FINANSINSPEKTIONEN

Stability in the financial system

9 JUNE 2015

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CONTENTS

Foreword

The Stability Report presents Finansinspektionen's (FI's) assessment of stability in the financial system and potential financial imbalances in the Swedish economy. We outline our view of the vulnerabilities in the Swedish system and how these vulnerabilities may jeopardise financial and economic stability. We also describe the measures we have taken to reduce these vulnerabilities and the measures we believe must be taken in the future.

Financial stability implies that the financial system is able to maintain its basic functions as well as it being resilient to disruptions. FI has the proper structures in place to not only detect vulnerabilities but also implement measures as needed to increase resilience.

FI's assignment has also been expanded to include the prevention of an imbalanced credit market. However, during the discussion of FI's proposed amortisation requirement it became evident that the legal basis for implementing measures to curb these risks is limited. In order to be able to implement measures that prevent risks from building up in the credit market it is necessary for FI's mandate to fully reflect its expanded assignment.

Stockholm, 9 June 2015

Martin Noréus

Acting Director General

Summary

Finansinspektionen (FI) makes the assessment that the resilience of the financial system is currently satisfactory. Swedish banks have high levels of capital and good access to inexpensive funding. However, the banks' need for market funding also makes them sensitive to financial turbulence and disruptions in their funding markets. If investors were to adopt a different view on risk, it is possible that asset prices could fall and financial turbulence would ensue. FI continues to be concerned about the high level of household indebtedness and thus believes that an amortisation requirement should be implemented as soon as possible.

The global economy continues to recover, but it is still not robust. Continued low inflation means that the risk of deflation cannot be disregarded, although there are signs suggesting that inflation may begin to rise. A protracted decline in prices may threaten financial stability if household and corporate income were to fall relative to their debt burden. Stronger growth and higher inflation may thus reduce the risk of financial instability.

Low and falling real interest rates throughout the world have pushed up asset prices in Sweden and many parts of the world over the past 20 years. As a result, investors are demonstrating a greater risk appetite as they search for yield, and interest rate spreads between risky and safe assets are low. High asset prices and low risk premiums are supported by the extreme expansionary monetary policy that many central banks have been compelled to introduce in an effort to increase inflation. This has caused tensions to accumulate that could threaten financial stability.

SATISFACTORY RESILIENCE DESPITE VULNERABILITIES

It is FI's assessment that the Swedish financial system is functioning well and its resilience is currently satisfactory. However, there are still a number of vulnerabilities that make the Swedish financial system and the Swedish economy sensitive to disruptions.

FI defines 'vulnerability' as a characteristic that does not normally result in problems, but which may lead to turbulence and pressures on the Swedish financial system and economy in times of financial stress. The primary purpose of FI's measures to strengthen financial and economic stability is to increase the resilience of the system in such a way as to reduce the negative impact of vulnerabilities during period of stress.

The Swedish financial system is large and interconnected. Interconnectivity is required in all financial systems and thus implies a certain degree of vulnerability since problems in one institution could spread to other entities and markets during a crisis. Another vulnerability is that Swedish banks are reliant on market funding, which means that they are dependent on properly functioning markets and a high level of confidence among investors. If there is a disruption that leads to financial turbulence within the banks' funding markets, their prospects for renewed market funding may be impaired, resulting in financial instability in the long run. The funding problems faced by banks may also be exacerbated by their interconnectivity to each other and other financial players. Financial turbulence could be triggered, for example, if the situation in

Greece were to deteriorate, if there were to be an economic downturn in Europe or if investors were for some other reason to change their view of risk.

Such unexpected events could result in investors changing their view of the quality of and risk related to assets, which in turn could lead to a rapid and significant fall in asset prices, thus introducing financial stress. If today's low risk premiums are based on unrealistic expectations about the quality of the assets this could pose a threat to financial stability.

FI continues to view high household indebtedness as a vulnerability that makes the Swedish economy sensitive to disruptions, and a disruption such as a fall in house prices could cause problems for the Swedish economy. House prices are rising rapidly in Sweden, and FI believes that the risk of a fall in house prices has increased slightly over the past six months.

SWEDISH BANKS CONTINUE TO DEMONSTRATE GOOD RESILIENCE

The Swedish banking sector is able to provide society with credit and has continued to demonstrate stable profitability. Swedish banks have high levels of capital and satisfy FI's capital requirements. These high levels of capital mean that the banks currently hold strong positions in the financial market and have good access to inexpensive funding. FI thus considers Swedish banks to currently have satisfactory resilience to disruptions. However, since the level of credit growth continues to be high, the risks continue to accumulate. FI has therefore proposed that the countercyclical capital buffer be raised to 1.5 per cent.

High capital buffers are also important for reducing the vulnerability associated with the banks' need for market funding. An analysis by FI of the major banks' funding and liquidity management shows that their resilience to a liquidity squeeze is relatively sound in the short term. However, the structure of the banks' long-term assets (e.g. mortgages) means that their market funding has a significantly shorter duration. So while Swedish banks may be able to withstand limited access to liquidity in the short term, FI nonetheless believes that banks should continue to prepare for forthcoming regulations and extend the maturity profile of their funding. This would reduce their exposure to the risks inherent in maturity transformation.

TRANSISTION TO A MORE MARKET-ORIENTED SYSTEM

Even if Sweden's financial system is still bank-oriented from an international perspective, market funding has gained ground in recent years. Several different factors are driving this trend towards a larger proportion of the economy's credit being supplied via the securities markets. Firstly, these markets are developing and investors are becoming more accustomed to investing in products such as corporate bonds and securitised mortgages. The development of alternative forms of funding is also being encouraged from several political contexts, such as the European Commission. Secondly, low interest rates make investors turn to more risky assets in their search for yield. Thirdly, banks' capital requirements have increased in recent years. This makes banks focus more on activities that do not involve substantial capital requirements. It may be more profitable for the bank to act as an adviser for a corporation issuing bonds instead of lending the same amount to the corporation.

One thing that might drive the development in the same direction is if the banks' capital requirements were less risk-sensitive, which is being discussed at the international level. This would mean there would be an incentive for banks to increase profitability by removing low risk-low return assets such as Swedish mortgages from their balance sheets in favour of higher risk assets with a higher expected return.

More lending via the financial markets would mean more funding channels and thus could promote greater economic efficiency. However, removing lending from the banks' balance sheets could in turn pose risks, one of which might be that the supply of credit would be more unstable than it is today. Hence, FI believes that it is important for the Swedish authorities to carefully evaluate the consequences of the choice between a bank-oriented and market-oriented system and maintain a sound balance between different forms of funding.

HISTORICALLY LOW INTEREST RATES PUT PRESSURE ON LIFE INSURANCE COMPANIES

Life insurance companies are vulnerable to low interest rates. These companies manage assets so they can pay out pensions, and low interest rates increase debt and imply low future returns. Their ability to manage their operations in a low interest rate environment may affect financial stability. Companies that expose themselves to risks but lack financial strength may have to make significant changes to their portfolio in a subsequent, more unfavourable, environment. Large values may then be destroyed for future retirees and the problems could spread to other institutions through the securities markets.

GOOD RESILIENCE AMONG HOUSEHOLDS BUT MACROECONOMY STILL VULNERABLE

Swedish households are able to pay their debts and their aggregate assets exceed their debts. FI therefore does not consider household debt to pose a direct threat to financial stability. However, the fact that many households are highly leveraged implies that the system is vulnerable. The proportion of households with a loan-to-value ratio above 50 per cent is high, and this number has also increased in recent years. These households tend to reduce their consumption more after an economic shock, such as a fall in house prices, which deepens economic downturns, leading FI to make the assessment that the Swedish economy has become more vulnerable to disruptions. It is therefore necessary to discourage a move towards too high a proportion of highly leveraged households, which FI believes could be done by implementing an amortisation requirement for all loan-to-value ratios above 50 per cent. FI furthermore considers there to be a need to clarify the mandate of FI so it is able to introduce a requirement as soon as possible.

FI and the stability of the system

Financial stability is the capacity of the financial system to maintain its essential functions, even in times of financial stress. This means that the system must be resilient to disruptions. FI must also counteract imbalances that develop in the credit market. The purpose of FI's work in both cases is to prevent problems and disruptions in the financial system from having significant negative effects elsewhere in society.

