FINANSINSPEKTIONEN

Stability in the Financial System

25 November 2020

25 november 2020
Ref. 20-22103

TABLE OF CONTENTS

Foreword

Economic and financial crises are usually rooted in macroeconomic or financial imbalances. But not this time; this time the crisis has been caused by a completely external factor – a virus. Both the fall in economic growth and the measures to handle this development have also been exceptional.

Interestingly, the financial shock has not only had a unique origin, but its impact has in many ways been unusual and in part contradictory. For example, GDP is expected to slow sharply this year. At the same time house prices have continued to rise. Some sectors also have experienced extreme downturns, while others appear to have been more or less unaffected, or even benefited. Share prices, after an initial substantial drop, also have followed a positive trajectory.

Broad and far-reaching support measures were necessary in the early stage of the crisis, but they also come at a cost. In addition to the effects on public finances, the support measures could encourage, for example, increased risk-taking and rising debt among various actors. The crisis could also lead to structural changes in the economy. From this perspective, it is important that the support measures evolve so as not to merely uphold the status quo. Rather, they will have to bridge the gap to a partially new economic reality.

At some point the support programs will be discontinued. We need to weigh the risks that arise for both the economy and financial stability of taking action too early or too late. This applies to the measures Finansinspektionen (FI) has taken as well: an exemption from the amortisation requirements on mortgages, a lowering of the countercyclical buffer rate, and a recommendation to banks not to pay dividends. The problem, naturally, is that it is difficult to know when the time is right. For FI, it has been good to learn that the buffers that were built up after the financial crisis in 2008 made the financial system more resilient and helped maintain the credit supply. It is therefore important to build up this buffer capacity again after the crisis.

Stockholm 25 November 2020

Erik Thedéen

Director General

Summary

The pandemic has triggered a deep economic recession in many countries, even if a slight recovery has begun. Extensive support measures have mitigated the economic impact and reduced the uncertainty on the financial markets. During the autumn, infection rates have once again begun to increase and several countries have introduced new restrictions, which will dampen the economic recovery. This also could enhance vulnerabilities in the form of weak economies, public finances and banking systems in Europe and in the long run impact financial stability. Sweden's economic situation is more favourable, but at the same time the Swedish economy and the financial system are closely linked to the rest of Europe.

The support measures and expectations of low interest rates moving forward have enabled financial markets and asset prices to recover after the turbulence in the spring. However, even if the Swedish corporate bond market, for example, is once again functioning, the major problems of the spring showed that resilience on the market needs to be strengthened.

Swedish insurance undertakings and occupational pension undertakings have satisfactory solvency, which, combined with the support measures that quieted the market, meant that, in the spring, they did not need to make any major changes to their investments. FI also makes the assessment that these undertakings are able to continue to withstand major movements within the financial markets.

The major Swedish banks entered the crisis with good profitability and satisfactory capital buffers. Demand for credit to date has been relatively low compared to other countries, and the banks' credit loss provisions have not increased significantly. Therefore, there has been limited impact on the banks' capital adequacy. FI considers the banks to have sufficient resilience to be able to supply the economy with loans even if the need for loans increases or the banks experience significant losses. At the same time, the rising infection rates mean that the forecasts continue to be uncertain. As a result, dividends to shareholders should become relevant first after the recovery has established itself and is not being heavily impacted by the spread of the virus. It is also important that the banks can maintain both the supply of credit and sound credit quality. The banks' exposures to commercial real estate continue to constitute a vulnerability, and the additional capital requirements FI decided on previously are important.

The support measures taken have been necessary, but they could result in increased stability risks in the form of higher risk-taking and higher debt. This applies to participants on the financial markets as well as households and non-financial firms for which the low interest rates encourage more borrowing. House prices and household debt are once

again growing significantly faster than income. Debt is also continuing to increase among non-financial firms. Continued support measures must be adapted to the greatest extent possible to prevent the build-up of excessive vulnerabilities.

Threats to financial stability

In many countries, the pandemic has caused a deep economic downturn, even if there has been a slight recovery. However, with infection rates again on the rise and the introduction of new restrictions, economic activity will be negatively affected. The extensive measures that have been taken have so far mitigated the economic impact and maintained stability in the financial system. Even if the measures have been necessary, they could be hiding or enhancing vulnerabilities that might be exposed when the measures are phased out.

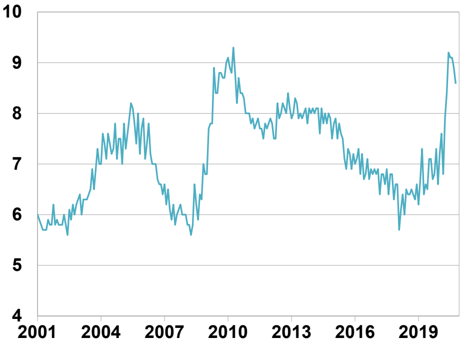
The ongoing economic downturn is different from earlier crises since it was triggered by extensive restrictions and changed behaviour to limit the spread of a virus rather than economic or financial imbalances. The economic system has suffered an exceptional shock, and the vigorous measures that were taken have been crucial for mitigating the economic impact.

SHARP DOWNTURN IN THE ECONOMY

In the spring, societal lockdowns to reduce the spread of the coronavirus brought an abrupt stop to economic activity around the world. During the second quarter, GDP dropped sharply in both Sweden and other countries. In Sweden, GDP fell by 8.3 per cent in the second quarter compared to the first quarter, in seasonally adjusted figures. This was a large drop from a historical perspective. For the manufacturing industry, weaker export demand resulted in lower production. The decline was enhanced initially by supply shocks as global production chains were disrupted. Production also fell in the service sector, but not to the same extent as in the industrial sector. Concerns about the spread of infection and social distancing recommendations slowed household consumption. Unemployment, or a fear of becoming unemployed, may have also contributed to households further reducing their consumption.

1. Unemployment has increased

Per cent



Sources: Statistics Sweden and Refinitiv Datastream.

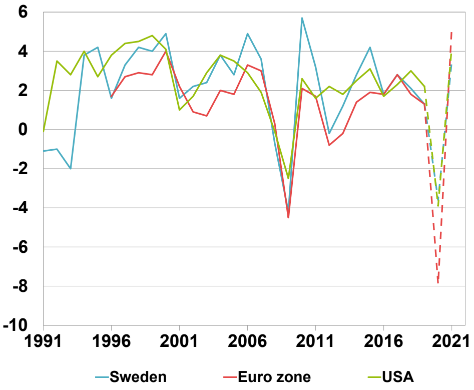
Note: Seasonally adjusted data.

The impact on the labour market has been considerable in most countries, including Sweden. The number of announcements of potential redundancies increased sharply initially but have since decreased. At the same time, unemployment has increased significantly. In October, unemployment was 8.6 per cent, compared to 7.2 per cent in January this year (Diagram 1). Economic analysts expect high unemployment in 2021 as well.

During the summer, the Swedish economy began to recover. Industrial production rebounded quickly. Service production and household consumption somewhat recouped their previous decline. Overall, GDP growth is expected to be negative in Sweden, the euro zone and the

2. Deep economic downturn

Annual GDP growth, per cent



Source: NIER.

Note: Dashed lines are based on NIER's forecast from 30 September.

USA in 2020 and positive in 2021 (Diagram 2). However, the expectation is that GDP will not return to pre-crisis levels for a while.

Infection rates have once again begun to rise in Europe, and new restrictions have been introduced in both Sweden and other countries. It continues to be unclear how long the restrictions will be in place, but economic activity will be impacted and the economic recovery dampened, even though the extent to which the recovery will be slowed is uncertain. Therefore, growth will be weaker than what was previously forecast.

In order to assess how an increased and more drawn-out spread of the coronavirus might impact financial stability, FI has used a macrofinancial scenario in this report (see "Macrofinancial scenario to assess the impact of a more drawn-out crisis" below). The scenario is used as a basis for FI's stress tests, which aim to highlight how banks and real estate firms could be impacted if the economy were to worsen. Stress tests are one of several ways to test resilience and are based on assumptions about how macrofinancial factors will develop going forward.

Macrofinancial scenario to assess the impact of a more drawn-out crisis

In this report, FI uses a macrofinancial scenario that entails a development where a second wave of infections causes a renewed and significant negative impact on the economic and financial development in the near future. The economic recovery is not expected to begin until later in 2021. The regions and countries that are included are Sweden, the other Nordic countries, the Baltic countries, Germany, and the UK. The scenario is based on the Riksbank's and the OECD's scenarios.[1] The development in the scenario for GDP and unemployment is more negative than the National Institute of Economic Research's (NIER) most recent forecast, which was made before the current increase in infections (Table 1).[2] FI also makes assumptions about how a number of variables will develop, such as share and house prices, commercial real estate firms' financing costs, and ten-year government bond yields. The commercial real estate prices are based on an estimate.[3]

1 The Riksbank's scenario from 22 September 2020 and the OECD's scenario from 10 June 2020 with a second wave of infections. The scenarios include 2020 and 2021. Assumptions are used for 2022. Table 1 does not show the scenario for Germany and the UK. For more information about these, see http://www.oecd.org/economy/outlook/statistical-annex/

2 NIER's forecast from 30 September is based in part on the assumption that the rate of infection peaked in Sweden during the second quarter. The scenario used in this report is also more negative than the most recent forecasts from forecasters (Swedbank 2020-11-05 and SEB 2020-11-10).

3 For more information, see Aranki, T., Lönnbark, C. and Thell, V. (2020) *Stress test of bank lending to commercial real estate firms*, FI Analysis 24, FI.

Table 1. Scenario with higher infection rates and comparison to NIER's most recent forecast
Per cent

	Sweden		Nordic countries	Baltic countries	NIER's forecast for Sweden	
	GDP	Unemployment	GDP	GDP	GDP	Unemployment
2020	-4.9	9.2	-4.9	-5.3	-3.6	8.7
2021	1.0	10.9	1.5	2.4	3.5	9.1
2022	5.4	9.3	3.6	4.0	3.3	7.9

	Sweden				
	House prices	Commercial real estate prices	Share prices	Financing cost for commercial real estate prices	10-year yield
2020	5.2	-11.6	0.4	2.4	-0.1
2021	-3.0	-9.5	-2.0	3.0	-0.4
2022	4.4	9.3	3.4	2.7	0.1

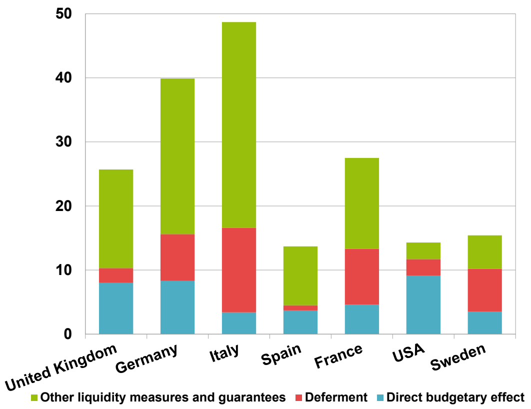
Source: FI, NIER, OECD and the Riksbank.

Note: GDP, house prices, commercial real estate prices and share prices are stated as annual percentage change. Unemployment, 10-year government bond yield, and financing cost for commercial real estate firm are stated as annual average in percentage level.

VIGOROUS MEASURES DAMPENED THE ECONOMIC IMPACT

In order to dampen the economic impact of the coronavirus pandemic, governments, central banks, and supervisory authorities have taken extensive measures. Governments in different countries have focused on supporting demand and implemented targeted initiatives for both households and businesses. Some measures support employment, such as short-term furloughs, and others defer tax payments and provide direct support for businesses. Support and guarantees also targeted financial firms and markets. The aim of the support that targeted the financial sector has been to enable banks and investors to provide households and viable businesses with loans and financing so they can withstand the crisis. The scope of the fiscal policy measures is very large, even if it differs between different countries (Diagram 3). In Sweden, the measures amount to around 15 per cent of GDP. Fiscal policy will be expansive next year as well.

3. Extensive policy measures have been taken in 2020
Per cent of GDP in 2019

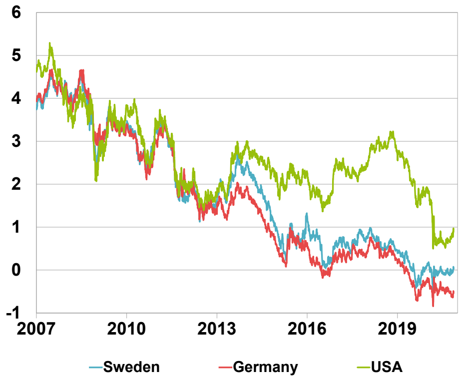


Sources: Bruegel and NIER.

