importance of resilience among households and firms and within the financial system. FI aims to raise the countercyclical buffer rate in June to a neutral level of 2 per cent in order to further strengthen the banks' capital buffers. We are also continuing to work to improve how the corporate bond and fund markets function in order to mitigate risks and vulnerabilities in the presence of stressed market conditions. FI has also been given a more active role in strengthening the resilience of the financial sector to cyber attacks.

Risk-taking is high

The willingness to take on risk has decreased in 2022, which is evident in part by higher risk premiums. Despite this, FI continues to make the assessment that risk-taking on the financial markets is high. A prolonged period of low interest rates has meant that investors have taken greater risks to get a return. Drawn-out support measures related to the pandemic have driven up asset prices by lowering interest rates further and reducing risk premiums. Prices on both financial assets and real estate are high, even if share prices fell at the beginning of 2022.

Rising share prices have played a role in households' savings becoming more concentrated to shares and equity funds in recent years. The percentage of investments that life insurance undertakings and occupational pension undertakings are placing in shares also continued to rise. FI makes the assessment here that the investment risk has increased. Higher asset prices have led to the build-up of vulnerabilities. Rising interest rates and interest rate expectations can thus lead to substantial price corrections and large fluctuations in prices, particularly for assets associated with high risk and sensitivity to changes in the interest rate.

Rising debt leads to greater vulnerabilities

Non-financial corporations and households hold considerable debt. At the start of 2022, households' mortgages were growing at an increasing rate. It is clear that the sharp increase in housing prices has meant that households need to take increasingly larger mortgages. Within the commercial real estate sector, demand for both bank- and market-based financing continued to be high. Debt has increased in relation to real estate firms' revenue. These firms have thus become more sensitive to interest rate changes. FI makes the assessment that the high level

of debt has meant that households and firms are more vulnerable and sensitive to shocks.

The banks’ credit loss provisions and realised credit losses are still limited. FI makes the assessment that the banks’ resilience is satisfactory, as is their ability to issue credit even if market conditions were to deteriorate. In the long run, weaker growth and higher interest rates could lead to weaker profitability and larger credit losses for the banks. The banks’ large exposures to the commercial real estate sector mean growing vulnerability. This indicates that the banks will continue to need to have large capital buffers. FI is therefore planning to raise the countercyclical buffer rate in June to a neutral level of 2 per cent (see the fact box *FI intends to raise the countercyclical buffer rate to 2 per cent*).

Impaired liquidity on the bond markets

During the pandemic, bank deposits increased sharply, and deposit volumes are still higher than they were before the pandemic. This has reduced banks' dependence on market funding. At the same time, the banks’ costs for market funding have increased since the end of the year as inflation and interest rate expectations have risen. Overall, FI makes the assessment that the banks’ funding situation is somewhat more stressed than it was in the autumn, but that it continues to be stable.

Commercial real estate firms need to refinance parts of their debt on an ongoing basis. These firms have become increasingly dependent on the corporate bond market for both short-term and long-term financing. If risk-taking among investors decreases, it can become both more expensive and more difficult for these firms to finance themselves on the securities market, particularly for firms with lower credit ratings. This in turn can impact profitability in the sector and create problems for some firms.

The Swedish corporate bond market has demonstrated that it functions poorly during periods of elevated uncertainty and financial turbulence. During the spring of 2022, turnover on the secondary market decreased once again, and issued volumes have also fallen. FI therefore considers the refinancing risk for commercial real estate firms in particular to have increased.

At the end of 2021 and the beginning of 2022, liquidity on the markets for government bonds and covered bonds also declined, a development that can be attributed to several potential factors. One contributing factor is that there is less volume available for trading. This is in part due to the fact that the Riksbank now holds large parts of the outstanding volume. Poor market liquidity means greater vulnerability given stressed market conditions. The banks’ financing terms can also worsen as a result of poorly functioning markets.

Concentration and interconnectivity increase vulnerability in financial system

The financial system is characterised by not only concentration but also interconnectivity. *Concentration* refers to the provision of systemically important financial services by a few banks, infrastructure companies, and life insurance and occupational pension undertakings. Financial firms also share *interconnectivity* in, for example, financing, investments, and the exchange of systemically important services. Through potential spillover effects, this interconnectivity in the Swedish financial system makes it vulnerable.

Concentration risks can also arise through large exposures to individual sectors and counterparty risks. The commercial real estate sector represents a large share of the banks' lending to corporates in Sweden as well as a large share of the total lending on the Swedish corporate bond market. A higher share of market financing at the commercial real estate firms has decreased the concentration risks in the banking sector to the real estate sector. At the same time, though, concentration risks to the real estate sector have increased in other parts of the financial sector that invest in the commercial real estate firms' equity and bonds. FI therefore makes the assessment that the financial system's concentration to the commercial real estate sector is a clear vulnerability.

Another concentration that is increasing is the exposure of both households and insurance undertakings to the stock market. FI makes the assessment that life insurance undertakings and occupational pension undertakings have satisfactory buffers to handle even large falls in share prices without enhancing market fluctuations through large sell-offs. Household wealth can decrease sharply if share prices fall. This, in turn, could result in households wanting to increase their savings, thus reducing their consumption.

Risks and vulnerabilities associated with cyber attacks have increased over a long period of time. The number of attacks is rising, as is their scope. The risks have further escalated given the current security policy climate. The financial system provides fundamental social infrastructure that needs to be continuously available, and it is therefore an attractive target for cyber attacks. The high degree of the digitalisation of and interconnectivity within the financial system further increases the vulnerability to cyber attacks. It is therefore important to continue to strengthen the measures that prevent cyber attacks. In March, the government assigned FI the task of submitting a proposal for how to strengthen the financial sector's resilience to cyber attacks. FI has proposed, among other things, a substantial increase in the ambition level of its supervision of financial firms' cyber risks, allowing the Swedish National Defence Radio Establishment to assist financial firms, and accelerating the establishment of a national cyber security centre.

State of the economy

Central banks have now begun to tighten their monetary policy to slow the high inflation and rising inflation expectations. Interest rates are expected to continue to climb. Russia's invasion of Ukraine and subsequent sanctions are further driving inflation and slowing the economic recovery after the pandemic.

Interest rates rising quickly

The year started with a subsiding pandemic and growing concern for high and rising global inflation. In February, the economic conditions took a turn for the worse when Russia invaded Ukraine. The war and its subsequent sanctions are slowing the recovery after the pandemic and exacerbating the high inflation. Interest rate expectations and interest rates themselves have risen sharply since the start of the new year.

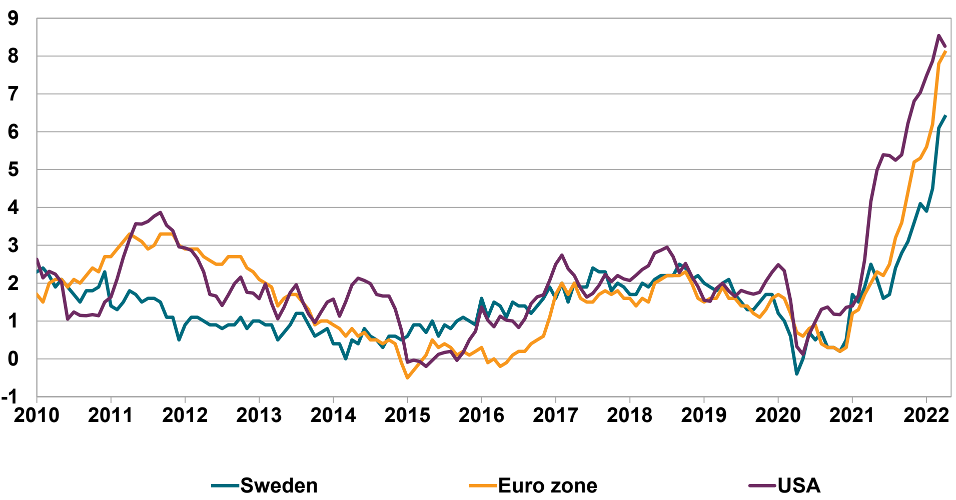
Inflation, and how it is being managed, therefore continues to be central for economic development and the financial markets (Diagram 1). Inflation expectations have risen since the start of the war, and central banks have begun to tighten their monetary policy and are expected to continue to implement measures along this line. Monetary policy will also need to be balanced between a clear need to combat high inflation and to take into consideration the economic impact of both the war and higher interest rates to avoid a situation with persistent high inflation and falling economic growth. In Europe, sharply rising energy prices are the primary driver behind inflation, and prices have continued to rise since the start of the war. In addition, prices on food and input goods have increased significantly. Logistics chains, which are already under pressure, may be subject to even more pressure as the access to the air space and ports are limited due to the invasion, which can also contribute to rising prices. Continued lockdowns in China to curb new outbreaks of the pandemic can also contribute to higher inflation and lower economic demand.

The possibility of using fiscal policy to support the economy is currently limited in several European countries since the extensive measures taken to combat the pandemic have been costly. Both Europe and the USA have ongoing economic recovery programs related to the pandemic that still require public funding. Large interest payments on public debt and higher defence expenses also reduce fiscal manoeuvrability.

The European financial sector has limited exposure to the countries involved in the war: Russia and Ukraine. European banks have largely cut their ties with business in Russia following the start of the war. The combination of rapid settlements and

impaired payment capacity of Russian counterparties will lead to credit losses, but these losses are not judged to be larger than what the European banks can manage.

1. High and rising inflation
Per cent



Source: Refinitiv Datastream.
Note: Refers to CPIF (Sweden), HICP (Euro zone) and CPI (USA), annual change.

Strong starting point for the Swedish economy

After a strong economic recover at the end of 2021, growth in the Swedish economic has now slowed as a result of high global inflation and rapidly rising interest rates.[1] Because it is less dependent on imported energy, the Swedish economy is less vulnerable to high energy prices than many other economies in Europe. However, the effects of the rising energy prices can be significant for individual households and firms. High energy prices in Europe can also have an indirect impact on the Swedish economy, for example through higher import prices, which also impacts inflation.

Households are less optimistic about their future finances. The high inflation means weaker real income developments for households. The aggregate real development in wages for households in 2022 is expected to be negative after a positive trend for many years. This can decrease both household consumption and savings.

The pandemic has not significantly weakened Sweden's public finances. Therefore, unlike in many other European countries, there is room to pursue expansive fiscal policy if needed. The Riksbank has begun to tighten its monetary policy with an

[1] The National Institute of Economic Research (31 March) makes the assessment that the impact of the invasion on the Swedish economic is relatively small and expects GDP to increase 3.3 per cent this year and 2.1 per cent in 2023.

initial increase in the repo rate. The Riksbank's current assessment will entail a gradual increase in the repo rate to 1.5 per cent at the end of 2023. The market is currently expecting a slightly faster rate of increase. The Riksbank is continuing at the same time with its quantitative easing, but at a lower rate so net holdings will gradually decrease.

Interest rates impact risk profile

After a prolonged period of very low interest rates, adapting to higher interest rates can lead to considerable uncertainty, for example in the valuation of assets, since higher rates impact yield requirements and can rein in the willingness of investors to take on risk. This uncertainty is exacerbated by the security policy climate, and financial markets have been highly unstable since the invasion (see the chapter "Stability in the financial markets"). The scope and duration of an increase in interest rates will impact the risks to financial stability.

Households and firms with a lot of debt are vulnerable to higher interest rate expenses and are now also being affected by sharply rising prices. Households' housing costs are increasing, and demand for commercial real estate could fall. Prices of housing and commercial real estate could thus fall. Given the high level of prices in these sectors, the adjustment can be significant if interest rates rise a lot and remain at high levels.

The effects will probably be more limited if the increase in interest rates is limited in both scope and duration. Commercial real estate firms have hedged interest rates with derivative contracts, which makes them relatively resilient to short-term increases in interest rates. Along the same lines, an increasing number of mortgagors are fixing their interest rates and therefore will be impacted less in the short term by rising rates.

For banks, higher interest rates can lead to larger credit risks and less demand for loans. High interest rates also mean that the banks can increase their interest margin and thus profitability. Since a large portion of the banks' lending is through mortgages and loans to commercial real estate firms, the development on the real estate market is very important for how the banks are impacted by a transition to a higher interest rate. Weaker conditions for households with mortgages and commercial real estate firms therefore lead to increased vulnerability for the banking sector. This vulnerability is largest given a longer period of high interest rates.

For life insurance undertakings and occupational pension undertakings, higher interest rates in the long term present an opportunity for lower risk-taking. The return on interest-bearing assets with lower risk is increasing at the same time as the risk premium on risky assets is increasing. For life insurance undertakings and occupational pension undertakings, this can present an opportunity to reduce

investment risk by increasing the share of interest-bearing assets (see the chapter "Stability in the insurance sector"). Higher interest rates also lead to a drop in the pension liability, which strengthens solvency in the firms.

Households

Household cash flow is now under additional pressure due to inflation and higher interest rates, and debt-related vulnerabilities have increased. The loans of households continue to increase faster than their income. This increases their sensitivity to higher interest rates even if the greater tendency to fix interest rates is offsetting the development somewhat. Most households can make their loan payments even given significantly higher interest rates, but they may reduce their consumption and thus slow down the economy.

