FINANSINSPEKTIONEN

Stability in the Financial System

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Foreword

The global and the Swedish economies continue to develop strongly with solid growth, low inflation and low interest rates. Finansinspektionen (FI) makes the assessment that there is satisfactory resilience in the financial system and that the system is currently functioning well.

However, we know from experience that it is when interest rates are low, firms are profitable, share and house prices are high, and investors are seeking better returns that risks usually build up. The economic system enters into a positive, self-reinforcing spiral. Taking risk – for example by borrowing to purchase a home – proves to be profitable, month after month and increases year after year. The strong economic periods are increasingly perceived as "normal", and risk-taking increases further. When the trend breaks, though, which will happen sooner or later, the fall is often hard. In order to reduce the after-effects of the problems that may arise in the future, FI is strengthening the resilience of households, banks and insurance companies. This is why it is so important for everyone – from individual households to governments – to realise that tougher times will come. And when they do, we need to be prepared.

There are growing concerns that the combination of low interest rates and strong economic growth could drive debt up to risky levels. The International Monetary Fund (IMF) highlights in its most recent stability report that the total debt burden in the world is at record-high levels. This increases the vulnerability of the global economy. In Sweden, debt has increased primarily in the household sector, and FI has introduced a number of measures to increase household resilience, most recently the stricter amortisation requirement that entered into force in March. Corporate debt has been increasing for the past few years as well. However, unlike many other countries, sovereign debt has not increased in Sweden. This is a good thing and contributes to our resilience.

FI is focusing on high levels of household debt, not on controlling house prices or housing construction, The price contraction that we have seen during the autumn and winter of 2017 has garnered a lot of attention. It has clearly demonstrated that the price of real estate and other assets does not only move upward. This realisation has made households more careful, which is healthy. In the long run, this should lead to more prudent households, slower price increases and less debt. In turn, this will reduce the financial and macroeconomic risks. Housing construction that is dependent on sharply rising real estate prices and rapidly rising debt in the household sector could lead to growing financial and macroeconomic risks. This is not a sustainable development – it is rather an expression of a housing market that is struggling with major structural problems.

Stockholm 29 May 2018

Erik Thedéen
Director General

Summary

The Swedish economy continues to be strong, and resilience in the financial system is satisfactory. However, a long period of low interest rates and strong growth has resulted in an elevated risk appetite, high asset prices and high debt globally, among Swedish households and on the commercial real estate market. The high level of indebtedness makes the financial sector more sensitive to shocks, and, if necessary, FI will take additional measures to strengthen the resilience.

The global economy and the Swedish economy continue to demonstrate strong growth. The European economies are continuing to recover, which has also meant that the resilience in the European banking sector has improved as profitability has increased and the number of non-performing loans has decreased. The risk that problems in the European banking sector could spread to Sweden has therefore become less prominent.

Monetary policy continues to be very expansive in the USA, the euro area and Sweden, even if the US central bank has raised its policy rate six times since 2015. The low interest rates combined with high risk-taking have put pressure on risk premiums and driven asset prices upward for a long period of time both in Sweden and globally. Since the publication of FI's Stability Report last autumn, risk premiums have increased slightly and Swedish house prices have fallen, although there has been some stabilisation in the past few months. Despite the contraction, house prices continue to be at historically high levels, and the risk that prices will fall is still a reality.

STRUCTURAL CHANGES AND NEW CAPITAL REQUIREMENTS ON THE HORIZON

It is FI's assessment that the Swedish banks in general have satisfactory resilience to shocks due to continued good profitability, low credit losses and high levels of capital in relation to the risks in their operations. The banks' capital consists largely of buffers that can be used as temporary shock absorbers during crises. FI's capital requirements for the banks aim to maintain a stable financial system that is characterized by a high level of confidence.

The revision of the global and European regulations for banks continues. These changes affect how the capital requirements of banks will be formed and applied in the future. Due to structural changes, such as Nordea's planned relocation, the Swedish application of regulations also needs to be adapted to maintain stability in the Swedish financial system.

Other structural changes are also under way on the mortgage market, where newcomers and new financing forms are attempting to challenge the traditional business models. Lending to households in the form of mortgages constitutes a significant portion of the major banks' profitability and business volumes. The extent to which this development affects stability in the financial system and consumer protection depends largely on how the new alternatives are formed and how important they become on the market.

MODERATE STABILITY RISKS ON THE SECURITIES MARKETS

The systemically important financial infrastructure in Sweden is functioning well and has a high degree of operational reliability in general. Despite stable growth and low volatility on the securities markets, there are signs of elevated vulnerabilities linked to deteriorating liquidity in systemically important markets. This can make these markets vulnerable in stressed situations when liquidity tends to deteriorate.

There are only a few Swedish central counterparty clearing houses (CCPs), which results in a high concentration of counterparty risk and operational interconnectedness. This in turn introduces contagion risks. CCPs are therefore systemically important. This year's stress tests conducted by the European Securities and Markets Authority (ESMA) show that European system of CCPs in general is resilient to liquidity and credit risks.

INSURANCE FIRMS CONTINUE TO HAVE STRONG FINANCIAL POSITION

The insurance sector manages large amounts of assets primarily to cover future pensions. Changes in the interest rate have a large impact on the companies' positions. In the short term, life insurance firms' extensive holdings of shares represent the largest vulnerability for financial stability since large reallocations of assets could amplify a downturn in the stock markets and apply pressure to interest rates. Despite this, FI's assessment is that the firms can handle relatively large downturns in the stock markets and that stability risks are therefore limited. In the long term, insurance firms are still facing the challenge of persistent low interest rates, which together with falling asset prices could pose risks to financial stability.

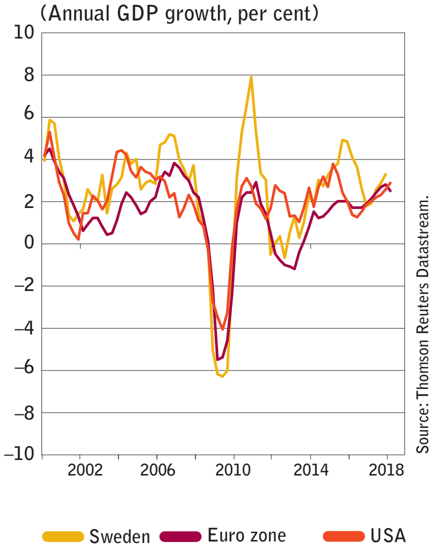
COMMERCIAL REAL ESTATE COMPANIES ARE MORE SENSITIVE TO INTEREST RATES

Household finances are strong in general. This means that household debt constitutes a limited direct risk for the stability of the financial system. At the same time, debt is at historically high levels, and, in the event of a sharp economic downturn, this debt burden could mean that households will reduce their consumption, which in turn could further deepen the crisis. This could ultimately threaten financial stability. FI has therefore introduced a stricter amortisation requirement and is continuing to monitor the developments carefully. The finances of non-financial firms are also currently strong, and the firms are benefiting from good economic growth and low interest rates. However, their debts are also higher than before, which has increased their sensitivity to interest rates and refinancing risk. This is true in particular for real estate companies.

State of the economy

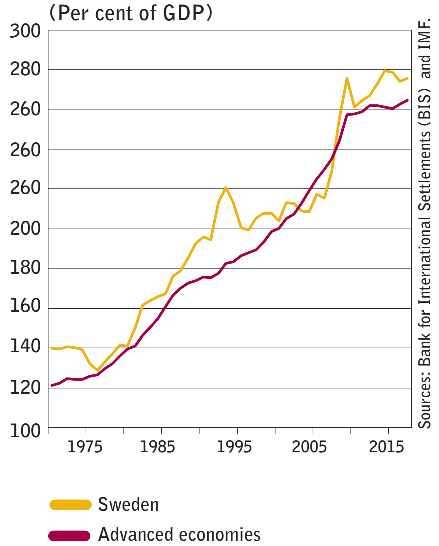
The global economy is continuing to thrive, but there is a greater fear of increased protectionism and political risks are still present. Risk aversion is still low, but higher interest rates could result in adapted behaviour by market participants and more pronounced risk aversion. Such a development could have an impact on financial stability in Sweden. Swedish house prices fell in Q4 2017 and then stabilised in Q1 2018. Despite this, house prices continue to be high, and the risk that prices will fall is still a reality.

1. STRONG ECONOMIC GROWTH
(Annual GDP growth, per cent)



Note. Seasonally adjusted data.

2. DEBTS AT HIGH LEVELS
(Per cent of GDP)



Note. Total debt (non-financial firms, households and public sector), as a percentage of GDP.

Sweden is a small, open economy where economic growth is greatly influenced by external factors. The financial system in Sweden is also closely interconnected with the global financial markets. Shocks that arise in the real economy could have a negative impact on the financial markets. The reverse is also true; turbulence in the financial system could have a negative impact on the macroeconomic development.

This chapter focuses on potential shocks that could threaten financial stability. These shocks are often of such a nature that FI can do nothing to prevent them. FI's work therefore aims instead to ensure that the Swedish financial system is sufficiently resilient in the event that shocks occur on the financial markets or in the economy at large.

GLOBAL ECONOMY CONTINUES TO THRIVE

Global economic development continues to be strong, and the National Institute of Economic Research (NIER) makes the assessment that it will continue to be strong throughout the coming year (Diagram 1). In the USA, the economy is growing and unemployment is at a historically low level. In the euro area, the economy has gradually improved, but even though unemployment has gone down, wage growth is still lagging and holding back inflation. The positive global economy and the weak Swedish krona is benefiting growth in Sweden, which is expected to continue.

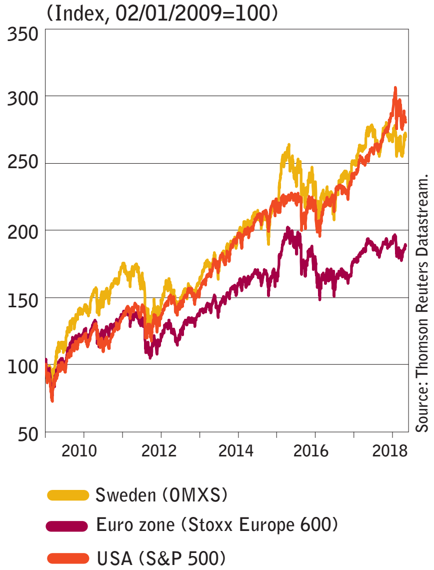
LIABILITIES ARE AT HIGH LEVELS

The total debt burden in both Sweden and the world is at a historically high level. In the advanced economies, total debt increased from around 235 per cent of GDP in 2007 to 265 per cent in 2017 (Diagram 2). In many countries, it is mainly sovereign debt that has increased. Debt has also increased in Sweden and amounted to 275 per cent of the GDP in 2017 compared to 229 per cent in 2007. Unlike in other advanced economies, though, it is the private debt, and thereby primarily household debt, that is driving the increase in Sweden.

HIGH RISK-TAKING IN FINANCIAL MARKETS

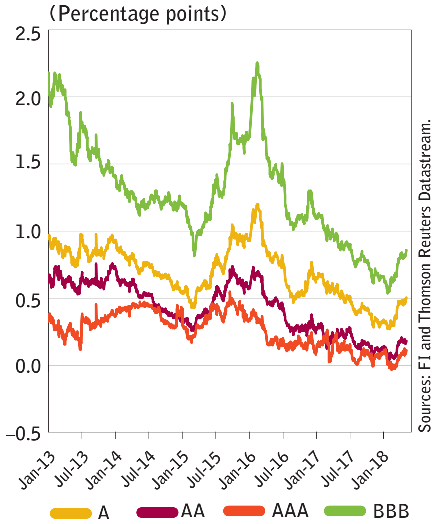
The low interest rates in the past few years have driven investors, in their hunt of yield, to seek financial instruments with higher expected yield and thus also higher risk. This has pushed asset prices upward, which is evident, for example, in the international equity markets, which have risen for a long time (Diagram 3). One consequence of the strong desire to take on risk is that risk premiums have fallen sharply

3. RISING EQUITY INDEX
(Index, 02/01/2009=100)



Note. Local currencies.

4. LOWER RISK PREMIUMS
(Percentage points)



Note. Interest rate differences for corporate bonds with different credit ratings in the euro area. Calculated as the difference between iBoxx euro corporates with a maturity of 5-7 years and Thomson Reuters euro vs. EURIBOR interest rate swaps.

(Diagram 4). The high demand for riskier assets has also contributed to an increase in the supply of corporate bonds with lower credit ratings in terms of both volume and the share of the market.

In February, the market underwent a strong correction when the international stock exchanges fell and volatility on several stock exchanges increased (Diagrams 3 and 5). Since the correction, volatility has been somewhat higher than in the autumn and risk premiums on the bond market have risen (Diagrams 4 and 5). At the same time risk premiums continue to be low, which means there is a risk for additional corrections both globally and in Sweden.

FEWER PROBLEMS IN EUROPE'S BANKING SECTOR, BUT CHALLENGES REMAIN

FI has previously pointed to the weak European banking sector as a potential source of uncertainty on the financial markets. A long period of low growth in Europe in the wake of the global financial crisis in 2008 and high shares of non-performing loans[1] have resulted in low profitability among the European banks in general. The forecasts have now brightened somewhat. Stronger economic growth has meant higher profitability, improved asset quality and a lower share of non-performing loans. Confidence in the banking sector in Europe has therefore increased. This is visible, for example, in the stock market, where bank shares have continued to outperform stock market indices (Diagram 6). The sector still has low profitability, however, and continues to be vulnerable. Weaker economic forecasts, for example due to political uncertainty and deteriorating international trade relationships, could obstruct the recovery. Even if the Swedish banking sector does not have particularly high direct exposures to weaker European banks, turbulence in Europe could affect Sweden through greater uncertainty on financial markets and weaker economic growth in the region. The European Banking Authority (EBA) will conduct a new stress test in 2018 of how the banking system in the EU can handle a financial and macroeconomic shock.

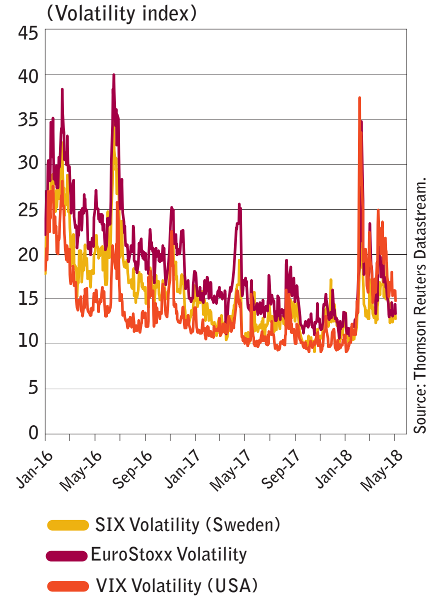
Tough stress test coming for major Swedish banks

In 2018, the EBA will conduct a stress test of the banking system in the EU based on a macroeconomic crisis scenario developed by the European Systemic Risk Board (ESRB). The scenario assumes a strong, negative financial and macroeconomic shock, where risk premiums on the financial markets rise rapidly. As a result, the economy in Europe weakens considerably. At the same time as the economy contracts, interest rates rise and access to capital and loans is impaired.[2] The scenario introduces a particularly burdensome stress for Sweden, both compared to other countries and given actual historical economic chocks (Diagram B1). For example, GDP falls by more than 10 per cent over a period of three years, and unemployment rises to 12.5 per cent. At the beginning of the crisis in the early 1990s and during the financial crisis in 2008, GDP fell at the most by 6 per cent in Sweden. In Ireland, the fall in GDP following the financial crisis in 2008 was at the most roughly 10 per cent.

1 See *Banks have good earnings and high profitability*, page 12.

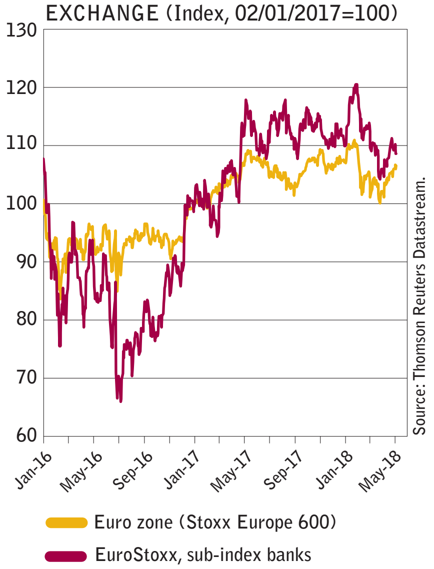
2 The scenario was published on 31 January 2018, and a detailed description is available at: http://www.eba.europa.eu/news-press/news

5. INCREASED VOLATILITY ON SEVERAL STOCK EXCHANGES (Volatility index)



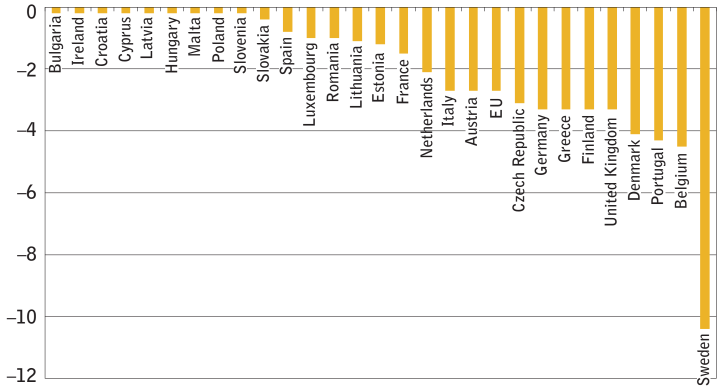
Note. Implicit volatility calculated from index option prices.

6. EURO AREA'S BANK INDEX STRONGER THAN THE STOCK EXCHANGE (Index, 02/01/2017=100)



Note. Index in the in diagram only include the euro area.