Note: Measures with a direct impact on the budget result in lower public revenue or higher expenses. Regarding deferments, the budget balance in 2020 is reduced, but repayment will occur at a later point. Other liquidity measures and guarantees do not lead to a reduced budget balance but create contingent liabilities that could lead to future costs.

Central banks have injected liquidity into the financial system. through lending programs to facilitate banks' credit supply to non-financial firms and expanded financial asset purchasing. Many central banks have also started to buy or expanded existing purchases of corporate bonds. Supervisory authorities lowered capital requirements and clarified that the ongoing crisis is an example of a situation where the liquidity coverage requirement (LCR) may be breached if neces-

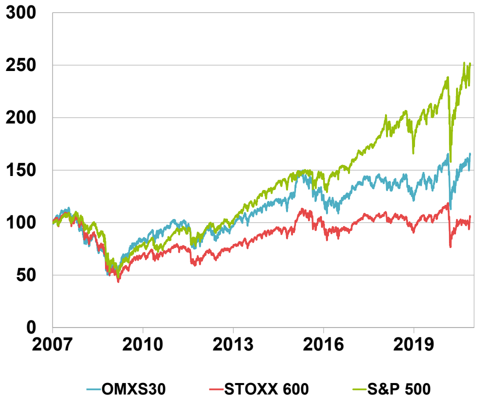
4. Government bond yields at low level
Per cent



Source: Refinitiv Datastream.

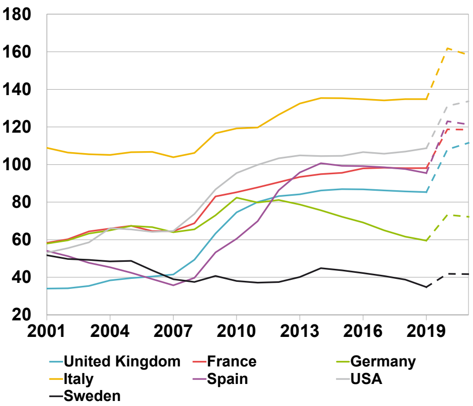
Note: 10-year government bond yields.

5. Equity index increased sharply
Index, 01/01/2007 = 100



Source: Refinitiv Datastream.

6. Sovereign debt is expected to increase
Per cent



Source: IMF.

Note: Consolidated sovereign debt in relation to GDP. IMF forecasts for 2020 and 2021.

sary. The aim is to create capacity for lending to households and corporates. FI has done this as well. Table 2 below summarises the major measures FI implemented since the pandemic broke out.

The measures have been crucial for stabilising the economic situation. Central banks' quantitative easing contributed to lower market rates. For example, government bond yields for longer maturities are low, and they are expected to remain low for a long time going forward (Diagram 4). Overall the measures have decreased the uncertainty on the financial markets and increased prices on riskier assets. For example, share prices have increased sharply since the initial fall at the start of the pandemic even though the economy is still weak (see "Stability in the financial markets" and Diagram 5). In many countries, including Sweden, house prices fell at the start of the pandemic but have continued to increase since then (see "Corporate and household debt").

Table 2. Measures FI has taken

Date	Measure
16 March	The countercyclical buffer rate for banks was lowered from 2.5 to 0 per cent.
16 March	FI clarifies that the ongoing crisis constitutes the type of situation where the LCR requirement on both an individual currency and total currencies may be breached.
20 March	FI communicates that insurance undertakings and occupational pension undertakings should now use their buffers.
24 March	FI communicates that banks and credit market companies are expected to temporarily stop dividend payments to safeguard resilience and lending capacity. FI later returned to this topic, most recently on 11 November when FI presented its view regarding under which circumstances it might be reasonable to make dividend payments (see "Stability in the banking sector").
14 April	Banks may grant all new and existing mortgagors an exemption from the amortisation requirement until 31 August 2021.

Note: More detailed information on all the measures that were taken is available at FI's website.[4]

MAJOR CHALLENGES REMAIN

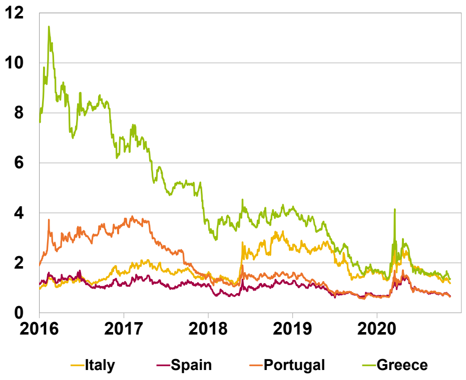
The support measures have meant that the financial system so far has been able to withstand the economic downturn. The new restrictions will have an impact on economic activity going forward, but there are also other factors that can impact both the economic recovery and the financial system.

Extensive measures put pressure on public finances

The fiscal policy measures are stressful for the countries' public finances, and public debt is expected to increase in 2020 and 2021 (Diagram 6). Tax revenue is also decreasing as a result of the sharp economic downturn. The public finances of several countries in the euro zone were already under pressure before the coronavirus pandemic started. Concerns about the economies of the more indebted countries

4 A compilation is available here: https://www.fi.se/sv/publicerat/coronaviruset/

7. Yield differential for more vulnerable economies' government bonds has decreased
Percentage points



Source: Refinitiv Datastream.

Note: Yield differentials for ten-year government bonds in several countries compared to Germany.

were visible at the beginning of the pandemic as the yield differential in relation to the German government bonds increased (Diagram 7). However, public debt has increased sharply in most countries. Despite the low interest rates, this could create problems even in the countries that were not the most indebted prior to the pandemic. Moreover, there is less room for additional measures than at the beginning of the year if the need to stimulate the economy were to increase, for example as a result of the economic impact of the newly introduced restrictions.

The fiscal policy measures are costly, and sooner or later fiscal policy in most countries will need to become less expansive. Sweden began the pandemic in a better situation than many other countries (Diagram 6). The Swedish economy has been strong for several years, and debt in the public sector has been low. For Sweden there is room to finance the measures – both current measures and potential additional measures – through loans for a long time and phase out the measures first when the economic situation allows it. At the same time, these measures might have hidden or enhanced vulnerabilities that might be exposed when the measures are phased out. The longer the measures are in place, the greater the risk that these vulnerabilities will be substantial.

Phasing out the measures may expose vulnerabilities

When the measures are phased out, any direct effects on the economy from the crisis may become visible. Non-financial firms supported by fiscal policy measures may experience increased liquidity problems. As a result, demand for financing could increase. As the economic downturn continues demand for financing could also increase among firms that so far have neither used fiscal policy support nor increased their loans. At the same time, an increasing number of firms may both have problems making their payments and declare bankruptcy. This could lead to increased credit losses for the banks.

So far, the Swedish banks have largely been able to meet lending needs from especially larger firms, and the banks' credit losses have not increased significantly. Lending to small and medium-sized firms has been more restricted (see "Stability in the banking sector"). Demand for bank loans among these firms may increase when the fiscal policy measures are withdrawn. After the problems in the spring, the situation on the corporate bond market improved, and it is now generally easier for non-financial firms to raise financing (see "Stability in the financial markets"). But the situation could deteriorate rapidly again. Even if not all firms will be granted loans, it is important that the banks are able to continue to offer financing to firms that are viable in the long term. Otherwise, the economic development might decline even further. In turn, this could lead to credit loses that potentially could have been avoided.

Measures can build up vulnerabilities over time

Interest rates have been low for a long time and they are now expected to remain low for a long period of time. This creates incentives for households and non-financial firms to borrow more, which could make them more vulnerable (see “Corporate and household debt”). It is also possible that some viable firms would have needed to streamline and change their business operations if they had not received state support. There is a risk that this type of improvement will not occur, thereby negatively affecting economic development in the long run.

The fact that central banks have purchased corporate bonds could result in the long term in inefficient firms continuing to be able to finance themselves on the corporate bond market at a cost that does not fully reflect the risk. The US central bank has gone one step further and included bonds with low credit ratings in its asset purchases.[5] Downward pressure on risk premiums means that market participants might invest in corporate bonds that could have a higher actual risk than what the participants in reality were aiming to achieve with the investment.

The crisis might also trigger far-reaching structural changes in the global economy. For example, demand for different types of goods and services may change. It is still not clear when a vaccine will be available. If this wait is longer than expected, it is possible that people’s behaviour will change and the change in their demand for goods and services could become more permanent. Non-financial firms, therefore, may need to change their operations, and some firms may find it more difficult to manage such a change. In addition to the risk of a drawn-out economic recession and the challenges associated with potential structural changes, firms will also need to manage risks associated with becoming more environmentally friendly. Some firms may find it difficult to make this adjustment and still remain profitable. This in turn could have an impact on the banks as well as financial stability (see “Risks associated with sustainability also a risk for financial stability”).

Several global factors could impact the Swedish financial system

The European banking sector has still not recovered from earlier crises. The banks’ profitability was low in general already before the pandemic and is now under additional pressure. The percentage of non-performing loans decreased in recent years, but there is a clear risk that they will increase again as more borrowers fail to make their

5 The US central bank can buy corporate bonds that before the crisis had a credit rating of at least BBB-/Baa3 but were then downgraded. On the day of the purchase, the bonds may not have a credit rating lower than BB-/Ba3, which is three steps below the four highest credit ratings (investment grade). The central bank may also purchase exchange-traded funds (ETFs) that invest in US corporate bonds – primarily funds that invest in corporate bonds with the four highest credit ratings (investment grade) but also those that invest in corporate bonds with low credit ratings.

payments due to the crisis. Among non-financial firms, profits are particularly low in countries with high sovereign debt. Some banks also have significant exposures to government bonds of highly indebted countries. If deteriorating government finances in the long run trigger a new debt crisis the economic development in Europe could deteriorate even more. This would place already weak European banks under additional pressure, and if firms with low profits were to have difficulties making their payments, this pressure could increase even more. Overall, this type of development could have consequences for the international financial markets and the Swedish economy, and thus the Swedish financial system.

There is also considerable political uncertainty related to the negotiations between the EU and the UK, and the risk of a no-deal Brexit remains. This type of uncertainty can be reflected on financial markets.

Risks associated with sustainability also a risk for financial stability

A number of years ago, FI began to work together with other supervisory authorities and central banks to develop the analysis of climate-related risks in the financial system. An international network, Network of Central Banks and Supervisors for Greening the Financial System (NGFS), was formed in conjunction with this. In its first report in 2019, NGFS concluded that climate changes are a source of financial risk.[6] They therefore fall within the responsibility of central banks and financial supervisory authorities.

The exposures of financial institutions can be affected by climate change-related damages to physical underlying assets.[7] They can also be affected by transition risks. [8] The level of the transition risks depends on how quickly society becomes greener and whether this transition will progress in an orderly or disorderly fashion. An orderly transition means that the transition will begin as early as possible and there will be time for well-balanced measures. A disorderly transition means that the transition will begin too late, negative global events might come as a surprise, and there will be a need for fast and powerful action.

The tempo and the forms of the green transition are primarily decided by new regulations, technological developments and a change in preferences on the market. These factors affect financial institutions' customers and thus the risk level of the institutions' exposures. Firms that insurance undertakings have invested in or to which banks have lent money can have different conditions for handling a transition to a green society. A firm that conducts largely fossil-intense activities, for example

6 For more information, see the report "A call for action – Climate change as a source of financial risk", April 2019, NGFS.

7 *Financial institutions* here refers primarily to banks, insurance undertakings, and occupational pension undertakings. *Physical underlying assets* can be, for example, assets that are pledged as collateral for bank loans, property investments or insured objects.

8 For more information, see the report by NGFS "Climate scenarios for central banks and supervisors", June 2020, NGFS.

oil extraction, will need to make extensive and costly changes, for example investing in new production facilities or changing the business model to start activities in new areas. However, investors' and lenders' sustainability assessments do not only include the impact on the climate but also the firms' impact on the biological diversity and social conditions. A firm may therefore need to make investments to improve itself in several different areas. Some business models may need to be abandoned completely.

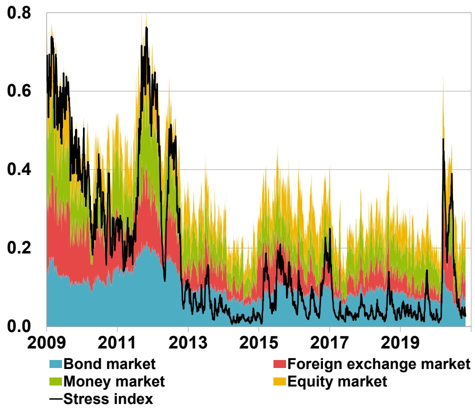
If many firms simultaneously need external financing for the transition through share issues or loans, there could be a shortage of non-risk-adverse capital on the market, particularly if many investors or banks make the assessment that some firms, despite new financing, will find it difficult to profitably handle a transition. For lenders who finance such firms, this could lead to credit losses. If the problem is widespread, this could threaten financial stability. FI has therefore chosen to become involved at an early stage, in part through international bodies such as the NGFS, the Basel Committee, the International Organization of Securities Commissions (IOSCO), and EU's financial supervisory authorities as well as actively integrating sustainability into its work with the firms under its supervision.