	Level	Change
Debt	(orange)	↗
Cash flow	(green)	↗
Liquid assets	(yellow)	↗

The colors indicate the current level of vulnerability. Green represents low vulnerability. Yellow, orange and red indicate differing degrees of elevated vulnerability. The arrows show the trend for the vulnerability – increasing, decreasing, or unchanged. The level and trend are based on a combination of quantitative measurements and expert assessments

Loans of households increasing faster than their income

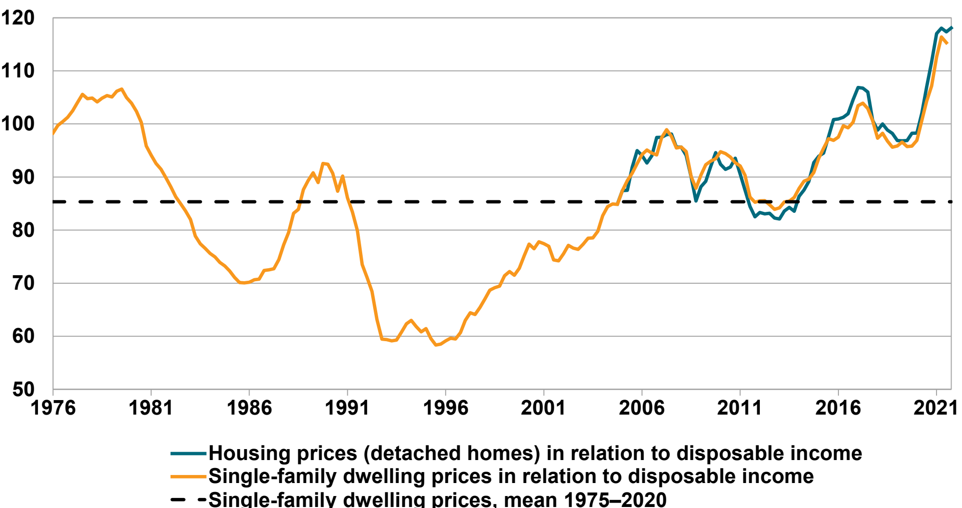
The total loans of households have continued to increase faster than their income. The loan-to-income ratio[2] amounted to 199 per cent in the end of 2021. This is 11 percentage points higher than at end of 2019. FI's report *The Swedish Mortgage Market*[3] also shows that new mortgagors are borrowing more in relation to their income.

Housing prices are still high compared to household income (Diagram 2), but the rapid increase was broken in April 2022. There are multiple factors that can explain this trend break and that can even lead to lower prices going forward. Mortgage rates have begun to rise from historically low levels, which makes it more expensive to finance a home. In addition, higher operating costs, uncertainty about the economic impact of the current security policy climate, lower returns on financial assets and working less from home can have a negative impact on housing demand.[4]

[2] Households' loans divided by disposable income.
[3] See the report *The Swedish Mortgage Market* (FI, April 2022).
[4] See "Rising interest rates and energy prices can significantly suppress house prices" in *The Swedish Mortgage Market* (FI, April 2022).

2. Housing prices high in relation to income

Index = 100, 1980



Sources: Statistics Sweden and Valueguard.
Note: The series Housing Prices (detached homes) refers to Valueguard's index HOX Villor and Single-family Dwellings refers to Statistics Sweden's Real Estate Price Index for one- or two-dwelling buildings (FASTPI).

Interest payments may increase rapidly

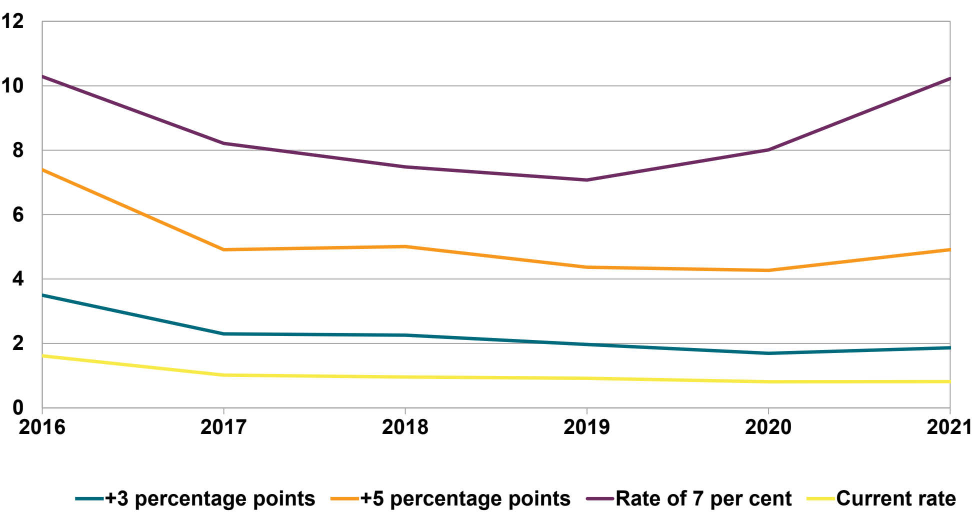
Households in general face good conditions for absorbing increasing costs. The aggregate interest-to-income ratio is low, and few new mortgagors would experience a deficit in their cash flow if the interest rate increases rapidly (Diagram 3). This is due in part to longer fixed-interest rate periods.[5] But higher interest rates over time have an impact on interest rate expenses even for those with longer fixed-interest rate periods, which would then also experience a deficit. A cash flow deficit would mean that the households will need to use their savings to make their loan payments, settle certain loans or – if they do not have savings – move to different housing.

Even if only a few households would experience a deficit in their cash flow, higher interest rates and other costs can lead to lower consumption and, in a worst-case scenario, a sharp drop in the economy.[6] The strength of this effect varies depending on the duration and size of the cost increase. A negative development in housing

[5] Both the report *The Swedish Mortgage Market* (FI, April 2022) and aggregate data show that the fixed-interest periods have increased, although from low levels. Approximately one-fifth of the households' loans have more than a two-year remaining fixed-interest period. This figure has doubled compared to five years ago.
[6] If we assume that the interest rate increases by 3 percentage points to on average 4.4 per cent, and households do not adapt the size of their loan, the debt service ratio would increase from around 13 per cent to 19 per cent. Expressed differently, the percentage of the disposable income that can be used for something other than loan payments would decrease by 6 per cent.

prices can also have a negative impact on consumption since the consumption from home equity withdrawals may decrease.

3. More new mortgagors experience deficit if interest rates rise sharply
Per cent



Source: FI.
Note: Refers to new mortgagors' total loans with contractual amortisation payments. Add-ons of 3 and 5 percentage points are applied only to new mortgagors with a volume-weighted fixed interest rate period of longer than two years. For those with longer fixed interest rate periods, the actual interest rate is used.

The percentage of new mortgagors who experience a deficit given higher interest rate increases. This can be explained in part by many mortgage firms having adjusted downward the interest rates they use in their calculations over the past year.[7] Lower interest rates in the calculations mean that the households can borrow more for a given income.

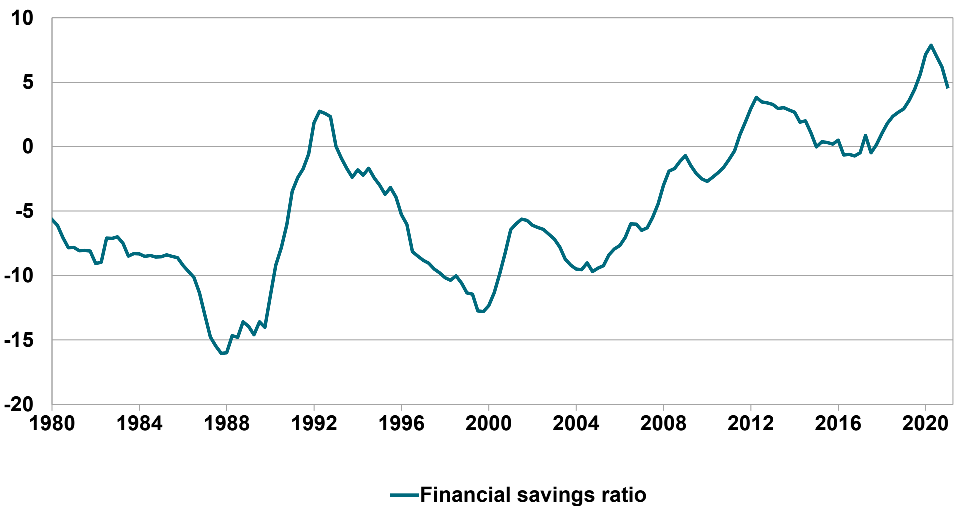
Households' wealth has declined – but is still high

In the past few quarters, households' savings-to-income ratio[8] fell slightly but is still high from a historical perspective (Diagram 4). The high level of savings and strong development in the value of financial assets over the past decade mean that households' aggregate liquid financial wealth has improved rapidly, even if it is unevenly distributed.

[7] The banks use an interest rate in their calculations that is higher than the actual mortgage rate in their credit assessment of potential mortgagors. This interest rate is just part of the credit assessment and is used both to analyse sensitivity to the interest rate and the capacity for carrying large loans. Other parameters in the banks' credit assessment have largely remained the same in recent years. In 2021, the average imputed interest rate was 6.0 per cent, which is 0.8 percentage points lower than in 2020.
[8] Aggregate savings (flows) in relation to aggregate income.

4. Households' savings ratio decline from high levels

Per cent



Source: National accounts, Statistics Sweden.
Note: Excluding savings in occupational and premium pensions. Savings in tenant-owner associations are included in this definition.

The liquid financing wealth has also become more concentrated to assets with higher risk. At the end of 2021, the share of liquid assets with elevated risk was the highest it has been since 2000.[9] During the start of the year, falling asset prices meant that households' liquid wealth fell.

Savings can function as a buffer following shocks. Savings are still a good buffer, but the downturn in Q1 2022 shows that the large share of assets with higher risk is a risk factor. There is limited information about how savings are distributed across households. This also indicates that the robustness of this buffer is uncertain.

[9] Higher risk refers here to directly owned listed shares, equity funds, other funds, and foreign-registered funds. Some bonds and fixed-income funds also have higher risk, but it is not possible to categorise them by their risk level using available data. Unlisted share holdings are a large part of households' financial wealth but as a rule are an illiquid asset.

Non-financial corporations

Commercial real estate firms' growing debt and sensitivity to interest rates still represent the largest vulnerability among non-financial corporations. Rising inflation and primarily higher interest rates can put pressure on commercial real estate firms. Their market financing has become more expensive, and the risk that they will find it difficult to refinance has increased.

	Level	Change
Debt growth	(orange)	→
Indebtedness	(orange)	↗
Refinancing	(yellow)	↗

The colors indicate the current level of vulnerability. Green represents low vulnerability. Yellow, orange and red indicate differing degrees of elevated vulnerability. The arrows show the trend for the vulnerability – increasing, decreasing, or unchanged. The level and trend are based on a combination of quantitative measurements and expert assessments.

Higher interest rates and costs can put pressure on firms

Rising inflation and higher interest rates put pressure on commercial real estate firms, among others, since many of them are sensitive to interest rates. Russia's invasion of Ukraine is further adding to the inflationary pressure. So far, though, the invasion has had a limited direct impact on most Swedish non-financial corporations. There is limited trade with Russia and Ukraine. Sweden's energy-intensive manufacturing industries are less dependent on fossil fuels than in other European countries, and these industries are partly protected from price increases via the partially isolated electricity markets in the northern areas of the country.

Higher energy prices also have a generally contracting impact on the economy, and some industries – like transports – are being hit hard by rising fuel prices. The supply of some raw materials is still limited following the pandemic. Russia's invasion of Ukraine is further limiting the supply of input goods. It is still unknown what the impact of these problems will be, as well as their scope. If parts of the commercial sector experience difficulties, this could lead to higher credit losses for the banks (see "Credit risks in corporate lending" in the chapter "Stability in the banking sector").

Commercial real estate firms' debts are growing

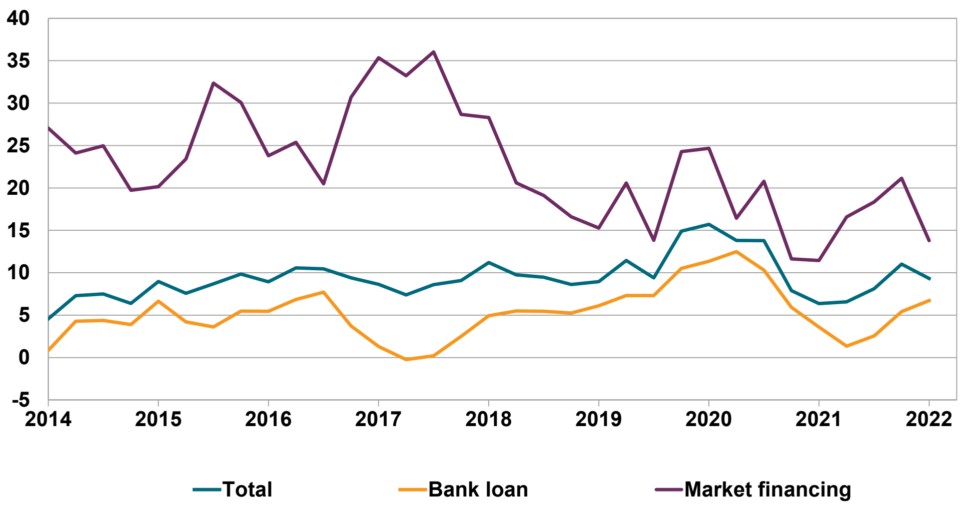
Rapidly rising corporate debt poses risks to financial stability. FI is following the debt of commercial real estate firms closely since these firms are closely linked to the financial sector and have often played an important role in financial crises. Over a period of several years the debt of commercial real estate firms has

increased rapidly, both nominally and in relation to the gross national product (GDP) (Diagram 5).