FINANCIAL STABILITY – A MATTER OF PUBLIC INTEREST

If the financial system is stable, it can function even during periods of stress. This is an important matter of public interest since the financial system provides the services required for a modern economy to function and be able to deal with payment intermediation, credit supply and risk management.[1]

At the same time financial systems are vulnerable. For example, a bank meets the depositor's demand that their money is readily and rapidly available for withdrawal. At the same time, it meets the demands of borrowers to borrow money over a longer term. This 'maturity transformation' is of great value to the economy, but inherently poses a risk. Major liquidity problems can rapidly arise, even for banks that are fundamentally profitable, if depositors or other investors lose confidence in the bank, for example owing to the bank sustaining credit losses. In addition, the different parts of the system are closely interconnected – financial institutions borrow/lend money from/to each other, and do business with each other in the securities market and the foreign exchange markets. For this reason, problems arising in one part of the system can quickly spread to others. Thus a financial crisis may arise which may endanger the services essential to society.

The triggers behind such a development are often difficult or impossible to predict. For example, a disruption may involve the economy, or part of it, suddenly performing worse than expected, or an international occurrence resulting in the dysfunction of the Swedish banks' funding markets. This disruption may both hit the financial sector from the outside, and arise from within it. Disruptions interact with existing vulnerabilities in the financial system, and if its capacity to function is seriously disrupted, this immediately creates problems for corporations and consumers.

THE ROLE OF SUPERVISION

Problems in the financial system can thus extensively damage growth, employment and public finances. The financial system therefore needs to be resilient to disruptions. Although financial corporations have a vested interest in having a stable financial system, they often lack the opportunity and motive to identify and take account of the contagion effects that could be triggered by problems at their own corporation, or how they could be affected by problems in the surrounding economy. The financial system thus presents a number of examples of what are generally referred to as 'market failures'. The fundamental task of supervision is thus to monitor and take action when the market itself cannot bring

1 For further information about FI's views on financial stability and its role, see 'Finansinspektionen and Financial Stability', 9 December 2014, FI.

about a good resolution. However, market mechanisms should take control where no such problems exist. Stability is to be achieved in a way that hampers efficiency as little as possible – which is also an important social objective.

The most obvious market failures are when risk-taking tends to be too high and resilience to disruptions tends to be too low. The key duty of supervision is thus to reduce vulnerabilities by influencing the balance between risk-taking and resilience. However, the right balance between risk-taking and resilience is never self-evident. This is largely because it is impossible to assess with any certainty the extent and exact kind of disruption that may occur which the system should be able to withstand. At the same time, all business activities need an element of risk-taking to enable the activity to be pursued efficiently, which is obviously also an important social objective. Through extensive regulation it is possible in principle to achieve a financial system that is so stable that it can withstand almost every conceivable disruption, although at the expense of a significant deterioration in efficiency. Minimising or eliminating all risks cannot be an objective of supervision – a balance must be struck.

Prevention is a key word for supervision, but the effort related to financial stability does not stop there. Occasionally preventive measures prove inadequate and the defences built up are insufficient. In this situation it is the responsibility of the state to help limit the damage and reinstate the capacity to function. FI also has a role to play in such a situation, a role that will become even more important in the future. The new European crisis management framework (the Bank Recovery and Resolution Directive – BRRD) will also include vital tasks for FI, including the formulation of recovery and liquidation plans for the institutions affected.[2]

AN EXTENDED RESPONSIBILITY

The latest financial crisis showed that it is not enough just to ensure that fundamental financial services exist and function. Negative effects may arise for society and be amplified by the financial sector despite basic functions being upheld. Therefore, the Government recently assigned to FI what may be described as an extended responsibility, expressed as FI being responsible:

> *"…for taking measures to counteract financial imbalances with a view to stabilising the credit market, but considering the effect of these measures on economic development."*[3]

One such example is the costs arising from overinvestment and excessive indebtedness in some part of the economy, and the subsequent restructuring of balance sheets that this ultimately brings about.

Unlike the supervisory authorities in many other countries, FI has had an explicit role since 1995 in promoting stability throughout the financial system.[4]

2 For further information, see box entitled 'New powers for the resolution of banks'

3 See Section 1 of the Regulation (2013:1111) amending Regulation (2009:93) with instructions for Finansinspektionen. This amendment entered into force on 1 January 2014

4 See Section 2 of the Regulation (1994:1538) amending Regulation (1992:102) with instructions for Finansinspektionen. This amendment entered into force on 1 January 1995.

This extended responsibility for stability means that the traditional objective of safeguarding stability in the financial system has been supplemented by an additional objective – stabilising the credit market. This means that FI can, and should, apply measures even in the absence of a direct threat to financial stability in the sense discussed, i.e. the financial sector's capacity to function. One related and current example applies to the vulnerability associated with high indebtedness of households. FI's responsibility and measures thus deal specifically with what is traditionally referred to as 'stabilisation policy'. However, it became evident during discussions concerning FI's proposed amortisation requirement that there is a need to clarify the legal basis for implementing these kinds of measures. Therefore, in order to be able to assume a wider responsibility, FI's powers need to be extended, making it possible to introduce macroprudential measures.

Financial markets are also associated with risks and problems other than the risk of systemic failure or macroeconomic shocks. Firstly this involves matters relating to the position of consumers, as many financial services are complicated and difficult for consumers to judge. Secondly this relates to problems that, without presenting a risk of urgent systemic crises, may still result in major costs to the real economy, for example if the banks' internet services were to be disrupted by long-term or repeated problems.

However, these kinds of issues will not be further discussed in this report. Consumer aspects are discussed in more detail in FI's annual report entitled Consumer protection on the financial market.[5]

THE ROLES OF FI AND OTHER AUTHORITIES

One difficulty presented by FI's additional macroprudential objective is that it borders other policy areas. When FI applies measures with a view to stabilising the credit market, such measures often have broad socioeconomic effects and sometimes even redistributive effects. The distinction between traditional stabilisation and redistribution policy is becoming less clear. At the same time, FI's ability to act is limited insofar as FI regulates, monitors and can target measures at financial institutions, but not directly at households, other authorities or non-financial corporations. FI can thus influence other parts of the economy only via the financial institutions. While this provides a clear focus for FI's work, it also poses a limitation. FI has a number of tools that can be used to influence development although these are not always the most appropriate. In some situations other authorities may offer the most appropriate tools. For example, FI has no control over taxation policy and nor can FI extend any financial support, which may be crucial for safeguarding stability in a crisis situation.

In other words, financial stability is directly and indirectly affected by a number of different factors and entities. Apart from FI, it is the Government, the Riksbank (the Swedish central bank) and the Swedish National Debt Office that are the Swedish authorities that clearly have a role in this context through their mandate and actions.

By proposing legislation to the Riksdag, the Government can define the fundamental rules of play applicable for financial activities, and similarly for other legislation that (also) directly or indirectly affects financial cor-

5 http://www.fi.se/Folder-EN/Startpage/Supervision/Other-reports/Listan/Consumer-protection-on-the-financial-market1/

porations in different ways. Taxation is one obvious example. The Government and Riksdag may also decide on financial support in the form of guarantees, capital contributions, etc.[6] The Riksbank has the opportunity to provide liquidity support, and also has an oversight responsibility and is partially responsible for operating the payment system (RIX). The Riksbank also influences prices on the financial markets through its monetary policy. The Swedish National Debt Office is responsible for the deposit guarantee scheme, and was recently appointed by the Government as the 'resolution authority', i.e. to manage, when required, the orderly liquidation of a failed credit institution.