Stability in the financial markets

During the spring, the financial markets were marked by turbulence and price drops due to the pandemic. Powerful monetary and fiscal policy measures helped maintain the functionality of the markets and reduce concerns, but uncertainty continues to be high, the situation could change quickly, and prices could fall again. It is important to strengthen resilience, including on the Swedish corporate bond market.

8. Stress levels have fallen back

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

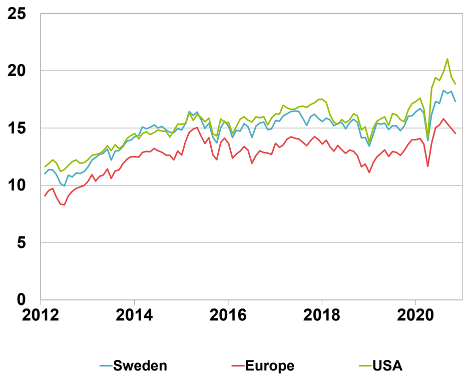


Sources: Bloomberg and Sveriges Riksbank.

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 2020-11-03.

9. Forward-looking stock market valuations are high from a historical perspective

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.

EXTENSIVE MEASURES REDUCED CONCERNS

As the coronavirus began to spread globally, uncertainty about the economic outlook increased dramatically. The economic development abruptly slowed in both Sweden and globally (see "Threats to financial stability"). Extensive monetary policy measures are one of the important reasons why the financial markets recovered after the turbulence. Fiscal policy measures to support businesses also help investors view future profit growth more positively.

The monetary policy measures aim primarily to continue to keep interest rates low and support a functional credit supply. Government bond yields have fallen and remained at a stable, low level, and they are expected to remain low for a while (Diagram 4 in "Threats to financial stability"). Even if the uncertainty remains, the stress levels on the financial markets have fallen (Diagram 8). Due to the combination of low market rates and the new policy measures, investors are seeking riskier assets in their hunt for yield. Even if there are large differences between different industries, the stock market valuations, in the form of forward-looking P/E ratios, have risen after a temporary dip. They are now higher in Sweden, Europe and the USA than before the pandemic began (Diagram 9).[9]

Impaired market liquidity in the spring

The uncertainty on the market in the spring contributed to the weakening of market liquidity on the bond markets, and the corporate bond market in particular, although the government bond and covered bond markets were also affected.[10]

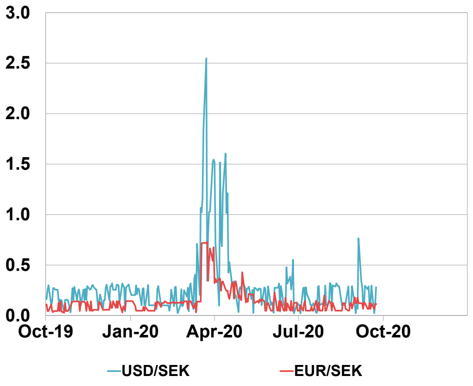
The Swedish currency swap market was also impacted negatively. Liquidity was heavily impaired between mid-March and mid-April. When access to foreign currency improved again, the situation on the currency swap market also improved (Diagram 10).

9 A historical average of forward-looking P/E ratios from 11/1/2012 to 11/11/2020. The historical average for Sweden is 14.6 per cent, for Europe 12.6 per cent, and for the USA 15.2 per cent.

10 For more information, see Crosta A. and Zhang D. (2020), *New liquidity indicators for the fixed-income market*, FI Analysis 21, FI.

10. Currency swap market was disrupted

Per cent

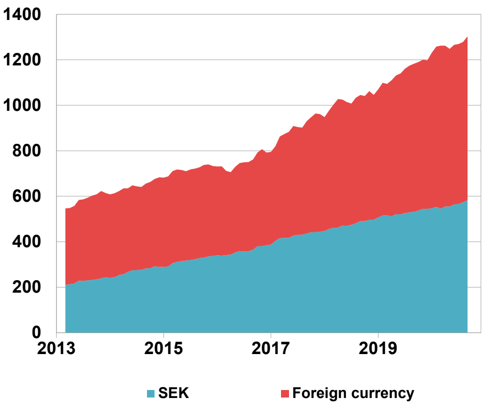


Source: Refinitiv Eikon.

Note: The diagram shows the difference in per cent between the closing bid and ask price for 3M currency swaps.

11. Corporate bond market has grown

SEK billion

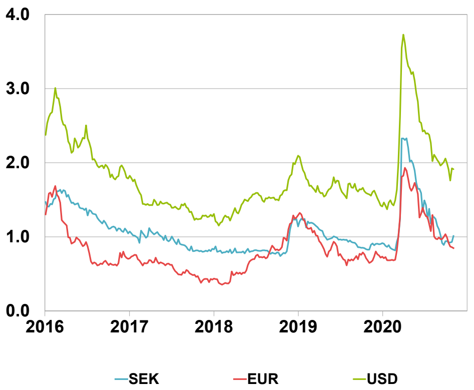


Source: Statistics Sweden.

Note: Bonds issued by non-financial firms. Outstanding nominal amount at month-end.

12. Risk premiums have fallen again

Percentage points



Source: Refinitiv Datastream.

Note: Yield 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 currency. All with a maturity of 5 years.

Risk-taking increased but uncertainty remains

Vigorous policy measures contributed to the recovery in the financial markets. However, there is still considerable uncertainty due to the rising infection rates and new restrictions, the already weak state of the economy and the economic outlooks. The low market rates are enticing investors to turn in part to corporate bonds, even though the credit risk has increased since many firms experienced a decrease in revenue or are having or may have difficulties paying their bills. The increase in risk-taking and rising asset prices could mean that vulnerabilities are building up, and there may be corrections in the future. A shock could lead to renewed turbulence, which once again could cause prices to drop dramatically.

LOW RESILIENCE ON THE CORPORATE BOND MARKET

The Swedish corporate bond market has grown in recent years (Diagram 11), and thus become an increasingly important source of financing for Swedish firms. When the pandemic broke out, the market experienced major problems. Investors were concerned about firms' creditworthiness, and they began to turn to other types of assets. It also became difficult for funds and other market participants to get a good overview of the price-setting of corporate bonds. Some had problems selling their holdings, and a number of Swedish fund management companies were forced to postpone the redemption and sale of fund units. Fund management companies in the EU and the UK experienced the same problems, but not to the same extent as the Swedish corporate bond funds. The risk premia increased sharply in many countries. This turbulence affected the primary market, and at the beginning of the spring it was difficult for firms to issue new bonds (see "Corporate and household debt").

Monetary policy measures, including notification and purchase of corporate bonds and commercial paper, has helped the corporate bond market recover. As a result, the issue volumes in corporate bonds with higher credit ratings have increased even though the situation for firms in the non-financial sector continues to be challenging. [11] Issue volumes for interest-bearing securities with shorter maturities have continued to be lower than before the pandemic. If there is an expectation that central banks will continue to purchase corporate bonds, investors could increase their investments in riskier firms.

The risk premia have fallen even if they are still somewhat higher than what they were at the beginning of the year (Diagram 12). Financial firms are also benefiting from the improved functionality on the bond markets (see "Stability in the banking sector").

11 In Sweden, issuers and corporate bonds that represent a large percentage of the outstanding volume do not have credit ratings. This applies to both smaller, relatively unknown firms and larger, relatively known firms.

The problems that arose on the corporate bond market indicate that there is a major need for improvements. The market was exposed to stress that it initially had difficulty managing. A functional market for corporate bonds and access to market financing even during a crisis are important for financial stability. Markets should be able to function at large even without extraordinary policy measures (see “Corporate bonds and financial stability”). FI would therefore like to take action to strengthen resilience on the corporate bond market. FI makes the assessment that this requires, for example, measures to create better transparency, liquidity, and price-setting. These areas are inter-related. As a first step, therefore, FI will take steps to promote high transparency; in other words, market participants should publish information about price and volume, for example, after a transaction.[12] This creates better conditions for robust liquidity and price-setting.

Corporate bonds and financial stability

The Swedish market for corporate bonds has grown steadily in recent years, with an increasing number of participants and larger volumes on the primary market. The bond market's emergence has also created more alternatives and more diversified forms of financing for Swedish non-financial firms. This has most likely decreased the firms’ financing costs, but lending that is increasingly market-based can also have consequences for financial stability. What is particularly important is if market financing makes the credit supply more stable or less stable during financial crises. A newly published FI Analysis has studied whether the credit supply from the Swedish capital markets has been more or less stable during financial crises, compared to the credit supply from the banking sector.[13] The analysis focuses on the supply of credit to non-financial firms.

Earlier research in the USA and the euro zone indicates that firms have easier access to financing via the capital markets than the banking sector during crises. Thus, greater market financing can be positive for stability. However, the results in the new FI Analysis shows that this conclusion does not apply in Sweden. This analysis shows that it has not been easier to issue corporate bonds in SEK during financial crises than to take a bank loan. However, firms with access to foreign capital markets have been able to benefit from issuing bonds in foreign currency.

One reason for these results could be that the bond market in SEK is still relatively small and its trade is affected by limited liquidity compared to bonds in foreign currency. Since investors tend to prefer investments in securities with good liquidity during crises, demand for corporate bonds in SEK could fall during such periods. Another conceivable explanation could be that the Swedish banks were not hit as hard as many foreign banks during the financial crisis and the following sovereign

12 For more information, see, for example: https://www.fi.se/sv/publicerat/nyheter/2020/fi-vill-se-okad-transparens-pa-foretagsobligationsmarknaden/

13 For more information, see Becker B., et al., (2020), “Can the bond market dampen the credit cycle?”, FI Analysis 23, FI.

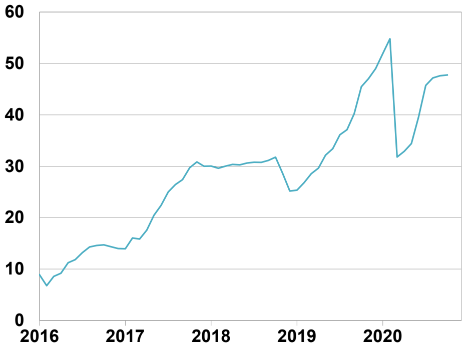
debt crisis in the euro zone. They therefore did not need to reduce their credit supply to the same extent as foreign banks, either.

The development of the Swedish corporate bond market has been driven in part by EU regulations, which has promoted market financing, and the higher capital requirements on banks that were introduced in the wake of the financial crisis. The low interest rates in Sweden and globally have also resulted in greater interest in corporate bonds since these generally offer better returns than government bonds and covered bonds. It is likely that the corporate bond market will continue to grow as an alternative source for financing. As it continues to grow, and if this form of investment becomes more common among Swedish institutional investors, it is possible that the liquidity on the secondary market will improve. This in turn could mean that the market would be able to take on a more stabilising role in the long run. FI also intends to actively work to improve the market's function and thereby enhance resilience.

BETTER TOOLS FOR FUNDS

13. Increased flows into corporate bond funds

SEK billion



Source: Swedish Investment Fund Association.

Note: Refers to accumulated net flows.

In conjunction with the turbulence on the financial markets during the spring, there were large flows out of corporate bond funds in Sweden. As the financial markets recovered, these outflows turned into net inflows again (Diagram 13). To reduce the risk that fund management companies must postpone redemption and sale of fund units when there is turbulence, there are tools that can facilitate the fund management companies' liquidity management. Discussions are currently under way about introducing swing pricing. This would mean that fund management companies could adjust a fund's net asset value per share to allow for the costs and price effects derived from large in- and outflows.[14] A fundamental prerequisite, though, is that there must be a fair valuation of the holder. It is therefore also important to have greater transparency on the corporate bond market and for as many actors as possible to make information available about, for example, prices.

FI takes the position that the fund management companies need to continue to review the liquidity management of their funds and assumes that the companies are following the new guidelines for liquidity stress tests that entered into force on 30 September 2020.[15] Furthermore, the companies must ensure that they have procedures and processes in place to value the funds even in stressed situations. The redemption of a UCITS should only be postponed in exceptional cases. FI therefore expects fund management companies to take all relevant measures to prevent a similar event from occurring again.