For more than a decade, the debt of commercial real estate firms has driven the increase in the debt of non-financial corporations' debt in relation to GDP.[10] How this debt develops in relation to GDP is an important metric since a higher GDP makes it possible for the economy to carry more debt. Therefore, FI is carefully monitoring debt that grows faster than GDP – particularly when it comes to the debt of commercial real estate firms. The growth in debt in the real estate sector means that it continues to be a significant vulnerability for financial stability.

5. Growth in debt of commercial real estate firms

Annual percentage change



Sources: FI and Statistics Sweden.

Note: "Bank loans" refers to loans to commercial real estate firms according to FLU (KRITA as of September 2019). "Market financing" refers to bonds and commercial paper issued by firms within the commercial real estate sector according to issued securities statistics (Statistics Sweden).

Commercial real estate firms sensitive to interest rates, which are rising

The listed commercial real estate firms' net operating income in relation to net liabilities on average (volume-weighted) is just above 6 per cent (Diagram 6). Simplified, this means that if the interest rate were 6 per cent, the firms on average would just be able to pay their interest. But the firms' fixed interest rate periods – which are 3 years long on average – mitigate this sensitivity to interest rates in the short term. If interest rates only go up temporarily, the burden for the commercial

[10] Non-financial corporations have demonstrated in general a sharp increase in debt during the winter and spring. We are following the development, but currently still find that the commercial real estate firms' growth in debt to be the primary vulnerability.

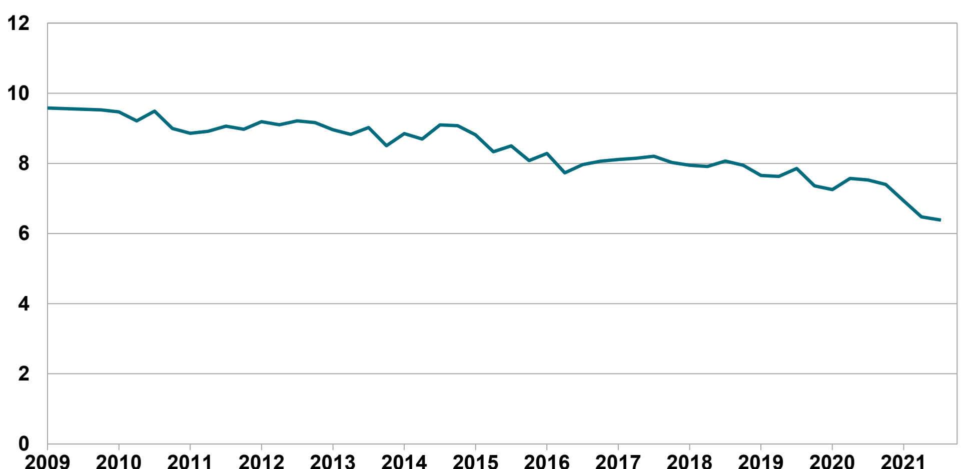
real estate firms will be milder than if interest rates were higher for a longer period of time. If interest rates are high when a large portion of their interest hedge has expired, some commercial real estate firms may find it difficult to make their interest payments.

Investments in real estate are often considered to be inflation secure since the rents, and thus the revenues, can be expected to follow inflation. But this applies in the long term, and the commercial real estate firms must also be able to manage short- or middle-term challenges in their cash flow. In the short term, it is small consolation if rental income increases with inflation – for example 5 per cent – if interest expenses at the same time are doubling or tripling.[11]

During the winter and spring, interest rates on the commercial real estate firms' market financing increased sharply. We can now see that the greatest threat to commercial real estate firms – namely, higher financing costs – is starting to be realised. There is also some uncertainty about the commercial real estate firms' income. For example, both an economic downturn and structural changes to society, for example more people working from home, could lead to lower demand for business premises. Overall, FI makes the assessment that the vulnerability in the commercial real estate firms' indebtedness is high and has increased.

6. Commercial real estate firms' debt continues to grow compared to net operating income

Ratio



Sources: Sedis AB and JLL.
Note: The figure shows the listed commercial real estate firms' net operating income divided by net debt. "Net operating income" refers to rental income less operating and maintenance expenses and central administration. "Net debt" is liabilities less cash and cash equivalents.

[11] The listed commercial real estate firms had an average interest rate of 1.7 per cent at the end of 2021.

Commercial real estate firms' refinancing risk has increased

The increase in the past few years in commercial real estate firms' total debt in relation to GDP is due to an increase in these firms' market financing. During the pandemic, it became difficult for the firms to refinance their market financing. But the difficulties disappeared quickly when the Riksbank announced it would purchase assets. During late winter/early spring, the market financing of commercial real estate firms was once again sluggish. This time the problems were milder, but we are still seeing once again signs that market financing is a volatile source of financing for the firms. FI therefore makes the assessment that the refinancing of commercial real estate firms is under more stress than it was at the beginning of the year.

Within one year, around 20 per cent of the commercial real estate firms' market financing will fall due and need to be refinanced. FI's assessment is that these maturities are manageable. One reason for this is that the commercial real estate firms have credit facilities at the banks that can be used if the issue of new commercial paper and bonds were to encounter obstacles. But this security also represents a flowback risk. Part of the credit risk in commercial real estate firms that bond and commercial paper holders now bear can quickly flow back to the banks if the real estate firms utilise their credit facilities.

Stability in the financial markets

Rising inflation and Russia's war with Ukraine have caused turbulence and greater stress on the financial markets. Market liquidity on the bond markets has decreased, and the functionality of the corporate bond market is once again impaired. Price volatility, including on the electricity market, is also increasing the risk for the central counterparty.

	Level	Change
Risk-taking financial markets	Red	↘
Market liquidity	Red	↗
Financial infrastructure	Yellow	→

The colors indicate the current level of vulnerability. Green represents low vulnerability. Yellow, orange and red indicate differing degrees of elevated vulnerability. The arrows show the trend for the vulnerability – increasing, decreasing, or unchanged. The level and trend are based on a combination of quantitative measurements and expert assessments.

Risk-taking has decreased slightly

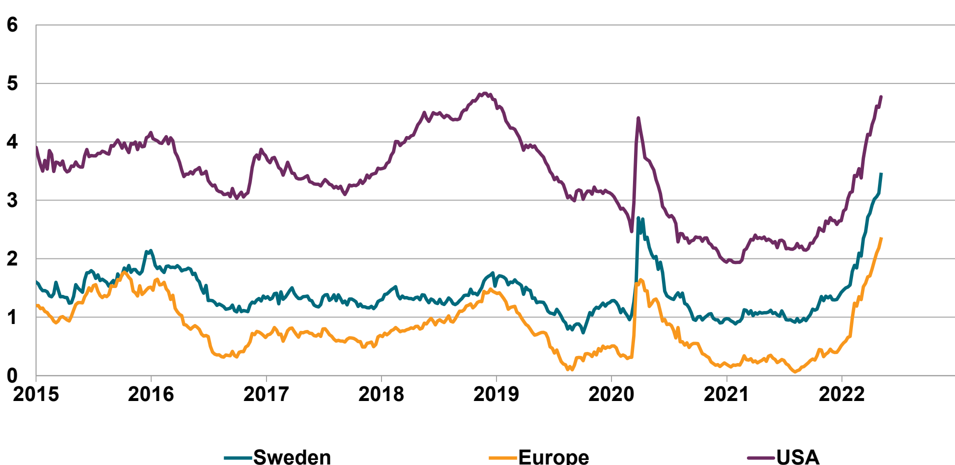
The sharply rising inflation in 2021 and 2022 has contributed to expectations of higher key interest rates in the next few years. Therefore, towards the end of 2021, government bond rates began to rise, and with this the value of riskier assets began to fall. Russia's invasion of Ukraine caused turbulence on the financial markets and additional price drops in some asset classes. However, several commodity prices have risen sharply due to Russia's and Ukraine's role in the global commodity supply chain, which caused high volatility in related derivatives. The stress on the financial markets has increased sharply since the invasion, and it is still at relatively high levels (Diagram A7).

The drop in the willingness to take on risk is visible since the risk premiums on corporate bonds have increased (Diagram A8) and since share valuations in the form of so-called P/E ratios[12] have fallen (Diagram B9). Rising risk premiums combined with an upswing in interest rates on loans with longer maturities means that firms' costs to raise financing via the bond market are increasing sharply (Diagram 7). Depending on the scope of the economic impact, prices and risk premiums may undergo further adjustment.

[12] Share price/earnings per share.

7. Corporate financing costs are rising

Per cent



Source: Refinitiv Datastream.

Note: Interest rates on corporate bonds with credit rating BBB in Sweden, the Euro zone and the USA. All with a maturity of 5 years.

Since the rising inflation is expected to lead to further tightening of monetary policy, FI welcomes the Riksbank's announcement that it will decrease it holdings of securities. This is important to not continue to fuel excessive risk-taking. If asset prices slow and risk premiums and financing costs rise, this means that the vulnerabilities within financial stability will decrease in the long term. In the short term, however, a rapid shift to higher interest rates could cause additional turbulence on financial markets.

Bond markets are less functional

For a relatively long time, liquidity on the Swedish government bond and covered bond markets has been declining (Diagram 8).[13] FI makes the assessment that this is primarily due to increased frictions and less efficient price-setting and that these problems have not had any major impact on the possibilities of the state or banks to obtain financing.

There are several causes underlying the impaired liquidity. The decline in long-term interest rates over a period of several years has meant lower expected future returns, which resulted in many investors seeking riskier assets. The drop in demand from investors meant reduced profitability for market makers.[14] The lower

[13] For more information about how FI measures market liquidity on the government bond and covered bond markets, see Crosta A. and Zhang D. (2020), "*Nya likviditetsindikatorer för räntemarknaden*", FI Analysis 21, FI. An English translation is available at www.fi.se.
[14] A market maker is a contracted actor who in exchange for compensation commits to continuously provide bid and ask prices for the borrower's security to maintain liquidity in

interest rates also meant that it was less beneficial for the banks to maintain a trading book at the same time as costs increased as a result of, for example, higher capital requirements and the introduction of an annual resolution fee. Overall, this meant that market makers are not as willing as they were before to take over risk from investors who want to change their holdings.

Market makers lower transaction volumes and smaller portfolios have made it more expensive and more difficult for investors to trade large posts of both government bonds and covered bonds. In recent years interest on the market has fallen further following the Riksbank's quantitative easing. These asset purchases also shrunk the bond volume available for trade. Several participants who previously were active traders in government bonds and covered bonds are also said to have left the market.

At the beginning of 2022, the trend of impaired market liquidity was enhanced. This may be because many market participants were surprised by the central banks' rapid transition to tighter monetary policies. The rapidly rising long-term interest rates created high volatility since many participants wanted to sell their bonds at the same time. They were reducing their holdings due to concerns that a continued rise in interest rates would lover the value of the bonds. The volatility was amplified by the liquidity on the secondary market being so low. It is also possible to assert that the high volatility further burdened market liquidity. The Swedish fixed income market is now functioning so poorly that, since the beginning of May, the market makers have been forced to substantially increase the spread between the call and ask prices of both government bonds and covered bonds. This measure aims to mitigate large fluctuations but also makes trades significantly more expensive. This is resulting in even worse liquidity on the market, which now has become largely order driven.[15]

When market liquidity declines, it becomes more difficult to trade bonds without the prices changing significantly. Under stressed market conditions, the risk of fast and large price movements also increases. The market for government bonds constitutes a central reference point for the level of the interest rate in Sweden, and covered bonds are very important for the banks' mortgage financing. This means that volatility and poorly functioning price-setting mechanisms can impact financial stability. FI therefore makes the assessment that the impaired market liquidity means that vulnerability has increased.

The Swedish corporate bond market is relatively small, even if it has grown in recent years, which means that it is sensitive to shocks. The Swedish corporate

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the instrument. Market makers use an inventory of financial instruments, called a trading book, to bridge temporary imbalances between buyers and sellers.

[15] The banks are trying to broker together customers' buy and sell interests instead of maintaining the market by taking over risk in its own portfolio.