B1. GDP GROWTH IN STRESSED SCENARIO FOR DIFFERENT COUNTRIES (Per cent)

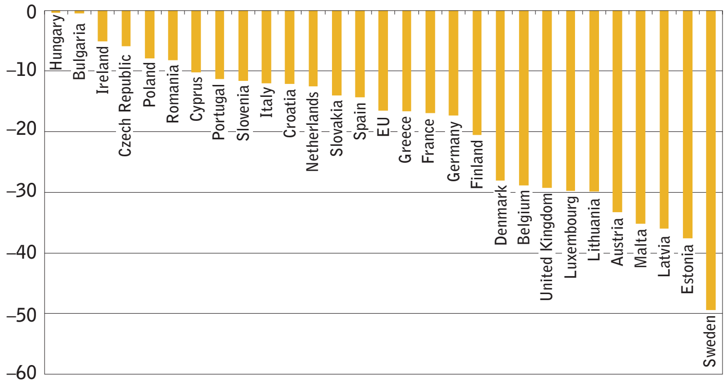


Note. Cumulative change in per cent over three-year period. Sources: ECB/ESRB.

As a result of the weakened conditions, share prices fall by 26 per cent and long-term market rates rise by 70 basis points. The fall in equity prices and the upswing for long-term interest rates are milder in Sweden than the average in the EU.

ESRB makes the assessment that Swedish house prices are sharply over-valued. During the three years of the scenario, house prices therefore fall by 49 per cent (Diagram B2). During the crisis at the beginning of the 1990s, prices fell at the most by 19 per cent.[3] The fall in prices in Sweden is the largest for all countries included in the stress test, where the average fall in prices amounts to 17 per cent. Commercial real estate prices in Sweden fall by 43 per cent in the scenario.

B2. FALL IN HOUSE PRICES IN STRESSED SCENARIO FOR DIFFERENT COUNTRIES (Per cent)



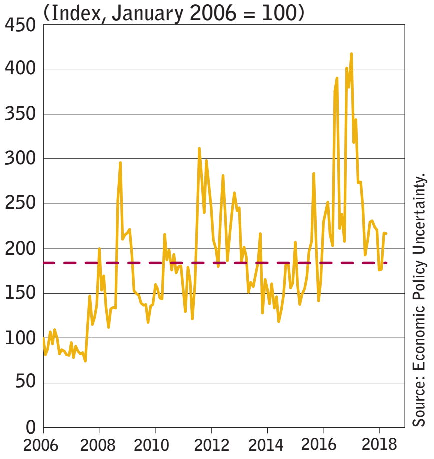
Note. Cumulative fall in house prices in per cent over three-year period. Sources: ECB/ESRB.

The fact that the decrease in GDP for Sweden is so large in the scenario is largely due to the large fall in house prices. House prices enhance the initial economic shock. This affects primarily households whose economic conditions are weakened considerably through significantly lower house prices.

This report analyses how Swedish insurance companies and Swedish mortgagors can be affected in ESRB's scenario. In the autumn, EBA will publish the results of how the scenario influences the major European and Swedish banks.

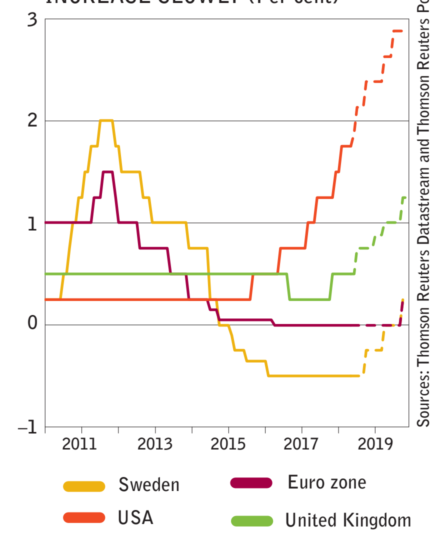
3 Statistics Sweden's Real Estate Price Index.

7. CONTINUED POLITICAL UNCERTAINTY AT GLOBAL LEVEL (Index, January 2006 = 100)



Note. Global Economic Policy Uncertainty Index. Includes nineteen countries and is based on the occurrence of certain expressions linked to the economy, policy and uncertainty in all countries' national news articles. Dashed line refers to the average since 2006.

8. POLICY RATES ARE EXPECTED TO INCREASE SLOWLY (Per cent)



Note. The refinancing rate is shown for the euro zone. Dashed lines refer to the forecasts of market participants. The forecasts are based on Thomson Reuters Poll, median.

CONTINUED POLITICAL UNCERTAINTY IN THE WORLD

There are potential shocks that could have a negative impact on economic development despite the strong economy. Globally, political uncertainty continued to be at a slightly elevated level (Diagram 7).[4] If market participants take forward-looking action, this uncertainty could enter into a self-reinforcing spiral, which in turn could create turbulence on the financial markets and subsequently greater price volatility. In Europe there is still considerable uncertainty regarding the UK's withdrawal from the EU, and the results of national elections have created a fragile government coalition in Germany at the same time as Italy is facing the risk of a new election. The turbulence surrounding the government in Italy triggered reactions in the fixed-income market, and Italian interest rates rose sharply. Outside of Europe, there is also greater political concern of a global trade war and protectionism has increased. Greater protectionism slows global growth and could influence Sweden through lower demand for Swedish exports.

SIGNALS OF LESS EXPANSIVE MONETARY POLICY

After a long period of expansive monetary policy, several central banks are now signalling that interest rates will rise in the future (Diagram 8). The US central bank, the Federal Reserve, began to raise its policy rate in December 2015 and has now raised the policy rate six times for a total of 1.5 percentage points. After the most recent increase in March, the interval for the policy rate is 1.50–1.75 per cent. The European Central Bank (ECB) will continue its expansive monetary policy, but it has been decreasing the size of its monthly asset purchases since 2017.

Sveriges Riksbank is taking a "wait and see" approach and would like inflation to be stabilised around the target of 2 per cent before it takes action. Sveriges Riksbank has therefore delayed the start of the first increase in the policy rate to the end of 2018. The low policy rate has stimulated growth and inflation, but also meant that households and firms are borrowing more (see the section *Household and corporate debt*).

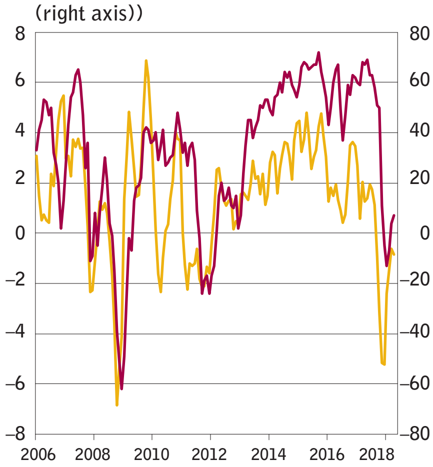
The current monetary policy, which features a low policy rate and quantitative easing, that is being pursued by a large number of countries is untested from a historical perspective, and it is uncertain what will happen during a transition to a less expansive approach. A structured and gradual process for making monetary policy less expansive reduces the risks. However, in a new interest rate environment, market participants might adapt their behaviour, which in turn could create financial uncertainty, for example through rapidly rising risk premiums and falling asset prices.

Despite moves to make monetary policy less expansive, global interest rates are expected to stay at a low level for some time. The long-term real interest rates have demonstrated a downward trend for a long time on a global scale.[5] As long as interest rates remain at their current level, vulnerabilities may build up in the form of even higher household debt, continued elevated risk-taking among investors and high asset prices.

4 Global Economic Policy Uncertainty Index. Includes nineteen countries and is based on the occurrence of certain expressions linked to the economy, policy and uncertainty in all countries' national news articles.

5 *The Swedish Economy*, National Institute of Economic Research, March 2017

9. PRICES AND EXPECTATIONS ON THE HOUSING MARKET (three-month change in per cent (left axis) and index (right axis))



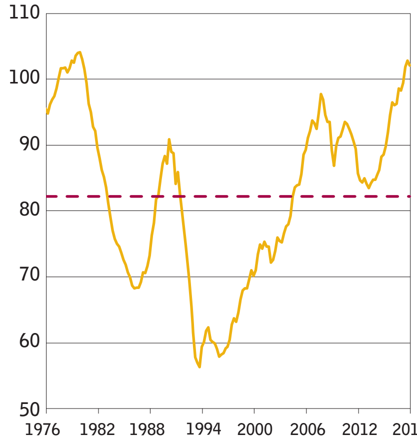
Prices, total housing market (left axis)

Households' expectations for house prices (right axis)

Sources: SEB and Valueguard.

Note. Seasonally adjusted prices. Price expectations show the difference between the number of households that believe house prices will rise and fall, respectively.

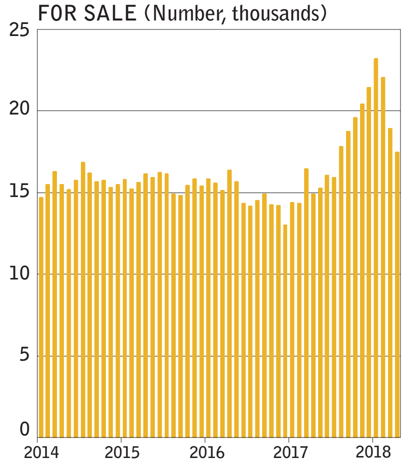
10. HIGH HOUSE PRICES IN RELATION TO INCOME (Ratio)



Sources: FI and Statistics Sweden.

Note. Ratio between house prices and household disposable income. The dashed line refers to the average.

11. TENANT-OWNED APARTMENTS FOR SALE (Number, thousands)



Sources: FI and Hemnet.

Note. All of Sweden. Seasonally adjusted.

CONTINUED HIGH HOUSE PRICES DESPITE DOWNTURN

House prices fell in Q4 2017 and then stabilised in Q1 2018. After reaching a peak in August 2017, by April 2018 house prices had fallen more than 6 per cent.[6] On more localised markets they fell even more. For example, the price of tenant-owned apartments in Stockholm fell by more than 9 per cent during the same period. The decrease during the fourth quarter was approximately as large as during the financial crisis at the end of 2008 (Diagram 9). Household expectations for prices in the future fell sharply in Q4 2017, but stabilised somewhat in Q1 2018. Between April 2013 and April 2018, house prices increased by 47 per cent. The ratio between house prices and household income is a common method to assess whether house prices are overvalued (Diagram 10). In Q3 2017 the ratio was at the highest level in 40 years, although it fell slightly in Q4 2017. In order for the ratio to reach its historical average, either house prices must go down 20 per cent or income must go up 20 per cent.

A historical average is not all encompassing, however. There are a number of factors indicating that both demand and house prices will remain at high levels. The supply of rental apartments is still limited, primarily in regions with high population growth. The average mortgage rate, including interest rate deductions, continues to be very low, and the real financing cost of mortgages is also negative. Household expenses for owning a home are therefore very low as well. However, this condition can change rapidly, for example if the risks discussed above were to materialise.

One clear explanation for the fall in house prices is the large increase in newly produced residential properties in 2017. A large supply of new production, high price levels and reduced speculation on the market for new construction are considered to have slowed the growth in house prices and resulted in a large supply of tenant-owned apartments available during the autumn of 2017 (Diagram 11). The introduction of the stricter amortisation requirement on 1 March 2018 is expected to have contributed to the fall in prices, but after the regulation went into effect prices have remained unchanged. In 2017, more than 36,000 apartments were completed, which is 5,000 more than in 2016. More than half of the completed apartments in 2017 were tenant-owned apartments. In 2018, more than 45,000 apartments will be completed, of which half are tenant-owned apartments. The number of apartments that will enter into production in 2018 is expected to decline since projects are now being postponed due to the uncertainty on the housing market. Buyers of newly produced tenant-owned apartments often sign binding contracts based on drawings several years before the apartment is completed. The buyer is thus exposed to market fluctuations during the period of construction. This is also why buyers are hesitant to sign for newly produced tenant-owned apartments during uncertain market conditions.

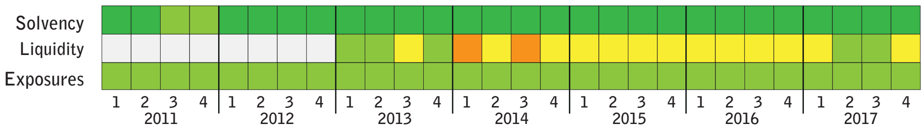
In the short term, the currently large number of completed residential properties may continue to hold prices down. Households' economic conditions can also change, for example if employment were to decrease due to a sharp downturn in the economy. This may cause house prices to fall even further. As a whole, FI considers the risk of a major fall in house prices to still be elevated.

6 Change in price according to Valueguard composite index. Seasonally adjusted change in prices.

Stability in the banking sector

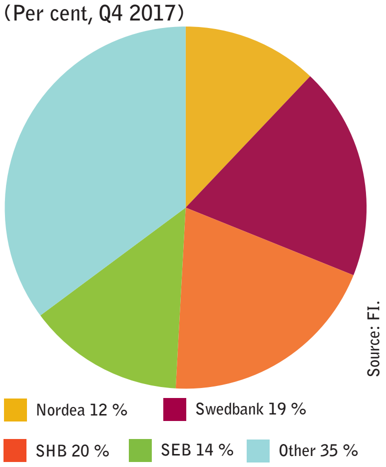
FI makes the assessment that the resilience of the major Swedish banks is satisfactory. The major banks continue to report good profitability, low credit losses and high levels of capital in relation to the risks in their operations. They also meet FI's requirements on liquidity coverage. Nordea has decided to move its parent company to Finland. This means that foreign actors will constitute a significantly larger percentage of the Swedish banking market. Work in the EU continues on regulations that will affect the design and application of the capital requirements in the future.

Vulnerability indicators for the banking sector



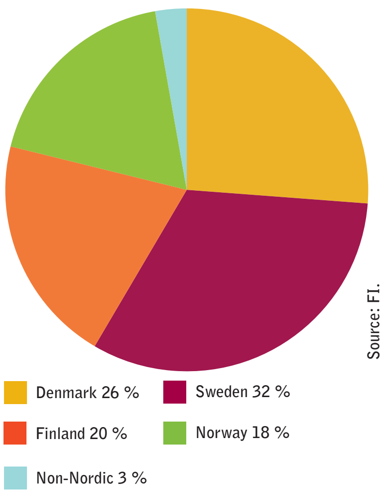
The heat map shows the development of the vulnerability categories over time. See also FI Analysis 2: Finansinspektionen's Vulnerability Indicators.

12. DISTRIBUTION OF BANK LENDING IN SWEDEN
(Per cent, Q4 2017)



Note. Banks' lending to the general public "Other" includes other Swedish credit institutions' and foreign branches' lending in Sweden.

13. DISTRIBUTION OF NORDEA'S LENDING PER COUNTRY
(Per cent, Q4 2017)



Note. Excluding repos.

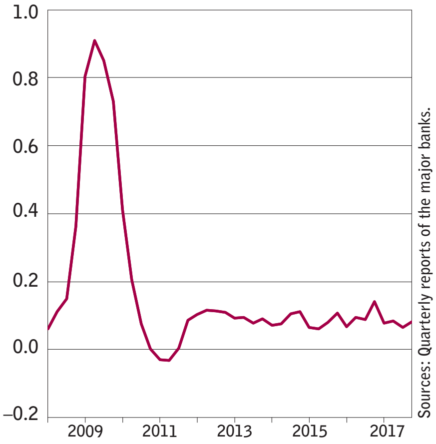
Banks play a central role in the financial system since they are primarily responsible for carrying out fundamental functions such as payments, the conversion of savings into financing and the management of financial risks. These fundamental functions are critical for the financial system and the economy. Shocks or disruptions could be very costly for society. It is therefore important that the banking system be resilient to shocks, which also reduces the risk that problems will spread from banks to other parts of the financial system. The competitive pressure to transform the financial sector is currently high, which in part is due to technological development and good asset to risk capital for financing alternative forms of lending. As a consequence, the traditional business models of the banks are being challenged. In the future, a larger portion of the core functions of the financial system may be carried by firms other than banks.

THE SWEDISH BANKING SYSTEM IS LARGE AND INTERCONNECTED

There are currently around 120 banks, credit market companies and other credit institutions with authorisation from FI to conduct business in Sweden. The four major banks represent approximately 65 per cent of all lending to the public in the banking system in Sweden. Therefore, the major banks play a central role in how the Swedish banking system functions and FI prioritises supervision of the major banks and places higher demands on their capital and liquidity. The fact that the banking system is concentrated to such a small number of large banks can make it more vulnerable, since problems in a major bank can lead to problems for the financial system as a whole.

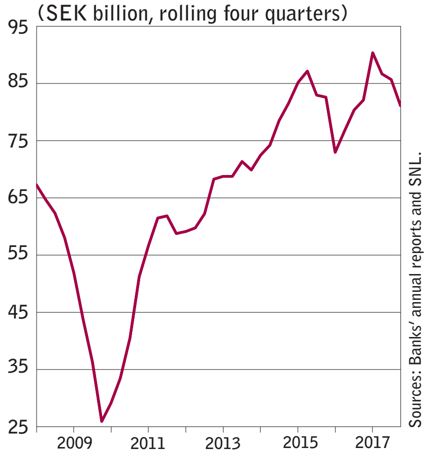
Nordea's Board of Directors decided in 2018 to move the parent company from Sweden to Finland and thereafter operate the Swedish banking operations through a branch. For the move to happen requires the approval of both of the supervisory authorities in question, FI and ECB. The scope of Nordea's operations in Sweden will not change as a

14. MAJOR BANKS CONTINUE TO HAVE LOW CREDIT LOSSES (Average, per cent of total lending on annual basis)



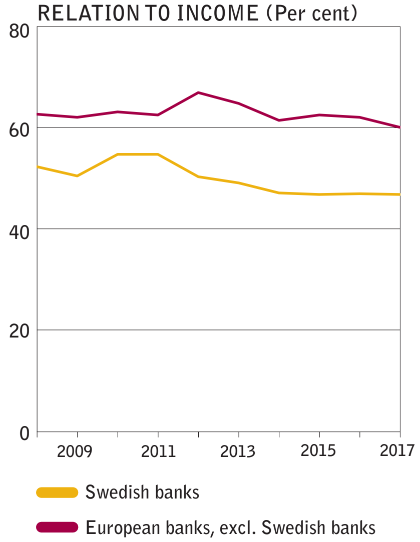
Note. Credit losses, calculated as an unweighted average, as a percentage of total lending to the private and public sectors. The low levels in 2011 are partly due to recovered provisions from previous years.