14 For more information about this, see, for example, Global Financial Stability Report, October 2020, IMF.

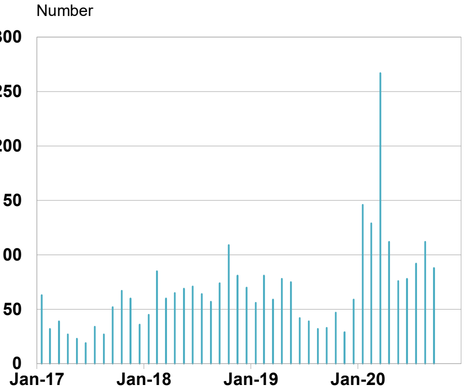
15 Guidelines on liquidity stress testing in UCITS and AIFs (ESMA34-39-897).

During the spring, it also became apparent that the risks associated with investing in corporate bond funds was higher than what many investors thought. The standard that is used in the EU to report the risk level in funds is based on the fund's historical volatility. If the measurement period does not contain stressed periods, it does not provide fair guidance for how volatility can change following a shock. Since the Swedish corporate bond funds historically have had low volatility, this metric underestimates the actual risk in these funds if the market conditions change. Parts of the fund industry have therefore decided to supplement the standardised backward-looking risk metric with a new metric that relates to credit risk. This metric should increase comparability between different fixed-income funds and will be published in the annual report and semi-annual report.[16] But this does not solve the problem of liquidity risks, which is due to funds with daily redemption investing in instruments with more limited liquidity. This is something that both the fund industry and authorities must continue to work with.

FINANCIAL INFRASTRUCTURE MUST WORK WELL EVEN UNDER STRESS

Well-functioning financial infrastructure is important for maintaining financial stability and the markets' functionality.[17] The pandemic introduced both financial and operating risks that the financial infrastructure firms have needed to manage. FI makes the assessment that the Swedish financial infrastructure firms have satisfactorily weathered the turbulence that arose during the spring. The day-to-day operations have functioned despite the transition to working remotely. They also managed the stress that arose on the financial markets and contributed to the increase in trade and clearing volumes.

14. Large price fluctuations required additional collateral to cover risk exposures



Source: Nasdaq Clearing.

Note: The diagram shows daily intraday margin calls.

One lesson learned from the financial crisis in 2008 was that the crisis was amplified by the difficulty in obtaining an overview of the counterparty risks arising from derivative exposures. To manage this, counterparty risks have now been largely concentrated to central counterparties. These firms act as the counterparty to both sellers and buyers in a financial transaction and therefore play a very important role in making the transactions work. The central counterparty must have sufficient financial resources to handle participant defaults, and as a result they collect collateral from participants. The extreme price fluctuations that arose on the financial markets in the spring meant that some participants needed to submit additional intraday margin calls to cover their risk exposures. During this period of uncertainty, all participants were able to submit extra collateral and thus meet the requirements. Now that the turbulence has subsided, the number of extra intraday margin calls has also decreased (Diagram 14).

16 For more information, see https://www.fondbolagen.se/aktuellt/pressrum/pressmeddelanden/branschen-forbattrar-info-om-rantefonder/

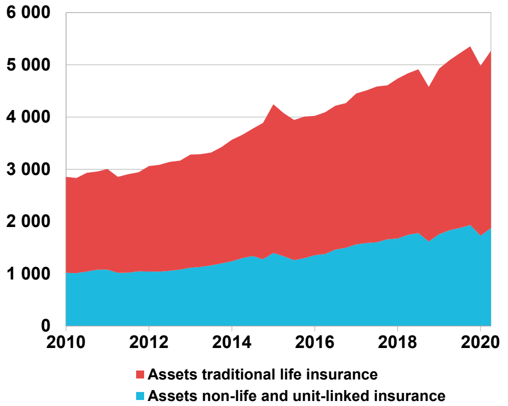
17 Financial infrastructure consists of technical systems that make it possible to pay and exchange securities, register ownership and help market participants manage their risks.

The outbreak of the pandemic and the turbulence it caused show the importance of having resilient financial infrastructure firms. They need to take their importance to the financial system and the economy into account during both good times and turbulent times. Some of the required components include good governance and control, stable IT systems, and competent and sufficient staffing. Sound handling and evaluation of suppliers of critical services, forward-looking risk management and sufficient financial strength are also required. Implementing these components in both their day-to-day operations and their plans for continuity and crisis management makes it more likely that the firms will be able to deliver their critical services even during times of high stress.

Stability in the insurance sector

Significant buffers enabled insurance undertakings and occupational pension undertakings to withstand the financial turbulence in the spring and maintain good solvency without making major changes to their investment portfolios. However, market rates are expected to remain low for a while, and firms continue to face the challenge of finding returns that will cover their long-term financial commitments.

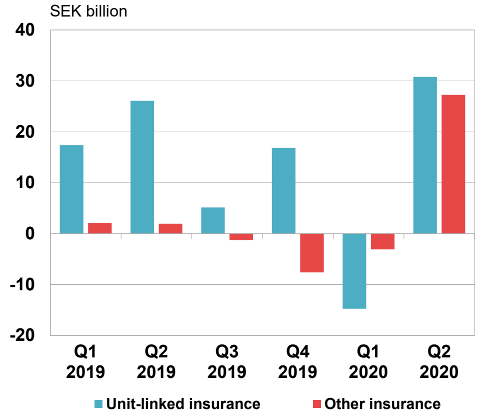
15. Insurance undertakings manage large amounts
SEK billion



Source: Statistics Sweden.

Note: Insurance undertakings' investment assets broken down into traditional life insurance and non-life insurance/unit-linked insurance.

16. Large sales of posts in unit-linked insurance during the first quarter
SEK billion



Source: Statistics Sweden.

Note: Net transactions shares and participations.

Insurance undertakings and occupational pension undertakings are major investors in the Swedish market, and it is primarily in this respect that they can affect financial stability. At the end of Q2 2020, insurance undertakings' total investment assets corresponded to around SEK 5,300 billion, of which, approximately SEK 3,400 billion was in traditionally managed life insurance[18] (Diagram 15).

RECOVERY ON STOCK MARKET IMPROVED SOLVENCY

The solvency of insurance undertakings and occupational pension undertakings was significantly impacted by the turbulence and drop in prices on the financial markets in the spring. Despite this, the undertakings were able to maintain good solvency. Even if several life insurance undertakings with traditional management experienced a decline in their financial position, they had sufficient buffers to avoid needing to reduce the risks in their investment portfolios. This meant that the market avoided procyclical behaviour that could have amplified the fall in prices on the financial markets. However, there were large reallocations of investments within unit-linked insurance, where policyholders choose the allocation themselves and bear the investment risk. The uncertainty that arose on the financial markets caused large outflows during the first quarter. As the stock market recovered in the second quarter, inflows increased sharply (Diagram 16).

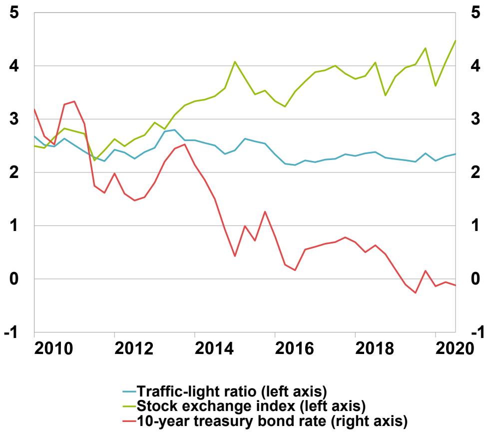
The financial markets have recovered since the spring's substantial downturn (see "Stability in the financial markets"). In particular, the stock markets rebounded strongly, and the solvency of the insurance undertakings thereby improved. At the end of the second quarter, the average traffic-light ratio[19] for the largest life insurance and occupational pension undertakings had more or less returned to the same levels as at the beginning of the year (Diagram 17).

18 Life insurance is a personal insurance linked to a person's life, health or work capacity. For traditionally managed life insurance, the insurance undertaking or occupational pension undertaking is responsible for managing the capital. Often, a type of guarantee is offered for the capital under management.

19 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 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.

17. Traffic-light ratios still stable

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



Sources: FI, Nasdaq OMX and Sveriges Riksbank.

Note. Traffic-light ratio for life insurance undertakings and occupational pension undertakings that still use the Solvency I regulations in relation to the growth of a yield index for Swedish shares and the ten-year treasury bond yield.

However, renewed turbulence and new price falls, on the stock market in particular, could weaken the undertakings' financial position. Undertakings that provide income insurance or credit insurance could also be impacted by the rising unemployment and general economic development (see "Threats to financial stability"). Even if this could cause problems in individual undertakings, they represent only a limited part of the insurance sector and are not judged to have an impact on financial stability.

New regulations for occupational pension undertakings

In December 2019, a new directive entered into force for occupational pension undertakings (IORP II Directive). Insurance undertakings with occupational pension activities have until 31 December 2022 to become an occupational pension undertaking and then apply the new directive. Other insurance undertakings will instead be subject to the Solvency II regulations for insurance undertakings.

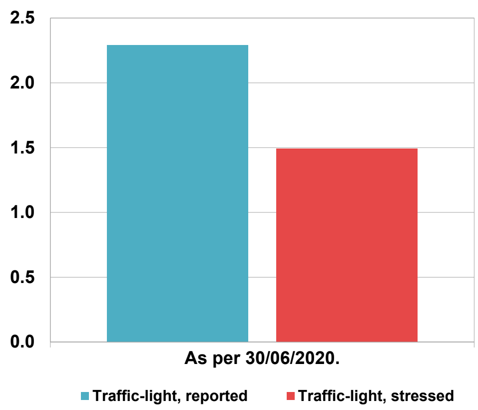
The new directive entails in part more provisions regarding governance and risk management and a statutory risk-based capital requirement. The previous solvency regulations did not have a risk-based capital requirement. Instead, these undertakings reported a risk-based capital need via FI's traffic-light supervisory tool. Undertakings that become occupational pension undertakings will no longer need to report under the traffic-light.

Undertakings that are subject to the new legislation currently represent around two-thirds of the life insurance sector's assets. FI makes the assessment that the introduction of the statutory capital requirement will not significantly affect these undertakings' investment strategies since they already apply the traffic-light, where financial risks are stressed in a similar manner. There should not be any need as a result of the new regulations for the undertakings to make large changes to their investment portfolios, which could have affected financial stability.

RESILIENCE CONTINUES TO BE SATISFACTORY

In order to assess the insurance undertakings' resilience, FI has estimated the effects of renewed uncertainty within the capital markets on the undertakings' solvency. The simulated scenario, like in the spring's stability report, has been adapted for the insurance sector and deviates from the macrofinancial scenario that is used in general in the report. The scenario assumes a sudden downturn in share prices corresponding to the range from the highest levels around 19 February 2020 to the lowest levels around one month later. In addition, interest rates follow a similar trend and credit spreads increase to the highest levels reached during the period. Property prices are assumed to fall in

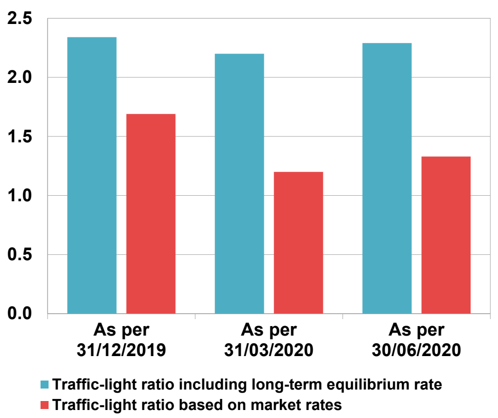
18. Sufficient buffers to handle renewed market uncertainty



Source: FI.

Note. Weighted traffic-light ratios for a sample of large life insurance undertakings and occupational pension undertakings. The stressed traffic-light ratios are estimated by FI.

19. Long-term equilibrium rate has major impact



Source: FI.

Note. Weighted traffic-light ratios for a sample of large life insurance undertakings and occupational pension undertakings. Ratios based on market rates (excluding the assumption of a long-term equilibrium rate) are estimated by FI.

accordance with the calibration in the European Insurance and Occupational Pensions Authority's (EIOPA) stress test for occupational pension institutions in 2019.[20]

The stress test has a significant impact on the traffic-light ratios of the largest insurance undertakings, but even if their resilience is weakened, all of the studied undertakings still have large buffers left (Diagram 18).

Importance of equilibrium rate for solvency

There is a risk that the regulations that apply to insurance and occupational pension undertakings underestimate primarily the life insurance undertakings' commitments during long periods of low interest rates. The reason for this is the assumption of a long-term equilibrium rate that is used to calculate the present value of the future pension liability. The equilibrium rate is significantly higher than the current market rates. This means that the value of the pension liability is lower than if market rates had been used in the calculation. As FI has pointed out in previous stability reports, the life insurance undertakings' good reported solvency is partly due to this rate (Diagram 19).

The impact of applying an equilibrium rate that exceeds the market rates becomes evident first at some distant point in the future. From the shorter perspective, the resilience must therefore be assessed as till being good.