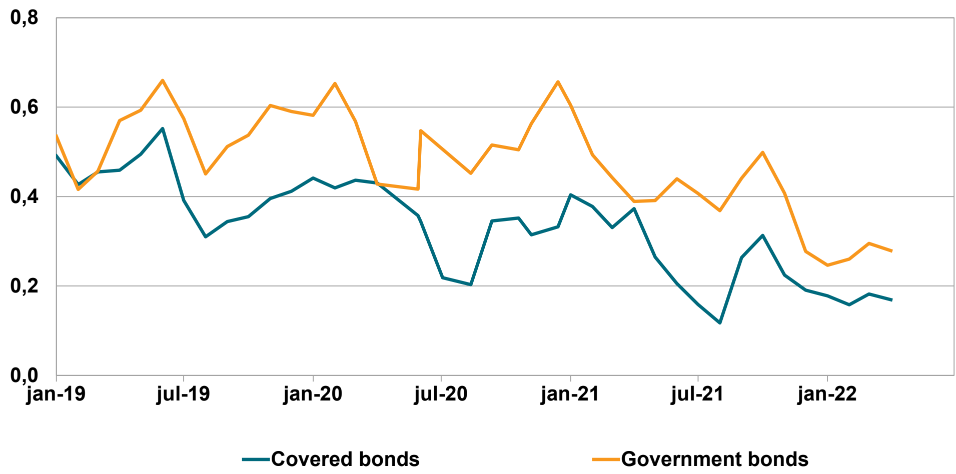
bond market has grown in recent years due to more interest from Swedish investors to invest in corporate bonds. This is occurring primarily through funds. When the coronavirus pandemic broke out in the spring of 2020, the corporate bond market experienced major problems, in part due to large withdrawals from corporate bond funds. In February 2022, corporate bond funds also reported a net outflow, even if it was not as large as two years ago (see Diagram B10). The outflows in February were due in part to the sale of fund units by market participants who provide structured products with corporate bond funds as the underlying asset. Corporate bond funds reported a net inflow again in both March and April, and the funds' holdings of corporate bonds have not been affected to any major extent during this period.

However, the corporate bond market has also been impacted by rising interest rates and higher inflationary pressure, and turnover on the secondary market has decreased. Rising interest rates and risk premiums also made it more expensive for firms to refinance or issue new bonds. At the same time, the issue volumes on the primary market decreased.

If the corporate bond market does not work, firms that are dependent on market financing can be negatively impacted. If it becomes more difficult to issue bonds, or if it is not possible to borrow at all, the pressure increases on the banking sector to provide financing for the firms. In a worst-case scenario, this could deepen economic crises if the banks are not able to increase their lending at the same rate. Neither is it good from a stability perspective if all loan-based financing and credit risk are concentrated to the banking system.

8. Lower market liquidity

Normalised scale



Sources: FI's own calculation, Refinitiv Eikon, Swedish National Debt Office and Svenska Handelsbanken Bond Indices.

Note: Liquidity measure as an aggregation of various individual indicators for covered bonds and nominal government bonds with benchmark status. Higher values correspond to higher liquidity. Two months' moving average.

Higher risks in the financial infrastructure

Financial infrastructure consists in part of firms that provide technological systems for payments, settlement of securities transactions and managing of counterparty risks. This infrastructure is central for the functioning of the financial markets and financial stability. Vulnerabilities within it are therefore largely linked to the firms' management of operational risks. As the security policy climate in Europe has deteriorated, the risk of cyber attacks has increased. Since the financial infrastructure firms perform critical services that often lack substitutes, attacks on these firms or other technical problems can have a major impact on financial stability. It is therefore very important that systemically important firms have satisfactory protection. To strengthen the digital resilience in the financial sector, the ambition level of FI's supervision of cyber risks must be higher, for example.[16]

The central counterparties that offer counterparty clearing of derivatives and other securities are very important actors in the financial infrastructure. Their primary assignment is to take over counterparty risks by acting as a counterparty to both the seller and the buyer in a financial transaction. The concentration of counterparty risk that arises places high demands on the operations.

During the autumn of 2021, energy prices were extremely volatile, which increased the risk exposures of participants in the Swedish central counterparty active on the electricity market. This, in turn, generated higher risk for the central counterparty. Volatility on the commodities market increased further after Russia's invasion of Ukraine and the resulting sanctions. As a result, margin requirements increased sharply, which means participants must submit more collateral.

The prices on the fixed income and equity markets have also been very volatile recently. When the markets have fluctuated drastically over the course of a single trading day, participants have needed to provide additional collateral to cover their risk exposure, a so-called intraday margin call (IDMC) (Diagram 9). Participants have needed to have liquid assets that can be quickly submitted. In the last few months there have clearly been more IDMCs than normal, but so far the participants have managed to meet the stricter requirements. Tests performed by the central counterparty are so far demonstrating resilience to the elevated risk.

[16]For more information, see "Förstärkt digital motståndskraft hos företag i den finansiella sektorn", 6 May 2022, FI.

9. Additional collateral has been required to cover risk exposures

Number

Source: Nasdaq Clearing.

Note: The diagram shows so-called intraday margin calls, in other words additional collateral during a trading day submitted during each month.

Stability in the insurance sector

Life insurance undertakings and occupational pension undertakings are large investors on the financial markets, which makes them important for financial stability. Market rates are rising, but they continue to present a challenge for undertakings with long-term financial guarantees. Rising inflation and the war in Ukraine has resulted in higher risk in investment portfolios, but the firms have buffers that can withstand even larger downturns.

	Level	Change
Low interest rates and high guarantees	Yellow	↘
Investment risk	Orange	↗
Financial position	Green	→
Concentration of assets	Yellow	→

The colours indicate the current level of vulnerability. Green represents low vulnerability. Yellow, orange and red indicate different degrees of elevated vulnerability. The arrows illustrate how the vulnerability has changed since FI's last report on financial stability. The direction of the arrow shows whether the vulnerability has increased, decreased, or remained the same. The level and change are based on a combination of quantitative metrics and expert assessments.

Market rates are rising, but from very low levels

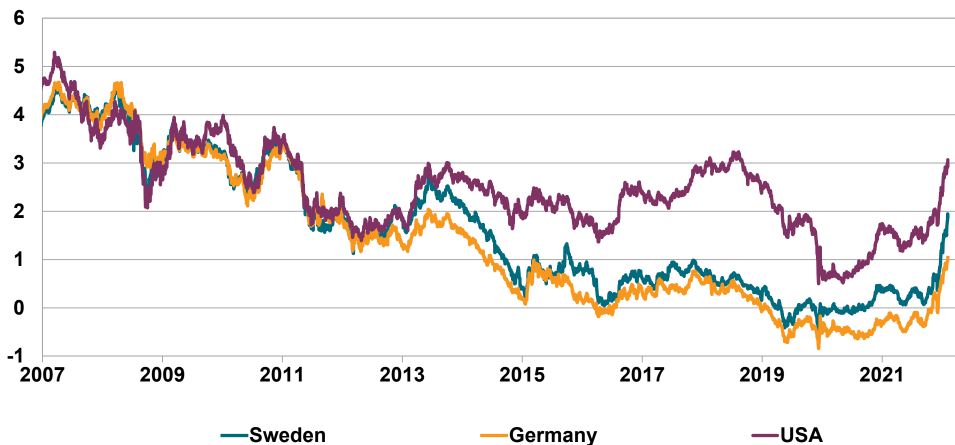
Many life insurance undertakings and occupational pension undertakings have long-term commitments with financial guarantees and are therefore sensitive to changes in, primarily, market rates with longer maturities. Interest-bearing securities have historically constituted a large portion of the investment assets, but many years of low market rates have limited the return on interest-bearing securities, and firms therefore have needed to lower their financial guarantees. In addition to the guaranteed amount, bonuses are paid based on the yield in the investment portfolios. In order to obtain a return that covers both the guaranteed and the expected return, the undertakings need to invest in riskier assets, such as shares, when interest rates are low.

Rapidly rising inflation, inflation expectations and expectations of a tighter monetary policy have led to a sharp increase in market rates, but from very low levels (Diagram 10). If interest rates continue to increase, this is positive in the long term for life insurance undertakings and occupational pension undertakings since the value of the calculated pension liability will be lower.[17] Rising market rates can also lead to better possibilities for returns on interest-bearing securities,

[17] In the insurance section of FI's stability report published in the autumn of 2021, there is an in-depth analysis that describes how the pension liability is calculated.

which in turn would decrease the dependence on riskier asset classes, such as shares.

10. Government bond yields with long maturities
Per cent



Source: Refinitiv Datastream.
Note: 10-year government bond yields.

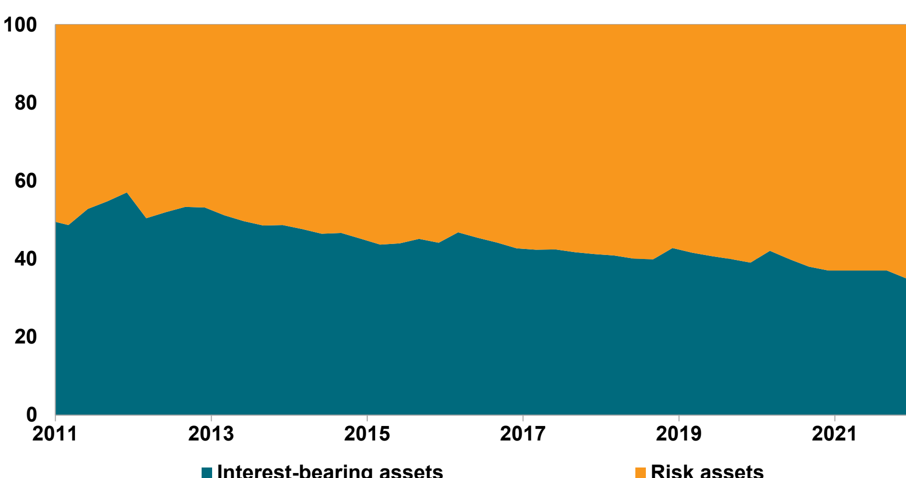
Risk-taking in investments has continued to increase

Life insurance undertakings and pension undertakings are large investors on the financial markets, and the percentage of risky assets has increased for a long time (Diagram 11). A significant percentage of risky assets increases sensitivity in the investment assets. How the financial markets develop, primarily in the long run, will thus have a large impact on the solvency of the life insurance undertakings and occupational pension undertakings.

The investment portfolios continued to develop favourably in 2021, primarily due to rising equity markets. But rising inflation has led to higher volatility and falling asset prices on the financial markets. The Russian invasion of Ukraine has increased the uncertainties, but Swedish insurance undertakings have very low exposure to Russia and Ukraine, particularly in terms of liabilities and assets. Insurance undertakings experienced at an early stage some shocks in their trading of currency, derivatives and certain securities. However, insurance undertakings are seeing an elevated risk for cyber attacks and shocks to the financial and general infrastructure. Higher interest rates, though, can lead to better returns on interest-bearing securities and a decrease in the percentage of risk assets, which in the long run strengthens the firms’ resilience.

11. Percentage of risky assets continues to increase

Per cent



Source: Statistics Sweden.

Note: “Interest-bearing assets” consists of listed interest-bearing assets, subordinated loans, corporate bonds, and cash and cash equivalents. “Risky assets” consist of shares, real estate and alternative investments.

Undertakings’ financial position is still good

Due to a strong development in primarily the equity markets in 2021, the undertakings’ solvency improved through the end of the year. Then inflation rose and stock markets faltered at the beginning of 2022. The uncertainty on the financial markets also increased as a result of the war in Ukraine.

Life insurance undertakings and occupational pension undertakings in general have good buffers and can withstand sharp downturns, which was also evident during the most dramatic phase of the pandemic in the spring of 2020. But even if the undertakings can withstand sharp downturns in asset prices, there is an impact on the beneficiaries’ possibilities for return in excess of the guaranteed return. A large and prolonged downturn, in a worst-case scenario, could also lead to mutual undertakings[18] needing to take back distributed surpluses.

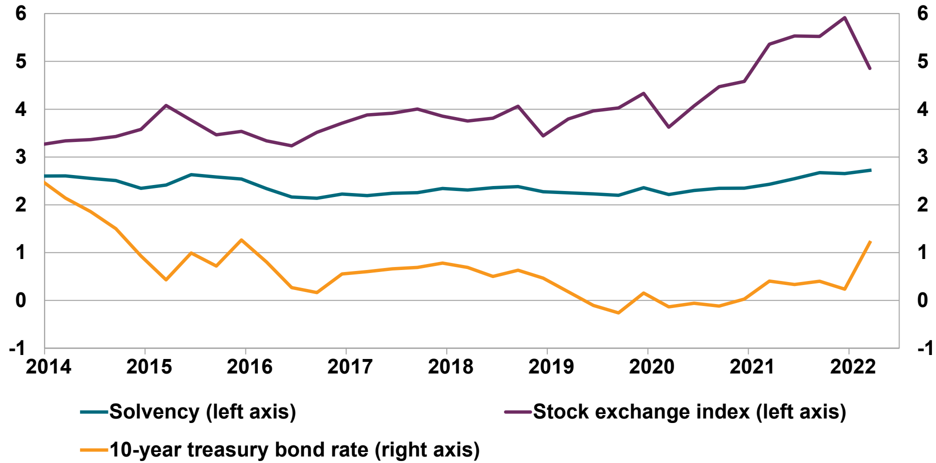
With the transition to a new regulation for occupational pension undertakings[19], these undertakings must report a statutory risk-based capital requirements that is similar to the requirements of the former traffic-light[20]. This makes it possible to

[18] Mutual insurance undertakings are a special type of company under association law where the policyholders are both owners and customers. All surplus flows to the policyholders in the form of distributed surpluses that are then managed within the company until payment.
[19] Occupational Pension Undertakings Act (2019:742).
[20] The traffic-light is a supervisory tool that places the capital buffer held by an insurance undertaking (assets minus liabilities) in relation to an estimated capital requirement based

compare the new solvency value with a previous series for traffic-light ratios. During Q1 2022, own funds for occupational pension undertakings decreased.[21] The total capital requirement – where equity risk is the single largest financial risk – also decreased, which resulted in basically an unchanged solvency situation (Diagram 12).