15. MAJOR BANKS' PROFITS CONTINUE TO BE HIGH (SEK billion, rolling four quarters)



Note. Refers to the four major Swedish banks' total profit after tax, i.e. profit/loss for the year attributable to the shareholders and prior to dividend payments.

16. MAJOR BANKS' COSTS IN RELATION TO INCOME (Per cent)



Sources: EBA Risk Dashboard and the major banks' annual reports.

direct result of a move (Diagram 12), and Sweden will continue to be as equally important market for the bank as it was before (Diagram 13). However, the planned change will have a major impact on the distribution of responsibility between Sweden and Finland in terms of supervision and crisis management. Primary responsibility for supervision of Nordea after the move will lie with the ECB's joint supervisory authority Single Supervisory Mechanism (SSM) and the Finish supervisory authority (Finanssivalvonta), even if FI as a host country authority will continue to be active. FI will also continue to be the macroprudential authority for Nordea's Swedish banking operations, and the amortisation requirement, for example, will still apply to the Swedish branch. In addition to FI handing over primary supervision responsibility, responsibility for Nordea in the event of a crisis will be transferred from the Swedish resolution authority (Swedish National Debt office) to Finland through the banking union's joint resolution board, Single Resolution Board (SRB), to which Finland belongs as a euro-country.

BANKS HAVE GOOD EARNINGS AND HIGH PROFITABILITY

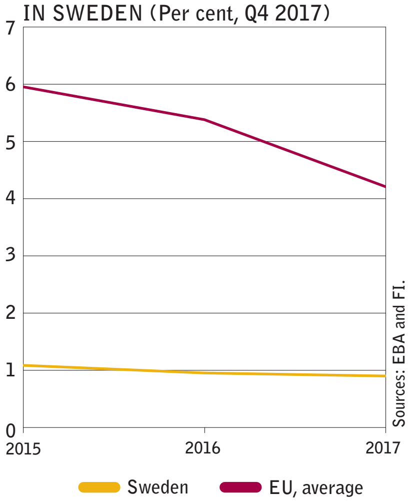
On average, the Swedish banking sector has good profitability. This also applies to the major banks whose net interest income has continued to increase over the past six months. Net commission income has also increased as a result of high activity on the capital markets. The favourable economy contributed to the low level of credit losses (Diagram 14). As a whole, this has resulted in continued high levels for the major banks' profits (Diagram 15).

The major Swedish banks are relatively cost-effective and in general have lower costs in relation to income than other major banks in the EU (Diagram 16). Fewer offices and fewer employees in relation to the business volume combined with very low credit losses are several important reasons for a return on equity that is higher than the average for the major banks in the EU.

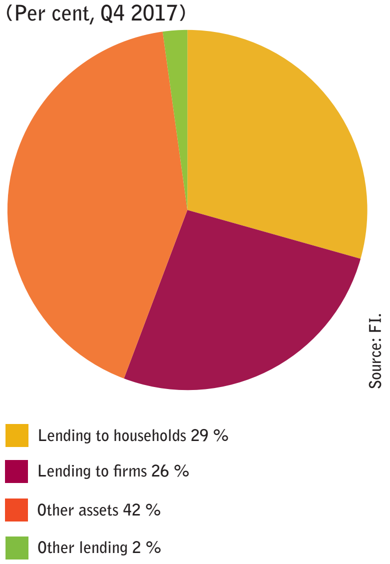
An important factor for assessing banks' financial position is the quality of the loans in circulation. A key ratio describing this factor is the percentage of non-performing loans. A loan is defined as non-performing when the borrowers has not made the agreed interest rate and amortisation payments within a certain period of time after the due date (normally 90 days). For Sweden, the percentage of non-performing loans in the banking sector is on average 0.9 per cent, which is the lowest in the EU, where the average is 4 per cent (Diagram 17).

Forecasts regarding economic growth (see the section *State of the economy*) and confidence indicators as well as the banks' own expectations clearly indicate that lending to corporates will continue to increase, particularly in Sweden. Given the high level of economic activity and a strong economy, it is probable that banks' lending to households will also increase (Diagram 46). Continued lending growth combined with interest rate margins, which are currently high, indicate that the conditions are in place for banks' net interest income to increase over the next few years. On the other hand, the high pressure on the housing market from the structural transformation could challenge the traditional business models for the banks' lending, which in turn can lead to lower margins (see the box *New business models on the mortgage market*, page 13).

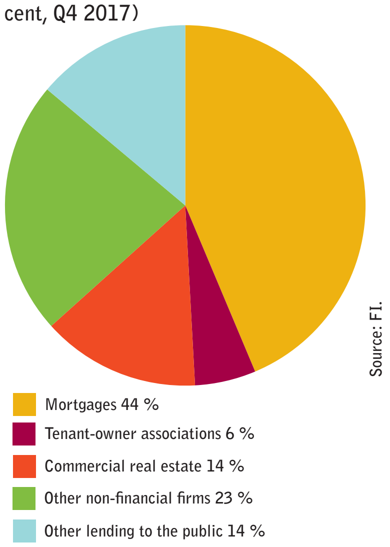
17. LOW PERCENTAGE OF NON-PERFORMING LOANS IN SWEDEN (Per cent, Q4 2017)



18. DISTRIBUTION OF THE TOTAL ASSETS OF THE MAJOR BANKS (Per cent, Q4 2017)



19. DISTRIBUTION OF THE MAJOR BANKS' CREDIT PORTFOLIOS (Per cent, Q4 2017)



Note. Refers to the major banks' lending to the public at a consolidated level.

HIGH EXPOSURE TO THE PROPERTY SECTOR

Lending to households and corporates constitutes just over half of the four major banks' total assets at the consolidated level (Diagram 18). Almost 90 per cent of lending to households consists of mortgages. At the same time, approximately 35 per cent of lending to corporates is for commercial real estate in some form, including tenant-owner associations (Diagram 19). The developments on the real estate market therefore have a major impact on the banks' financial position. Homes or other properties are often used as collateral for the banks' lending. Collateral reduces the banks' credit risks, but during periods of crisis the value of the collateral can be uncertain and if prices were to fall the value of the collateral could fall. If borrowers were to simultaneously experience extensive repayment difficulties, there is a risk that the banks would suffer extensive credit losses.

FI makes the assessment that there is low risk that the banks will post major credit losses on their Swedish mortgages. FI's stress tests show that most households are able to repay their loans and have good margins, which provides resilience if house prices were to fall and interest rates rise (see the section *Household and corporate debt*). In terms of the major banks' exposures to commercial real estate, FI makes the assessment that the quality of the credit is satisfactory.

New business models on the mortgage market

The established structure of the Swedish mortgage market is being challenged by newcomers and new forms of financing. New business models are arising due to factors such as new technology for financial services, new laws, strong interest from investors and the relatively high profitability of Swedish mortgages. The development means that new actors will appear, but also that established banks will adapt their business models. Even if the scope is marginal to date, the effect on the financial system's structure could be considerable in the long run, and thus even on aggregate stability risks.

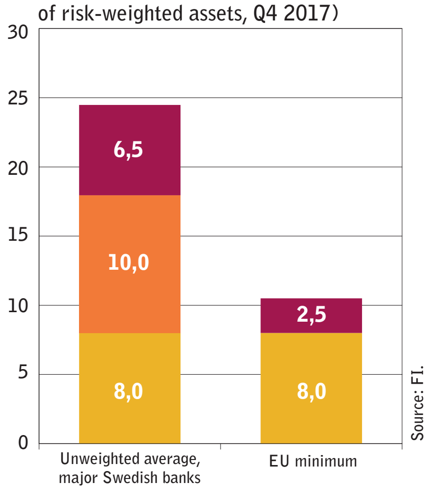
One thing that all of the new alternative forms of financing have in common is that they are based on transferring the credit risk of individual loans to the end investor. This can occur in a number of different ways, for example through mortgage funds, securitisations or the sale of mortgage portfolios to companies that are both part of and outside the banking sector. In the new structures, the lender does not hold the mortgage in its balance sheet. Forms of financing other than deposits from the public or covered bonds are used. An important facilitator for newcomers is the new regulatory framework, which makes it possible for actors other than banks or credit market companies to issue and broker loans, for example mortgage institutions and insurance undertakings.

Swedish mortgages are of primary interest as an investment for institutional investors with long investment horizons, such as life insurance undertakings. Due to the currently low interest rates, investors are seeking alternative investments that will offer higher return than covered bonds.

New business models in turn have an impact on the risks in the financial system. Some risks and vulnerabilities associated with the established value chains can decrease, for example refinancing risks[7], concentration risks and systemic risks. From a consumer protection perspective, this development can lead to lower mortgage rates due to greater competition. At the same time, new risks arise with new business models, where an important perspective is

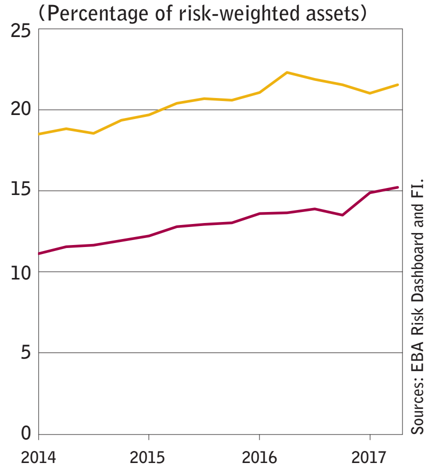
7 The risk that it is difficult and/or costly to replace loans that have fallen due.

20. MINIMUM REQUIREMENT SUPPLEMENTED WITH CAPITAL BUFFERS (Percentage of risk-weighted assets, Q4 2017)



Note. Unweighted averages for the major Swedish banks.

21. CET 1 RATIO IS STILL HIGH (Percentage of risk-weighted assets)



Note. Unweighted averages for the major Swedish banks' consolidated situations and the mean for the 50 largest EU banks according to EBA Risk Dashboard.

how the vulnerability in stressed scenarios is affected. A change on the Swedish mortgage market could therefore have both positive and negative consequences for the stability of the market as well as for consumer protection.

An important assignment for FI is to safeguard a high level of consumer protection on the mortgage market, even in new business models. Greater competition and more efficient markets, in other words, could improve the conditions for consumers. There is also a need to thoroughly investigate how new mortgage models meet the duty of care and how the other consumer protection regulations that apply to all actors on the mortgage market can be met. Potential consumer risks arise already in conjunction with the first loan agreement, and potential stability risks are building up as new structures reach a certain scope. A well-functioning mortgage market therefore requires responsible participants and investors with a long-term commitment.

SATISFACTORY RESILIENCE

To ensure that the banks can handle unexpected losses, FI assigns capital requirements to the banks. The financial system's resilience to shocks is strengthened if the capital requirements are sufficiently high for the banks to be able to handle a period of stress without a sharp decline in their ability to provide crucial services to society. The capital requirements consist of components that are either set directly by regulations or are designed and set by FI.[8] The major Swedish banks have significantly higher capital requirements than the minimum levels set out in the EU regulations (Diagram 20).

The Swedish mortgage market has had very low credit losses for several decades. As a result, the expected credit losses in the banks' forward-looking credit risk models are low. To ensure that the banks' capital still allows for serious crisis scenarios and high credit losses, FI applies national requirements in its supervision.[9] A requirement that is set as part of this supervision, within Pillar 2, does not affect the risk-weighted assets, but rather is an additional part of the capital ratio.[10] This means that the Swedish capital ratios are high in comparison to the EU average (Diagram 21).

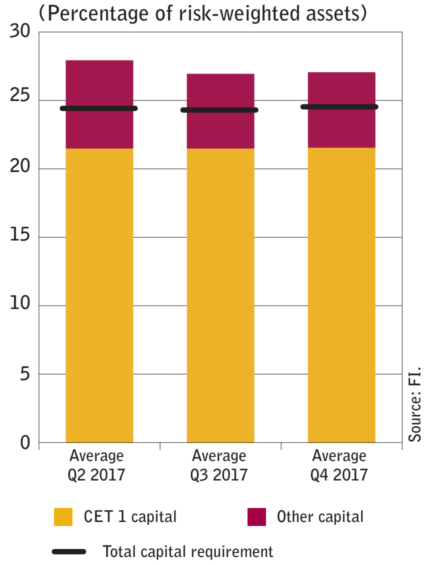
The major Swedish banks meet the risk-based capital requirements by a good margin (Diagram 22). Their average total capital ratio is 28 per cent. Even the narrower CET 1 ratio is higher from a European perspective. In terms of the leverage ratio, which is a measure of capital that does not consider the underlying assets, the major Swedish banks are instead just under the median for the EU banks (Diagram 23). All major Swedish banks, however, are well above the European Commission's proposed minimum requirement of 3 per cent.

8 For more information about the capital requirement's components and function, see Chapter 2 of *Svenska bankers kapitalkrav*, September 2014 (Ref. 14-6258), FI. An English translation is available at https://www.fi.se/en/published/news/2014/capital-requirements-for-swedish-banks/

9 See the memorandum, *FI:s tillsyn över bankernas beräkningar av riskvikter för företagsexponeringar*, May 2016 (Ref 15-13020), FI. An English translation is available at https://www.fi.se/en/published/news/2016/new-methods-for-banks-risk-weights-and-capital-requirements-decided/

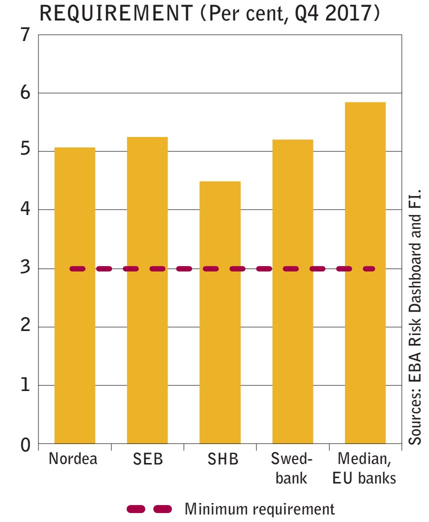
10 Some of the Pillar 2 requirements are set as a percentage of the risk-weighted assets. Other Pillar 2 requirements are set as a nominal amount and reported as a share of the risk-weighted assets.

22. MAJOR BANKS MEET CAPITAL REQUIREMENTS WITH GOOD MARGIN (Percentage of risk-weighted assets)



Note. Unweighted averages for the consolidated situations.

23. GROSS LEVERAGE RATIO WELL ABOVE THE MINIMUM REQUIREMENT (Per cent, Q4 2017)



Note. Refers to calculation according to transition rules. The minimum requirement refers to the level proposed in the European Commission's banking regulatory package. The mean for EU banks refers to the 50 largest banks according to EBA Risk Dashboard.

Overall, the Swedish banking system's capital levels and the assessment of profitability leads to the conclusion that resilience to stressed scenarios is satisfactory. The vulnerability indicator for the equity/assets ratio in the banking sector has also demonstrated low vulnerability for a long time. This assessment is supported by the results from the stress tests for the individual banks that FI conducts as part of its supervision and by the credit ratings from the rating companies.

CAPITAL REQUIREMENTS ARE CHANGING

Placing requirements on the banks' capital is one of the tools that FI uses to reach its goal of a stable financial system characterised by a high degree of confidence. The requirements from regulations and supervision determine the level and design of the banks' capital and affect in the long run the banks' strategies and business models. The manner in which FI can apply the capital requirements is determined by Swedish law and EU regulation. The regulations in turn are largely based on international standards developed by the Basel Committee. It is therefore an important assignment for FI to be involved in the development of these laws, regulations and standards.

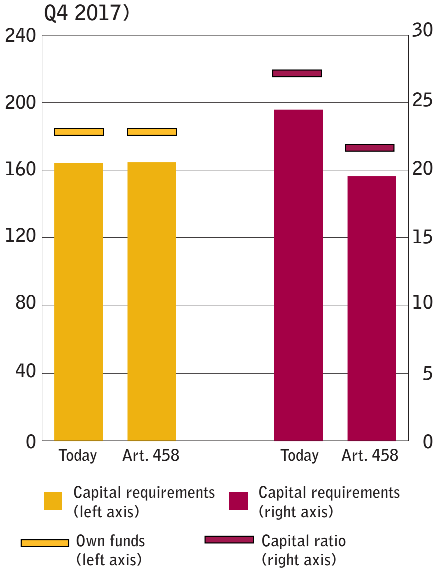
Several important starting points for FI's work with capital requirements are the four principles on which the Swedish capital requirements are based.

- The capital requirements should be risk-based. This means that the requirements should reflect the differences in the risk level since operations with higher default risks require more capital.
- The design and level of the capital requirements should be transparent. This can be achieved by basing them on published methods and regulations and limiting their complexity.
- A significant portion of the capital requirements should consist of a buffer that can be used to provide manoeuvrability and a greater safety margin to defaults.
- Capital requirements on banks shall cover risks from a broad perspective, and even counteract systemic risks, to increase the resilience in the financial system.

The capital adequacy regulations for banks are being revised, particularly at the EU level. The changes that are currently being designed are relatively extensive and address the lessons learned following the financial crisis in 2008.[11] At the global level, the Basel Committee reached an agreement last year after several years of negotiation on new international standards for capital requirements (see the box *Basel Agreement on banks' capital adequacy*, page 16). At the national level, structural changes on the market, such as Nordea's planned move, can also affect the application of the requirements (see the box *Modified design of the risk-weight floor for Swedish mortgages*, page 17).

11 For more information, see "EU-kommissionens bankpaket förändrar spelplanen" in *Stabiliteten i det finansiella systemet*, May 2017 (Ref. 17-8802). An English translation is available at https://www.fi.se/en/published/reports/stability-report/2017/stability-in-the-financial-system/

24. MODIFIED METHOD DOES NOT CHANGE REQUIREMENTS, BUT RATIOS ARE LOWER (SEK billion (left axis) and per cent (right axis), Q4 2017)



Source: FI.

Note. The diagram shows the difference between the risk weight floor for mortgages in Pillar 2 and requirements based on Article 458 of the CRR. Unweighted average for major Swedish banks.