Although FI has had an explicit responsibility for promoting financial stability for just over 20 years, other authorities consequently also have vital roles to play – a fact that has become even more clear as the stability objective has been extended. Financial stability, in a narrow or broad sense, thus requires cooperation between different authorities and different policy areas. One concrete expression of such collaboration is the activities within the framework of the Financial Stability Council, which encompasses the Ministry of Finance, FI, the Riksbank and the Swedish National Debt Office. In turn, effective cooperation requires a clear, and clearly communicated, allocation of responsibilities which creates accurate and realistic expectations about what FI and other authorities can and should do.[7]

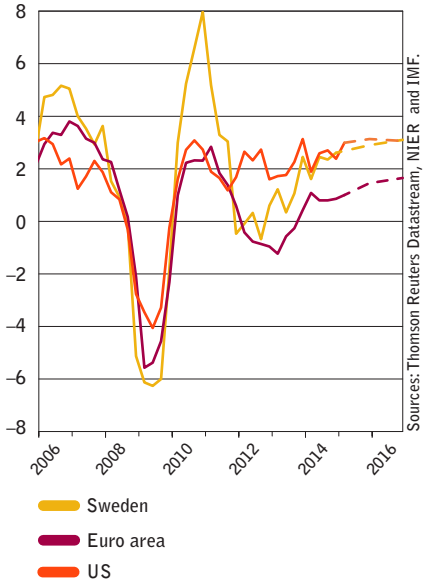
6 A description and discussion is provided in Chapter 5 of the Financial Crisis Committee's first report (Swedish Government Official Reports – SOU 2013:6) of how and by what means the various Swedish authorities acted, primarily during the acute phase of the financial crisis, Autumn 2008.

7 For further information about FI's views on financial stability and its role, see 'Finansinspektionen and Financial Stability', 9 December 2014, FI.

The state of the economy

Although the global economy is growing below its long-term trend, growth is expected to pick up in the coming years. This is also expected to contribute to stronger Swedish growth. Historically low interest rates have contributed to maintaining the high demand for risky assets, while financial markets appear to be relatively sensitive to disruptions. A change in investors' expectations could therefore result in a significant fall in prices, which in turn could have an impact on financial stability in Sweden. A fall in house prices and an economic downturn in Europe are other potential disruptions that could affect stability, according to FI.

1. REAL GDP GROWTH
(Annual percentage change)



Note. Dashed lines are forecasts. The forecast for Sweden is from NIER in March and those for the euro area and USA are from the IMF in April.

Economic development in Sweden and abroad is important for Swedish financial and economic stability. Profitability in the financial sector is affected by the Swedish economic outlook, which is interconnected with economic developments abroad to a large extent. For example, financial and economic conditions normally improve for banks during an economic upturn, as a consequence of e.g. a rise in the demand for loans.

However, an economic upturn may also accelerate the build-up of imbalances in the credit market as non-financial corporations and households are more inclined to invest and consume during economic upswings. Hence, there is an increased risk of excessive lending during these periods, which may lead to the build-up of imbalances. This may result in significant costs for the economy when such an imbalances are corrected in the future.

STRONGER BUSINESS CYCLE ABROAD

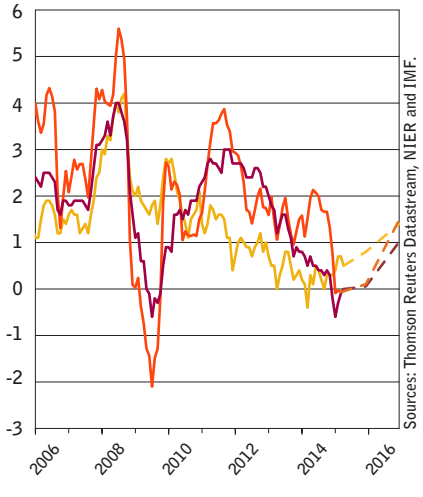
The global economy grew by 3.4 per cent in 2014.[8] The economic situation abroad has improved since the end of 2014 although it is still weak. One contributory factor to the improved economic conditions is the significant fall in oil prices, which resulted in reduced energy costs and thereby increased the scope for consumption and investment for households and non-financial corporations. Relatively low oil prices are expected to further support the business cycle in the coming years.

Between different regions, however, economic development is still uneven. Several emerging countries are having significant problems, and growth in, for example, China is slowing down. By contrast, in the United States the recovery is continuing. The slowdown there at the start of the year is considered to be temporary. The International Monetary Fund (IMF) expects that growth will be strong in the United States in the coming years and that its economy will grow by more than 3 per cent (Chart 1).

Growth has continued to be weak in the euro area, growing only by 1 per cent during the first quarter of 2015. The state of the economy in the euro area is expected to improve in the years ahead, although at a slow pace. The monetary policy measures applied by the European Central Bank (ECB), together with the continued stimulus provided by the fall in oil prices and the weak euro, are expected to contribute positively to growth in the euro area. The IMF expects that growth there will amount to just over 1 per cent in 2015 (Chart 1).

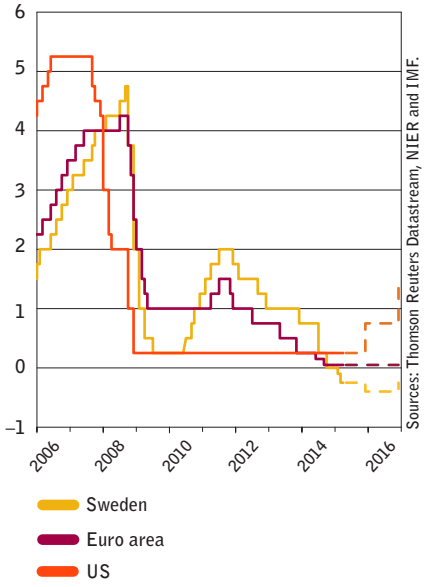
8 'World Economic Outlook', April 2015, IMF.

2. INFLATION
(Annual percentage change)



Note. Refers to HICP inflation for Sweden and the euro area, and CPI for USA. Dashed lines are forecasts. The forecast for Sweden is from NIER in March and those for the eurozone and USA are from the IMF in April.

3. POLICY RATES (Per cent)



Note. Dashed lines are forecasts. The forecast for Sweden is from NIER in March and those for the euro area and USA are from the IMF in April.

Domestic demand is strong in Sweden, and growth has therefore developed at a good pace despite weak demand abroad. The Swedish economy grew by 2.5 per cent during the first quarter of 2015, and growth continued to be driven by domestic factors. Domestic demand will also continue to be important to the Swedish economy, given the slow recovery in the euro area. The National Institute of Economic Research (NIER) expects the Swedish economy to grow by 2.9 per cent in 2015 and that growth will then strengthen as global demand rises (Chart 1).

Continued low inflation

Inflation in Sweden and abroad has continued to be low for the past six months. The fall in oil prices enhanced the downward inflation trends in several countries and regions. According to the IMF, inflation in the US economy will not achieve the central bank's inflation target of 2 per cent until 2017. Inflation in the euro area is expected to fall below the ECB's inflation target until 2020.[9] The inflation in Sweden is greatly influenced by prices abroad, and Swedish inflation is therefore also expected to be low in the coming years (Chart 2).

As a result of low inflation, monetary policy is expected to remain very expansionary in several major economies. The American central bank (Federal Reserve) is expected to increase its key interest rate at the end of 2015 (Chart 3). Trying to handle the persistent low inflation the ECB, whose key interest rate has remained unchanged at 0.05 per cent since September 2014, launched a new asset purchase program that includes purchases of government bonds in March 2015. The ECB is expected to hold an average key interest rate of zero per cent in the years to come (Chart 3).

In Sweden the Riksbank first reduced the repo rate to –0.10 per cent in February and subsequently to –0.25 per cent in March. Furthermore, the Riksbank launched an asset purchase programme that will be implemented from February to September and includes government bonds with maturities of up to 25 years and to a total value of SEK 80 to 90 billion. NIER expects the Riksbank to maintain a negative repo rate during 2015 and 2016 (Chart 3).

GLOBAL INTEREST RATES ARE HISTORICALLY LOW

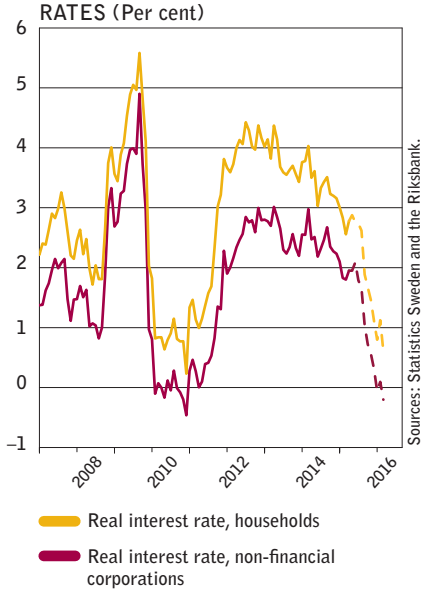
Both nominal and real interest rates in the global economy are historically low and expected to remain at low levels for some time in the future (Chart 4). In addition, both nominal and real interest rates are negative in some economies at present, including in Sweden.