12. Solvency is still good

Ratio (left axis) and per cent (right axis)



Sources: FI, Nasdaq OMX and the Riksbank.

Note: Up to 31 December 2021, the diagram shows the traffic-light ratio for life insurance undertakings that applied the Solvency I regulations before they were converted to occupational pension undertakings. Since 31 March 2022, the diagram shows solvency in accordance with the new occupational pension regulation. Since the series is a mix of two metrics, it is called the risk ratio.

Concentration to the banking sector

A significant portion of the investments assets of Swedish life insurance undertakings and occupational pension undertakings are in securities linked to the banking sector, and primarily the Swedish banking sector (Diagram 13). The holdings constitute a concentration risk, but this is offset at the same time by the Swedish banks in general having a strong financial position. Price falls on securities issued by Swedish banks, however, would have a negative impact on investment portfolios of life insurance undertakings and occupational pension undertakings. If the undertakings would need to sell these securities in such a scenario, there is a risk that this would make prices fall even further. However, since life insurance undertakings and occupational pension undertakings have large

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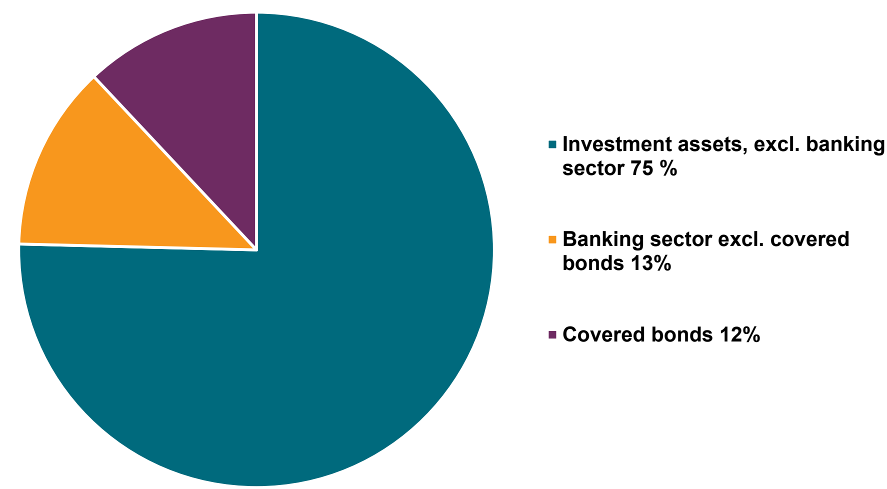
on the insurance undertaking’s exposures to various risks. If an undertaking has a capital buffer of SEK 200 million and a capital requirement of SEK 100 million, its traffic-light ratio is 2.

[21] The Act uses own funds compared to the capital buffer of the traffic-light, which is based on a simpler calculation

buffers, this course of events would only occur after a strong and prolonged downturn.

13. Exposure to the banking sector
Per cent



Source: FI.
Note: Exposure to the banking sector. Covered bonds are reported separately since they are subject to their own legislation. The compilation refers to Solvency II undertakings as per 31 March 2022.

Stability in the banking sector

The banks' credit losses have fallen to pre-pandemic levels, but the economic recovery is now losing speed due to higher interest rates and inflation. Russia's attack on Ukraine means new uncertainty for the economy and banks. There have already been large risks associated with the banks' lending portfolios, for example related to commercial real estate. The banks therefore need to continue to hold significant capital and liquidity buffers that can be drawn upon if the economy dips.

	Nivå	Förändring
Concentration and interconnectivity	(orange)	→
Solvency and profitability	(yellow)	↘
Asset quality and credit risk	(yellow)	↗
Financing and liquidity	(green)	↗

The colors indicate the current level of vulnerability. Green represents low vulnerability. Yellow, orange and red indicate differing degrees of elevated vulnerability. The arrows show the trend for the vulnerability – increasing, decreasing, or unchanged. The level and trend are based on a combination of quantitative measurements and expert assessments.

Banking sector concentrated and interconnected

The Swedish banking sector is largely concentrated to five major banks: Svenska Handelsbanken (SHB), SEB and Swedbank, as well as Nordea's and Danske Bank's Swedish branches and mortgage companies.[22] The major banks are closely interconnected, both to one another and to other parts of the finance sector. This creates structurally elevated vulnerabilities in the financial system – if any of the major banks has problems, these problems can quickly spread to other financial firms. In recent years, competition on the banking market has increased and the major banks have lost market shares on some submarkets. The concentration in the banking sector has therefore decreased somewhat over time, but despite this the major banks still play a central role in Sweden.

High profitability contributes to good resilience

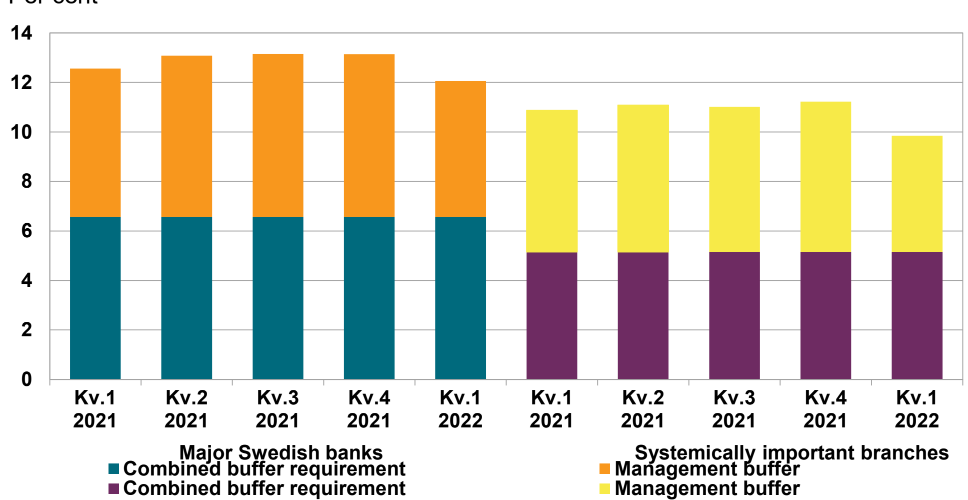
The major banks continue to have significant capital buffers. The banks' management buffers – the capital that banks are holding in addition to the capital

[22] For the five major banks, the figures refer to the consolidated situation unless otherwise specified. Together they represent around [75] per cent of deposits and lending to Swedish households and corporates and just under [70] per cent of the domestic payments. Danske Bank's and Nordea's Swedish branches are referred to going forward as "systemically important branches".

requirements – increased in 2020 and since then have remained at a higher level (Diagram 14). This is in part because FI and other Nordic supervisory authorities lowered the countercyclical buffer rate at the beginning of the pandemic to free up capital in the banks. FI has begun to raise the countercyclical buffer rate again and intends to decide in June to raise the buffer to its normal level, which will go into effect in June 2023 (see the in-depth analysis, "FI intends to raise the countercyclical buffer rate to 2 per cent").[23] The banks also did not issue dividends during the pandemic in accordance with the recommendations from FI and other European authorities. The banks have restarted distributing dividends, but this has not significantly reduced the buffers.

14. Banks continue to have large management buffers

Per cent



Sources: FI and the banks' reporting.

Note: Capital requirements as a share of risk-weighted assets.

The major banks continue to have high operating income. Their earnings and returns have continued to improve since last autumn, in line with the recovery in the economy, and are back at pre-pandemic levels (Diagram 15). Higher net interest income, higher fees and commissions, and lower costs contributed to the boost in earnings. Larger credit loss provisions and strong deposit growth pulled down earnings during the pandemic, but this downturn was short-lived.[24] Their higher probability means that it is easier for the banks to absorb any credit losses.

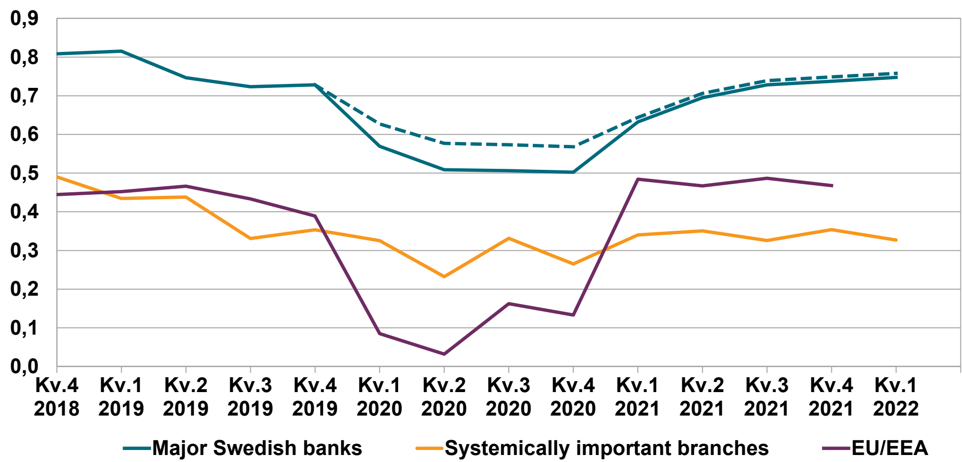
[23] In March 2020, FI lowered the countercyclical buffer rate from 2.5 per cent to zero. The objective was to free up capital so the banks could maintain their supply of credit even if they experienced large losses. FI decided in September 2021 to once again raise the countercyclical buffer rate to 1 per cent as of September 2022. This is the first step in a gradual increase of the countercyclical capital buffer.

[24] Strong deposit growth can generate surplus liquidity that banks normally deposit at the Riksbank. The Riksbank's deposit rate has been negative for a long time, while the banks, with a few exceptions, chose not to lower their deposit rates to below zero.

Higher interest rates usually benefit the banks' earnings through higher net interest income. However, previous periods of higher interest rates have normally coincided with high economic growth and a relatively large spread between short and long interest rates (so-called steep yield curve). Given the current conditions – slowing growth and a flatter yield curve – the banks may not benefit in the same way. The weaker forecast for the economy caused by higher inflation and interest rates can have a negative impact on banks' profitability even through, for example, higher credit losses, lower credit growth and lower stock market activity. Which of these effects will be greatest is unknown, in part because it is not clear how high the interest rates will go and how long they will remain high.

15. Banks' profitability has rebounded

Per cent



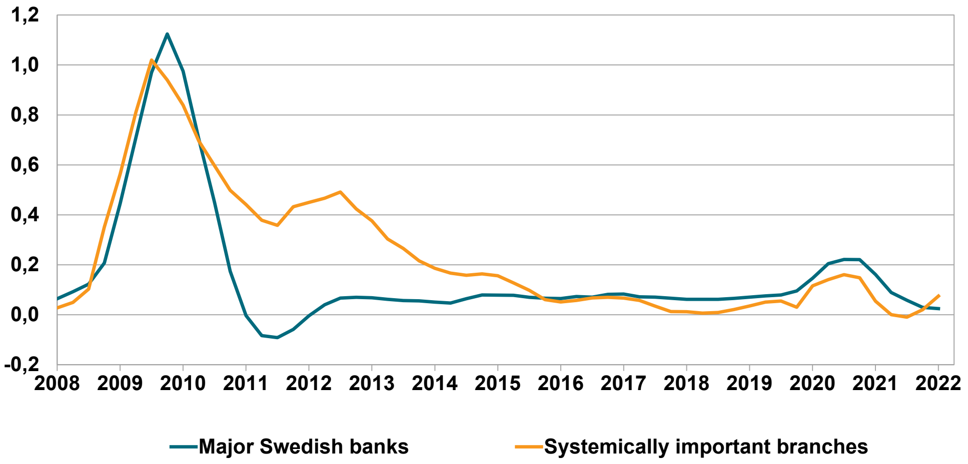
Sources: FI and the EBA Risk Dashboard.
Note: Annualised return on total assets, four-quarter rolling mean. Dashed blue line excludes money laundering-related sanction fees in Swedbank and SEB in 2020.

Credit risks in corporate lending

Since the end of 2020, the banks' credit loss reserves have fallen, and today they are back at pre-pandemic levels (Diagram 16). The realised credit losses during the pandemic were limited, thanks largely to policy support measures. Economic conditions improved significantly in 2021. Rising inflation and interest rates and lower economic growth are now creating a period of elevated uncertainty. Many firms and households are sensitive to increases in the interest rate (see the chapters "Non-financial corporations" and "Households"). If parts of the household or corporate sector experience problems, this could lead to higher credit losses for banks. This uncertainty is amplified by Russia's attack on Ukraine. It is still not clear how much of an impact the war will have on different parts of the economy; this refers in particular to the impact of disruptions to logistics and supply chains (see the chapter "Non-financial corporations").

The banks also hold large exposures to the commercial real estate sector, which represents between 10 and 30 per cent of each major bank's lending to the general public (corresponding to between 25 and 75 per cent of each major bank's corporate lending). FI has already made the assessment that there are elevated risks in the lending to commercial real estate firms since they are sensitive to the interest rate and the state of the economy. FI has therefore decided to apply an additional capital requirement for these exposures. The requirement went into effect at the end of 2020. Since then, the commercial real estate firms' debts have increased and the risks are higher today than they were before the pandemic (see the chapter "Non-financial corporations").