Basel Agreement on banks' capital adequacy

In December 2017, the Basel Committee reached an agreement on the global standards for banks' capital adequacy. The objective of the new standards is to improve comparability and reduce the risk for unjustified differences in capital requirements between banks and across countries. The new standards change the standardised approach to capital requirements on credit risk, operational risk and market risk. The use of internal ratings-based (IRB) models will be limited when it comes to the assets that may be modelled and how low the parameter values in the models may fall. The new standards also contain a floor for how low the total risk-weighted assets may be for banks that apply IRB models. According to the floor, the total risk-weighted assets must be at least 72.5 per cent of what they would have been if the bank had calculated them using only the standardised approaches. The Basel Agreement targets primarily banks active on the international market, but it may also affect smaller Swedish banks depending on how it is implemented within the EU. According to the Agreement, the new standards will primarily go into effect on 1 January 2022. The floor for the risk-weighted assets will be phased in from 50 per cent in 2022 to 72.5 per cent in 2027. From a Swedish perspective, the new Basel standards must first be introduced into EU legislation before they can serve as a basis for new decisions on capital requirements. It is not yet clear when these new revisions can be introduced into the EU and in which manner this will occur.

RISK-WEIGHT FLOOR FOR SWEDISH MORTGAGES IS REDESIGNED

In 2013 and 2014, FI implemented a risk-weight floor for mortgages in Pillar 2, in part to fully cover the systemic risks that Swedish mortgages pose to the financial system.[12] If Nordea moves its head office from Sweden, the current regulations in the euro area could result in a decrease in the bank's capital requirement since the risk-weight floor would no longer automatically include the bank's Swedish mortgages. In the long run, this could affect financial stability and disrupt the level playing field on the Swedish mortgage market. FI has therefore proposed that the design of the risk-weight floor for Swedish mortgages be changed to easily include foreign branches (see the box *Modified design of the risk-weight floor for Swedish mortgages*, page 17).

By modifying the application of the risk-weight floor, it becomes easier to maintain the current capital requirements for Swedish mortgages, but the change also affects the Swedish banks' capital requirements when set in relation to the risk-weighted assets. In brief, the capital ratios will be lower as a per cent (Diagram 24). This is because the requirement in the new design increases the amount of risk-weighted assets, unlike a Pillar 2 requirement, which increases the requirement as a percentage. Due to the change, the capital requirement expressed as a percentage of risk-weighted assets – the capital ratio – will be lower even though the underlying risk is the same and the level of capital has not changed. FI makes the assessment that the most appropriate measure from the perspective of financial stability and competition-neutrality on the Swedish mortgage market is to change the design of the Swedish risk-weight floor.

12 The risk-weight floor for Swedish mortgages was introduced in 2013 and modified in 2014.

A requirement under the modified design can be reassessed and removed by the supervisory authority if the risks the measure is intended to cover have occurred. This means that even in the future there will be a buffer function in the pending capital requirement, which maintains resilience.

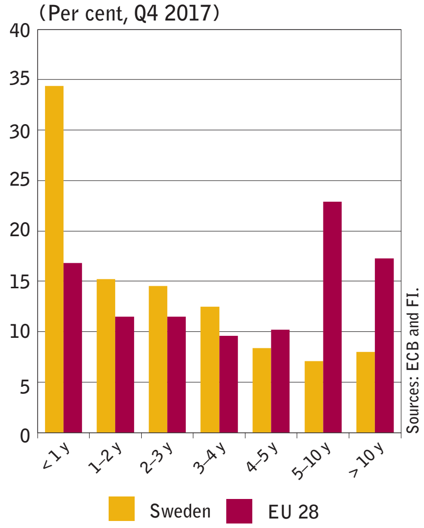
Modified design of the risk-weight floor for Swedish mortgages

Article 458 of the CRR offers FI the possibility of raising the risk weight, for example for mortgages, to handle macroprudential risks or systemic risks in the financial system. The tool is already applied by other countries in the EU, and FI intends to apply it in Sweden in the future.

To use Article 458, FI needs to inform the European Parliament, the European Council, the Commission, ESRB and EBA about the proposed measure. These bodies were notified on 24 May 2018 of FI's intention to make this change.[13]

On 28 March 2018, FI published a consultation memorandum in which we proposed that the current risk-weight floor for mortgages applied in Pillar 2 be replaced by a corresponding requirement within the framework of Article 458 in the CRR, i.e. a Pillar 1 requirement.[14] The institutions that today are covered by the risk-weight floor of 25 per cent in Pillar 2, i.e. institutions that calculate the risk weight for Swedish mortgage exposures using an IRB approach, are covered by the change. FI proposes that the measure be implemented as of 31 December 2018 on the condition that it is not rejected by the EU Council.

25. BANKS' SECURITIES HAVE SHORT MATURITIES
(Per cent, Q4 2017)



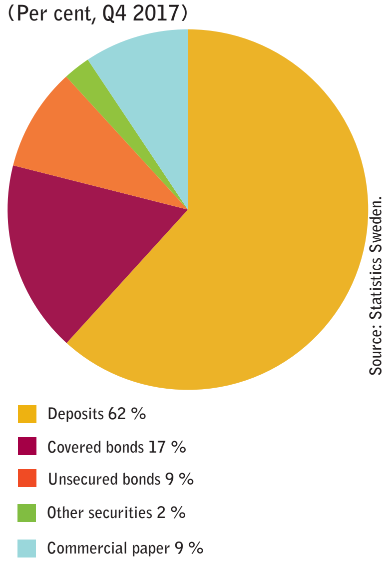
Note. Major Swedish and European banks. Does not cover equity or financial derivatives.

MATURITY TRANSFORMATION CREATES VULNERABILITY

Maturity transformation is a central part of traditional banking operations. It allows savers to withdraw their money with little advance notice while borrowers at the same time are able to keep their loans for a longer period of time. However, maturity transformation also creates a built-in vulnerability in the banks' operations. Banks' liabilities, both in the form of deposits from savers and issued securities such as bonds, generally have shorter maturities than the banks' assets, which consists primarily of various forms of lending. Lending is also an illiquid assets since it normally cannot be sold on secondary markets. In other words, the banks' business models have built-in liquidity and refinancing risks. How high these risks are depends largely on how well the maturities of assets and liabilities match one another.

The major Swedish banks have a relatively short maturity for their liabilities compared to the average in the EU (Diagram 25). This is in part because the major Swedish banks in general have a relatively short market funding with a smaller portion of issued bonds with long maturities. This means that, in the event of strong shocks to the capital market, there is a risk that it will be more difficult for major Swedish banks to renew the funding that is needed to maintain their lending.

26. MAJOR BANKS' LIABILITIES
(Per cent, Q4 2017)

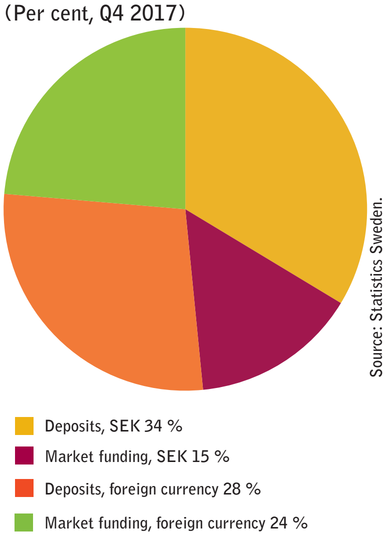


Note. Equity and insurance are not included in the calculation of the banks' liabilities.

13 https://www.fi.se/en/published/important-pms-and-decisions/2018/eu-notification-regarding-changed-method-for-the-application-of-the-risk-weight-floor-for-swedish-mortgages/

14 https://www.fi.se/en/published/news/2018/changed-method-for-the-application-of-the-risk-weight-floor-for-swedish-mortgages/

27. HALF OF THE MAJOR BANKS' FUNDING IS IN FOREIGN CURRENCY
(Per cent, Q4 2017)



Note. Equity and insurance are not included in the calculation of the banks' liabilities.

28. LOW FUNDING COSTS FOR SWEDISH MORTGAGES
(Basis points)

Note. Average credit margin (asset-swap spread) for five-year benchmark bonds. The diagram is based on data for the major banks' Swedish mortgage institutions.

BANKS' FUNDING

Major Swedish banks lend more than what they can finance through deposits. This is in part because Swedish households largely invest in shares, funds and pension products that are outside the banks' balance sheets instead of saving in bank accounts. This means that the banks have a deposit deficit. Banks fund this deficit through market funding by issuing covered and unsecured bonds and commercial paper (Diagram 26).

Funding in foreign currency is natural

Approximately half of the major banks' total funding at the consolidated level occurs in SEK, while the rest is in foreign currency (Diagram 27). A slight majority of their deposits are in SEK, while market funding to a large extent occurs in foreign currency. Since the major Swedish banks together have more than 40 per cent of their total lending outside of Sweden, it is natural for them to have a considerable amount of funding in currencies other than SEK. The major Swedish banks also fund some assets in SEK with foreign currency. This is done, for example, by issuing securities in foreign currency, primarily EUR and USD, which can then be converted into SEK through currency swaps. Because of the major banks' funding of assets in SEK in foreign currency, shocks to the international capital market could spread to the major Swedish banks and thus make it more difficult to obtain funding even if confidence in the Swedish banks has not been affected.

High level of confidence in Swedish banks

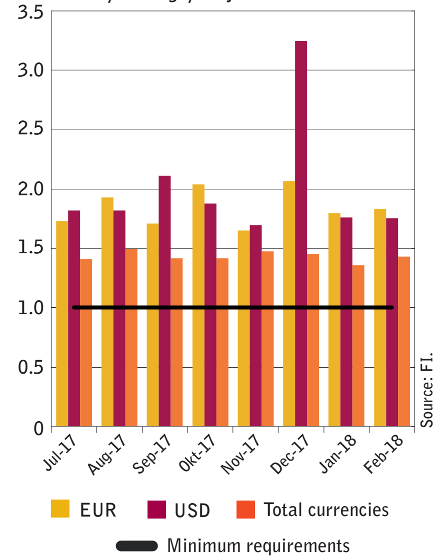
Major Swedish banks are well-capitalised and have high profitability in an international comparison. As a result, depositors and investors consider the risk to be low, which in turn is crucial for the banks' access to funding. A large portion of the major banks' funding occurs via covered bonds. The borrowing cost for Swedish covered bonds has fallen over a long period of time and is currently very low. This is a sign that there continues to be a high level of confidence in the Swedish banks and the mortgage market, despite the dip in house prices since the autumn of 2017 (Diagram 28).

Deposits in SEK derive mainly from Swedish households and smaller companies, which are largely covered by the state deposit insurance covering amounts up to SEK 950,000 per depositor and bank. This can reduce the risk for bank runs if confidence in the banks were to wane. Deposits are therefore normally considered a stable form of funding. However, the banks' funding also consists to a large extent of deposits from large companies and other financial institutions that are so large that they are not guaranteed by the deposit insurance. This portion of the banks' deposits is considered to be slightly less stable. As services become more digitalised, which makes it much easier to transfer deposited funds between different financial firms, the stability in the banks' deposits could decrease over time.

LIQUIDITY BUFFERS INCREASE RESILIENCE

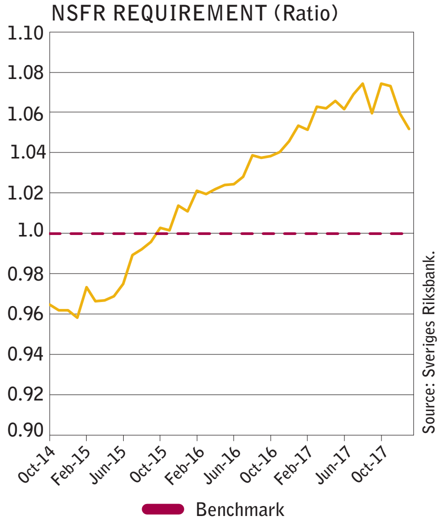
In order to reduce the liquidity and refinancing risks, FI requires banks to hold liquidity buffers that can be used to manage short-term liquidity stress. Short-term liquidity stress can arise in several ways, but essentially occur when unexpected outflows are greater than the bank can cover with new funding at a reasonable cost or by selling or pledging liquid assets.

29. MAJOR BANKS HAVE GOOD LIQUIDITY COVERAGE RATIOS
(Ratio, average, major Swedish banks)



Note. The minimum requirement refers to the liquidity coverage ratio for total currencies in accordance with Commission Delegated Regulation (EU) 2015/61 and FI's Pillar 2 requirements on liquidity coverage ratios in individual currencies.

30. BANKS MEET THE PROPOSED NSFR REQUIREMENT (Ratio)



Note. Refers to the major Swedish banks' available stable financing in relation to the stable financing required under the Basel Committee's definition from 2014. The benchmark is 1.

The major Swedish banks meet FI's Liquidity Coverage Ratio (LCR) requirements by a good margin, both for all currencies and in the individual currencies EUR and USD (Diagram 29).[15] It is important that the major banks have high liquidity buffers in EUR and USD since they have a significant portion of their funding in these currencies. Assets in EUR and USD are also normally more liquid than assets in smaller currencies if a liquidity stress were to occur. FI has therefore decided to expand the LCR requirement in Pillar 2 to also include minimum requirements in EUR and USD.[16]

Stable funding limits risks in the long run

To improve the banks' matching of assets and liabilities with longer maturities, the Basel Committee has developed a new minimum liquidity requirement called the Net Stable Funding Ratio (NSFR). This measurement means that banks must fund assets with a maturity that exceeds one year using liabilities with a maturity that also exceeds one year. NSFR is included in the European Commission's proposed changes to the capital requirement regulations and will be introduced as a requirement in the EU, but at the earliest in 2019.[17] The indicative levels of NSFR for the major Swedish banks have increased on average over time, and right now is just above the proposed requirement of 1.0 (Diagram 30).

Solid liquidity in general

Even though all four major banks meet the planned NSFR requirement, and the LCR requirement is met by a good margin, the vulnerability indicator for liquidity is signalling elevated vulnerability.[18] This is because LCR in USD fell slightly for one of the four major banks at the end of the year. The bank in question had an LCR in USD that was above the requirement of 1.0 but under the levels that is required for "low vulnerability". One of the factors in the vulnerability indicator for liquidity is namely based on the lowest individual LCR level among the major banks, per currency.[19] In March 2018, the same bank had an LCR in USD that was quite high above the regulatory requirement and the threshold for the vulnerability indicator. As a whole, FI makes the supervisory assessment that the major banks' liquidity situation is good and that resilience to liquidity shocks is high.

Sveriges Riksbank's liquidity assistance as a complement

Thanks to their liquidity buffers, the banks can withstand a short period without access to the funding market. Liquidity buffers at individual banks also reduce the probability that the state would need to intervene. However, in a more drawn-out and serious scenario, the authorities will probably be involved.

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15 The LCR regulations are set out in Commission Delegated Regulation (EU) 2015/61 of 10 October 2014 to supplement Regulation (EU) No 575/2013 of the European Parliament and the Council with regard to liquidity coverage requirement for credit institutions.

16 FI's memorandum on Pillar 2 requirements on the LCR in individual currencies. Only available in Swedish. https://www.fi.se/sv/publicerat/sarskilda-pm-beslut/2017/fis-pelare-2-krav-pa-likviditetstackningskvot-i-enskilda-valutor/

17 The final design of the NSFR requirement in the EU has not yet been determined since the changes in the capital adequacy regulations are still being negotiated.

18 See the vulnerability indicators for the banking sector at the beginning of this section, page 11.

19 See *FI Analysis 2: Finansinspektionen's Vulnerability Indicators*

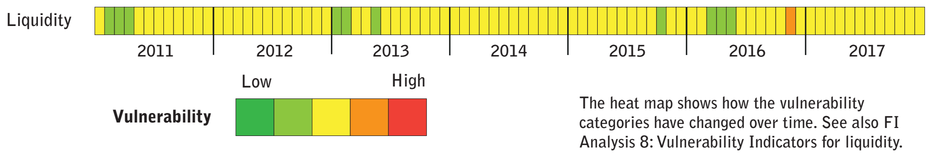
In the event of an extensive systemic shock, it is doubtful whether banks can, or even should, use their liquidity buffers in the same way as when an individual bank suffers problems. If the financial system as a whole were to suffer a serious shock, there are probably not enough buyers on the market for the securities affected banks would need to sell. The result could be that asset prices fall, which would further accentuate the crisis and spread to other actors holding the same type of assets. The banks, through their role as market makers, may also need to become net buyers of bonds and thus become subject to a higher funding need.

In such a situation, liquidity assistance from Sveriges Riksbank may be necessary to maintain financial stability. Sveriges Riksbank, due to its mandate to create payment funds in SEK, holds a central role in counteracting and managing threats to financial stability due to shocks to the liquidity supply.

Stability on the securities markets

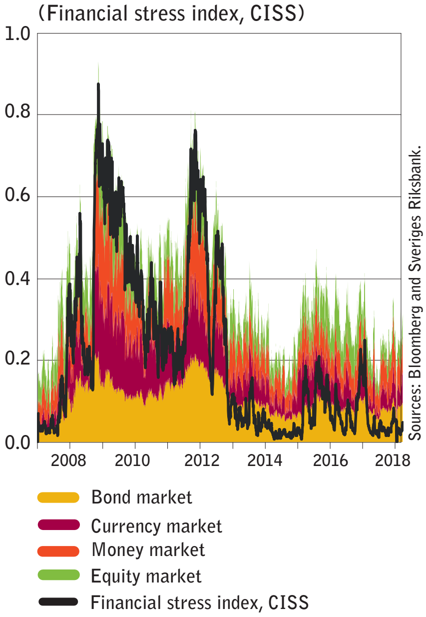
The securities markets are stable and continue to demonstrate limited stability risks. In FI's view, the systemically important financial infrastructure in Sweden is functioning well and in general has a high degree of operational reliability. ESMA's stress tests show that the European system of CCPs tends to be resilient to liquidity and credit risks.

Vulnerability indicators for the market sector



The heat map shows how the vulnerability categories have changed over time. See also FI Analysis 8: Vulnerability Indicators for liquidity.