GREATER RISK-TAKING IN INVESTMENTS

Swedish insurance undertakings and occupational pension undertakings are very dependent on the future development of the financial markets. The low market rates that have persisted for a long time have resulted in growing challenges for these undertakings, particularly for those with a large percentage of savings products that have financial guarantees.

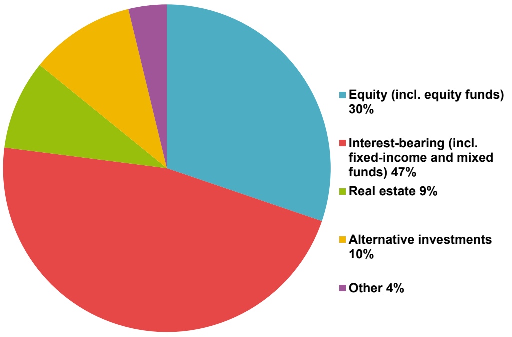
After the start of the pandemic, the market rates around the world fell to very low levels. This limits further possibilities for returns on bond portfolios. The interest rates are also expected to remain low for a longer period of time going forward (see "Threats to financial stability"), which increases the dependence on returns from riskier assets.

Investments in shares still constitute the largest percentage of the undertakings' riskier assets in their investment portfolios, but investments in property[21] and alternative assets have increased, in part to diversify the risks in the portfolios but also to increase the return. It is primarily the larger undertakings with long-term financial commit-

20 Property prices in EIOPA's stress test includes prices on residential properties and commercial properties.

21 The undertakings have holdings in both residential properties and commercial properties.

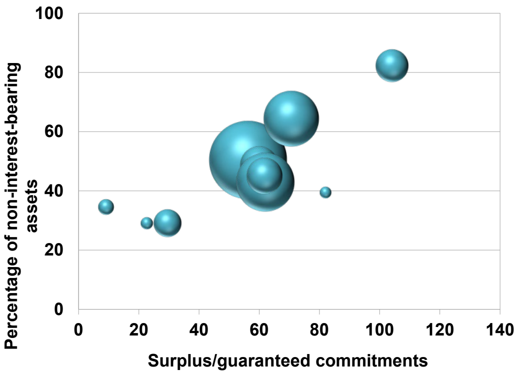
20. Distribution of investment assets
Per cent



Source: FI.

Note: Distribution of investment assets in life insurance undertakings and occupational pension undertakings, excluding unit-linked insurance.

21. Higher risk-taking requires stronger financial position
Per cent



Source: FI.

Note: The percentage of non-interest-bearing investments in life insurance firms' total investments (X-axis) and surplus in relation to guaranteed commitments (Y-axis). The size of the bubbles corresponds to the total assets in each company. As per 30 June 2020.

ments that are investing in riskier assets. Swedish insurance undertakings and occupational pension undertakings, compared to undertakings in other countries, have a relatively high share of risky assets (Diagram 20). This means that the undertakings must have sufficient buffers to be able to manage the higher risks. In general, life insurance undertakings with a high share of riskier investments also have a strong financial position (Diagram 21).

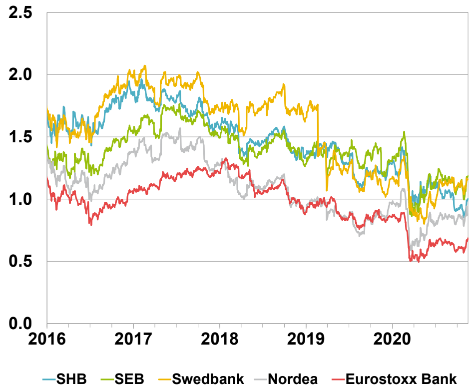
Ett ökat risktagande i placeringsportföljen kan ge högre avkastning, men det innebär också en större känslighet för prisfall på de finansiella marknaderna (se kapitlet Stabiliteten på de finansiella marknaderna). Share prices could fall quickly following major global events, which is also what happened in the spring. Property prices do not normally move as quickly, but they can be impacted by shocks to the capital markets, which in the long run could lead to falling property prices (see "Corporate and household debt").

Stability in the banking sector

The Swedish banking system entered the current crisis with good profitability and satisfactory capital buffers. The economic downturn initially resulted in a small increase in the provisions for credit losses. So far, demand for credit has not been as high as many expected in the spring. This could change in the future. Swedish banks' large exposures to commercial real estate continue to be a vulnerability.

22. Banks' P/B ratios have decreased

Multiple of book value per share

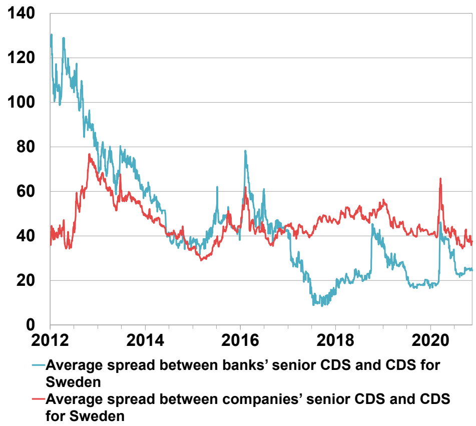


Source: Refinitiv Eikon.

Note: Price to book ratio. Eurostoxx Bank is an unweighted average of the constitutent banks.

23. Banks' credit spreads have increased

Basis points



Source: Refinitiv Eikon.

Note: Spread senior CDS (credit default swap) vs. Sweden CDS. "Banks" is an average of SEB, SHB and Swedbank. "Companies" refers to non-financial corporations.

At the beginning of the current crisis, the Swedish banking system was mainly in a satisfactory position, in part due to the good profitability and significant capital and liquidity buffers that the banks had built up since the global financial crisis in 2008–09. These buffers were largely a result of the regulatory changes that were implemented following the crisis. Swedish banks thus far have been able to maintain their profitability and equity ratios, and FI makes the assessment that the Swedish banking system can handle the current situation. FI's stress tests also indicate satisfactory resilience, even in a scenario where the economic downturn that began in the spring becomes even deeper (see "Stress test of the major Swedish banks").

BANK SHARES STILL UNDER PRESSURE, BUT CREDIT SPREADS SMALLER

The banks' share prices fell sharply at the beginning of the crisis, and as a result the three major Swedish banks' average P/B ratio[22] fell by almost 30 per cent (Diagram 22). The P/B ratios thereafter recovered as the economic impact of the pandemic has become more visible. However, in contrast to large parts of the stock market in general, the banks' share prices did not return to their pre-pandemic levels. This change most likely reflects lower expectations on the quality of their assets and future returns on equity. Some analysts also take the position that postponed dividends and the proposal to introduce a risk tax had a negative impact on the banks' valuation.[23]

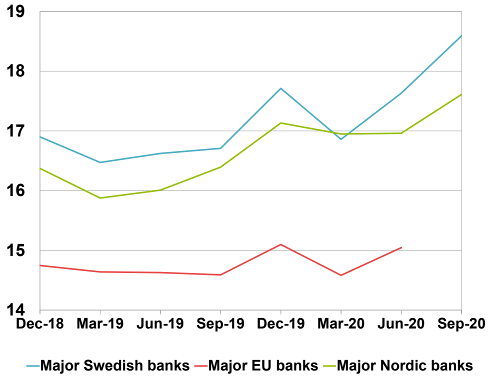
Another indicator of investor confidence in Swedish banks is the credit spreads for the banks' unsecured borrowing. These spreads increased sharply at the beginning of March, as they did for other Swedish firms during the same period (Diagram 23). During the summer, the spreads decreased and are now back at around pre-pandemic levels. This is due in part to support measures aimed to stabilise the economy and financial markets.

22 P/B ratio stands for Price-to-Book ratio, i.e. the share price divided by the recorded equity per share.

23 For more information, see the memorandum *Riskskatt för vissa kreditinstitut* (Fi2020/03725/S1), September 2020, Ministry of Finance.

24. Major banks have satisfactory capital levels

Per cent of risk-weighted assets

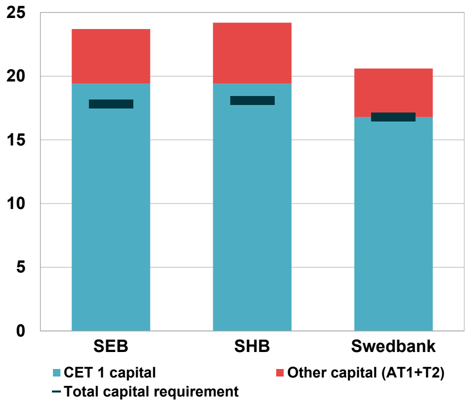


Sources: EBA and FI.

Note: CET1 ratio on consolidated basis. "Major EU banks" is an average of major banks in the EU. "Major Nordic banks" is an average of Nordea, Danske Bank and DNB.

25. The major banks meet capital requirements

Per cent of risk-weighted assets



Source: FI.

Note: Data as of Q3 2020.

BANKS HAVE SATISFACTORY CAPITALBUFFERS

The level of the capital held by the major Swedish banks is satisfactory, with capital ratios comfortably exceeding the capital requirements. During the third quarter, the major Swedish banks' average CET1 capital ratio rose to 18.6 per cent of risk-weighted assets from 17.6 per cent at the end of the second quarter (Diagrams 24 and 25). This increase is largely due to continued good earnings, low credit losses during the quarter, and in some cases the reinstatement of capital to own funds that had previously been provisioned to pay dividends on the earnings from 2019.

In order for the banks to be able to absorb losses during times of financial disruption, and at the same time have the ability to continue to lend money to the public, it is important for them to have sufficient capital buffers. Sufficient buffers also ensure that the banks can increase their lending without immediately risking a breach of their capital requirements. A stable credit supply is particularly important during the type of crisis the world is experiencing now since the crisis has more or less impacted every corner of the economy. Large parts of the economy are also being supported by fiscal policy measures, most of which are temporary in nature and can be withdrawn when the economy has stabilised (see "Threats to financial stability"). Even if more firms are once again turning to the corporate bond market to raise financing, it is still possible that demand for bank loans could increase in the future. That banks are able to maintain their supply of credit and handle a potential increase in demand is key for economic recovery. At the same time, the banks should continue to conduct thorough credit assessments to avoid unnecessary credit losses.

HOW WILL THE CAPITAL BUFFERS DEVELOP GOING FORWARD?

Several factors impact the size of the Swedish banks' capital buffers. These factors are governed by not only the regulations and FI's application of these regulations but also the banks' own decisions.

New capital adequacy regulations in 2021

According to the government proposal, EU's so-called banking package will be implemented in Sweden at the end of the year.[24] This will introduce a number of changes to the rules on banks' capital adequacy, such as the implementation of a leverage ratio requirement alongside the risk-based capital requirement. For the major banks, the total capital requirement, in nominal terms, is not expected to be significantly impacted. Mid-size and smaller banks are expected overall to see an increase in their capital requirements of around 10–15 per

24 For more information, see Bill 2020/21:36 *Ändringar i regelverket om kapitaltäckning*, October 2020, Ministry of Finance.

cent, primarily due to the new so-called Pillar 2 guidance.[25] This guidance aims to cover risks and manage future financial disruptions that the other main components of the capital requirement do not cover.

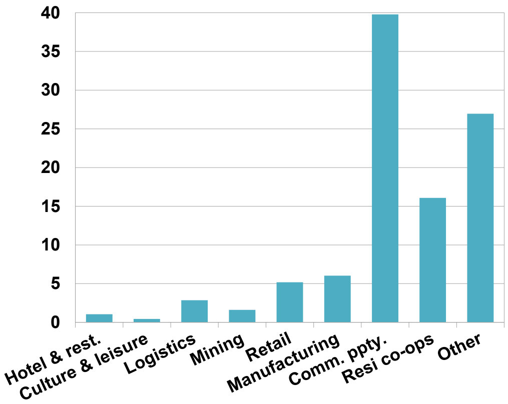
Countercyclical capital buffer

To make it easier for the banks to continue to supply credit to the economy, FI lowered the countercyclical buffer rate to 0 per cent in the spring. FI will establish at the beginning of next year its position on both the rate at which the countercyclical buffer requirement will be raised and the target rate itself.[26] A decision to increase the buffer rate becomes relevant first when both the economy and its outlooks have stabilised and the systemic risks justify a higher buffer rate.

Banks' dividends affect the size of the buffers

As the pandemic was unfolding, FI encouraged banks to postpone their profit distributions until further notice. The economic situation has improved since the spring. However, recent developments related to the sharp jump in infections and new restrictions will have a negative impact on demand, thereby dampening the economic recovery. The extent to which the recovery will be slowed, though, is uncertain. The banks are demonstrating continued good profitability and strong capitalisation and the credit quality of their lending portfolios is current assessed to be satisfactory. Assuming that the increase in the spread of the coronavirus does not result in a larger slow-down in the recovery in 2021 and the banks continue to demonstrate sound credit quality, it will be reasonable for profitable banks to pay some dividends again next year.[27]

26. Major banks have relatively low exposure to hardest hit sectors
Per cent of total exposure to companies.



Source: FI.