The reason for global interest rates being so low is partly a result of structural factors in the global economy, such as high savings in emerging economies and high demand for fixed-income investments such as bonds.[10] In addition to these structural factors, the economic downturn that followed the financial crisis in 2008 contributed to falling interest rates. Weak growth and persistent low inflation has resulted in the global economy ending up in a situation where low real interest rates are needed to achieve economic recovery. To achieve sufficiently low real interest rates, negative nominal key interest rates combined with a massive central bank stimulus have been necessary.

9 The ECB's inflation target imply that inflation is close to but below 2 per cent.

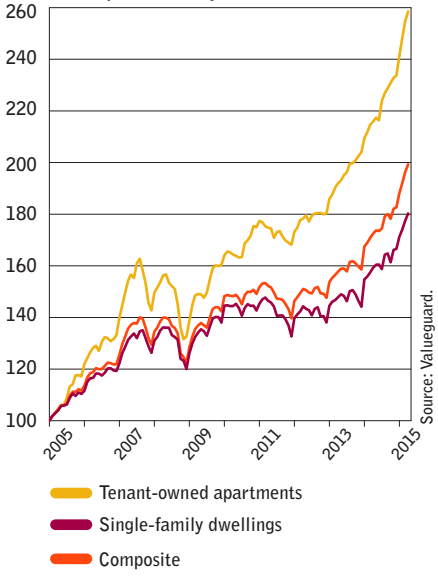
10 'World Economic Outlook' (WEO), April 2014, IMF.

4. SWEDISH REAL INTEREST RATES (Per cent)



Note. Real lending rates are nominal volume-weighted lending rate minus actual inflation according to CPIF, for the corresponding period. Dashed lines are forecasts.

5. SWEDISH HOUSE PRICES (Index, 31 January 2005 = 100)



As Sweden is a small and open economy, Swedish interest rates are affected by global interest rates to a large extent. High interest rates in Sweden relative to abroad may result in large inflows of capital and a strengthening of the Swedish krona. This in turn would weigh heavily on Swedish exports and growth and also curb inflation through lower import prices. Swedish interest rates must therefore, particularly in the long-term, largely conform to global real interest rates.[11]

The protracted period of low real interest rates has several consequences. For one thing, the cost of borrowing money is low, which is reflected in mortgage and corporate interest rates in Sweden (see Section entitled 'Lower interest rates for non-financial corporations and households'). This has primarily entailed that Swedish households are borrowing more, which in turn drives up house prices (Chart 5).

Low interest rates also drive investors to purchase riskier assets in their search for a higher yield.[12] The interest rate spread between risky and safe assets have been reduced significantly in recent years as the demand for riskier assets has risen (Chart 6). This also led to an increase in the stock market index over a long period of time (Chart 7).

GROWTH DIFFERENCES ARE REFLECTED IN THE FOREIGN EXCHANGE MARKET

The financial markets have at times been sensitive to disruptions during the spring. A number of uncertainties have periodically increased the financial stress level, but without any lasting effects. Up until now political uncertainty in Greece has not resulted in any significant market movements linked to other indebted countries, but it is unclear what the contagion effects might be if Greece were to suspend its payments.

The increased discrepancy between the economic outlook in the euro area and the United States has left its mark on both the interest rate and foreign exchange markets in the past year (Charts 8 and 9). There has been a slight upturn in both European and US government bond rates in recent months, but these interest rates are still at very low levels. It is generally expected that interest rates will remain low for a prolonged period of time (Chart 3), although US interest rates are expected to rise more rapidly than European interest rates.

Expectations of rising interest rates in the United States have resulted in a substantial appreciation of the dollar in relation to the euro and the Swedish krona, among others. The fact that the foreign exchange market has been characterised by comparatively large price movements has at times contributed to an increase in the combined stress level[13] on the Swedish financial market although the level has remained low compared with historic periods over the past six months (Chart 10).

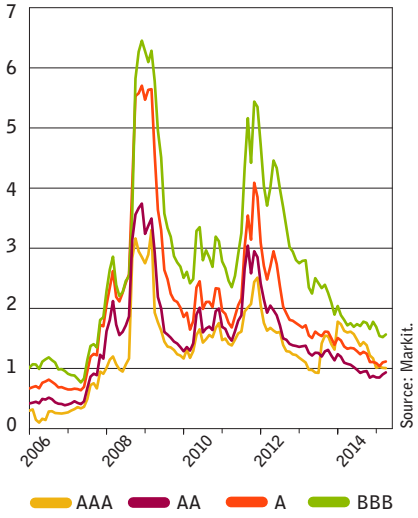
The euro has depreciated against a large number of currencies. In addition to the fragile state of the economy in the euro area, the depreciation has been driven by the ECB's latest asset purchase programme, which

11 Ibid.

12 'Financial Stability Review', May 2015, ECB.

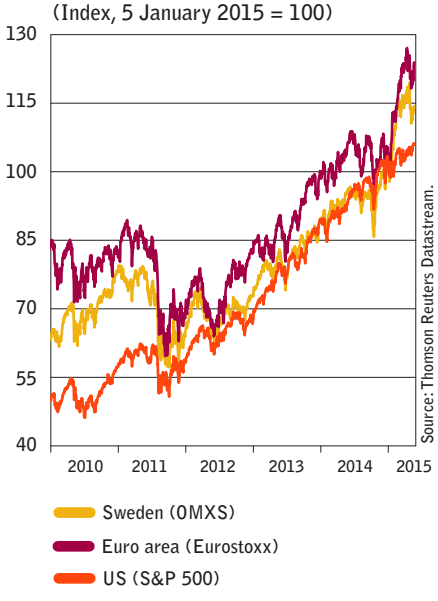
13 Bonthron and Johansson, Vidareutveckling av index för finansiell stress för Sverige ['Further development of a financial stress index for Sweden'], 2013, Riksbank and Holló et al., CISS – A composite indicator of systemic stress in the financial system, Working Paper Series no. 1426, March 2012, ECB.

6. CORPORATE BOND YIELDS FOR EUROPEAN COMPANIES
(Interest rate spread in basis points)



Note. Refers to the spread between interest rates on credit-rating-grouped baskets of European corporate bonds and on German government bonds with five years maturity.

7. STOCK MARKET DEVELOPMENT
(Index, 5 January 2015 = 100)



was announced at the end of January 2015.[14] The purpose of the programme is to increase long-term inflation expectations and boost lending to households and corporations. The ECB is thus hoping to also increase demand and, in turn, inflation in the euro area. These measures have helped bring down European interest rates in the first months of the year (Chart 8). While the ECB considers a weaker euro to be important to boost the European economy, the Federal Reserve sees the strengthening of the dollar as a potential threat to the American recovery. There is a risk of increased volatility in the financial markets should the central banks attempt to counteract the strengthening of their respective national currencies.

The Swedish krona has depreciated in general the past year, as a result of the Riksbank's very expansionary monetary policy (Chart 3). However, in recent months the Swedish krona has strengthened slightly against both the euro and the dollar (Chart 9).

Banks' funding costs

Covered bond rates have continued to decline in the Swedish market as well as foreign markets over the past six months.[15] Both Swedish covered bond rates and the interbank rate have fallen significantly, partly due to falling global interest rates and partly because the repo rate has been cut to a negative level (Chart 11).