31. LOW FINANCIAL STRESS
(Financial stress index, CISS)



Note. The Swedish stress index has been created by the Riksbank using a similar method to that of the ECB's European stress index. The index's sub-components are calculated using related indicators (e.g. volatility, risk premiums and liquidity). An index of 1 means the highest stress level of all time for all sub-indexes and 0 indicates the lowest stress level of all time. See Johansson, T. and F. Bonthron (2013), "Further development of the index for financial stress for Sweden", Sveriges Riksbank, Economic Review 2013:1. Sveriges Riksbank.

The securities markets play an important role in financial stability and provide the channel through which the financial system sets prices and allocates risk and capital. In order for the securities markets to function well and contribute to financial stability, they need to maintain their basic functions even during periods of financial stress. Markets that function well can absorb shocks, while markets that function poorly in contrast can amplify and spread problems, which could generate large expenses for the real economy.

SECURITIES MARKETS FUNCTION WELL

Sveriges Riksbank's financial stress index (Diagram 31) shows that the stress levels continue to be low on the Swedish securities markets. Even if share prices at times have gone down in 2018, the Swedish securities market continues to show stable growth with low price volatility. FI determined in its previous stability report that the low volatility does not necessarily mean that the risks in the securities markets are low. Price volatility and uncertainty have historically been positively correlated, but in recent years price volatility has been low despite a period of political uncertainty. One explanation could be quantitative easing from the central banks, which calms the market. Financial stress in this context means a shock that could harm the securities market's ability to effectively fulfil its role as an intermediary between borrowers and lenders and buyers and sellers.

FI considers the fixed-income and currency markets to be those that are primarily systemically important and thus key for financial stability. The fixed-income market plays a central role in the banks' funding possibilities, and it is also important for banks' and other financial firms' possibilities for managing their liquidity and their risks. A shock on the fixed-income market can have serious consequences for banks and other financial firms, which in turn could have serious consequences for the rest of the financial system and – ultimately – the economy.

New rules have gone into effect on the securities market since the start of the new year through the Directive and Regulation on markets for financial instruments (MiFID II/MiFIR).[20] The new regulations comple-

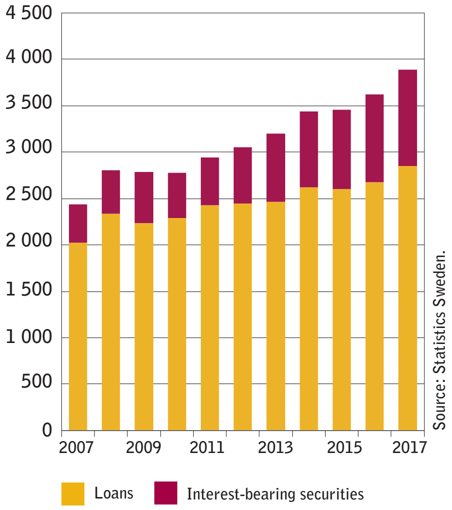
20 Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU and Regulation (EU) No 600/2014 of

ment the previous regulation within the EU on market transparency with a harmonised regulation that contains more requirements on, for example, publication of both pre- and post-trade market data. MiFID II/MiFIR should promote European harmonisation in market transparency, which results in new channels for the publication of market data. As a result, information will at times need to be gathered from several sources to gain a comprehensive overview of pricing and trading volumes. Differences in countries' application of the transparency regulations in MiFID II/MiFIR can also affect where the market participants choose to conduct their transactions, and thus affects the possibility of gaining a comprehensive overview of trading in an individual financial instrument. In a stressed market situation, these circumstances could result in impaired liquidity and thus amplify the negative impact on the market's functionality. The transition to the new regulations has gone well initially, and the extensive changes do not appear to have affected market liquidity at the end of the year.

INCREASED MARKET FINANCING AMONG NON-FINANCIAL FIRMS

Over the past few years, market financing with interest-bearing securities has become an increasingly important complement to traditional loan-based financing among non-financial firms.[21] Over the past ten years, the market financing among these firms has doubled in absolute terms. Interest-bearing securities currently constitute more than 26 per cent of the interest-bearing liabilities (Diagram 32) – a large percentage of which are corporate bonds traded on a regulated market or other trading venue.

32. INCREASING SHARE OF MARKET FINANCING (SEK billion)



Note. The non-financial companies' funding via interest-bearing securities and loans.

The non-financial firms' market financing comes largely from other countries (corresponding to 57 per cent).[22] Swedish financial firms and other Swedish non-financial firms also represent part of the financing. Of the financial firms, half are financial firms other than banks, e.g. funds and pension companies.

As a result, this growing category of investors is more directly affected by risks that normally are linked to traditional bank financing. This development also means that the market for corporate bonds becomes an increasingly important part of the credit supply for non-financial firms. At the same time, this market is relatively undeveloped with a smaller portion of trading in open order systems and a high degree of dependence on market makers' ability and interest in providing liquidity. How the market will function in a stressed situation therefore could be very important in the future. FI thus sees a greater need to follow the developments and analyse the risks that may arise.

the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Regulation (EU) No 648/2012

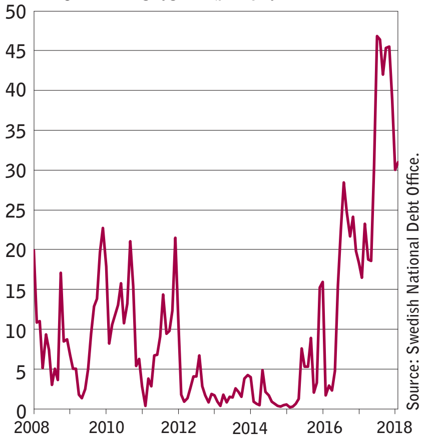
21 Non-financial companies are companies whose primary activities are to produce goods and non-financial services (Standard Classification by Institutional Sector, INSEKT 2014).

22 Statistics Sweden. The category foreign financing also includes Swedish funds registered abroad.

LIQUIDITY CAN DETERIORATE CONSIDERABLY IN THE PRESENCE OF STRESS

Even if the securities markets currently function well, there are signs that their resilience to certain shocks is weak. Under stressed conditions, vulnerable markets can cause problems that threaten financial stability. For example, market makers' utilisation of the repo facilities at the Swedish National Debt Office has been high for a while, although it has decreased somewhat during Q1 2018 (Diagram 33). One of the reasons that the Swedish National Debt Office's repo facilities are being utilised to such a large extent is that the share of government bonds available for trading has decreased as a result of stronger government finances and Sveriges Riksbank's bond-buying programme. The fact that this indicator still is comparatively high is a sign that the bond market may need additional support for managing greater demand for secure assets following shocks.

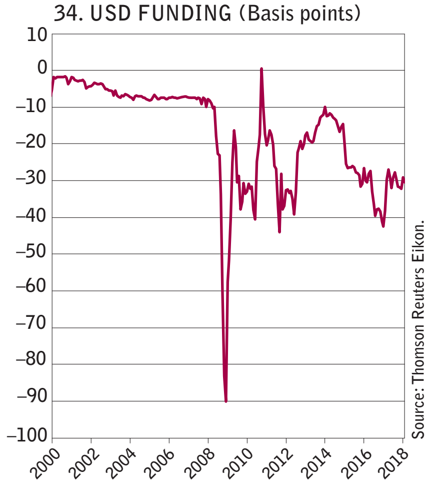
33. HIGH UTILISATION OF THE SWEDISH NATIONAL DEBT OFFICE'S FACILITIES (SEK billion)



Note. The diagram shows how much the market makers use the Swedish National Debt Office's t/n repo facilities.

Market makers' ability to fulfil their function also affects liquidity on the market, and their costs for maintaining a trading book can thus function as a vulnerability indicator. Higher capital requirements, which aim to strengthen banks' resilience, have meant that the market makers' costs for taking on risks and financing their trading books have increased. These increased costs can reduce the willingness of market makers to manage large flows.

34. USD FUNDING (Basis points)



Note. The diagram shows the price of a one-year currency swap in USD/SEK. The price is expressed as the interest increment above STIBOR that a market participant gets (or pays) in SEK in exchange for paying (or getting) LIBOR in dollars. This corresponds to the interest rate difference between a LIBOR loan in USD that is swapped to SEK and the STIBOR rate over the same maturity.

Another indicator that has shown signs of vulnerability is the market for currency swaps. Demand for USD has been high for a long time, which has made it more inexpensive to borrow in USD and convert the loan to SEK than to borrow directly in SEK. From a theoretical perspective, this type of price-setting is an indication that the market is not functioning efficiently. The cost for this type of financing has not changed since the previous report (Diagram 34). Despite some improvement, the indicators for liquidity on the financial markets are showing elevated vulnerability. This is an indication that liquidity can rapidly deteriorate in the presence of financial stress.[23]

PENDING CHANGES INTRODUCE CHALLENGES FOR INFRASTRUCTURE FIRMS

The resilience of the financial infrastructure firms is crucial for maintaining a stable and well-functioning financial infrastructure. Problems in a systemically important infrastructure firm could lead to shocks in the financial system and subsequently result in potentially large costs for society.

FI considers several categories of infrastructure firms under its supervision to be systemically important. These are:

- Central securities depositories. Carry out clearing and settlement of transactions with shares and debt-securities, registers securities and provides securities accounts.
- Central counterparties (CCPs). Offer counterparty clearing of financial derivatives and some other securities.
- Clearing organisations for mass payments.

In FI's view, the systemically important financial infrastructure in Sweden is functioning well and in general has a high degree of operational

23 See *FI Analysis 8: Vulnerability indicators for liquidity*, (2017).

reliability. However, an unusual and serious incident at Nasdaq in April meant that several markets and central functions were inoperable for parts of the day. FI is following up on the incident.

Several central functions in the financial market infrastructure are facing changes over the next few years. Central Securities Depositories (CSDs) play a central role on the securities market, and the CSDR regulation aims to create a harmonised regulation within the EU for these types of operations. One driving force behind the change is to increase competition, which will probably occur in Sweden as well.

There are also indications of changes in the payment infrastructure in Sweden and the Nordic region as a whole, primarily due to commercial forces through greater economies of scale. FI is monitoring the developments in both of these areas carefully. Special focus is placed on ensuring that the operational reliability of today's participants and suppliers continues to be high, even in a constantly changing world.

CENTRAL COUNTERPARTY CLEARING – AN IMPORTANT PART OF THE FINANCIAL SYSTEM

A CCP's primary assignment is to take over counterparty risks by acting as a counterparty to both the seller and the buyer in a financial transaction. After the most recent financial crisis, central counterparties have gained a key role, in part due to new regulations under which more market participants must clear more types of transactions at a central counterparty. Given the concentration of counterparty risk that arises, central counterparties have become systemically important. Stricter requirements for this type of operations have therefore been introduced in recent years, primarily through the EMIR regulation.[24]

The regulation prescribes, for example, that the European Securities and Market Authority (ESMA) conduct annual stress tests in order to assess the resilience of the European central counterparties under extreme but plausible market conditions. The results of the stress tests in 2018 confirm last year's results that the European system of CCPs is resilient in general to the macroeconomic scenarios used to test extreme market conditions. However, Europe's 16 CCPs do differ in their resilience. In the next stage of the assessment, ESMA will consider if, and which, recommendations may be needed for the CCPs given the results from the stress tests.

Clearing of Swedish interest rate products may be affected by Brexit

CCPs are considered to be systemically important, and the amounts being cleared through them has increased sharply in recent years due to higher capital requirements and requirements on clearing of OTC derivatives. In Sweden, there are three CCPs of interest: Nasdaq Clearing, for equity, fixed-income and commodity derivatives; London Clearing House Ltd (LCH), for clearing of interest rate swaps; and EuroCCP for clearing of shares. LCH holds a key role, clearing more than 90 per cent of the Swedish systemically important interest rate derivatives trading. To date (mid-March), LCH has cleared transactions in SEK amounting to approximately SEK 24,000 billion.

24 The EU's regulation regarding OTC derivatives, central counterparties and transaction registers ([EU] 648/2012),

When the UK leaves the EU (Brexit), LCH will be considered a third-country CCP. Depending on the Brexit negotiations, LCH could become a CCP that is not approved for offering services within the EU. Large amounts will then need to be cleared in another CCP in the EU or in a third-country CCP that is approved by the EU. Large exposures in LCH may remain in LCH even after Brexit. How these issues are handled can have an impact on Swedish financial firms in the form of effects on capital requirements and the possibility to fulfil requirements on clearing. FI is therefore following this development closely, for example within the framework for the supervisory college for LCH, of which FI is a member.

NEW RULES FOR BENCHMARKS

The Stockholm Interbank Offered Rate (STIBOR) reference rate shows an average of the interest rates at which the STIBOR banks are willing to lend unsecured funds to each other at different maturities.[25] STIBOR plays a key role in the pricing of financial instruments and contracts in SEK and is thus very important for the financial markets in Sweden. STIBOR is used as a reference in financial instruments and contracts at an outstanding nominal value of approximately EUR 4,000 billion, which corresponds to approximately eight times the size of Sweden's GDP.[26] The largest portion consists of OTC-traded interest rate derivatives denominated in SEK. STIBOR is also used as a reference in financial institutions' variable-rate loans to Swedish non-financial institutions and households at a value of EUR 440 billion. STIBOR is thus very important for the financing of both firms and households in Sweden.

Given STIBOR's central role in setting prices of financial instruments and contracts, the benchmark's integrity and provision are key for the functionality of the financial markets and financial stability in Sweden. If the market's actors were to begin to question whether STIBOR is a viable benchmark for risk management or financing, there is a risk that this would impair the functionality of the markets. The ability and willingness of the STIBOR banks to regularly report correct data is also crucial for calculating and publishing STIBOR.

New rules for benchmarks started to apply on 1 January 2018 in the EU through the EU Benchmarks Regulation (BMR). FI is the competent authority under the BMR. FI has made the assessment that STIBOR is a critical benchmark for Sweden, which ultimately is decided by the European Commission. If the European Commission classifies a benchmark as critical, the relevant competent authority is granted further supervisory powers, including tools to safeguard the publication of the benchmark.

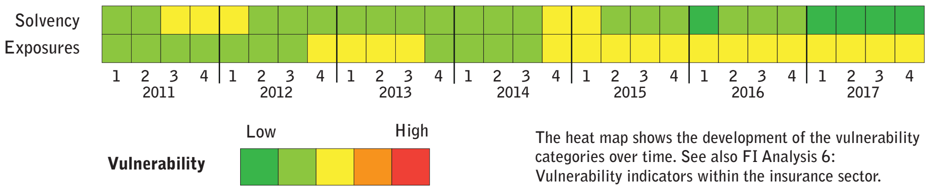
25 The STIBOR banks are Danske Bank, Länsförsäkringar Bank, Nordea, SBAB Bank, SEB, Svenska Handelsbanken and Swedbank.

26 BIS, SCB and Bloomberg. Data from 2016.

Stability in the insurance sector

The financial position of Swedish life insurance companies continues to be strong. In the short term, life insurance companies' large shareholdings represent the greatest vulnerability, but analyses show that the firms can also handle relatively large dips in the stock markets. In the long term, insurance firms are still facing the challenge of persistent low interest rates, which together with falling asset prices could pose risks to financial stability.

Vulnerability indicators for the insurance sector

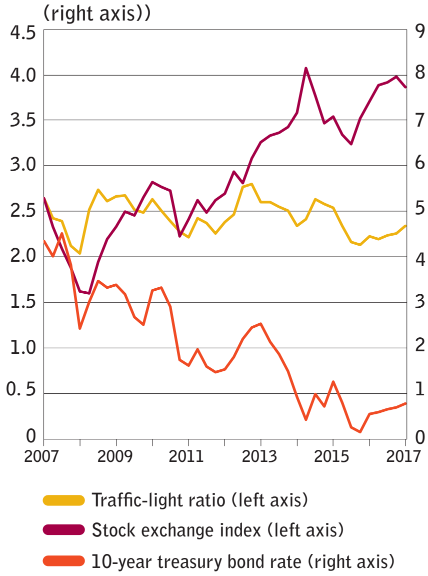


The heat map shows the development of the vulnerability categories over time. See also FI Analysis 6: Vulnerability indicators within the insurance sector.

Insurance firms and occupational pension institutions fulfil an important function when it comes to risk management and savings in the financial market. These firms manage large amounts and can thus affect financial stability through their investment behaviour. Life insurance firms with traditional management in particular invest largely in assets that do not match the risks of their commitments in terms of maturity and sensitivity to market fluctuations. If a firm's financial strength deteriorates, for example due to a sharp fall in share prices, it may need to reduce its risks by better matching the maturities of its assets and commitments. The firm will then be forced to sell risky assets, for example shares, and buy interest-bearing securities with long maturities. If several firms simultaneously apply this same strategy, this could amplify the market fluctuations and deepen a financial crisis through what is called *procyclical behaviour*.

Of the Swedish insurance firms' total managed assets corresponding to SEK 4,500 billion, approximately SEK 2,800 billion is currently found in life insurance businesses with traditional management.

35. STABLE FINANCIAL POSITION
(Ratio (left axis) and per cent (right axis))



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

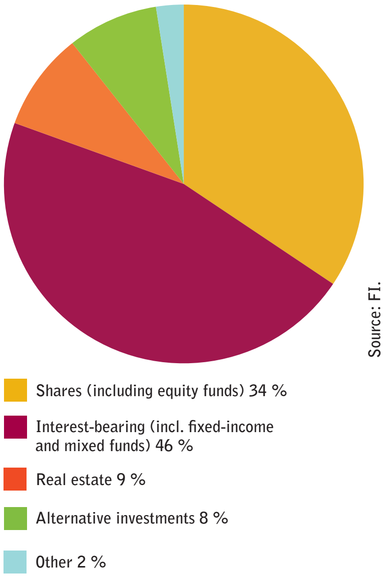
Sources: FI and Thomson Reuters Eikon.

GOOD RESILIENCE AMONG INSURANCE FIRMS

Swedish insurance firms have long demonstrated a stable financial position. Good underlying financial results from the insurance operations, primarily in non-life insurance, and high returns on investments, mainly due to rising share prices, have contributed to this stability. The resilience of Swedish insurance firms was further strengthened in 2017, which has been confirmed by FI's solvency indicators. The positive trend on the stock markets has also offset the negative impact of low interest rates on primarily life insurance firms with traditional management. Even though the falling market rates have meant that the value of pension commitments with long maturities has increased more than the value of the firms' interest-bearing assets, which in general have shorter maturity, the solvency and traffic-light ratios have been stable in recent years (Diagram 35).