16. Credit loss provisions have decreased
Per cent



Sources: FI and the banks' reporting.
Note: Credit loss provisions at an annual rate as a share of total lending to the public. The negative credit loss provisions in 2011 are due to recovered provisions from previous years.

Banks' funding costs are rising

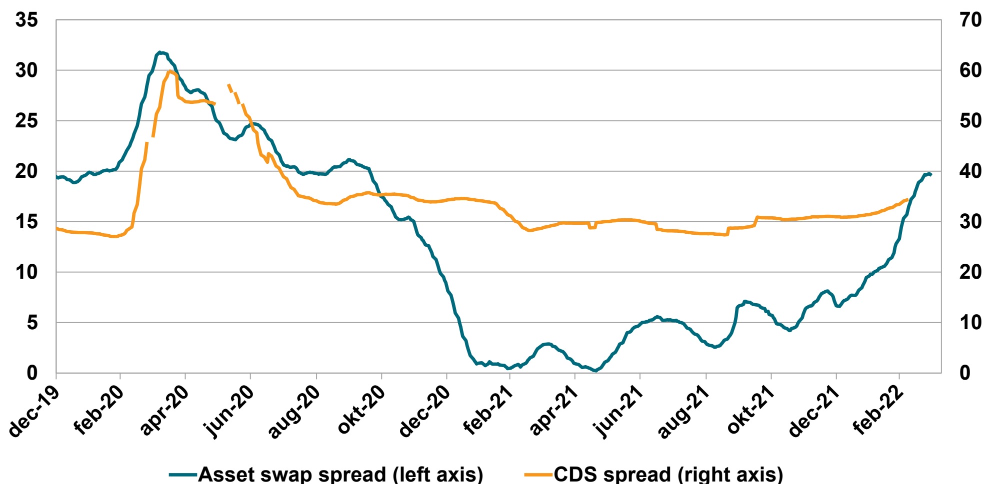
Swedish banks largely fund themselves through the capital markets. Changes to the interest rate therefore have a direct impact on the banks' funding costs. These began to rise during the second half of 2021 and have increased sharply since the start of the year as inflation expectations and interest rate expectations have increased. The spreads for the banks' covered bonds are now at levels that were common in the years leading up to the pandemic (Diagram 17).

Deposit volumes began to decline at the end of 2021, both in absolute terms and as a share of lending, but are still higher than before the pandemic. Throughout 2020 and the larger part of 2021, both household and corporate deposits increased, largely due to the Riksbank's expanded asset purchases. Higher deposits lowered the banks' need for market funding. A significant and long-term decrease in

deposits most likely requires that the Riksbank will once again contract its balance sheet.

The banks strengthened their liquidity buffers during the pandemic, but since the end of 2021 they have once again lowered these buffers to pre-pandemic levels. However, the banks still have good liquidity margins that can be used if the situation were to deteriorate.

17. Banks' funding costs have started to rise again
Basis points



Source: Refinitiv Eikon.
Note: Credit spread (asset swap spread) for Swedish covered bonds with estimated fixed duration, 5 years effective maturity; refers to one month's rolling average for the three major Swedish banks and Nordea. Credit spread for senior unsecured bonds; refers to one-month rolling average for the three major Swedish banks, Danske Bank and Nordea.

Under EU regulation, banks must maintain a certain minimum leverage coverage ratio (LCR). The minimum is flexible to some extent since banks must also be able to use their liquid assets during stressed periods to cover net liquidity outflows, even if this means that the minimum level is breached.[25] Previously, for example in conjunction with the outbreak of the pandemic, FI has clarified that the banks may

[25] If an institution does not meet the minimum requirement, or expects not to meet it, the institution needs to follow the provisions set out in Article 414 of the Capital Requirements Regulation. This article states that the institution needs to notify Finansinspektionen that it has not been able to or expects not to be able to meet the minimum requirement. In such an event, the institution must increase its reporting frequency and prepare a restoration plan, among other measures. Finansinspektionen makes an assessment in such an event of the circumstances that made it not possible to meet the minimum requirement and how these circumstances align with the definition of stress under the LCR regulation.

use the flexibility built into the existing regulation for LCR[26]. This flexibility is also a topic that FI has returned to in its dialogue with the banks, for example at the start of Russia's invasion of Ukraine. Some banks may have misinterpreted FI's previous communication regarding the application of the flexibility of the regulation. FI asserts, as do other authorities within the EU[27], that the rules are flexible and can be used if an institution finds itself in a stressed situation. FI will evaluate if such a situation is occurring for the institution in question when the minimum requirement cannot be or is expected not to be maintained. The liquidity buffer can be used then, but FI does not turn it on and off like it does for the countercyclical capital buffer.

In this context, however, it can be noted that the market uncertainty from neither the pandemic nor the start of Russia's invasion of Ukraine has resulted in the banks needing to draw on their buffers to such an extent that they could not meet the minimum requirement. With this said, FI would still like to emphasise that the liquidity buffers are there to be used, as described above, if an institution experiences financial stress.

Elevated risk of cyber attacks

Cyber attacks on the European banking sector increased sharply in 2021. Russia's invasion of Ukraine to date has not coincided with an increase in this type of attacks, but the risk of more sophisticated attacks from government-backed actors has most likely increased. Since the Swedish banking system performs critical functions, such as payments, and since it is largely digitalised, cyber attacks can lead to problems that could impact financial stability. The Swedish banks are working to continuously to strengthen both their protection against cyber attacks and their resilience if they were to suffer operational disruptions. To further strengthen digital resilience in the financial system, the supervision of cyber risks by FI and other authorities must be expanded.[28]

Fact box – FI intends to raise the countercyclical buffer rate to 2 per cent

The countercyclical capital buffer was lowered during the pandemic to ensure that the banks would be able to maintain the supply of credit even if they experienced

[26] https://www.fi.se/sv/publicerat/pressmeddelanden/2020/fi-om-likviditetstackningskvoten-lcr-for-svenska-banker/ and page 31 of Stability in the Financial Markets 2020:2.

[27] https://www.eba.europa.eu/eba-statement-actions-mitigate-impact-covid-19-eu-banking-sector

[28] For more information, see "Förstärkt digital motståndskraft hos företag i den finansiella sektorn", 6 May 2022, FI.

large credit losses. These losses have not been realised, and FI is seeing no signs that the banks are experiencing problems maintaining the supply of credit. The continued high rate of growth for household debt and the rapidly rising growth for non-financial corporations' debt are rather indicating an increase in the systemic risks. FI therefore intends to decide to raise the countercyclical buffer rate to 2 per cent in Q2 2022.[29] This increase completes the steps FI initiated in September 2021 to gradually bring the buffer rate to its neutral level.

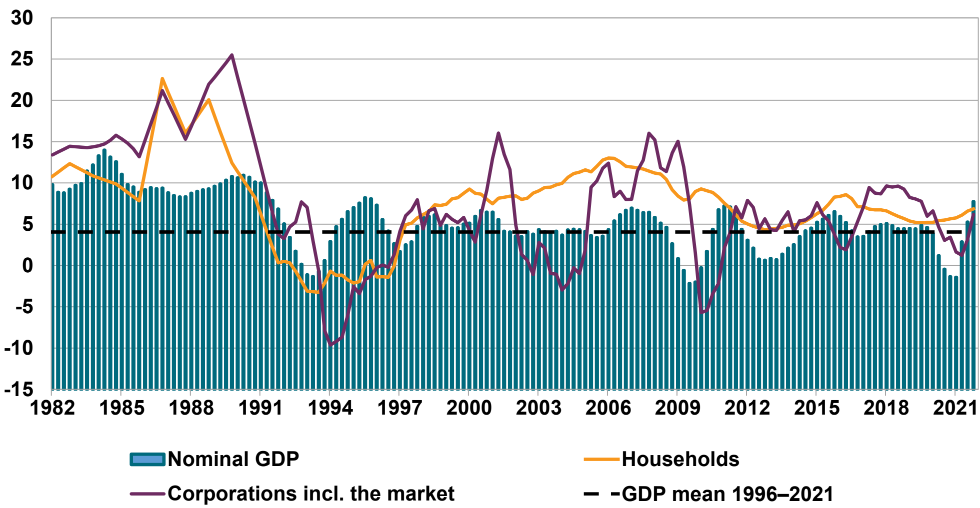
Since March 2021, FI has been striving for a positive neutral level of 2 per cent for the countercyclical buffer rate during normal periods. "Positive neutral level" means that increases are begun at an early stage of the economic cycle before there are clear signs of rising systemic risks. On 28 September, FI decided to initially raise the countercyclical buffer rate to 1 per cent. FI made this decision based on its assessment that the economic recovery and the banks' capital and profitability were sufficiently strong to begin to raise the buffer. In its previous stability report, FI indicated its intent to raise the countercyclical buffer rate to 2 per cent in Q2 2022 on the condition that the economic recovery continues, credit losses are low and the banks have sufficient capital to meet the non-financial corporations' demand for credit.

Sweden's nominal GDP grew by 7.7 per cent on an annual rate in Q4 2021, up from 5.3 per cent in Q3 (Diagram 18). The economic development thus shows continued signs of strength in its recovery after the pandemic.[30] However, Russia's invasion of Ukraine has had a significant impact on the economic development in Europe, which has a negative impact on the outlook for the Swedish economy. According to the most recent report by the National Institute of Economic Research, growth forecasts for 2022 are down from 3.9 per cent to 3.3 per cent. The forecast was lowered from a high level, though, and the Swedish economy overall is expected to enter into a mild boom in 2022. FI makes the assessment that the combination of the strength of the economic recovery and the banks' strong financial position and good profitability means that the buffer rate can be raised to 2 per cent without having a negative impact on the credit supply.

[29] Decisions to raise the countercyclical buffer rate normally have an implementation period of 12 months. A decision to raise the buffer rate would thus go into effect in June 2023.
[30] High nominal growth rate also reflects rising prices.

18. Lending to corporates and households and nominal GDP

Annual percentage change



Source: Statistics Sweden.

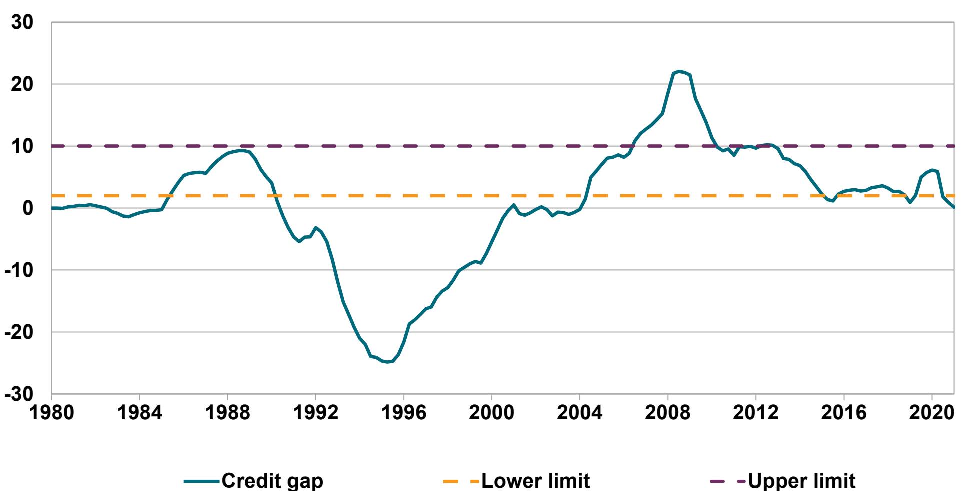
Household debt is continuing to grow at a rapid rate. In Q4 2021, total household debt increased by an annual rate of 6.9 per cent. This annual growth rate for households has risen gradually since the outbreak of the pandemic, and debt has grown significantly faster than household income during the same period (Diagram B1). During the second half of 2021, corporate debt also began to grow at a higher rate, and in the fourth quarter it reached a growth rate of 6.2 per cent. But the high GDP growth means that both the credit-to-GDP gap and the countercyclical buffer guide remain at 0 per cent (Diagrams 19 and 20). [31]

The continued high lending rate to households and the rapidly rising corporate debt indicate rising systemic risks. This supports continued increases to the countercyclical buffer rate above its neutral level. The war in Ukraine has also led to rising energy and commodity prices, which has resulted in increased inflationary pressure. In addition to its slowing effect on the business cycle, the inflationary pressure has led to rising interest rate expectations. From a forward-looking perspective, it is likely that the rising interest rates will slow growth in household and corporate debt. If the interest rate changes dramatically, in a worst-case scenario this can trigger systemic risks associated with the high debt of the private sector. FI therefore is not making any assessment of continued increases to the buffer rate, given the current circumstances, other than the increase to 2 per cent. FI is instead choosing to wait and see what will happen, and it will monitor the risks associated with the growth in the debt of households and non-financial corporations very carefully.

[31] The buffer guide is calculated with a slight lag since it is based on GDP data. The chapters “Households” and “Non-financial corporations” show more recent data of the growth in debt.