LOWER INTEREST RATES FOR NON-FINANCIAL CORPORATIONS AND HOUSEHOLDS

The banks' record-low funding costs have resulted in lower mortgage rates (Chart 12) even if these rates have not fallen to the same extent.[16] The funding costs for non-financial corporations also continued to fall over the past six months, and the difference between large and small corporate loans has gradually shrunk (Chart 13).[17]

Increasing lending to households and non-financial corporations

Lending to households and non-financial corporations continues to increase in Sweden. Lending to households grew by 6.4 per cent at the end of the first quarter of 2015 (Chart 14). This growth rate is still considerably lower than those levels reached prior to the last financial crisis although it has increased steadily since the middle of 2012. Lending to non-financial corporations also continued to increase over the past six months and the growth rate was 4.7 per cent at the end of the first quarter of 2015 (Chart 15). Most of the loans for non-financial corporations were linked to the housing market.[18] Non-financial corporations consi-

14 This programme involves the ECB purchasing the government bonds of Member States with restrictions on how large a proportion of each Member State's national debt the ECB may own.

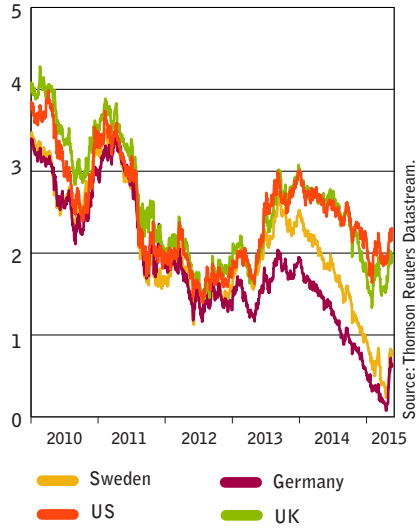
15 See chapter entitled 'Banks' funding and liquidity risks' for an overview of the banks' funding structure.

16 See http://www.fi.se/Tillsyn/Skrivelser/Listan/Bankernas-marginal-pa-bolan/ The banks' funding costs depend on more factors than covered bond rates, such as the cost of swapping longer longer interest rate periods to shorter ones.

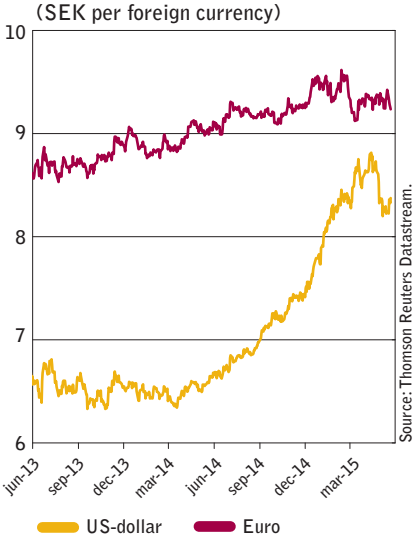
17 Based on the assumption that large loans are primarily taken out by large corporations and small loans primarily by small corporations, the interest rate spread between small and large loans gives an indication of the difference in borrowing costs between small and large corporations.

18 The greatest proportion of loans taken out by Swedish non-financial corporations comprises loans collateralised by apartment blocks. In March such loans

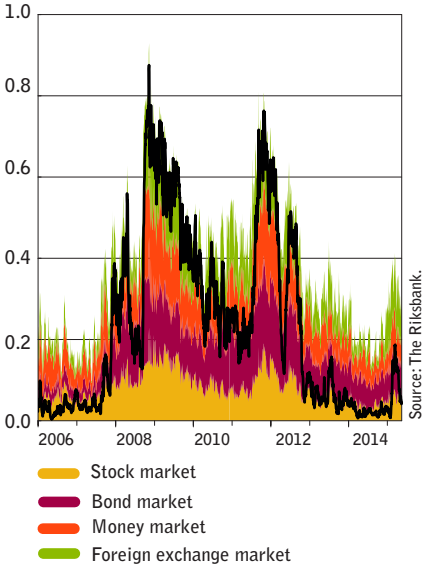
8. GOVERNMENT BOND YIELDS, 10 YEAR MATURITY (Per cent)



9. EXCHANGE RATES (SEK per foreign currency)



10. FINANCIAL STRESS INDEX, CISS



Note. The CISS stress index is developed by the ECB. A value of 1 indicates a historically high level of stress, whereas a value of 0 indicates a historically low level of stress.

der their credit conditions from banks to have improved in recent years.[19]

In contrast to Sweden, loan volumes for households and non-financial corporations in the euro area have been falling for some time (Charts 14 and 15), and credit standards continue to be tight from a historical perspective. The ECB has repeatedly attempted to reverse this trend by increasing liquidity on the market through various monetary policy stimuli and targeted loans for banks.[20] The ECB's surveys indicate a gradual improvement in credit standards for banks in the euro area and the banks' credit conditions continued to ease for non-financial corporations and households during the first quarter of 2015.[21] At the same time, the development of credit markets in the euro area is uneven and there continue to be major differences in both lending rates and loan terms between the different euro countries.

FI's work on vulnerability indicators

FI uses financial indicators to get a better understanding of the economic development. Economists have long used indicators for analysing the business cycle, but this is less common when monitoring financial stability. Analyses of indicators are in many cases part of FI's decision-making and serve as a supplement to qualitative assessments. The purpose of indicators is to provide an overview of the situation in the Swedish financial system and, to the extent possible, identify at an early stage periods of elevated financial stress that may cause financial instability.

There are many potential causes for financial instability. In most cases financial instability results from an inherent vulnerability in the financial system combined with one or more external disruptions. A vulnerability is a feature of the system that involves a lack of resilience and therefore increases the system's sensitivity to external disruptions. Examples of vulnerabilities are the Swedish banks' need for market funding and the high indebtedness of households. However, a vulnerability can only lead to increased financial stress and possibly negative effects on financial and economic stability when interacting with an external disruption. Such disruptions may comprise a multitude of occurrences such as geopolitical unease or the bankruptcy of a major international bank.

FI primarily focuses on identifying and measuring vulnerabilities as it is difficult to predict disruptions and as they usually lie outside FI's control. In the same way, these vulnerabilities are targeted in FI's measures to strengthen the resilience of the system.

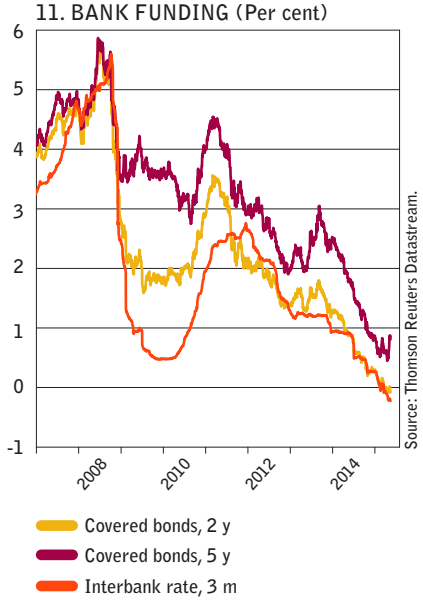
amounted to SEK 603 billion of the total lending to non-financial corporations, which amounted to SEK 1,970 billion.

19 Konjunkturbarometern ['The Economic Tendency Indicator'], April 2015, National Institute of Economic Research.

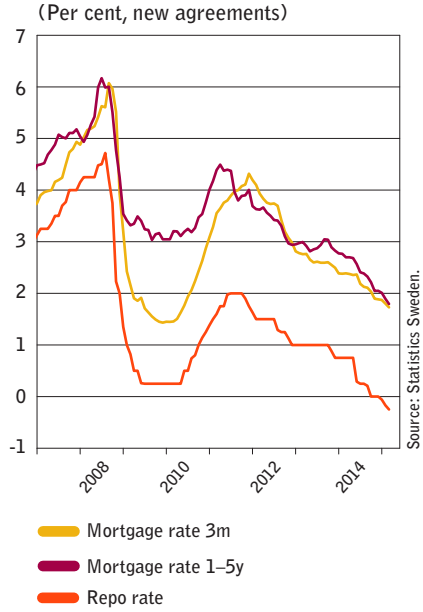
20 These loans are referred to as 'TLTRO' (Targeted Longer-Term Refinancing Operations) and are sector-oriented loans intended to get European banks to offer households and corporations low-cost loans, which were expected to increase demand and eventually strengthen inflationary pressure. Up until now the demand for these loans have fallen below the market's and the ECB's expectations.