The negative impact of falling interest rates was also limited by rules on how liabilities are to be valued. For guaranteed commitments with long maturities, a macroeconomic assumption is used as the long term equilibrium interest rate (Ultimate Forward Rate, UFR), which diminishes the effect of falling long-term market rates. This counteracts procyclical behaviour in the short term and both creates stability and increases the firms' possibilities for pursuing a long-term investment strategy. However, this assumption also introduces a risk that the debt will be undervalued if actual market rates remain below the assumed UFR for a long period of time. If provisions of capital are too small as a result of this, the firms may experience solvency issues in the long run, which means in a worst-case scenario they would have difficulty meeting their future pension commitments.

36. LIFE INSURANCE FIRMS HAVE A RELATIVELY LARGE PERCENTAGE OF SHARES (Per cent)



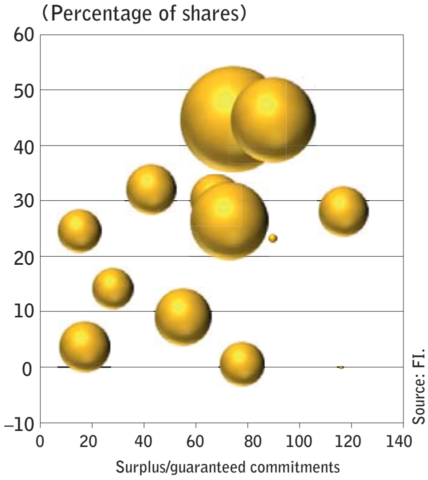
Note. Investments of life insurance companies are classified by the underlying exposures according to Finansinspektionen's definition. As per 29 December 2017.

STRONG FINANCIAL POSITION ALLOWS FOR HIGHER RISK-TAKING

The insurance firms' strong financial position facilitates a high percentage of assets with high risk. From an international perspective, Swedish firms have a relatively large percentage of shares (Diagram 36). This is due in part to the limited supply of long-term bonds, but also often to a conscious investment strategy. A larger share of risky assets has historically resulted in a higher return in the long run, but it is a strategy that requires a strong financial position in order to be able to handle fluctuations in asset prices.

In the short-term, falling share prices would have the greatest negative impact on the life insurance firms' financial situation, primarily due to their large holdings of shares. According to both the firms' own stress tests, FI's sensitivity analyses and other supervision activities, though, they can handle relatively large dips in the stock market without experiencing solvency issues or risking the promised pensions. However, this development could lead to the firms taking procyclical action in their investment management, which in turn could affect financial stability.

37. STRONG FINANCIAL POSITION ALLOWS FOR HIGHER RISK-TAKING (Percentage of shares)



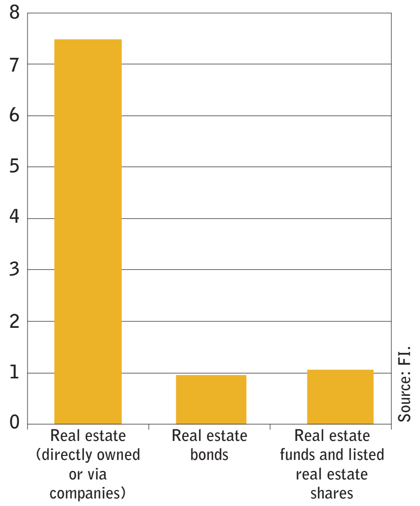
Note. The percentage of shares in life insurance firms' total investments (horizontal axis) and surplus in relation to guaranteed commitments (vertical axis). The size of the bubbles corresponds to the total assets in each company. As per 29 December 2017.

Even if life insurance firms in general appear to be financially strong, the distribution between the firms may be of significance when assessing their vulnerability. As large investors, their behaviour, even in a small number of firms, could conceivably have an impact on the markets and, in turn, stability. FI has therefore compared the percentage of the firms' shares in the traditionally managed portfolios to their financial position. The financial position was measured using the surplus, i.e. assets minus liabilities, in relation to guaranteed commitments since different and non-comparable regulations are applied when calculating capital requirements and solvency ratios (Diagram 37). The diagram shows that the larger life insurance firms in general have a higher percentage of shares in their portfolios but also a larger surplus in relation to their commitments. Greater risk-taking in the investment management therefore appears in general to be based on a strong financial position even in individual firms.

REAL ESTATE EXPOSURE CAN POSE RISKS

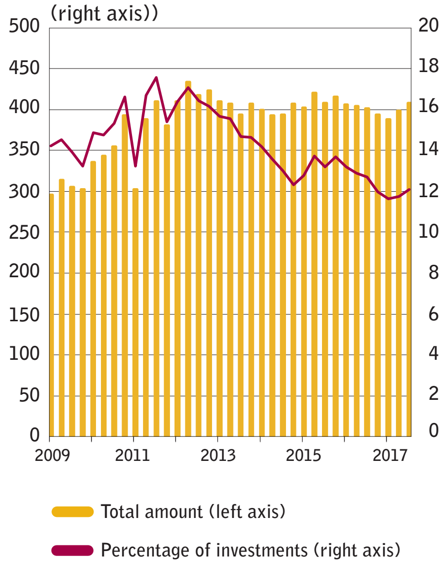
In recent years, FI has highlighted the risks associated with high real estate prices. The insurance firms' exposures to the real estate market can primarily be attributed to properties they own directly or via companies, bonds issued by real estate companies and shares in listed real estate companies and real estate funds. Of these, properties owned directly or via companies represent the largest percentage (Diagram 38). As a whole, these exposures constitute a limited share of the insur-

38. INSURANCE FIRMS' REAL ESTATE EXPOSURE (Per cent)



Note. Percentage of insurance firms' investments. As per 29 December 2017.

39. INSURANCE FIRMS' HOLDINGS OF COVERED MORTGAGE BONDS (SEK billion (left axis) and per cent (right axis))



Source: Statistics Sweden.

ance firms' investments. However, there is a larger indirect exposure in the form of the firms' large holdings of covered mortgage bonds (Diagram 39). These have decreased slightly as a percentage of the investments, but could pose risks in the event of a deeper real estate or financial crisis. Even if the credit risk, the risk that borrowers cannot meet their obligations, is very low, the market risk, in the form of falling bond prices, could affect the firms' financial positions in the event of a crisis.

LIFE INSURANCE FIRMS WITHSTAND LARGE CHANGES IN ASSET PRICES IN THE SHORT TERM

To identify vulnerabilities and estimate risks, FI conducts, for example, its own sensitivity analyses based on the firms' reporting. One example of this is FI's quantitative analysis of how life insurance firms' financial positions change given different scenarios.

In a main scenario, which is based on NIER's economic forecasts, including slowly rising interest rates and an assumption of stable stock markets, the firms' solvency improves slightly. Following a negative market development, however, the results are different. Based on the scenario the ESRB prepared for the European stress test of the banking sector in 2018, FI has estimated the effects of instantaneous changes in asset prices and interest rates. The scenario includes rising risk premiums, which are reflected in higher interest rates, increasing spreads and sharply falling share and property prices (see the box *Tough stress test coming for major Swedish banks*, page 7).[27]

The results from the simulation show that own funds decrease on average by 34 per cent as a result of market fluctuations. Set in relation to the most recently reported capital requirement, this means that the average weighted solvency ratio falls, but still exceeds the requirement for firms that apply the Solvency II regulation. For firms that apply the Solvency I regulation, the equivalent simulation of the traffic-light ratio produces a similar result (Diagram 40). The simplification in that the simulation assumes unchanged capital requirements also means that the negative effects on the ratios are to some extent overestimated. The capital requirements are based largely on market risks. Falling market values and assets means that the risks and thus the capital requirement will be lower.

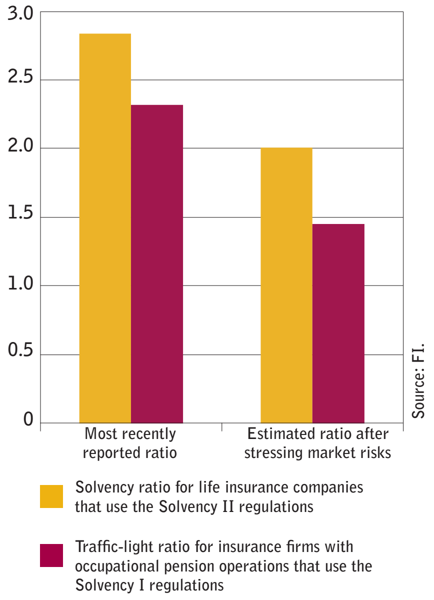
As a whole, FI's analyses confirm the conclusion that the Swedish life insurance firms have sufficient financial strength to handle large changes in asset prices in the short term. However, if the firms despite their strength take procyclical action in their management and begin to sell assets when prices fall, financial stability may be affected, for example due to the elevated vulnerability for liquidity on the financial markets, which was discussed in previous sections.

VULNERABILITY IN THE LONGER TERM

A situation in which low interest rates persist can increase the risks facing life insurance firms with traditional management. A lower expected return could mean that the firms will have difficulty meeting large commitments in the form of pensions with a long duration and financial guarantees. The model assumption of a long-term Ultimate Forward

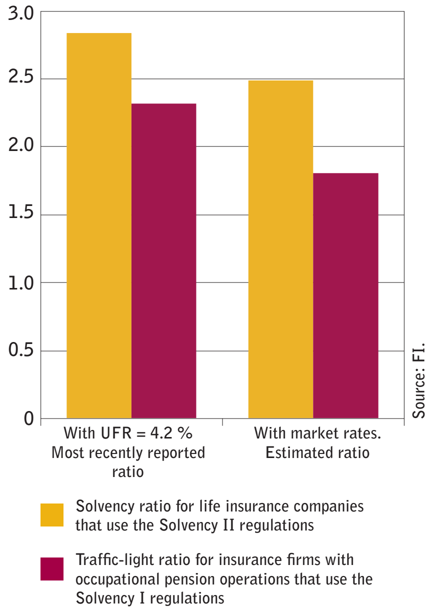
27 ESRB, Adverse macro-financial scenario for the 2018 EU-wide banking sector stress test, 16 January 2018.

40. GOOD RESILIENCE TO MARKET RISKS (Ratio)



Note. Estimated effect of an instantaneous stress of market risks, according to ESRB's scenario for the 2018 stress tests of European banks. As per 29 December 2017.

41. MODEL RISK IN THE VALUATION OF COMMITMENTS IN THE LONG TERM (Ratio)



Note. As per 29 December 2017.

Rate (UFR) when measuring the pension liability could result in the underestimation of commitments. The economic risk that arises can be illustrated by estimating the financial strength as the relationship between own funds and capital requirements using market rates instead of the long-term UFR (Diagram 41). The level is well above the requirement of 1.0, but the spread between the firms is relatively large.

FI's investigations into risks resulting from persistent low interest rates show that the life insurance firms are able to withstand a longer period of low interest rates. In addition to their strong financial positions, the firms have taken measures in recent years to manage risks associated with long-term low interest rates. Changes in the product supply, such as lower financial guarantees and a greater focus on unit-linked insurance, where the policyholders bear the investment risks, have reduced the risks for the firms.

Vulnerability for other risks, primarily falling asset prices, thus increases in the presence of long-term low interest rates, which in the long run can have a negative impact on financial stability. Being able to meet commitments in a scenario that includes both continued low interest rates and falling share prices places considerable demands on the firms' risk management. The processes for managing surpluses are an important part of this. To avoid paying a larger bonus than what there is room for in the long run, it is very important that the economic risks are properly reflected.

Low interest rates and life insurance firms' surplus management

Persistent low interest rates can create problems for management surpluses. In order to allocate realised surpluses, in addition to guaranteed commitments, some life insurance firms apply a general bonus interest rate that primarily is paid from the firm's return on capital (according to the retrospective reserve method). Such a model may entail risks in a transition to long-term low interest rates, which can be said to agree with today's conditions.

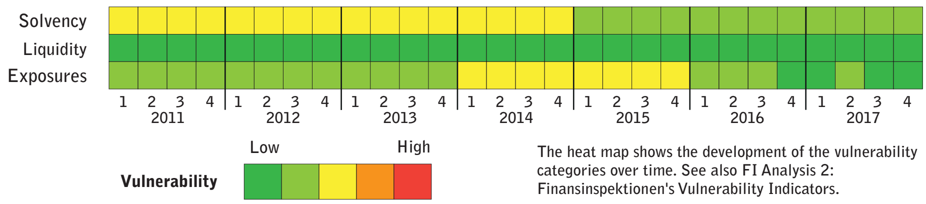
When interest rates fall, the market value of the firms' interest-bearing assets increase. This means that the firms may raise their bonus interest rate. Because the value of the guaranteed commitments is typically more sensitive to interest rate changes, falling interest rates often weaken the financial position. There is therefore a risk that the life insurance firms will pay too much to policyholders whose capital is in the payment phase. This effect arises if the bonus interest rate is based on the return on capital without at the same time taking into consideration how the cost to meet guaranteed commitments has changed. In a market where interest rates are falling and continue to be at a low level, this may contribute to a continued weakening of the financial position over time.

The surplus management of life insurance firms thus can be yet another factor that contributes to greater vulnerability in a scenario with persistent low interest rates and falling asset prices. These questions are analysed in more detail in FI Analysis 13: Low interest rates and large payments from pension managers.

Household and corporate debt

Household finances are sound in general. FI makes the assessment that household debt constitutes a limited risk for stability of the financial system. However, household debt is high, and there are vulnerabilities that pose risks to the macroeconomic development, which in the long run could threaten financial stability. FI has therefore introduced a stricter amortisation requirement and is following the developments carefully. The situation for non-financial corporations is also good. These firms are benefiting from strong economic growth and low interest rates, but high debt has increased their interest rate sensitivity and refinancing risk. This applies in particular to real estate companies.

Vulnerability indicators for the household sector



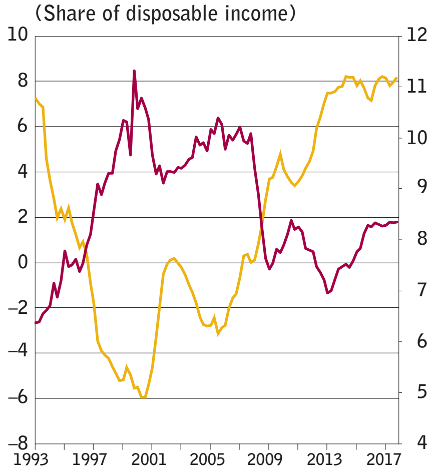
The heat map shows the development of the vulnerability categories over time. See also FI Analysis 2: Finansinspektionen's Vulnerability Indicators.

Access to loans gives households and firms the possibility of consuming and investing without needing to first save their own money. Debt can therefore contribute to a more efficient use of capital and a more even level of consumption over time. The ability of households and corporations to borrow is thus positive for the economy. However, high debt also gives rise to vulnerabilities, for lenders, borrowers and the economy at large. A too rapid expansion – or contraction – in lending to households and corporates could have major effects on consumption and investments, which could cause economic shocks. It is important that FI follow the vulnerabilities that high debt could introduce for households and non-financial corporations, and that FI take action to prevent imbalances and stability risks from accruing.

STRONG HOUSEHOLD FINANCES

The strong economy continues to strengthen household finances. Household disposable income has increased as a result of falling unemployment and real wage increases. At the same time, low interest rates have meant that the portion of disposable income that households spend on interest rate expenses is historically low. Taken together, this creates a large capacity for consumption and savings. During economic boom cycles, households usually save less and consume more. Currently, however, the savings ratio is high and household consumption of durable goods is lower than the historical average (Diagram 42). Households' amortisation payments have also increased. They rose by approximately 6 per cent between 2016 and 2017.[28]

42. HIGH SAVINGS
AND LOW CONSUMPTION
(Share of disposable income)



Savings excluding collective pension savings (left axis)

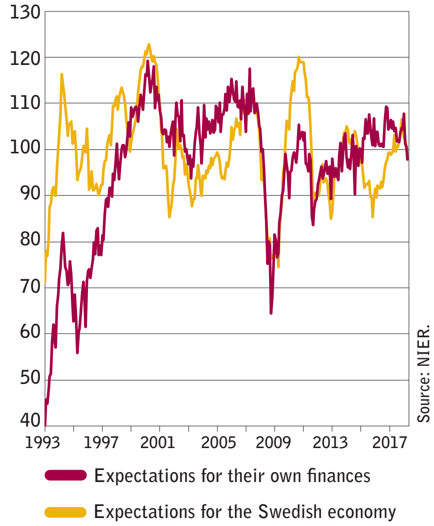
Consumption of durable goods (right axis)

Source: Statistics Sweden.

Household expectations for their own finances and the Swedish economy as a whole are in line with normal expectations (Diagram 43). The expectations have dipped slightly over the past six months. The fall in

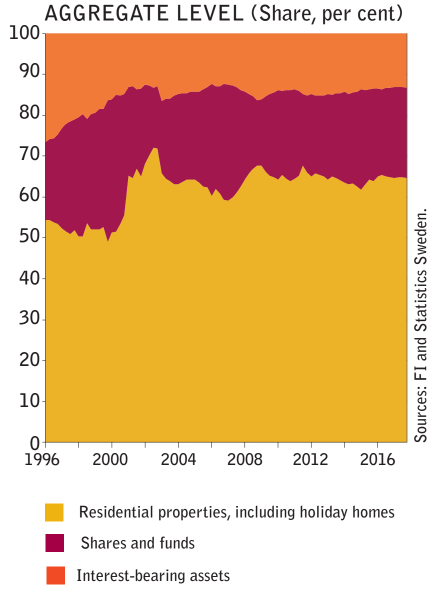
28 A detailed review of the development of household amortisation payments is available in FI's report *The Swedish Mortgage Market 2018*.

43. HOUSEHOLDS' EXPECTATIONS AT A NORMAL LEVEL (Index)



Note. Index value 100 = normal.