Note: Weighed average of the major banks' exposures to non-financial companies.

Limited exposures to hardest hit sectors

The major banks have limited exposures to the sectors that have been hardest hit by the crisis: hotels and restaurants, culture and leisure, and transport. On average, these sectors represented just over 6 per cent of the major banks' lending to corporates as of June 2020 (Diagram 26). This corresponds to just over 3 per cent of the major banks' total lending to the public.

However, the exposures to these sectors can still result in tangible credit losses that could have a significant impact on the banks' own funds. This would occur in particular if there are also credit losses in other sectors, such as retail and manufacturing, where the banks have larger exposures. However, the firms in these sectors are relatively di-

25 For more information, see the memorandum *New capital requirements for Swedish banks*, November 2020, FI.

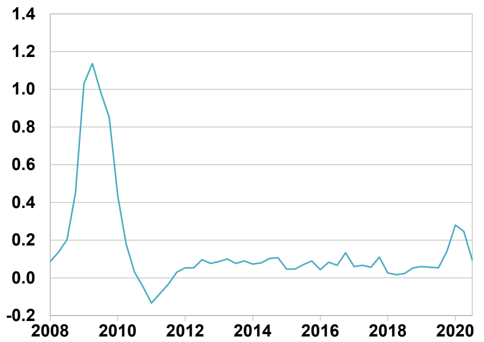
26 Assuming normal implementation periods, this means that the buffer rate can be expected to remain at 0 per cent until at least 16 March 2022. For more information, see the decision memorandum *Countercyclical Buffer Rate*, November 2020, FI.

27 For more information, see Thedéen, E. (2020), "Det aktuella läget och FI:s åtgärder under coronakrisen", speech at DI Bank, 11 November. A summary in English is available at www.fi.se.

verse, and the recent developments appear to be moving in partly different directions. There are still many problems in the retail sector, and these problems could be amplified by the rising infection rates and new restrictions. For parts of the manufacturing sector, in contrast, the purchasing managers' index and other statistics in the third quarter indicated rising activity. The forecasts in general are very uncertain (see "Threats to financial stability").

The banks also have large exposures to the commercial real estate sector, which represents around 40 per cent of the banks' lending to corporates. FI has previously made the assessment that there are elevated risks associated with these exposures and therefore decided to introduce an additional capital requirement.[28] Overall, the sector has not been significantly affected by the crisis. This is in part due to fiscal policy measures, via which the state has borne some of the cost of rent reductions for the firms' tenants at the beginning of the crisis. As these measures are phased out, though, the sector may experience problems if a lot of stores, hotels and other firms are not able to pay their rent or decide to terminate their rental contracts. This would be particularly problematic if the real estate companies' financing costs were to rise at the same time (see "Corporate and household debt"). Given the large share of the banks' lending that goes to commercial real estate, this exposure continues to be a vulnerability for the banks.

27. Major banks continue to have low credit losses
Per cent



Source: The banks' interim reports.

Note: Loan losses of major banks as a percentage of total lending to the private and public sectors on a quarterly basis, at an annual rate. The low levels in 2011 are partly due to recovered provisions from previous years.

Limited credit losses to date

The economic crisis caused by the pandemic has to date had a limited impact on the banks' capital adequacy. The determining factor for the banks' capital levels, and thus their viability, is the credit quality of issued loans, which in turn is largely governed by the general state of the economy. Credit losses increased at first in the spring but not at all as much as during the financial crisis in 2008–2009 (Diagram 27). They then decreased during the summer, and the major banks together have made provisions for expected credit losses of around SEK 10 billion during the first three quarters of the year.

Stress tests of the banks' capital

To illustrate how the banks' capital and their possibility for supporting the economy with credit could change if the crisis were to deepen, FI has conducted a stress test. Based on this stress test and its assumptions, FI makes the assessment that credit losses may increase in the next few years, but to what extent is unclear. Overall, the results indicate that, even if the banks were to experience substantial losses as a result of a deeper economic downturn, they have enough resilience to be able to support the economy with the loans that may be needed (see "Stress test of major Swedish banks").

28 For more information, see the memorandum *Ökade kapitalkrav för banklån till kommersiella fastigheter*, January 2020, FI. Only available in Swedish.

Stress test of major Swedish banks

FI has conducted a stress test to illustrate how the major Swedish banks could be impacted if the economic downturn that began in the spring were to deepen. The results indicate that the banks are able to continue to supply credit to the economy in coming years without threatening their equity ratios, even given more unfavourable circumstances.

Fi conducted a scenario analysis in the spring to assess the three major Swedish banks' financial resilience to a deep economic recession under the assumption that the banks simultaneously increased their lending to households and corporates during the ongoing crisis. The analysis was based on a severe macrofinancial scenario using the National Institute of Economic Research's baseline scenario for Sweden. The test showed that the major banks have satisfactory resilience but that this could be further improved if the banks did not continue with planned dividends to shareholders.

The economy has performed better than what was expected in the spring (see "Threats to financial stability"). The banks' capital ratios have also been strengthened since then. However, widespread uncertainty persists; for example, the new restrictions imposed in the autumn will dampen the economic recovery. FI therefore needs to continue to follow how the banks' resilience might change. This in-depth analysis shows the results from a stress test of the major banks where the economy experiences a sharp fall due to growing infection rates in Europe and other parts of the world (see "Macrofinancial scenario to assess the impact of a more drawn-out crisis"). The scenario entails, in other words, a renewed economic downturn in the near future and a recovery that starts later on in 2021 and then continues into 2022. The scenario is more severe than the most recent forecasts but at the same time is not as bad as the scenario in the spring. The reason for this is that the economy has developed more favourably than what many forecasters expected then.

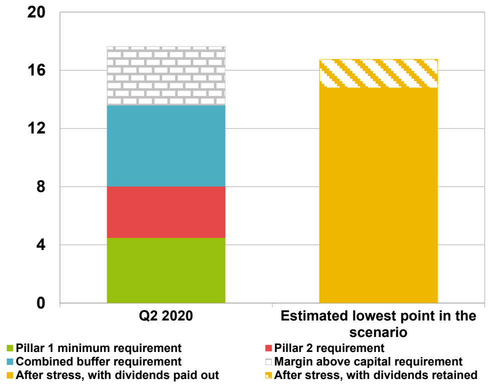
The analysis uses a number of models for different components of the banks' profit and loss statements and balance sheets as well as several assumptions. The models are based primarily on historical relationships between macro variables.[29]

Since the banks' capacity to issue loans is important for the economy, the banks are assumed to increase their lending even though this does not reflect history in all respects or – more generally – how crises usually progress. With these assumptions, we can get an idea of whether the capital requirement will set a limit on the supply of credit and thus potentially amplify the crisis. In the calculations, we assume that the turbulence on the financial markets returns and that firms then need to draw on existing credit facilities from the banks to fully replace the market financing that matures within one year. We also estimate how much firms will need to borrow through new bank loans to cover liquidity deficiencies within one year. We then assume that the banks' lending to corporates increases in line with the historical trend. The same

29 For more information, see the memorandum Macro-based stress test of Swedish banks: results and methodology, autumn 2020, November 2020, FI.

28. Major banks' CET1 capital ratios decrease in the scenario but stay above the capital requirement

Per cent of risk weighted assets.

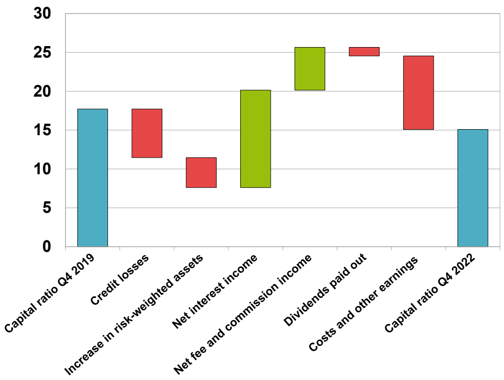


Source: FI.

Note: Refers to the average for the three major Swedish banks (SEB, SHB and Swedbank) and the estimated lowest point for the CET1 capital ratio that occurs in 2021 in the scenario. The Pillar 2 requirement includes systemic risk and the combined buffer requirement includes the capital conservation buffer, the systemic risk buffer, and the countercyclical capital buffer of 0.1 percentage points (based on other EEA countries' countercyclical buffer rates).

29. Reduction in capital ratio primarily due to credit losses but dampened by earnings

Per cent of risk weighted assets



Source: FI.

Note: Average for the three major Swedish banks. Green (red) bars show components that contribute to an increase (decrease) in the capital ratio between Q4 2019 and Q4 2022. We use data for Q1 2020 and Q2 2020, and our estimates begin in Q3 2020. We assume that dividends are paid out from 2020-2022 profits and that dividends from 2019 profits are not returned. Costs and other earnings include primarily non-interest costs but also net financial income, revenue from subsidiaries, joint ventures and associated companies, Other Comprehensive Income (which includes changes in net pension assets) and tax.

assumptions are made for lending to households throughout the entire scenario. The total size of the banks' balance sheets increases significantly even if we take into account that exposures decrease as a result of defaulting loans.

The outcome of the stress test indicates that the banks have significant resilience and they are able to support the credit supply. The average CET1 ratio decreases at the most by 2.8 percentage points in the scenario if the banks pay dividends on their profit from 2019–2022 in accordance with their dividend targets (the solid yellow bar in Diagram 28). The average margin to the CET1 requirement the falls from 4 percentage points in Q2 2020 to at the lowest 1.2 percentage points in the scenario. If the banks do not pay dividends during the period 2020–2022 on the profits for the financial years 2019–2022, the corresponding decrease in the CET1 ratio is 0.9 percentage points (the solid yellow bar together with the striped yellow bar). The average margin to the CET1 requirement is then even larger. The assessment is made that, under the new capital adequacy regulations, the level for when the automatic dividend restrictions go into effect will increase, which reduces the margin by approximately 1 percentage point.[30] In the stress test, the average leverage ratio also decreases from 4.3 percentage points in Q2 2020 to at the lowest 4.0 per cent if the banks pay dividends in accordance with their dividend targets for 2019−2022.

The capital ratios decrease primarily due to high credit losses and higher risk-weighted assets while earnings have a positive impact (Diagram 29). The total risk-weighted assets increase on average by 25 per cent, in part due to impaired credit quality but also increased volumes. The total credit losses for the major banks in 2020–2022 are estimated in our model to be SEK 130 billion, or 2.2 per cent of lending.[31] This is slightly lower than the results from the spring's scenario analysis, which found 2.4 per cent of lending. Operating profit decreases at the most by 9 per cent compared to 2019.

There is considerable uncertainty about how the capital ratios could change in the next few years, as well as in this scenario. The models illustrate only a possible course of events. Neither do the models capture the fiscal and monetary policy support measures that were taken and that could reduce the banks' credit risks and lower their funding costs. Unlike the financial crisis in 2008–2009, the current crisis has so far been a real economic crisis and that could reduce the relationship between the economy and the banks' resilience. Alternative analyses that are based on microdata of exposures to the commercial real estate sector and households with new mortgages also indicate lower losses than those estimated here using time-series models (see "Corporate and household debt").

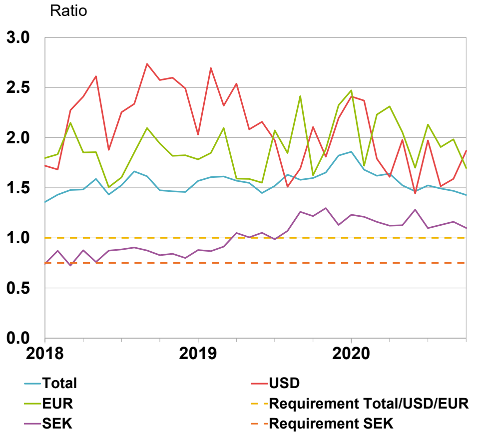
There is also a risk that the macro economy, and in the long run the banks' credit risks and earnings, may follow a more negative trend than what is illustrated. For

30 For more information, see the memorandum *New capital requirements for Swedish banks*, November 2020, FI.

31 This also reflects losses the banks have reported to date in 2020. For more information about the model, see Axelsson, P., David, Å., Kamath, K., Lönnbark, C. and Thell, V. (2020) *Macro-based credit loss model for major Swedish banks*, FI Analysis 26, FI.

example, it is still uncertain how the pandemic will develop, when a vaccine will become available, and when vaccinations could begin (see "Threats to financial stability"). In addition, there can be a negative impact if support measures are removed too early.