21 ECB, 'The euro area bank lending survey', April 2015. This survey reports on the difference between the proportion of banks that stated that credit standards have got worse or improved.

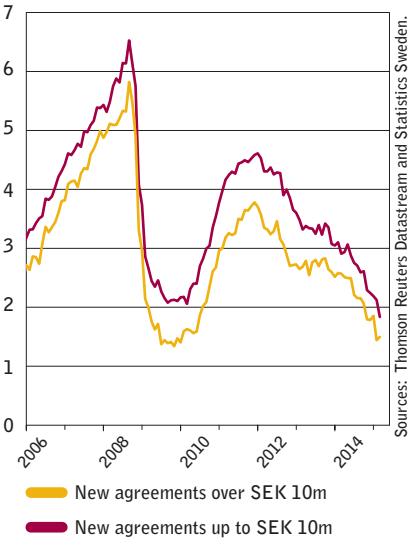
11. BANK FUNDING (Per cent)



12. HOUSEHOLD MORTGAGE RATES
(Per cent, new agreements)



13. LENDING RATES TO NON-FINANCIAL CORPORATIONS (Per cent)



RISKS TO FINANCIAL AND ECONOMIC STABILITY

In FI's opinion, there are currently a number of risks to financial and economic stability. If these risks materialise, the structural vulnerabilities existing within the Swedish financial system that are described in this report may lead to problems that affect stability.

A change in the pricing of risk

Increased demand for risky assets in recent years has resulted in a rise in global, and Swedish, asset prices and a reduction in risk premiums. The interest rate spread between risky and safe assets reflects the risk premium in the financial markets, i.e. the additional return that investors require to be willing to assume greater risks. Overall, these spreads have shrunk considerably since the financial crisis in 2008 (Chart 6). Spreads are higher than they were before the crisis, but rather than reflecting a more risky system, this is a reflection of the fact that the financial markets have become more efficient. Investors are now more productive in their use of the information that is available when pricing financial instruments, which is reflected in more realistic price-setting of risk.

Reduced interest rate spreads are contributing to the recovery by, for example, reducing the funding costs for corporations. However, this could pose a threat to financial stability if low risk premiums are based on unrealistic expectations regarding the quality of assets. Unrealistic expectations may cause a build-up of imbalances in the financial system and price bubbles within different asset categories. When investors obtain access to new information that changes their opinion about the quality and risk of the assets, this could result in a rapid and significant fall in asset prices. If these losses affect vulnerable entities, this could result in greater financial stress. Such a scenario is not improbable given today's low interest rates. Increased geopolitical tensions or renewed funding problems in indebted countries in Europe could potentially result in investors changing their opinion about risk, thereby causing both risk premiums and financial stress to rise.

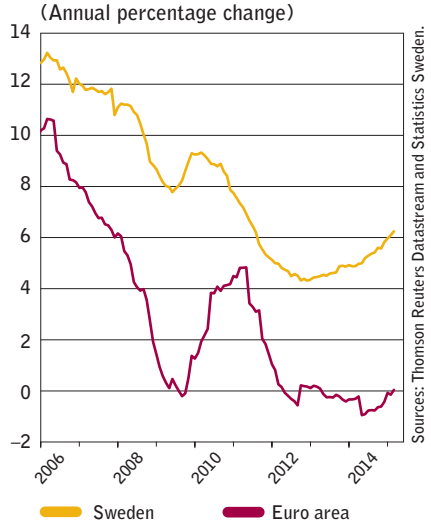
This financial stress could then lead to problems in the Swedish banks' funding markets. Although Swedish banks are well capitalised compared with other banks, there is a risk that they will experience funding problems due to their need to roll over their maturing debt in both Swedish and foreign financial markets (see the chapter entitled 'Banks' funding and liquidity risks'). Higher funding rates for banks can spread to households and non-financial corporations through higher lending rates. This implies that the funding problems of banks may have implications both for financial stability and on the Swedish economy.

A fall in house prices may reduce household consumption

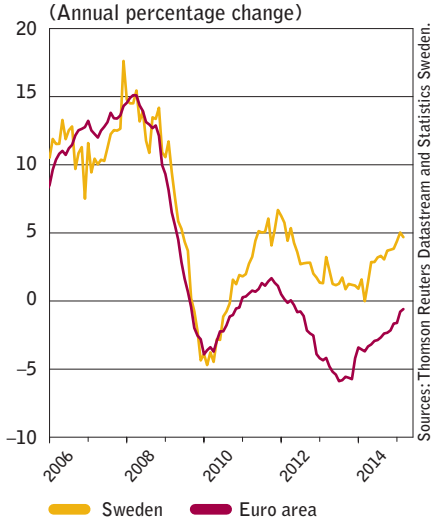
Swedish house prices continued to rise at an increasingly rapid rate during the spring (Chart 5). FI believes that the risk of a fall in house prices has increased slightly compared with six months ago.

There is no clear answer to the question of whether or not the Swedish housing market is overvalued (see Chapter entitled 'Indebtedness and the Swedish economy'), but there is a risk of a price fall even if this were not the case. When price falls do occur, they tend to be large since households reduce their expectations regarding future house prices. For homeowners, a fall in house prices reduces not only their wealth but also their expectations regarding how much wealth they will have in the future.

14. LENDING TO HOUSEHOLDS
(Annual percentage change)



15. LENDING TO NON-FINANCIAL CORPORATIONS
(Annual percentage change)



Because households have good capacity for paying their mortgages and their assets are larger than their debts, there is no indication that household indebtedness is posing a direct threat to financial stability. At the same time, however, it is not possible to rule out the possibility that a fall in house prices could affect confidence in Swedish banks and their options for obtaining funding. In the end, indebtedness primarily is a vulnerability that can cause economic instability since highly leveraged households tend to reduce consumption more during disruptions, such as a fall in house prices (see the chapter entitled 'Indebtedness and the Swedish economy').

Economic downturn in the euro area

FI has made the assessment that the risk of a significant economic downturn in the euro area has decreased over the past six months, but there is still a risk that this could happen. Developments in the euro area are still uncertain, which may alter this situation.

The recoveries of some indebted euro countries are still fragile, and the development in these countries is sensitive to disruptions. A significant and unexpected increase in risk premiums combined with impaired confidence in these countries could make it more difficult for them to fund themselves. A suspension of payments by Greece or withdrawal from the European Monetary Union is one example of an occurrence that could cause such a scenario. The contagion effects from the political uncertainty in Greece are very difficult to estimate in advance, but they would primarily impact other countries in the euro area. Rising funding costs could spill over into the real economy if the confidence of households and non-financial corporations were impaired and could in turn curb growth.

Weaker growth would probably have a negative impact on inflation, which is already low. This could contribute to European households and non-financial corporations postponing consumption and investments until a future date. Low inflation is problematic not only in terms of real economic development but also in terms of financial and economic stability. If inflation falls below expected levels, the debt burden of the public rises relative to the general price level; i.e. real debts rise. This may be worrying for households, corporations and governments, especially if their debt burden is high. Rising real debts aggravate the need to reduce debts, for example in the event of a fall in house prices or an unexpected economic downturn.

An economic downturn in Europe would also have negative effects on the Swedish economic outlook if demand abroad weakens. Furthermore, the banks' funding terms could be affected by disruptions in the European financial markets, resulting in an increase in financial stress.

The structure and interconnectivity of the system

The Swedish financial system is large and interconnected. This interconnectivity is required for the system to function, but it also creates a channel through which financial instability can spread. As the securities markets become more important, it is possible that they could become less stable than what they are today. Life insurance companies are important, both as suppliers of funding for banks and as major players in the securities markets. Although their short-term resilience is sound, problems may arise in the longer term as a consequence of low interest rates.

The Swedish financial system largely reflects the needs and preferences of Swedish households and corporations. Entities need to be interconnected to enable the financial system to perform its basic functions. However, this interconnectivity may mean that disruptions spread and intensify during periods of financial turbulence. It is therefore important to identify systemic risks, i.e. systemically important firms and markets as well as contagion channels, as part of efforts to strengthen financial stability.

THE STRUCTURE OF THE SWEDISH FINANCIAL SYSTEM

The Swedish financial sector reflects the financial service needs of Swedish households and non-financial corporations. The financial system converts savings into funding and enables households and corporations to manage risks and make payments.