19. Credit gap according to the standardised approach

Deviation from trend, ppts

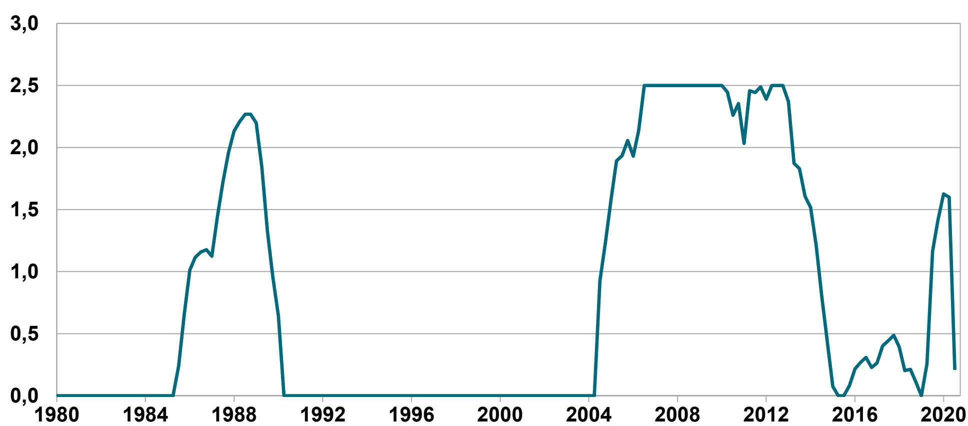


Sources: FI and Statistics Sweden.

Note: The dashed lines show the thresholds (2 and 10 per cent, respectively) that according to the standardised approach are to be used to transform the credit-to-GDP gap into a buffer guide.

20. Buffer guide according to the standardised approach

Per cent



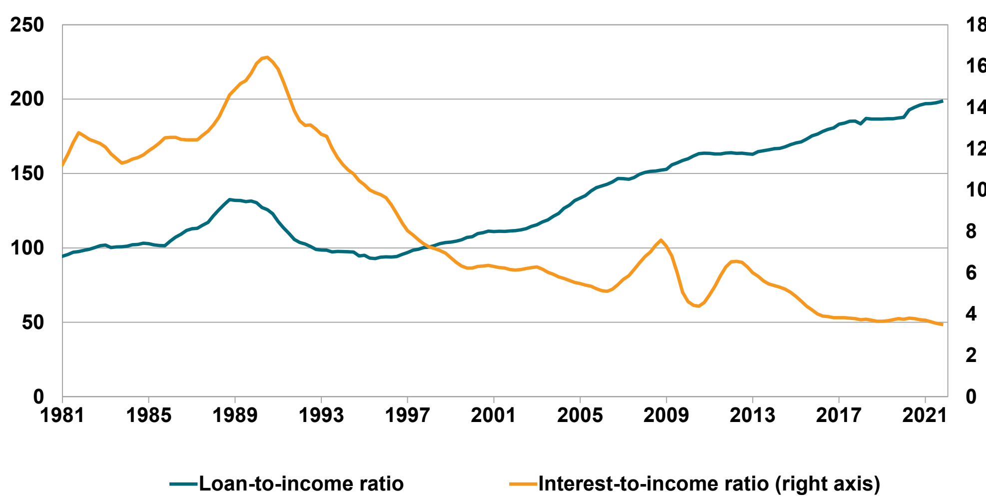
Sources: FI and Statistics Sweden.

Appendix of diagrams

Households

A1. Higher debt and lower interest payments

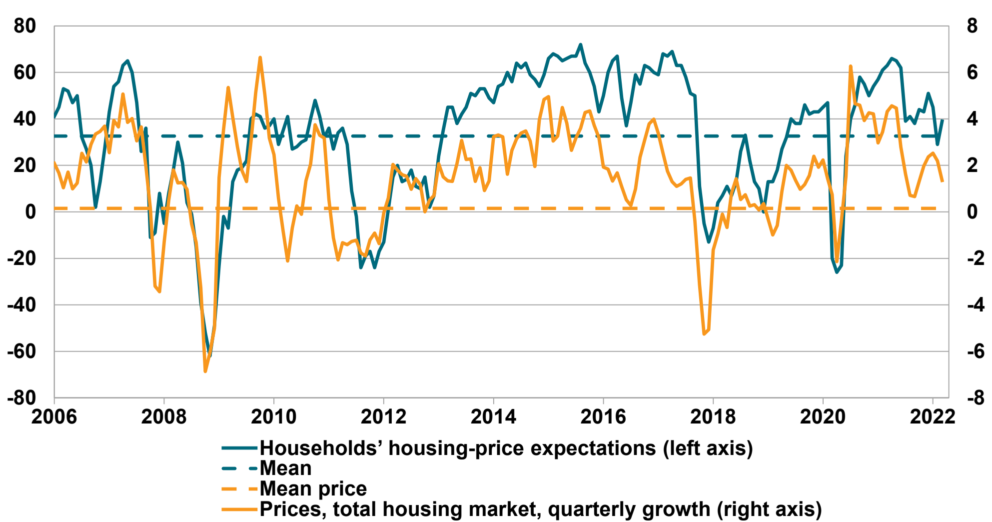
Per cent of disposable income



Source: Statistics Sweden.

A2. Lower housing price growth and expectations

Net figures and per cent

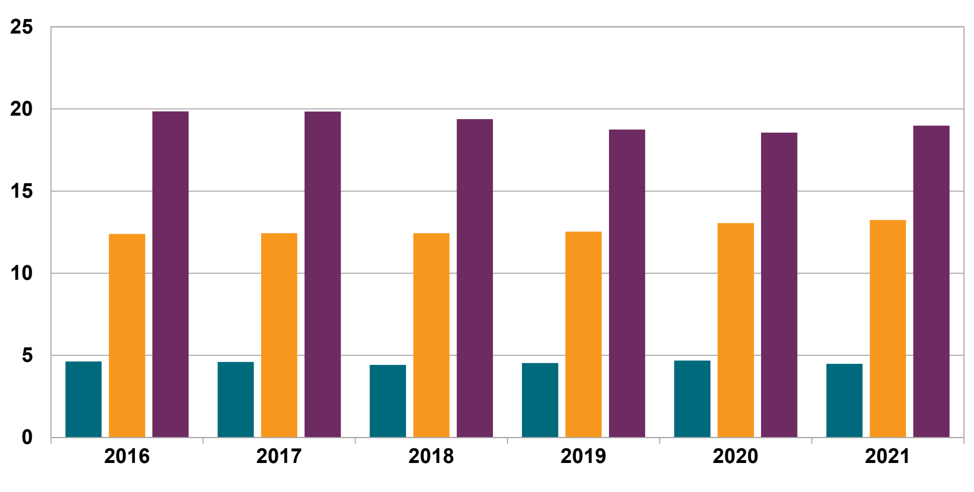


Sources: SEB and Valueguard.

Note: Dashed lines refer to historical average. The real price growth series is deflated with CPIF.

A3. New mortgagors are more sensitive to interest rates

Per cent



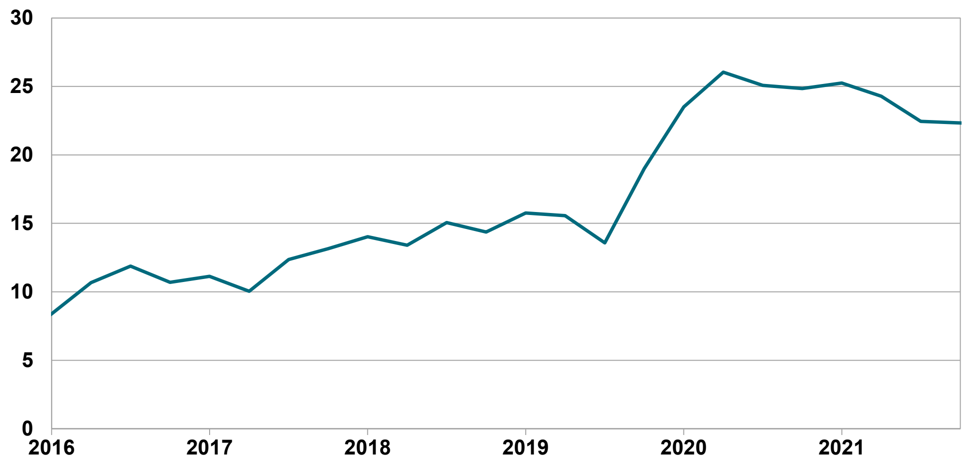
Source: FI.

Note: Interest-to-income ratio refers to interest payments on total loans as a share of borrowers' disposable income. Debt service ratio refers to interest and amortisation payments on total loans as a share of borrowers' disposable income. An interest rate that is 3 percentage points higher is applied to mortgagors with a value-weighted fixed interest rate period of less than 24 months.

Non-financial corporations

A4. Commercial real estate firms debt ratio is increasing sharply

Change in per cent over three-year period.

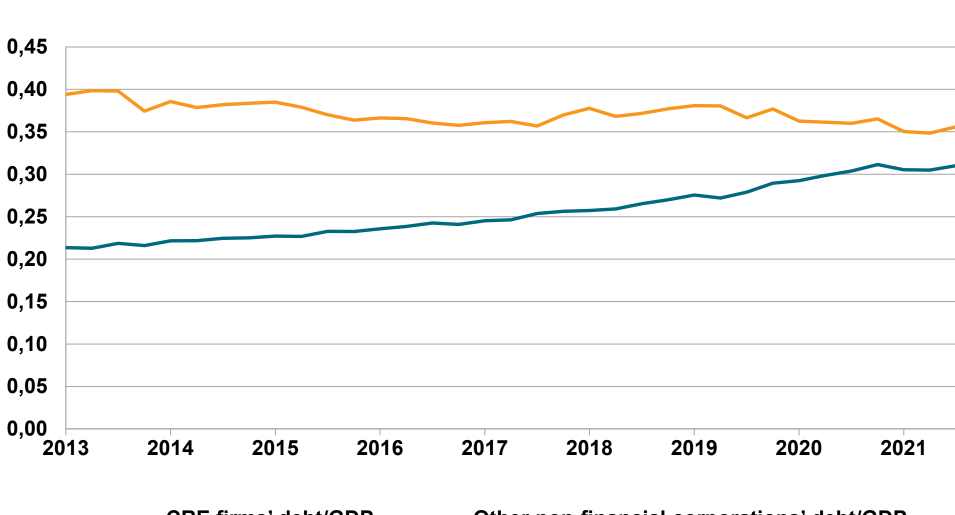


Sources: FI and Statistics Sweden.

Note: Refers to growth over three years in commercial real estate firms' debt divided by GDP (debt ratio).

A5. The increase in non-financial corporations' debt ratio is driven by commercial real estate firms.

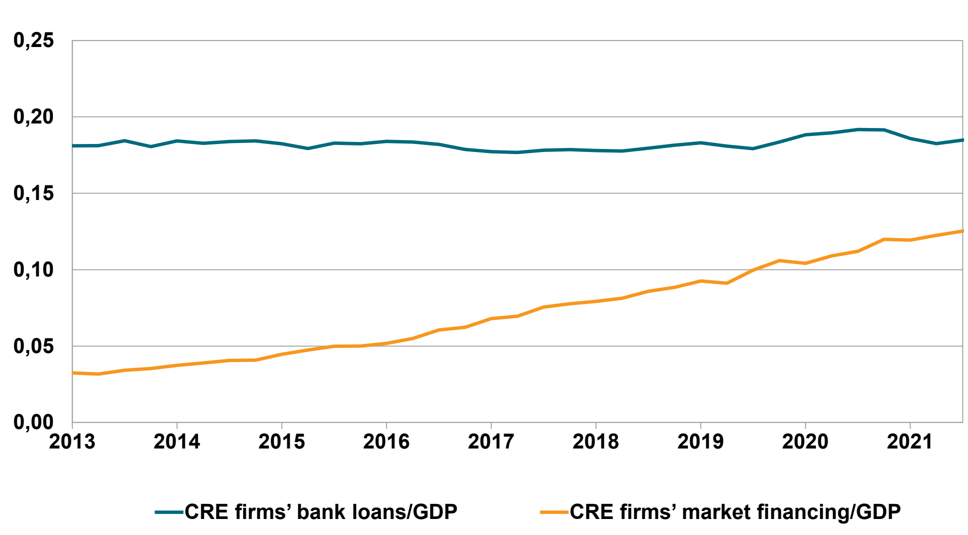
Ratio



Sources: FI and Statistics Sweden.
Note: Refers to debt/GDP for commercial real estate firms and other non-financial corporations. Tenant-owner associations are excluded.

A6. Increase in commercial real estate firms' debt ratio is driven by market financing

Ratio

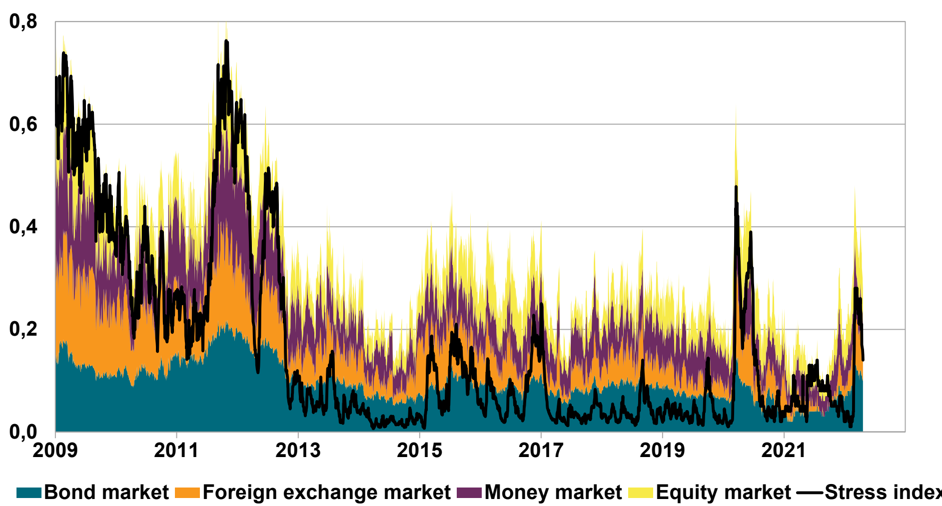


Sources: FI and Statistics Sweden.
Note: Refers to bank loans/GDP and market financing/GDP, respectively, for commercial real estate firms.