44. HOUSEHOLDS' ASSETS AT AGGREGATE LEVEL (Share, per cent)



Note. Excluding individual and collective pension savings.

house prices at the end of 2017 may have contributed to the households' more restrained expectations.

High savings and rising asset prices have led to an increase in household assets. Over the past ten years, households' total assets have more than doubled in value. The sharp increase in house prices has meant that residential properties' share of households' total assets now constitutes more than 60 per cent. As prices of other assets have risen and interest rates have fallen, the share of interest-bearing assets of households' total assets has decreased. Interest-bearing assets currently constitute less than 15 per cent of households' total assets (Diagram 44).

Households' assets are an important component for assessing household vulnerability. Assets can serve as a buffer for households when the economic conditions are impaired. However, these assets, and thereby resilience, are unevenly distributed between households. The wealthiest one-tenth owns approximately 60 per cent of the assets, and the distribution has become more uneven during the 2000s.[29] In the event of a serious macroeconomic shock, risky assets such as shares and residential property, are also expected to fall in value. In addition, it may be difficult to sell less liquid assets in a scenario with high levels of market uncertainty. In such situations, it is primarily liquid assets with low risk that can function as a buffer. Therefore, the fact that households in aggregate have a large asset base does not necessarily imply that the resilience of households with high debt is good in general. The box *Household finances in the ESRB stress scenario* on page 34 illustrates an example of how household finances can be affected during a serious crisis.

To summarise, households' finances are currently strong and they have a large asset base, but it is not clear whether the assets constitute a sufficient buffer in a seriously negative scenario.

HOUSEHOLD DEBT CONTINUES TO INCREASE RAPIDLY

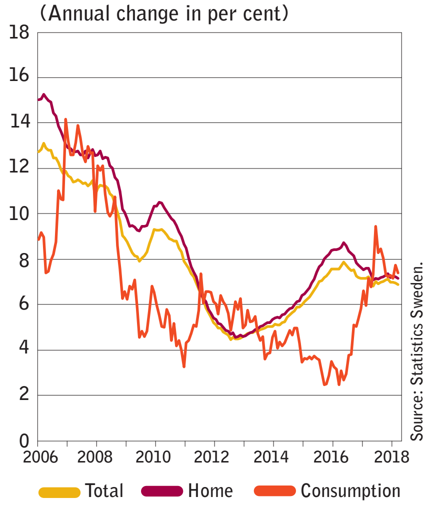
Household debt is high from both an international and a historical perspective (see the section *State of the economy*). The rate at which household debt is increasing has stabilised at a high level, approximately 7 per cent on an annual basis (Diagram 45).[30] Households' aggregate debt-to-income ratio increased by almost 7 percentage points in 2017, and at the beginning of 2018 amounted to 185 per cent. Mortgages constitute approximately 82 per cent of household debt and are the primary driver behind the increase. Household mortgages are currently increasing around 7 per cent a year. Loans collateralised by tenant-owned apartments are increasing the fastest. Consumption loans have also increased sharply since the autumn of 2016, approximately 7 per cent a year. However, consumption loans only represent approximately 5 per cent of total household debt. They therefore only have a marginal impact on the total change in household debt.

Households living in tenant-owned apartments usually have an indirect mortgage-related debt via the tenant-owner association's loans in addition to their own mortgages. Lending to tenant-owner associations is

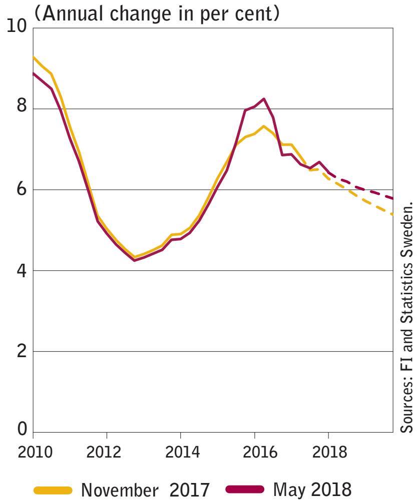
29 The distribution refers to net wealth, i.e. real estate, bank holdings, shares and funds minus debt. Waldenström, Bastani and Hansson (2018), "How Should Capital Be Taxed? A Swedish Perspective", SNS Economic Policy Report 2018, SNS förlag.

30 SCB, Financial Market Statistics.

45. GROWTH OF HOUSEHOLD DEBT BY PURPOSE
(Annual change in per cent)

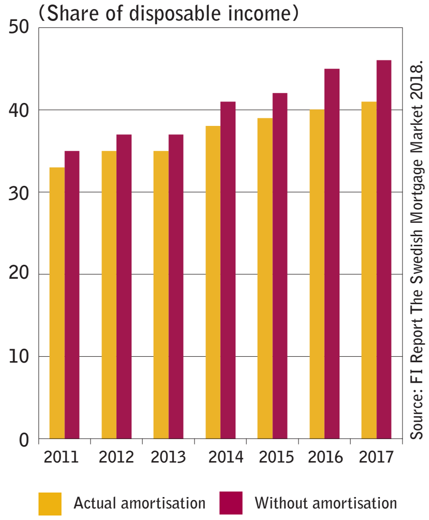


46. FORECAST FOR HOUSEHOLD DEBT REVISED MARGINALLY UPWARD
(Annual change in per cent)



Note. In the forecast model, debt levels have been seasonally adjusted and are logarithmic. The growth level therefore differs from the level in Diagram 45.

47. HOUSEHOLD SURPLUS AFTER HOUSING AND SUBSISTENCE COSTS ARE AT A GOOD LEVEL
(Share of disposable income)



currently growing at a faster rate than direct lending to households. In Q1 2018, loans to tenant-owner associations totalled SEK 470 billion. This was 10 per cent more than the corresponding quarter the previous year. The increased lending to tenant-owner associations is largely linked to the high rate of new residential production. Newly formed tenant-owner associations often have high debt. A newly formed tenant-owner association on average had a debt of approximately SEK 12,000 per square metre. This can be compared to older associations where the debt on average is approximately SEK 5,700 per square meter.[31] The loan-to-income ratio, mortgages in relation to net income, for new mortgagors who borrowed money to buy a tenant-owned apartment was on average 460 per cent. The loan-to-income ratio increases to 556 per cent when the share of the association's debt is included.

The outcome for the growth of debt is in line with the previous forecast. The forecast for the growth of debt in the next few years has therefore only been revised marginally (Diagram 46). According to the forecast, debt will increase by approximately 6 per cent in 2019.

HOUSEHOLD MARGINS HAVE INCREASED

The high debt levels mean that households are vulnerable to changes in conditions and for economic shocks. It is important for households to have sufficient resilience to unexpected and negative scenarios. For example, such a scenario could be a macroeconomic shock where interest rates and unemployment rise at the same time as house prices and other asset prices fall sharply in value.

Vulnerability indicators are showing that household resilience is good.[32] Households with new mortgages also have a good margin between their income and expenses (Diagram 47). This margin continued to increase slightly in 2017 despite the fact that mortgage rates stayed the same. FI's stress tests show that a limited percentage of households with new mortgages would experience a deficit between their income and expenses if unemployment were to rise sharply.[33] The share of households that can handle unemployment also increased the past few years.

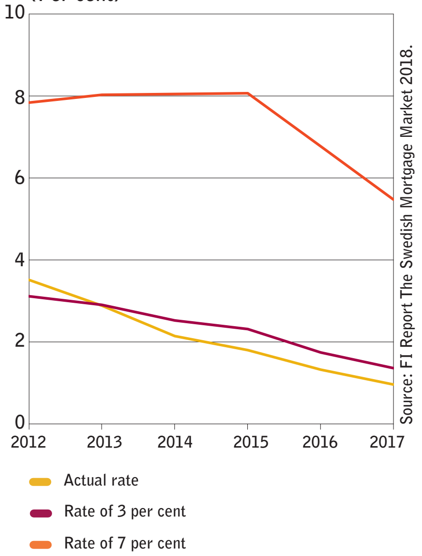
Higher interest rate levels mean higher interest rate expenses. If the interest rates are rising faster than household income, households need to use a larger portion of their income for interest rate payments and amortisation payments. Rising interest rates would therefore break the positive economic trend for households. However, the good margins of households mean that the households have high resistance to rising interest rates. These margins have increased sharply in recent years. The percentage of households with new mortgages that have a deficit in a scenario when interest rates rise sharply has decreased in recent years (Diagram 48).

31 See FI's report *The Swedish Mortgage Market 2018*.

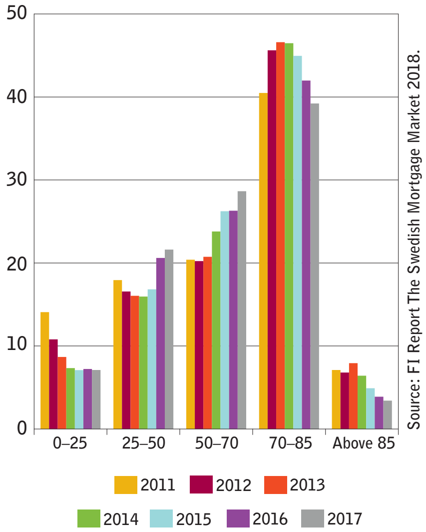
32 FI's vulnerability indicators for households are a combination of different measures, such as the development in property prices, the credit-to-GDP gap, interest-to-income ratio, savings ratio and the change in the loan-to-income ratio. The vulnerability indicators are described in more detail in *FI Analysis 2: Finansinspektionen's Vulnerability Indicators*.

33 See FI's report *The Swedish Mortgage Market 2018* for more information about FI's stress tests.

48. SMALLER SHARE OF HOUSEHOLDS WITH DEFICIT AFTER INCREASE IN MORTGAGE RATES (Per cent)



49. NEW MORTGAGORS BY LOAN-TO-VALUE RATIO (Per cent)



Falling house prices also weaken households' economic position. Since residential property constitutes a high percentage of households' aggregate assets, a fall in house prices weakens households' balance sheets. The loan-to-value ratio measures the size of the mortgage in relation to the value of the home. A large, but decreasing, percentage of households with new mortgages have a loan-to-value ratio of more than 70 per cent (Diagram 49). Over the past year, house prices decreased on average by almost 4 per cent. FI's stress tests simulate a situation where house prices fall sharply while interest rates rise at the same time. Thanks to the mortgage cap, basically all new mortgagors can withstand a 10 per cent fall in house prices (Diagram 50). Given a 40 per cent fall in house prices and a simultaneous increase in interest rate of 5 percentage points, 1 per cent of the new mortgagors would have a deficit and a loan that is larger than the value of the home.

Even if households can withstand a loss of income, higher interest rates and a fall in house prices, they may be forced to make adjustments. Following a loss of income and higher interest rate expenses, a household can be forced to reduce its consumption. Following a fall in house prices, the household may be forced or may choose to increase its amortisation payments or other savings in order to strengthen its balance sheet. This also means that the household will need to decrease its consumption.

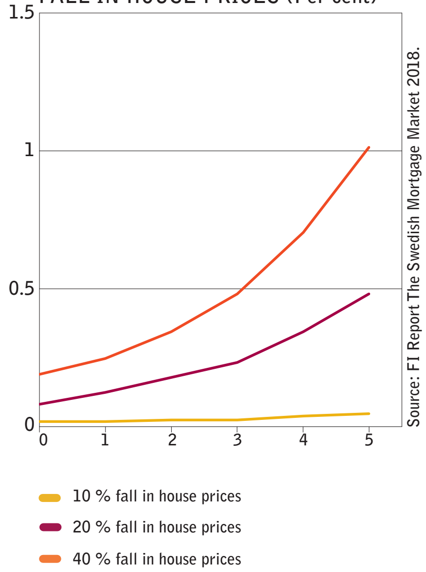
Households with variable mortgage rates are more sensitive to rapid increases in interest rates. The percentage of mortgages with variable rates increased during the period 2012–2015 as interest rates fell and have now levelled off at a historically high level. Around 70 per cent of the total mortgage volume is at variable rates with an interest rate adjustment period of less than three months. FI's mortgage survey for new mortgagors was able to identify a change in trend. The percentage of borrowers with a fixed interest rate increased from 20 per cent in 2016 to 30 per cent in 2017.

HOUSEHOLDS WITH HIGH DEBT ARE A MACROECONOMIC RISK

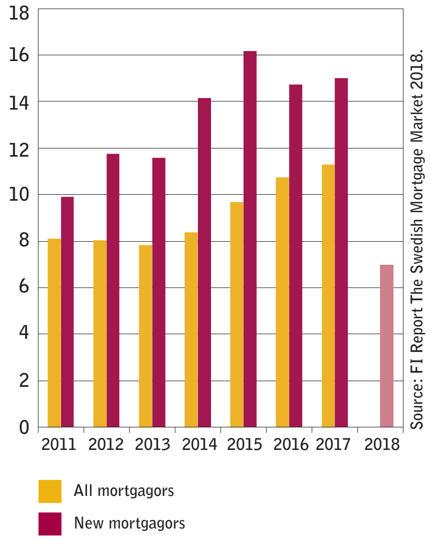
FI makes the assessment that the direct risks to the financial system's stability linked to household debt are limited. FI's vulnerability indicators, calculated at the aggregate level, also show that households have a strong economic position in general and their debt is not currently a threat to financial stability. Furthermore, households are assessed to have the capacity to pay their mortgage costs even if their financial circumstances were to deteriorate. Household resilience to a fall in house prices is good. However, there are still vulnerabilities that are primarily related to risks to the macroeconomy. As described by FI earlier, households with high debt may reduce their consumption if the economic conditions were to deteriorate. This could have a large impact on economic development since household consumption constitutes almost 50 per cent of GDP. An economic downturn could therefore be further enhanced. This could ultimately have a negative impact on financial stability. One important measure to diminish the macroeconomic vulnerabilities is to limit the percentage of households with high debt.

There continues to be a relatively large share of households that are borrowing a lot in relation to their income (Diagram 51). FI therefore introduced a stricter amortisation requirement for new mortgagors

50. PERCENTAGE OF HOUSEHOLDS WITH DEFICIT WHEN COMBINING HIGHER MORTGAGE RATES AND A FALL IN HOUSE PRICES (Per cent)



51. PERCENTAGE OF HOUSEHOLDS WITH LOAN-TO-INCOME RATIO OF MORE THAN 450 PER CENT OF GROSS INCOME (Per cent)



Note. The percentage of new mortgagors in 2018 is a forecast.

who take large loans in relation to their income. Among all households, the percentage of households with a high loan-to-income ratio is still relatively large and growing. The stricter amortisation requirement is expected to reduce the percentage of new mortgagors who take large loans in relation to their income. It will also reduce the debt of these borrowers faster. Together with the original amortisation requirement, the assessment is thus made that it will reduce the macroeconomic vulnerabilities. However, since the requirement only affects new mortgagors, it will take time before the measure contributes to a clear reduction in the loan-to-income ratios for all borrowers. FI makes the assessment that the macroeconomic risks associated with a high level of household debt are still significant.

Household finances in ESRB's stress scenario

Financial crises can have major consequences for households' finances. This became evident in particular during the financial crisis in 2007–2008 when unemployment increased and consumption contracted sharply in many countries. Sweden emerged relatively unscathed. In ESRB's stress scenario, the Swedish economy suffers a deep economic crisis (see the box Tough stress test coming for major Swedish banks, page 7). Below is a description of the consequences the scenario would have for households' finances. The calculations are relatively mechanical and do not take into consideration the effects of household behaviour.

In ESRB's crisis scenario, lending rates increase by 2.3 percentage points up to 2020, in part due to higher risk premiums. At the same time, disposable income decreases, in part due to higher unemployment.[34] Since household debt is high, the interest-to-income ratio, i.e. household interest rate expenses in relation to disposable income, will increase sharply from 3.7 per cent in 2017 to 9.2 per cent in 2020. This is the highest level since 1996 and would reduce households' margins.

Even households' assets are affected by the crisis. In ESRB's stress scenario, house prices in Sweden are assumed to fall by 49 per cent up to 2020. The reduction in house prices means that the total value of the households' tenant-owned apartments and single-family homes decreases from SEK 8,900 billion to SEK 4,500 billion in 2020. The loan-to-value ratio would on average increase from 55 per cent to 107 per cent.[35] Around 60 per cent of the borrowers would experience a loan-to-value ratio of more than 100 per cent (negative equity). This could mean that the banks will demand higher interest rates or amortisation payments. Share prices fall 26 per cent initially, but then recover. Up until 2020, share prices will have fallen by 19 per cent. This decrease means that the value of the private financial assets[36]decreases from SEK 5,300 billion to SEK 4,700 billion in 2020. This can be compared to household debt,[37]which was SEK 4,100 billion in 2017. Almost half of the households' net assets disappear[38]by 2020 as a result of ESRB's stress scenario.

34 It is assumed that disposable income will fall by 13 per cent like nominal GDP.

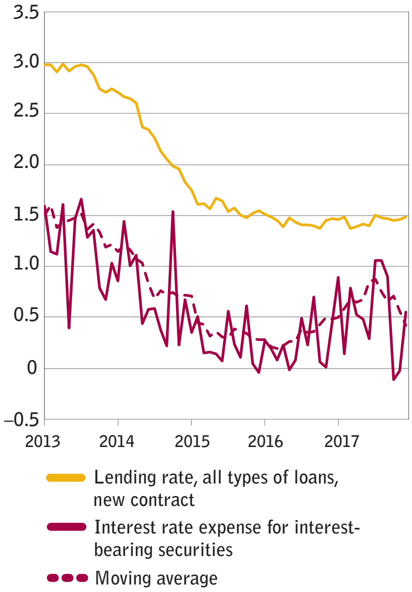
35 Calculations are based on FI's report *The Swedish Mortgage Market 2018*.

36 Private financial assets are defined here as shares, funds, bonds, deposits and bills and coins. The definition excludes shares in tenant-owned apartments, private insurances, occupational pensions, premium pensions, allocations and other financial savings from the financial assets.

37 Excluding allocations and other debt.

38 Defined as private financial assets plus real assets minus loans. The calculations assume that households' loans do not change up to 2020.