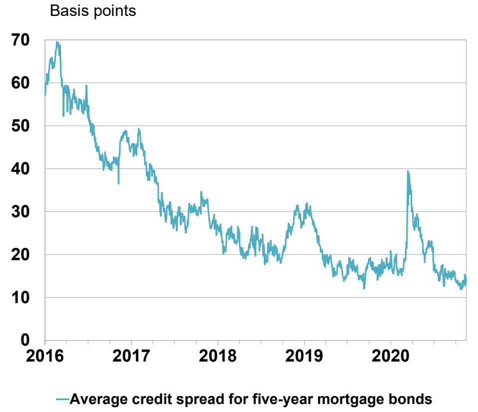
30. Liquidity coverage ratios are satisfactory



Source: FI.

Note: Average of SEB, SHB and Swedbank.

31. Temporarily higher funding costs for covered bonds



Source: Refinitiv Eikon.

Note: Average credit spread (asset swap spread) for Swedish covered bonds with estimated fixed duration, 5 years' effective maturity. Includes SEB, SHB and Swedbank.

BANKS' FUNDING IS SATISFACTORY

The markets for short-term borrowing, particularly in USD, struggled at the beginning of the crisis. However, various measures from the central banks helped improve market conditions in the second quarter, and the situation since then has been more stable. The major Swedish banks have satisfactory liquidity. All major banks comfortably meet the liquidity coverage ratio (LCR) requirement for both the aggregate of all currencies and the individual currencies EUR, USD and SEK (Diagram 30).[32] FI has clarified that, due to the crisis, the banks are allowed to utilise the flexibility in the existing LCR regulation to temporary have a buffer below the requirements if necessary. This is one of the many measures taken to maintain the supply of credit in the economy. Corresponding clarifications have also been made by other authorities within the EU.

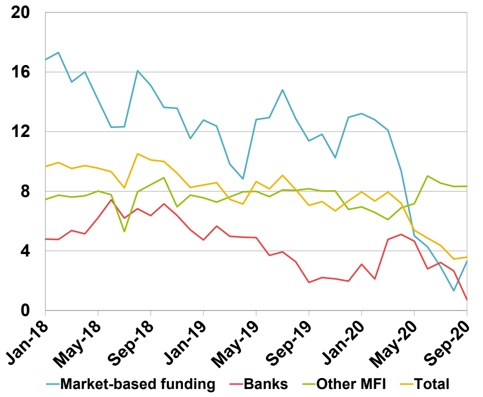
Liquidity was also strongly impaired at the beginning of the crisis on several submarkets for more long-term financing. However, the major Swedish banks had issued a large volume of bonds with a long maturity at the beginning of the year and therefore went into the crisis with good funding positions. After a slight dip in the spring, the volume of issuances has been at relatively normal levels during the second and third quarters.

The Swedish market for covered bonds has functioned in the sense that the banks have been able to issue bonds without major problems. However, liquidity on the secondary market was impaired, and risk premia increased at the beginning of the crisis. These premia fell again in the second and third quarters and are now back at pre-pandemic levels (Diagram 31). It should be noted, though, that this market benefited from various support measures, in particular from central banks.

Overall, the markets are now functioning satisfactorily, but experience has shown that the market conditions can change quickly (see "Stability in the financial markets").

32 The requirement on aggregate LCR as well as on LCR in EUR and USD is 100 per cent. FI has also decided that the banks must have a liquidity coverage ratio of at least 75 per cent for all other significant currencies (for example SEK) as of 1 October 2019.

32. Low growth in banks' lending to NFCs
Annual percentage change



Source: Statistics Sweden.

Note: MFI stands for monetary financial institutions. The category Other MFI consists primarily of financial companies and housing credit institutions.

CREDIT SUPPLY FUNCTIONING TO DATE

In several countries in Europe, lending from banks to businesses increased dramatically, but the development in Sweden has been more restrained. FI makes the assessment, though, that lending to Swedish non-financial firms has functioned relatively well during the crisis. When the firms' market financing became more expensive, and during periods when it was not even available in some submarkets, the larger companies turned to a large extent to the banks to get loans (Diagram 32). The banks have largely been able to meet this demand, through both firms utilising existing credit facilities and new lending. In many cases the firms only wanted to ensure that they could get a loan if such a need were to arise. Lending to small and mid-sized firms during the spring and summer has been more limited. These firms instead appear to be largely using the financing possibilities that were made available through various fiscal policy support measures, for example the deferral in tax payments.

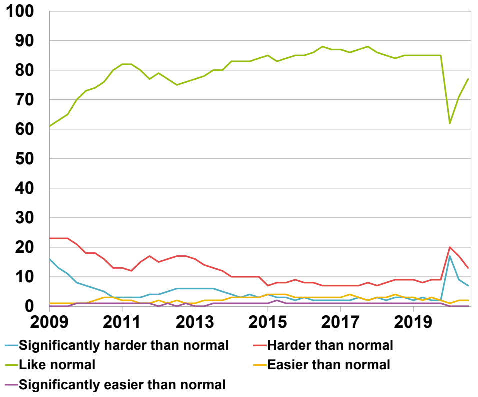
In the summer and early autumn, demand for bank loans appeared to have declined again at the same time as growth in market financing increased slightly, although this is still at a low level. This probably reflects that many of the firms that drew on their facilities at the beginning of the crisis did so as a precautionary measure and have now repaid parts of the loan, but also that some firms are postponing decisions on new investments and thus have a reduced need for financing. As the economy recovers and the fiscal policy measures are phased out, demand for bank loans may increase again. FI makes the assessment that the banks have the capacity to meet rising demand.

Corporate and household debt

Lower economic activity in the wake of the pandemic has been a big challenge for businesses in Sweden. What will happen in the future is still unclear. The commercial real estate sector plays a key role in financial stability and therefore is of importance for FI. FI's stress test shows that real estate firms could be hit hard if the economic downturn persists. Households with mortgages are judged to have margins to withstand a scenario with higher unemployment. More cautious households can contribute to an economic downturn through reduced consumption.

33. Fewer potential sources of financing during early days of pandemic

Net

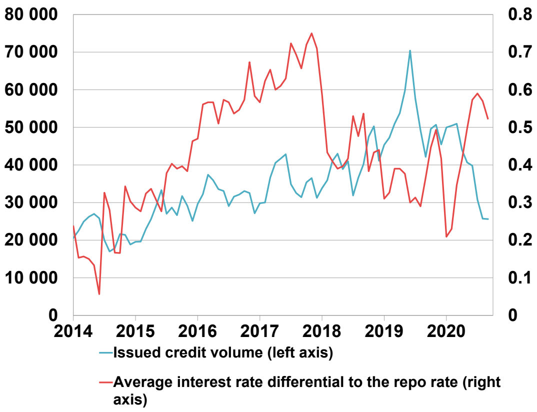


Source: NIER.

Note: Perceived options for financing in the commerical sector.

34. Issued credit volume in money market instruments has decreased

SEK million (left axis) and per cent (right axis)



Source: Statistics Sweden.

Note: Issued volume during the month, gross, by non-financial firms. Three months' moving average. Interest expense in per cent during the month's issued volume. Three months' moving average. The yield differential estimated as nominal average interest rate minus the repo rate.

RECOVERY FOR FIRMS SHADOWED BY UNCERTAINTY

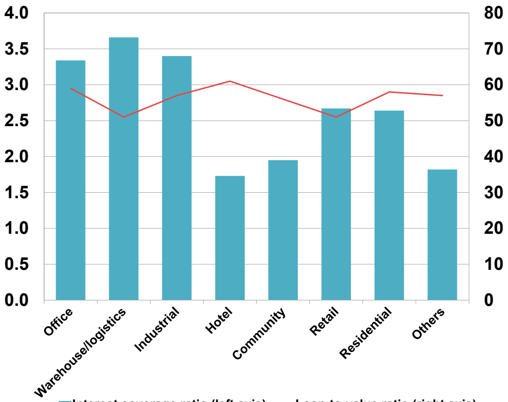
Q2 2020 presented huge challenges for non-financial firms in Sweden. Domestic and international initiatives to prevent the spread of the pandemic sharply reduced demand in the economy. The economy began to recover during the second half of 2020, and activity among firms is increasing. Despite this, there are a number of factors that are contributing to the uncertainty about what will happen in the future. Some of them are the long-term economic impact of earlier lockdowns, the economic impact of renewed measures to stop the spread of the virus, and the impact of eventual gradual withdrawals of economic and monetary measures (see "Threats to financial stability").

The Government, FI and the Riksbank have taken a number of measures to help banks provide corporate loans (see "Threats to financial stability").[33] Survey data shows that the percentage of firms that are finding it more difficult to raise financing increased in Q2 and then decreased again (Diagram 33). The banks' lending to corporates increased at the beginning of the pandemic (March–April), driven primarily by large firms increasing their bank loans. During the second half of the year, the increase in bank lending was not as significant.

The widespread uncertainty during the spring caused market financing to rise, and it was more difficult for firms to issue new bond debt. This meant the firms' possibilities for refinancing were at risk. During the second half of the year, the market for bonds with longer maturities stabilised, but access to short-term market financing is still lower than before the pandemic (Diagram 34). The capital cost has increased, and firms have issued smaller volumes (see "Stability in the financial markets").

33 This includes FI lowering the countercyclical buffer rate and the Riksbank initiating a program to finance corporate loans. The Government, following a decision by the Riksdag, gave the Swedish National Debt Office an assignment to issue guarantees for corporate loans issued by banks. Some of the other measures the Government has taken to support non-financial firms during this acute crisis include rent subsidies, short-term furloughs, and reorientation support.

35. Interest coverage ratio and loan-to-value ratio based on type of property, median
Ratio (left axis) and per cent (right axis)



Source: FI, corporate lending survey.

Note: Refers to Q4 2019.

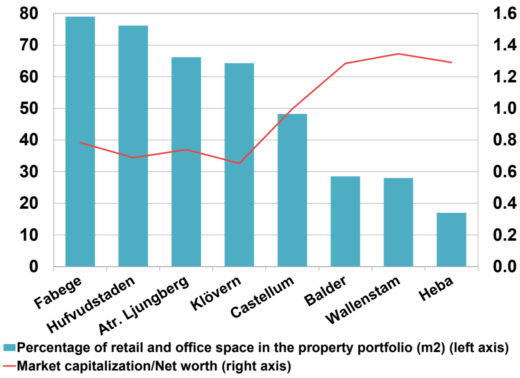
.

REAL ESTATE FIRMS'FINANCING NEEDS MAKE THEM VULNERABLE

FI has highlighted in earlier reports that the commercial real estate sector is key from a stability perspective.[34] The sector borrows a lot of capital and is therefore closely linked to the banking sector and the rest of the financial system. Shocks to the capital market could result in rising financing costs or refinancing problems for real estate firms. Economic downturns also affect real estate firms through rising vacancies and other types of lost rental income. Lower income potential in the long run could also lead to falling property prices. If problems arise among real estate firms, this could have a major impact on banks and other lenders.

Due to several years of strong economic growth and low interest rates, real estate firms are able to take on the crisis resulting from the pandemic from a favourable position. Property prices have risen sharply, vacancies have been low, and rent growth has been high. Low interest rates have also led to historically low financing costs. Under these conditions, the real estate firms have had a reassuring interest coverage ratio and a relatively low loan-to-value ratio (Diagram 35).

36. Commercial real estate firms with high share of retail and office space are valued lower
Per cent



Source: Financial data from the respective firms.

Note: Property portfolio allocation according to annual reports for 2019. Net worth, Q3 2020. Market capitalization, 30 September 2020.

Market sees weaknesses in stores and office segments

Premises with stores or offices normally have higher rental income per m^2 than, for example, residential premises. At the same time, commercial properties are associated with a greater risk of vacancies and loss of rental income. The value of real estate assets for an investor is therefore a trade-off between assessed risk and yield possibilities. The market (the stock exchange) is currently valuing properties with store and office premises significantly lower than other types of properties. Real estate firms with a high percentage of store and office space are being valued at a discount in relation to the recorded net worth (market value of assets minus liabilities). For real estate firms with a high percentage of residential properties, community service properties or logistics properties, however, the market is prepared to pay a premium on top of the net worth (Diagram 36). During periods when interest rates and economic activities have been higher, the relationship has often been the reverse. Real estate assets with greater yield possibilities have been valued higher relative to real estate assets with lower risk.

There are several reasons for this current valuation. In an environment of low interest rates, it is difficult to find yield possibilities with low risk. This makes residential properties with stable cash flows appear attractive. Community service properties have become popular since the need for these normally does not follow the economic cycle. Demand for logistics facilities has increased as an increasing share of retail has gone online. Properties with stores or offices are burdened by both the current situation and structural factors. Since economic activity is falling, demand for premises with stores or offices is falling. Demand for stores is also decreasing in the

34 See, for example, *The Commercial Real Estate Market and Financial Stability*, May 2019, FI.

long term as retail moves online. A long period of working remotely at many businesses and organisations due to the pandemic could also contribute to lower future demand for office space.