The needs of Swedish households and corporations for financial services

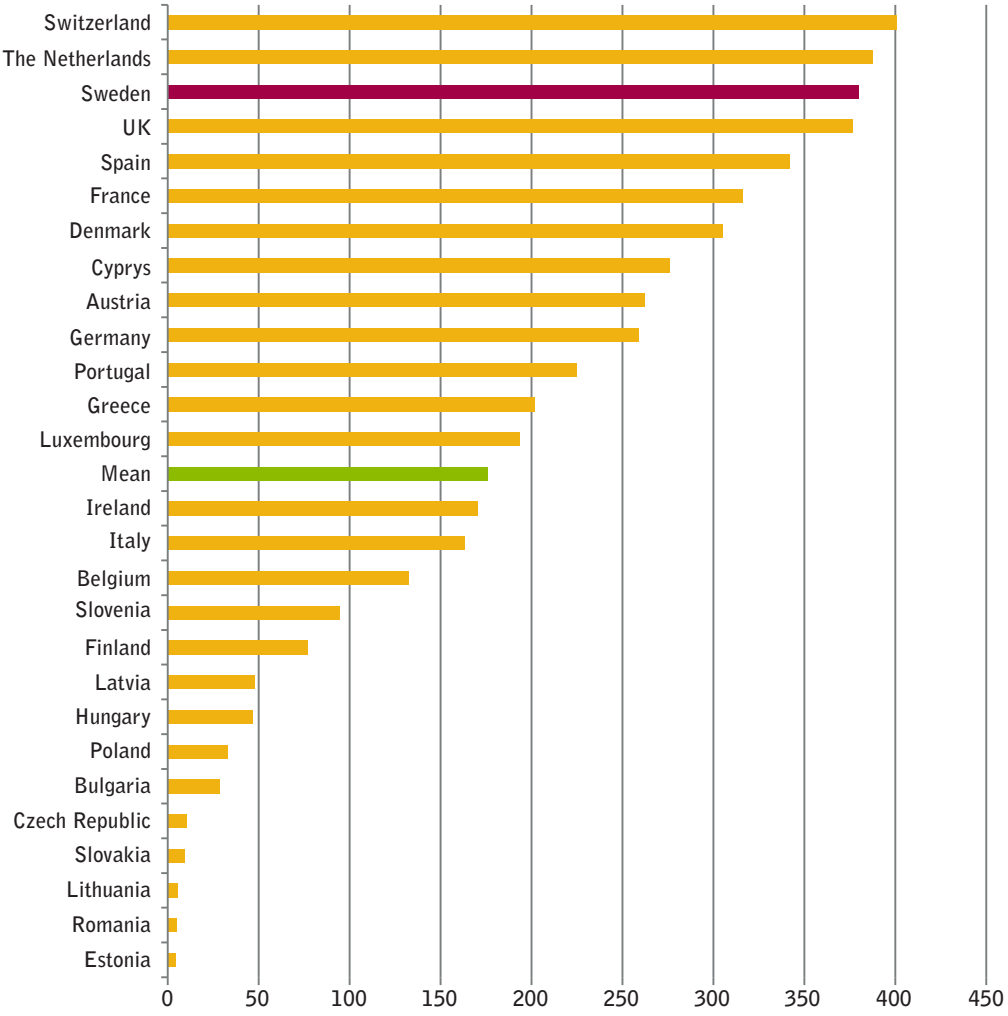
Many people own their own home in Sweden, and the price of single-family dwellings and tenant-owned apartments is high. The majority of households need to borrow money to fund the purchase of a home. As a result, mortgages make up a large part of lending at Swedish banks.

Because household savings largely comprise various types of pension agreements, savings have a long investment horizon and largely comprise equities and funds. The majority of funds in pensions – occupational pensions – are managed by insurance companies in the life insurance sector. Sweden, similar to most of Western Europe, has an advanced welfare system by international comparison. This decreases the need for households to save large sums in deposit accounts as a contingency buffer since they have solid protection in the event of, for example, unemployment or illness.

One of the most important tasks of the financial markets is to supply corporations with investment capital. The banks, which are important players on the financial markets, also provide services for making payments and managing liquidity and risk. For example, they can help export corporations manage their foreign exchange risks or assist major borrowers, such as capital-intensive industries and property corporations, with managing their interest rate risk using derivatives.

16. Large banking sector

(Per cent of GDP, december 2013)

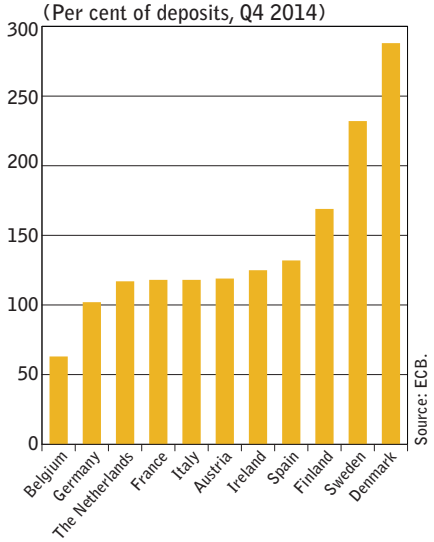


Note. The chart shows the consolidated assets of the banking sector in relation to domestic GDP. Definition of the banking sector based on the domiciliation of the parent bank.

Source: The Riksbank

17. SWEDISH AND EUROPEAN BANKS' LENDING

(Per cent of deposits, Q4 2014)



Note. Refers to monetary financial institutions lending to households and non-financial corporations in relation to their deposits.

Large banking sector reliant on market funding

The large banking sector (Chart 16) is a result of the need of households and non-financial corporations for financial services and the fact that Sweden is a developed economy. The operations of the major banks in countries neighbouring Sweden substantially contribute to the size of the banking sector.

Compared with other countries, Swedish banks largely cover their funding needs by issuing bonds and commercial paper on the market (Chart 17). Swedish banks need to roll this funding over on an ongoing basis as outstanding securities mature. They are thus reliant on the market for such instruments being functional as well as on sustained investor interest (see the chapter entitled 'Banks' funding and liquidity risks').

Funding leads to imply interconnectivity and contagion

It is primarily the banks' liquidity management and market funding that gives rise to interconnectivity in the financial system.

Contagion through direct exposures

The interconnectivity of the Swedish banks is created by loans and

investments made via the interbank market as well as the holdings of the banks' liquidity buffers. The interbank market enables banks to deposit funds with or borrow funds from one another over a short time horizon, i.e. a few days, in order to smooth out liquidity fluctuations. Liquidity regulations require banks to hold a liquidity buffer in the form of high-quality liquid assets, which they can use when experiencing funding problems. Some of the assets in this buffer are covered bonds issued by other banks. The direct exposures arising in the interbank market and via the banks' liquidity buffers mean that major losses at one of the major Swedish banks could result in credit losses for other banks. In other words, there could be a domino effect.

Contagion through the securities markets

The presence of other banks' covered bonds in the liquidity buffer may also spread contagion effects through the securities market. Holdings are valued at market price, which means that if one of the banks experiences a significant drop in the value of its covered bonds, bond holders are also immediately affected. The result could be a sharp fall in the market price due to a loss of confidence in the issuer or an entity needing to sell larger volumes than the market can absorb.

The pricing mechanism in the financial markets is also the channel through which problems in the banking sector are first spread to other parts of the financial system and abroad.

Financiers of Swedish banks have limited insight into the banks' operations. However, they do know however that the banks have similar business models, exposures and holdings and that they are interconnected. If one of the major Swedish banks were to have a serious problem, this could lead to suspicions about other major banks. As a result, the banks' financiers may then decide not to renew their funding for all Swedish banks in order to protect themselves.

Systemically important firms

It is important during economic upswings to identify contagion channels and systemically important firms. 'Systemically important firms' refers to entities that may cause financial stability problems as a result of their size, interconnectivity or limited available substitutes. Most systemically important firms are banks, but on a global scale there are also systemically important insurance companies. International efforts are being made to identify additional systemically important firms, such as investment funds.[22]

An integral part of the global system

The Swedish financial system is an integral part of the global financial system. Integration increases the capacity of the Swedish system to withstand domestic disruptions as there are more potential buyers and sellers, but this also means that disruptions in the global financial system directly affect Sweden.