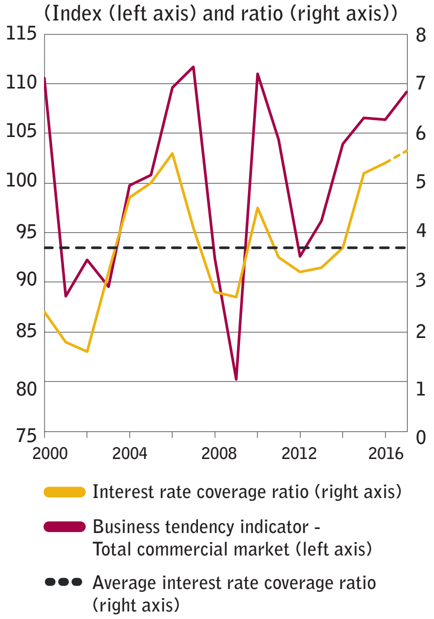
52. FINANCING COST, BANK LOANS AND MARKET FINANCING (Per cent)



Note. Cost for interest-bearing securities is estimated by Statistics Sweden based on Sverige Riksbank's compilation of non-financial firms' market financing. The dashed line refers to a six-month centred average. Lending rates refer to all loans, new contracts.

Source: Statistics Sweden.

53. THE FIRMS' INTEREST COVERAGE RATIO UP AT PRE-FINANCIAL CRISIS LEVELS (Index (left axis) and ratio (right axis))



Note. The interest rate coverage ratio refers to how much of the firm's operating income cover the interest rate expenses. The data covers up through 2016, and 2017 is an estimate.

Sources: KI and Statistics Sweden.

NON-FINANCIAL FIRMS AND FINANCIAL STABILITY

Non-financial firms play a central role in macroeconomic development. In order to be able to make investments, the firms are dependent on financing. If shocks arise in the credit supply, the firms' investments may decline, enhancing the economic downturn. The firms' debt can also cause losses for the banks and other financial firms that have lent money to the companies if the companies have problems making their interest and amortisation payments. Non-financial firms can therefore affect financial stability. The non-financial firms can be found in different sectors. The extent to which these sectors impact the macroeconomy and financial stability depends on their size, degree of capital-intensity, stability in cash flow, dependence on the economic cycle and interconnnectedness with the financial system. In order to be able to assess how large the potential stability and macroeconomic risks are that may arise via non-financial firms, it is important for FI that the vulnerability analysis highlight key individual sectors in addition to the non-financial firms as a whole.

Firms have good returns but rising debt

Firms are strongly affected by the economic cycle, both in terms of earnings and debt. NIER's business indicator is stronger than normal. On average, the firms have good profitability and demand for their goods and services is high. A long period of strong Swedish growth with low interest rates has meant that firms increased their investments and returns. Given this, the firms also increased their liabilities. The banks' lending to non-financial firms increased by 6 per cent in Q1 2018 compared to the same period the previous quarter.

However, it is not only traditional bank loans that are increasing. Non-financial firms' debt through interest-bearing securities rose on average by approximately 15 per cent at an annual rate in 2017 and continued to grow at the same tact during the start of 2018. This form of financing has grown rapidly and now constitutes approximately one-third of non-financial firms' total borrowings.[39] One reason for the increase is that demand for corporate bonds has increased. Another explanation for the high demand is that investors are seeking assets with high returns due to the low interest rates. As a result, more listed firms have decreased their percentage of traditional bank financing in order to be more attractive on the capital market and increase demand for their bonds. The firms have thus been able to borrow on the capital market, which is more inexpensive than bank loans (Digram 52).

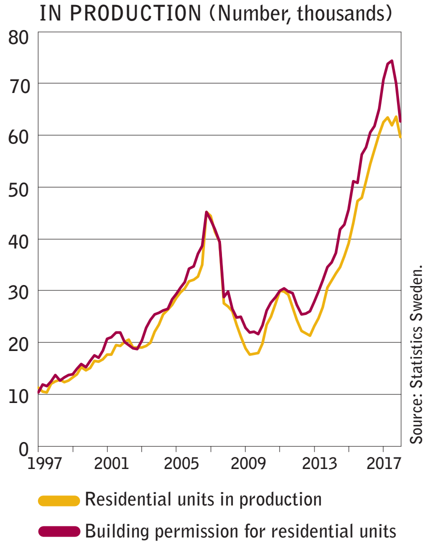
Generally, firms consider there to be continued good access to financing. However, the situation has slightly deteriorated for the building sector. One out of five construction firms perceived at the start of 2018 that it was more difficult than normal to finance their operations.[40]

Even though the firms' debt has increased, the current state of the economy has helped improve their average interest coverage ratio (Diagram 53). The interest coverage ratio indicates that the firms' operating income is 5.6 times larger than their interest expenses for loaned capital. This means that, on average, the firms are able to cover the costs for their total interest-bearing debt better than before. Even if the interest coverage ratio for non-financial firms is good, there are differences

39 Total borrowing refers to borrowing from Swedish monetary financial institutions and market financing (commercial paper and bonds) through the capital market.

40 Economic Tendency Survey, February 2018

54. BUILDING PERMISSION AND RESIDENTIAL UNITS IN PRODUCTION (Number, thousands)



Note. Moving sum, four quarters.

between sectors. Many sectors are sensitive to interest rates. This means that firms can be hit particularly hard if interest rates rise.

REDUCED ACTIVITY AMONG HOUSING DEVELOPERS

Housing developers are sensitive to the economic cycle and capital-intensive. However, the debts of these types of firms are not as high as those of other firms in the real estate sector. A strong economy combined with high demand for housing has contributed over a long period of time to a favourable development for housing developers. This has also attracted newcomers to the market. As a result, both the number of housing developers and the amount of housing construction has increased over the past few years. In 2017, more than 60,000 housing projects were started (Diagram 54).

The recent uncertainty and lower prices on the housing market has helped slow demand for newly produced tenant-owned apartments. Housing developers sold fewer units during the second half of 2017 compared to the same period the previous year. Sales of newly produced units at the start of 2018 were also weak. The percentage of sold units in production also decreased. As a result, some housing developers are adapting their strategy.[41]

At the same time, the number of building permits for new production of residential units fell by 50 per cent in 2017 (Diagram 54). The number of building permits fell slightly at the beginning of 2018. This can indicate that he number of housing projects in production will also fall in the future. The challenges on the market can affect housing developers' operations and financial situation. Several housing developers are small, and many have limited debt since they have transferred the risk of ongoing housing projects to the end consumer, i.e. the households. This means that households carry the majority of the risk.

The larger firms on the housing market were also affected by weaker sales. However, they have larger and more robust balance sheets as well as more encompassing operations. Therefore, they are better equipped for handling fluctuations on the market. Some housing developers may experience problems, but they are not considered on their own to be able to have an impact on the banks or pose a threat to financial stability.

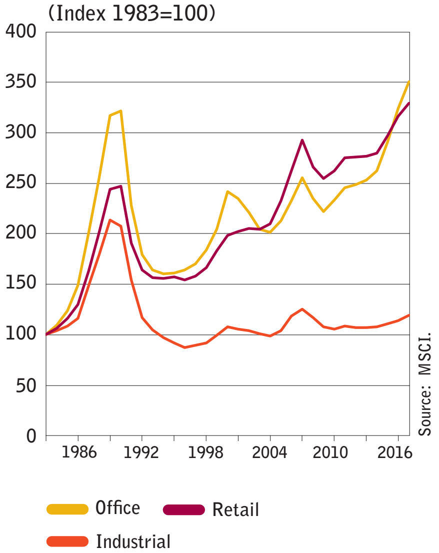
STABLE COMMERCIAL REAL ESTATE MARKET

The commercial real estate market has historically played a significant role in major financial crises. It is a capital-intensive sector to which the banks have large exposures. The Swedish commercial real estate sector is currently stable.[42] A strong economy with higher employment and lower interest rates has helped create strong demand for properties in attractive locations. This strong demand and the relatively low supply has led to low vacancy rates, rising rents and high prices.

41 Strategy changes can include price reductions, changed financing models, reorganisations, more intensive marketing or the merging of smaller units into larger units.

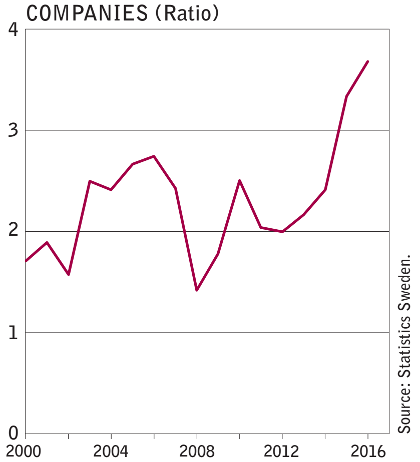
42 The commercial real estate sector refers to firms that own real estate for a commercial purpose. Commercial real estate include offices, stores, hotels, restaurants, rental apartments as well as logistics, warehousing and industrial premises.

55. RISING AND HIGH PRICES ON COMMERCIAL REAL ESTATE (Index 1983=100)



Note. Selection of three segments in the Swedish commercial real estate market. Nominal prices.

56. RISING INTEREST RATE COVERAGE RATIO AT REAL ESTATE COMPANIES (Ratio)



Note. The interest rate coverage ratio refers to how much of the firm's operating income cover the interest rate expenses.

In recent years, prices for Swedish commercial real estate have increased sharply (Diagram 55). Rents and prices have risen the most for office buildings, particularly in downtown Stockholm. The commercial real estate market is sensitive to swings in the economy, and the conditions for continued rental growth and low vacancy rates can change quickly.

Real estate companies are reporting good earnings, and return on equity is approximately at the same high levels as before the financial crisis. The companies' debts are high, but on average they improved their equity/assets ratios and reduced their debt/equity ratio since equity has increased.[43] At the same time, the real estate companies' average interest coverage ratio increased and is now at a historically high level (Diagram 56). The high interest coverage ratio is a result of low interest rates and the resulting low financing costs. The firms have also increased their financial income.[44]

But real estate companies are sensitive to interest rates. What appears to be a high interest coverage ratio of 3.7 per cent is largely due to the low interest rates. In a scenario with sharply increasing interest rates, the situation could change rapidly. This could mean that the companies' operating income would no longer cover their financing costs. This could result in credit losses for the banks and thus affect financial stability.

High risk premiums on commercial property

Dividend yield requirements[45] on commercial properties are currently low and fell even further in 2017 (Diagram 57). Low dividend yield[46] and rapidly rising prices have historically been an indicator of future price falls. Therefore, the market may be in a period when imbalances are accruing.

Investors' dividend yield requirements are affected by the risk-free interest rate. One reason for the dividend yield is that the risk-free interest rate is slow. The difference between dividend yield and risk-free interest rates can be viewed as the risk premium the investors want to invest in properties. The risk premium is currently high from a historical perspective. This may be an indication that investors to some extent have raised the bar in the event that economic conditions change rapidly. The high risk premium also means that more actors in their hunt for yield have increased their investments and their share of long-term savings in real estate.

The transaction volume fell in 2017 compared to the record-high volume in 2016. During the start of 2018, the transaction volume continued to fall slightly compared to the start of 2017, but activity is still high and was at approximately the same level as in 2014 and 2015. Interest from foreign actors is still strong, representing approximately 25 per cent of the transaction volume in 2017. This development pri-

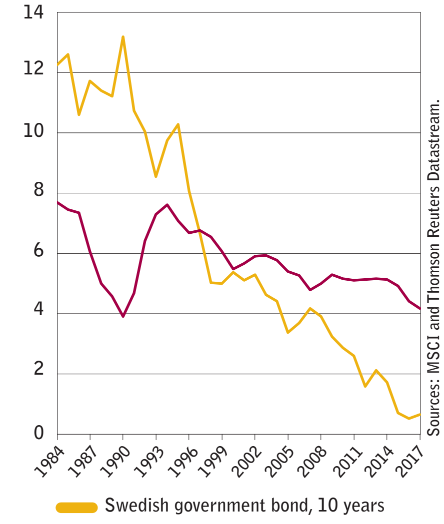
43 The equity/assets ratio measures how much of the firms' assets are financed by equity, and the debt/equity ratio measures the size of the debt in relation to equity.

44 Financial income refers to income from shares, investments an interest rates.

45 Dividend yield requirement refers here to the lowest requirement an investors has on the dividend yield level for a property.

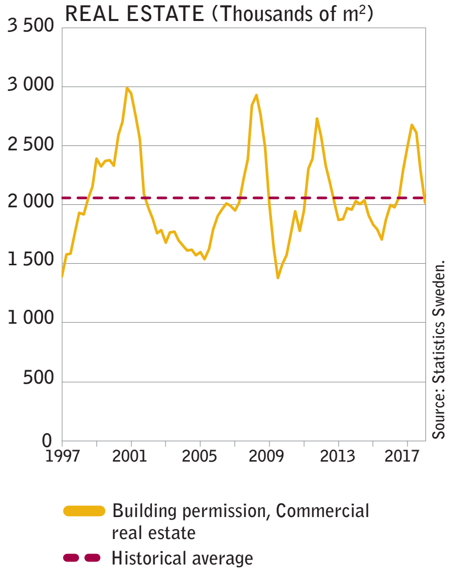
46 Dividend yield refers to all property types throughout all of Sweden and is defined as interest income minus operating and maintenance expenses through the value of the property at the beginning of the year including capital expenses.

57. HIGH RISK PREMIUM DESPITE LOW YIELD (Per cent)



Note. Risk-free interest rate is defined as a Swedish 10-year government bond. Yield refers to all real estate types throughout all of Sweden and is defined as rental income minus operating and maintenance expenses through the value of the property at the beginning of the year including capital expenses.

58. GRANTED BUILDING PERMISSION FOR COMMERCIAL REAL ESTATE (Thousands of m²)



Note. Building permission, gross area, thousands of m². Moving sum, four quarters.

marily reflects a strong demand for office and residential real estate in attractive locations. However, investors have become more careful in terms of buying real estate outside of the large cities. This applies primarily to retail properties, where the dividend yield is relatively high. At the same time, retail trade is experiencing greater competition from e-commerce, which limits possibility for growth in rent on retail trade properties.

The construction of commercial properties has not increased at the same rate as housing properties. The number of granted building permits rose at the beginning of 2017, but has since fallen below its historical average in Q1 2018 (Diagram 58). According to the real estate and construction firms, a slightly larger volume of office area in newly produced properties in the large cities will be completed in 2018 and 2019.

More lending in a capital-intensive sector

Commercial real estate companies need to borrow in general to finance their operations. They generally have higher debt than other non-financial firms. The debt of listed real estate companies in relation to net operating income has risen over the past two years and is now at historically high levels (Diagram 59). The high debt of real estate companies means that they are more sensitive to interest rates than they were before. The Swedish banks have significant lending activities, and thus exposure to the commercial real estate market, but the commercial real estate companies' use of bank loans has decreased in recent years. Instead, financing through bonds and commercial paper has become more popular. In 2017, the issue volume of the listed commercial real estate companies amounted to approximately SEK 90.7 billion (Diagram 60).[47] This is an increase of around 79 per cent compared to 2016. The bonds often have a maturity of three to five years. The increase in volume in recent years means that a large percentage of existing bonds fall due in 2018 and 2019. This means there is a refinancing risk in the sector.

Despite the increase in debt, the average loan-to-value ratios of listed commercial real estate companies has fallen. The ratios are currently relatively low in a historical perspective. The reason for this is that market value on real estate has increased rapidly. If the conditions change and the real estate prices fall, the loan-to-value ratios can quickly rise.

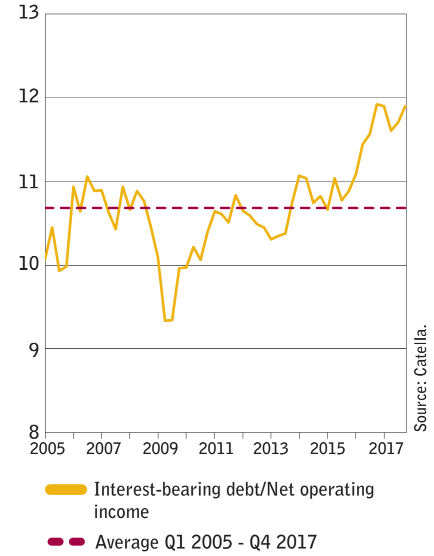
COMMERCIAL REAL ESTATE COMPANIES ARE MORE SENSITIVE TO INTEREST RATES

Overall, prices for commercial real estate increased rapidly and are high from a historical perspective, but the commercial real estate sector is heterogeneous and includes several different types of real estate. While the market for offices is the demand for retail premises, primarily outside the large cities, has slowed.

The financial conditions for the commercial real estate market are beneficial, and the earnings and payment capacity of the commercial real estate companies are good, but their cash flow is volatile and there is a refinancing risk. This means that high debt combined with relative short interest rate adjustment periods makes the companies sensitive to rising interest rates. The conditions for the commercial real estate com-

47 Refers to commercial real estate companies on Nasdaq Nordic Main Market. There are also smaller public real estate companies on other marketplaces that also have issued bonds.

59. REAL ESTATE COMPANIES' INTEREST-BEARING DEBT IN RELATION TO NET OPERATING INCOME (Ratio)



Note. Dashed line refers to the average since 2005. Refer to commercial real estate companies listed on Nasdaq Nordic Main Market.

60. SHARP INCREASE IN USE OF MARKET FINANCING (SEK billion (left axis) and per cent (right axis))

Note. Refer to commercial real estate companies listed on Nasdaq Nordic Main Market.

Source: Catella.

panies can change quickly, and negative outcome can spread to large parts of the financial system. The commercial real estate companies may find themselves under pressure from a combination of falling rents, decreased access to capital and higher interest rate expenses. Such problems can spread to the financial system. The companies may then find it difficult to meet their commitments and cause credit losses for their lenders. This could lead to more restrictive lending, perhaps even to other sectors, and have an impact on the macroeconomic development.

FI's overall assessment is that risks exist on the commercial real estate market and will therefore continue to monitor its developments.

Finansinspektionen
Box 7821, 103 97 Stockholm
Street address Brunnsgatan 3
Telephone +46 8 787 80 00
Fax +46 8 24 13 35
finansinspektionen@fi.se

www.fi.se