Given the large net worth discounts on the value of store and office properties, it is clear that the market expects weak price development in the segment. If the net worth discounts were to be realised through price reductions of 20−30 per cent, this can be problematic since in many cases these companies have an equity ratio[35] of around 40−50 per cent. After the price reduction, the equity ratio would be alarmingly low.

So far, real estate firms have withstood the challenges well. Support measures targeting the commercial sector have ultimately been key for real estate firms. For the larger, listed firms, operating profit only dipped a little during the second and third quarters. The lower revenue was primarily due to agreed rent reductions for tenants particularly hard hit by the pandemic. In Q2, half of the rent reductions were covered by state subsidies.[36] In terms of the number of bankruptcies, the hotel and restaurant sector was affected the most. The number of bankruptcies in this sector doubled in Q2 compared to the previous year.[37]

Compared to the situation in the spring, the risk associated with real estate firms' refinancing needs has decreased. However, if the economic downturn persists, the loss of rental income could increase. Greater uncertainty regarding real estate firms in such a scenario could also lead to higher financing costs. Reduced income and higher financing costs could also result in lower property prices in a longer perspective. FI's stress test shows that the real estate firms are primarily vulnerable to higher interest expenses but also to a more drawn-out economic downturn with a large loss in income.

Situation for real estate firms deteriorates in the scenario

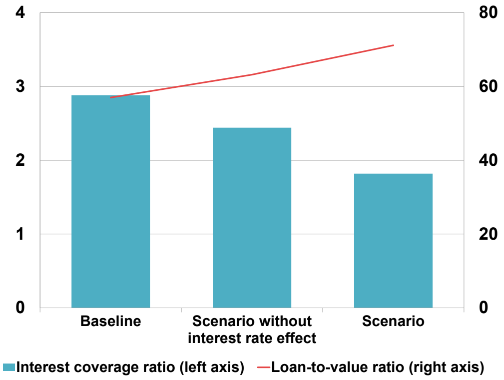
In order to investigate how resilient Swedish real estate firms are to an economic downturn, FI has conducted a stress test. The method used in this analysis is described in more detail in Aranki, et al. (2020). The stress test is based on the scenario that is used throughout this report (see "Macrofinancial scenario to assess the

35 The equity ratio is the percentage of assets that are financed by equity.

36 Under the subsidy, landlords who lowered the fixed rent for tenants in exposed industries during the period 1 April to 30 June were able to apply for compensation for part of the reduction. Compensation was provided for at the most 50 per cent of the reduced fixed rent, i.e. the actual discount, though at the most 25 per cent of the original fixed rent. In total, SEK 5 billion was set aside for the measure.

37 Statistics Sweden, refers to listed companies with employees. The total number of bankruptcies increased by 11 per cent in Q2 2020 compared to the same quarter in 2019.

37. Lower interest coverage ratio, higher loan-to-value ratio, in a stressed scenario
Per cent



Source: FI.

Note: The risk premium that is assumed to arise on the financing cost in the scenario has been excluded in "Scenario without interest rate effect".

impact of a more drawn-out crisis"). In addition to the macroeconomic downturn, the scenario also includes an increase in the financing cost for real estate firms.

In the analysis, the deterioration in the conditions affect the real estate firms in three ways: 1) higher vacancies or lower rent levels, 2) lower market values for real estate assets, and 3) higher financing costs. The stress test defines a firm as vulnerable when it has an interest coverage ratio of less than 1 and a loan-to-value ratio of more than 70 per cent. Debt at firms in the commercial real estate sector with these criteria is defined as debt with an elevated credit risk.

The stress test indicates that a drawn-out economic downturn would have a substantial impact on the commercial real estate sector. The share of debt with elevated credit risk increases from almost 4 per cent initially to more than 13 per cent in this scenario. Higher financing costs result in a decrease in the average interest coverage ratio (Diagram 37). At the same time, the lower property values result in higher loan-to-value ratios. Higher financing costs, a clear deterioration in earnings, and falling property values could lead to some real estate firms having payment difficulties and potentially defaulting on loans. The number of firms that risk default increases if the economic downturn is extended.

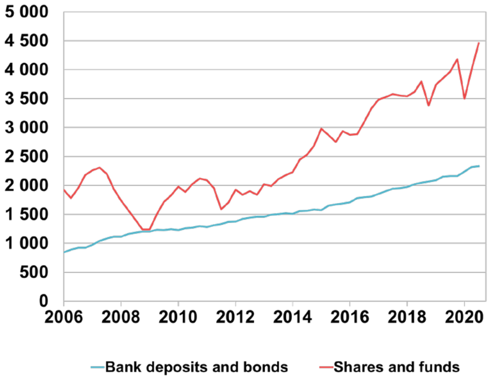
The size of the credit losses in this scenario is dependent on how much of a need there is to increase the provisions for anticipated credit losses. This increase is dependent on how the lending portfolio's credit risk is allocated after a shock and the banks' provision rates in each provision step. In the calculations, FI assumes that firms with an interest coverage ratio of less than 1 and a loan-to-value ratio of more than 100 per cent can no longer pay their interest expenses and thus default. Overall, the credit losses for banks in the scenario are calculated at almost 1.3 per cent of the exposures to commercial real estate firms. In FI's stress test, which uses a macro-based credit loss model, the corresponding figure is 2.1 per cent (see "Stress test of major Swedish banks"[38]).

FINANCIALLY CHALLENGING PERIOD FOR MANY HOUSEHOLDS

The economic conditions for households decreased rapidly in Q2 2020. Restrictions to slow the spread of the virus and a drop in demand in the economy have meant that the commercial sector's need for labour decreased sharply. As a result, unemployment rose rapidly (see "Threats to financial stability"). During the second half of 2020, the situation began to improve for households. As demand in the economy began to pick up, firms' need for labour also began to stabilise. Financial asset prices and house prices recovered from their dip in March and April, and this has strengthened households' balance

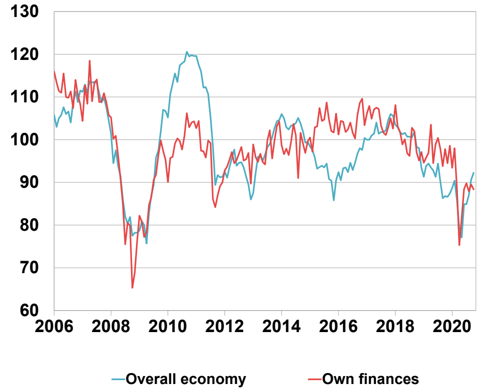
38 For more information, see Axelsson, P., David, Å., Kamath, K., Lönnbark, C. and Thell, V. (2020), *Macro-based credit loss model for major Swedish banks*, FI Analysis 26, FI.

38. Value of the households' financial assets increased
SEK billion



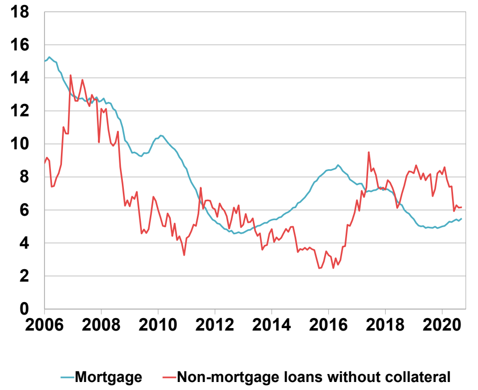
Source: Statistics Sweden.

39. Household economic expectations are lower than normal
Index



Source: NIER.
Note: NIER macro index and micro index. Average is 100.

40. Mortgage volume growth increases slightly more
Annual change in per cent



Source: Statistics Sweden.

sheets. At an aggregate level, the value of households' financial assets has gone up since the end of the year (Diagram 38).

Despite the start of a recovery, household confidence is not yet back to pre-pandemic levels. The increase in the restrictions aimed to slow the spread of the virus during the fourth quarter further increases uncertainty among households. Households' expectations about their future finances are lower than normal (Diagram 39). These expectations are burdened by the uncertainty about the current situation and how things will develop. Due to the extraordinary situation, households that were not directly affected by a loss of income also changed their behaviour. For example, households have become more restrictive about major purchases and have increased their savings. If households continue to be restrictive in their financial decisions, this could the slow economic development and thus also delay the important recovery on the labour market. When tighter restrictions are introduced to reduce the spread of the virus, this also reduces household consumption.

Households' aggregate debt is growing at approximately the same rate as before the pandemic. Mortgages are increasing a little bit faster than at the beginning of the year, while non-mortgage loans without collateral (unsecured loans) are increasing at a slower rate (Diagram 40). Rising house prices in 2020 have contributed to the trend in mortgages. If house prices continue to increase, this will contribute to a faster increase in households' mortgage volumes.

HOUSEHOLDS CAN WITHSTAND RISING UNEMPLOYMENT

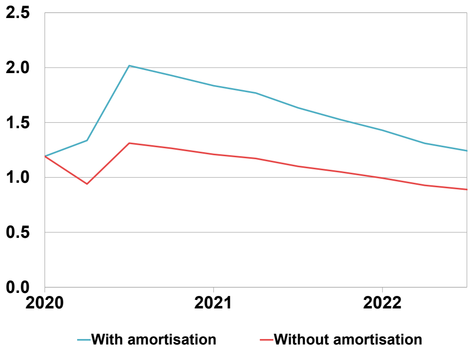
The government has introduced a number of measures to mitigate the impact of the pandemic on the labour market. However, due to the scope of the situation, many households have still been affected since the demand for labour has fallen. By increasing furlough subsidies, the impact of this has been restricted so far to a limited loss of income for many of the affected households. Due to sound credit assessments, low interest rates and regulatory measures such as the mortgage cap and the amortisation requirements, new mortgagors as a rule have good margins in their finances to absorb such a loss.

The labour market could be weakened further. Such a development could have side-effects on the housing market, with a subsequent fall in house prices. However, FI makes the assessment that mortgagors as a whole will be able to meet their loan payments even if the economic conditions continue to deteriorate. If unemployment rises to 11.8 per cent in the scenario (see "Macrofinancial scenario to assess the impact of a more drawn-out crisis"), only 2 per cent of the mortgagors are expected to experience a deficit between their income and expenses.[39] If

39 See *The Swedish Mortgage Market 2020*, April 2020, FI, for a more detailed description of the data from the mortgage survey that is used here. We used the mortgage surveys from 2011 to 2019. In the calculation, loans from before 2019 have been written down by the

41. Households with mortgages can handle rising unemployment

Per cent



Source: FI.

Note: Percentage of mortgagors with lower income than expenses in scenario with higher unemployment.

mortgagors with small margins do not need to amortise, this percentage decreases to 1.5 per cent (Diagram 41).

Even if a small percentage of households are estimated to experience a deficit, it is probable that households with loans that find themselves in a stressed situation will choose to reduce their consumption. This constitutes a risk for economic development.

EXEMPTION FROM AMORTISATIONPAYMENTS IS TEMPORARY

The amortisation requirements have increased households' long-term resilience. This has been important given the current situation. In April 2020, FI decided that banks should be able to grant all households that request a temporary exemption from amortisation payments. This increases households' possibilities for offsetting a loss of income. The exemption can also provide an opportunity to build up a buffer of savings and liquidity in uncertain times. As of September, 195,000 households had been granted an exemption.[40] The number of new applications for exemption decreased in recent months, which can be viewed as an indication that fewer households are seeing a need to reduce their amortisation payments.

Banks can grant exemptions for amortisation payments (for both existing and new mortgagors) through August 2021. FI has been clear that the possibility for exemption from amortisation payments for all households is temporary. The economic situation has improved since the spring, but recent outlooks have deteriorated slightly and uncertainty has increased again. FI currently has no plans to extend the exemption beyond August 2021. This position may be reassessed if the economic development deteriorates sharply. If developments justify an extension of the exemption, FI will communicate this no later than April 2021 so that households are able to plan their finances.

agreed amortisation rate. Income has been written up. Home values have been assumed to increase in accordance with the real estate price index. We call this the baseline. The calculation assumes that the mortgagor will become unemployed. Their income is then reduced to the lowest of SEK 18,500 or 80 per cent of their salary. Implicitly, we have assumed that everyone has unemployment insurance. Individuals in households with two adults have the same probability of becoming unemployed as individuals in single-person households. This means that either one or both persons in households with two adults could become unemployed.

40 Granted exemptions by the banks through Week 39. Refers to the eight largest mortgage firms.

Finansinspektionen
Box 7821, 103 97 Stockholm
Besöksadress Brunnsgatan 3
Telefon +46 8 408 980 00
Fax +48 8 24 13 35
finansinspektionen@fi.se

www.fi.se