Stability in the financial markets

A7. Stress on the financial markets has increased

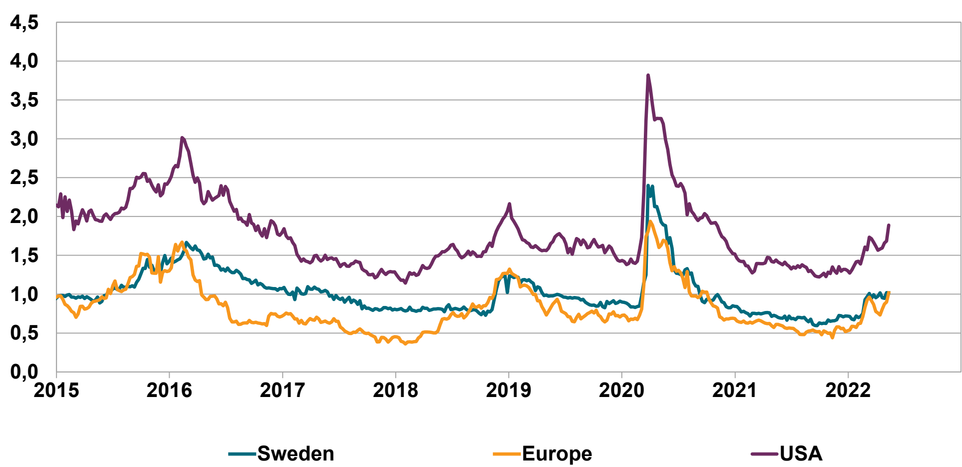
Ranking (0=low stress, 1=high stress)



Sources: Bloomberg and Sveriges Riksbank.
Note: "The Swedish stress index was created by Sveriges Riksbank using a method similar to that used by the ECB for the European stress index. See Johansson and Bonthron (2013), "Further development of the index for financial stress for Sweden", Economic Review 2013:1. Sveriges Riksbank. Last observation 2022-05-17."

A8. Risk premiums have begun to rise

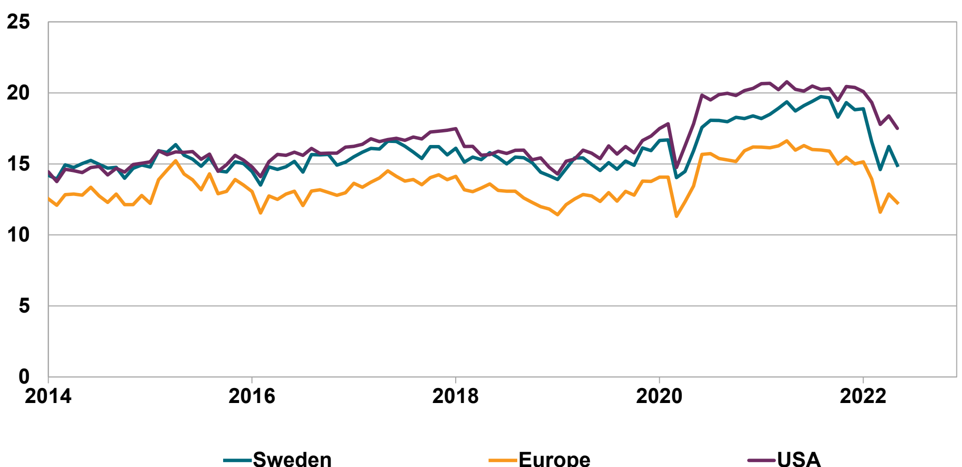
Percentage points



Source: Refinitiv Datastream.
Note: Interest rate differentials for corporate bonds with credit rating BBB in Sweden, the Euro zone and the USA. Calculated as the difference between the Refinitiv corporate benchmark for Sweden, the euro zone and the USA and Refinitiv's interest rate swaps in each respective currency. All with a maturity of 5 years.

A9. Valuations on the stock market have fallen

18-month forward-looking P/E ratio

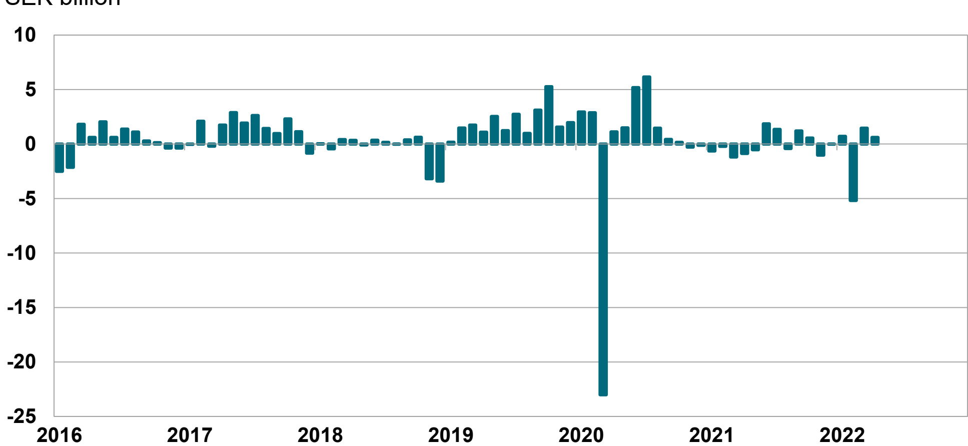


Source: Refinitiv Eikon.

Note: P/E stands for Price/Earnings. Forward-looking P/E ratio refers to earnings per share in relation to analysts' earnings forecasts per share for the coming 18 months. Refers to companies on the Swedish, European and US markets.

A10. Net inflow in corporate bond funds

SEK billion



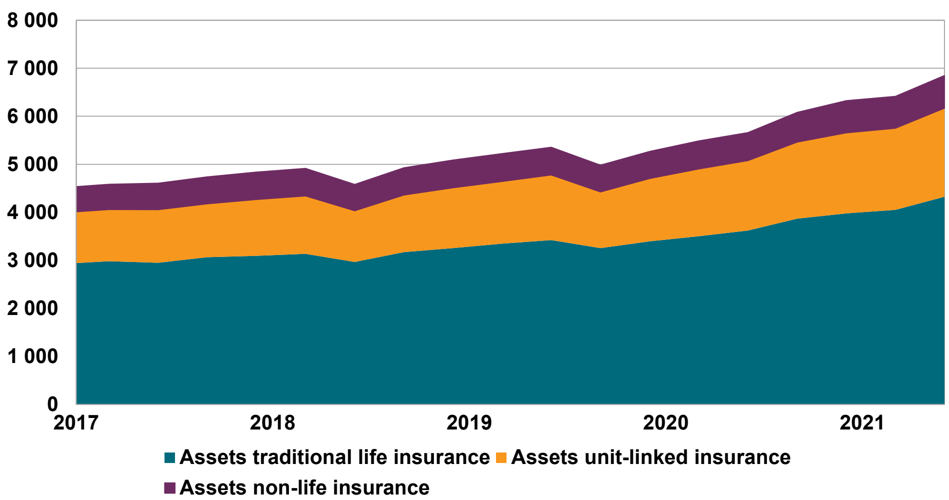
Source: Swedish Investment Fund Association.

Note: "Net flows" refer to the difference between deposits and withdrawals in corporate bond funds.

Stability in the insurance sector

A11. Manage large amounts

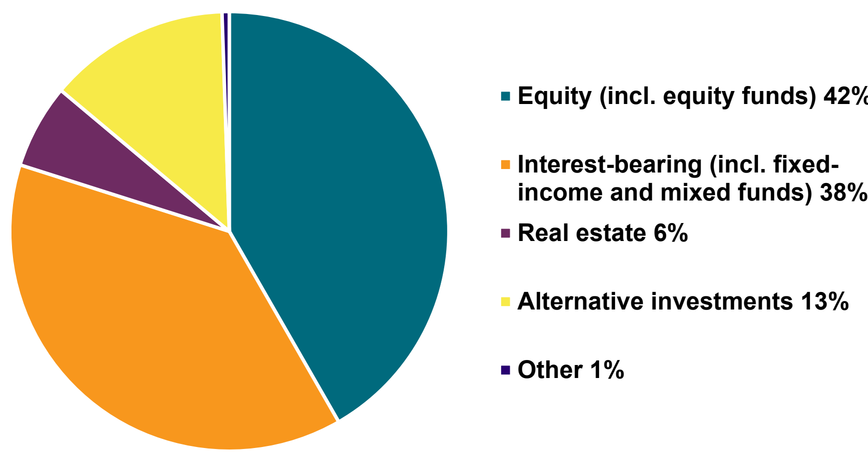
SEK billion



Source: Statistics Sweden.
Note: Insurance undertakings' investment assets broken down into traditional life insurance, unit-linked insurance and non-life insurance. Value as of 31 December 2021.

A12. Distribution of investment assets

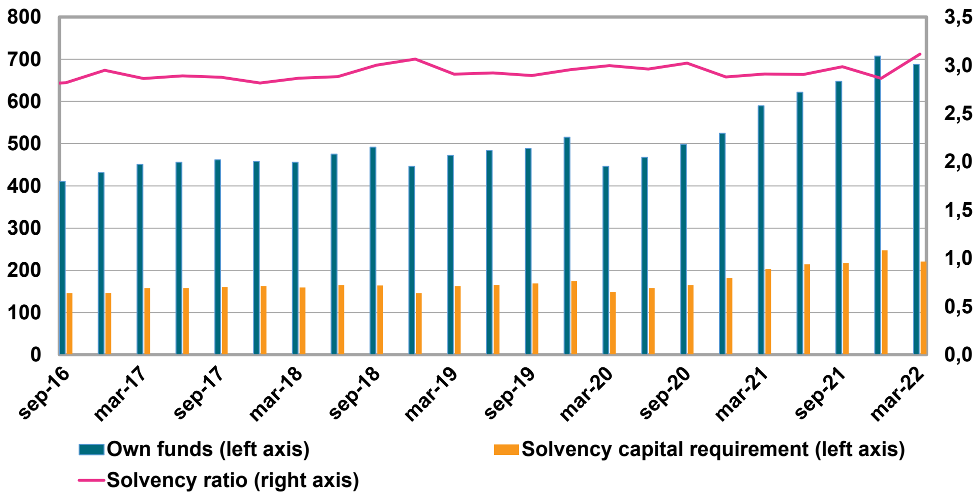
Per cent



Source: FI.
Note: Distribution of investment assets in life insurance undertakings and institutions for occupational retirement provision, excluding unit-linked and deposit insurance, as per 30 September 2021.

A13. Solvency ratios still at good level

SEK billion (left axis) and ratio (right axis)



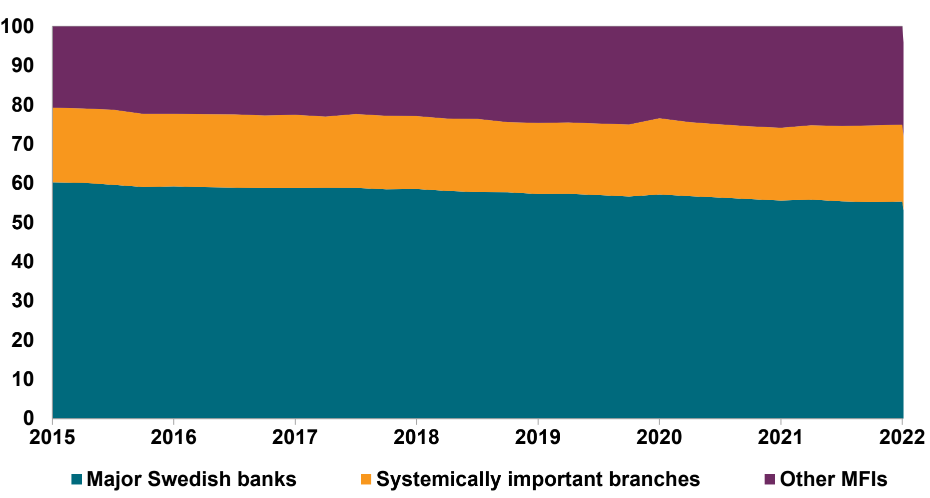
Source: FI.

Note: Own funds, solvency capital requirements, and solvency ratio (own funds divided by solvency capital requirements) according to the Solvency 2 reporting.

Stability in the banking sector

A14. Major banks lose market shares but are still dominant.

Per cent



Source: FI.

Note: Refers to lending to Swedish households and corporates. The market shares of the major banks have decreased from 80 to 75 per cent since 2014.