The savings of the general public are channelled via asset management companies and insurance companies to both the Swedish and foreign interest rate markets and stock markets (Figure 1). This means that the savings of Swedish households and corporations largely comprise foreign assets. Furthermore, the value of Swedish assets is largely dependent on developments in foreign securities markets. A sharp drop in stock prices or a rapid increase in interest rates could directly affect the wealth of

22 http://www.iosco.org/library/pubdocs/pdf/IOSCOPD435.pdf

Swedish households as well as balance sheets of corporations.

Since the savings of Swedish households and corporations are invested abroad, a flow in the opposite direction is required to achieve a balance. From a perspective of financial stability, what is most important is to have foreign investors funding the Swedish banking system. In order to ensure that foreign investors continue to be willing to fund the banks, it is crucial to maintain a high level of confidence in the Swedish banks' financial strength and the Swedish financial.

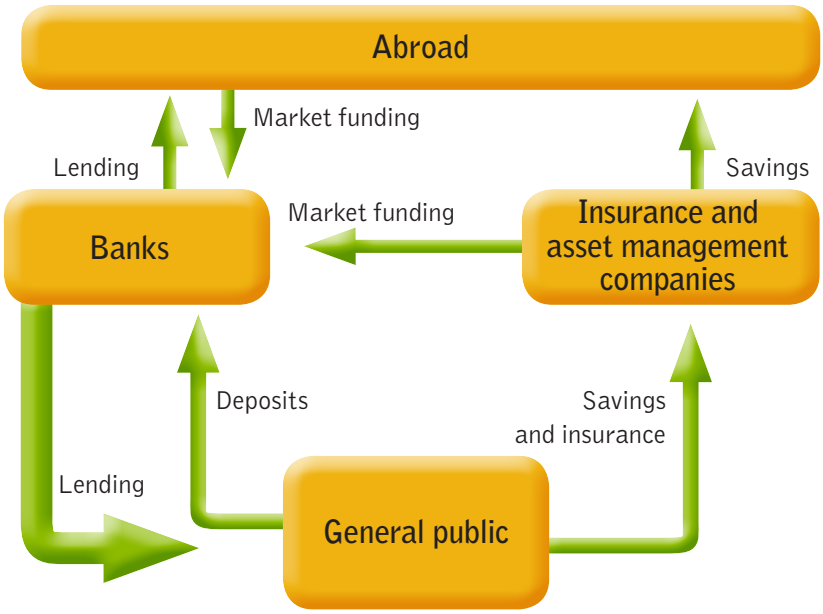


FIGURE 1. The financial system

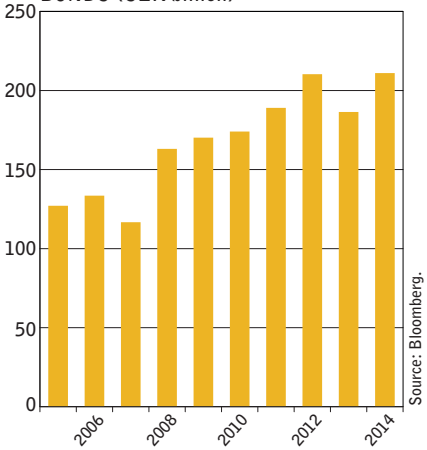
Shifting from banks to markets

The Swedish financial system has become more market-oriented in recent years despite still being comparatively bank-oriented in an international perspective. A market-oriented system is a system where corporations receive funding by issuing bonds and mortgages and consumer credits are packaged so that they can be traded on the market as securities ('securitisation').

The latest financial crisis largely resulted in more regulation and stricter requirements for the banking sector. The purpose of these stricter requirements is to strengthen stability in the banking system for the long-term benefit of consumers and the economy at large. One effect of these requirements is that it has become more difficult or costly to pursue banking activities. Stricter requirements for banks could therefore result in financial activities outside the traditional banking sector becoming comparatively more profitable. Other types of credit than traditional bank loans are one clear example of this. The European Commission is currently working on a regulation initiative called the Capital Markets Union,[23] the purpose of which is to encourage the development of alternative forms of funding in the EU.

The Swedish corporate bond market has increased in scope in recent years. At the end of 2014, market funding for non-financial corporations amounted to just over 20 per cent of total corporate financing, cor-

18. NEW ISSUANCE OF CORPORATE BONDS (SEK billion)



Note. Non-financial borrowers. Refers to issued volume per calendar year.

23 http://ec.europa.eu/finance/capital-markets-union/index_en.htm

responding to an increase of around 5 percentage points compared with three years ago.[24] The volume of newly-issued corporate bonds has also been experiencing an upward trend since the mid-2000s (Chart 18). This increase has been driven by several factors. Firstly, these markets are in a development phase and investors are becoming more accustomed to investing in these types of products. Secondly, new capital regulation has meant that banks focus more on activities that impose less stringent requirements for capital. Thirdly, the generally low interest rate environment has made corporate bonds a more interesting investment alternative.[25]

Corporate bonds are a means for corporations to borrow money through channels other than traditional bank loans. Here, the banks' role is to act as an intermediary between the corporation and the bond investor, instead of pricing and managing the credit risk until maturity of the loan. This shifts credit risks from banks to other parts of the financial system.

Traditional bank lending is based on banks' rating of the borrowers' repayment ability. In a system with more market-based lending, it is generally different types of investors that conduct such assessments. The repayment ability assessment conducted by these investors is not necessarily as diligent as the assessment conducted by the banks, as their incentives and criteria differ.

A trend towards more lending via financial markets instead of traditional bank loans has both advantages and disadvantages for the economy. If a lack of access to credit in the economy constitutes an impediment to corporate investment and growth, a larger range of funding forms to choose from – such as bond markets or lenders other than banks – may represent a positive development. In other words, more lending via financial markets means more funding channels and may contribute to higher economic efficiency. However, this development could also make regulation more difficult and could weaken the stability of the supply of credit compared to today. FI consequently considers it to be important that Swedish authorities carefully evaluate the consequences and maintain a sound balance between different forms of funding.

SECURITIES MARKETS

Operationally reliable infrastructure

A fundamental precondition for financial stability is the functionality of the financial infrastructure. This infrastructure comprises technical systems where payments are processed and transactions are settled using financial instruments.

Major problems would soon arise if payments cannot be made or securities transactions settled. If a corporation does not get paid for its sale of securities, it might not be able to cover its own payments. If the corporation does not receive confirmation of its transactions or is uncertain of its positions, this may also have a paralysing effect, resulting in problems spreading to other businesses.

24 Relates to figures from Statistics Sweden for Q4 2014.

25 For further information about corporate bonds, see FI report 'Supervision of the Securities Market', 12 March 2015, FI. http://www.fi.se/Folder-EN/Startpage/Supervision/Other-reports/Listan/Supervision-of-the-securities-market/

The most important preventive work is to ensure that the processes and technical systems that are used are highly reliable. Some of this work takes place within the framework of the Financial Sector's Private-Public Cooperation (FSPOS). The objective of these efforts is for the financial system to increase its capacity to withstand or rapidly recover from crises in society. The work of FSPOS is conducted within a number of working groups made up of both corporations and authorities.[26] Crisis management exercises are one important instrument for this purpose.

Systemically important markets

Systemically important markets are defined in a similar way as systemically important firms.[27] They are markets that must function for the entire financial system to function. They primarily involve those markets continually used by financial institutions to manage liquidity, funding and risk management. The most important financial markets from a financial stability perspective are therefore interest rate and foreign exchange markets.

As regards risk management, it is primarily the foreign exchange and derivatives markets that corporations continually need. They must adjust their risk management on an ongoing basis as their risk profile changes, market prices change and instruments mature.

Central counterparties reduce counterparty risk

The derivatives markets have expanded rapidly in recent years and play an important role in risk management. An OTC derivative[28] is a tailored agreement for transferring market risk between two parties. However, another risk arises through the agreement. The risk of the other party not being able to honour the agreement, thus entailing costs, is known as 'counterparty risk'.

Uncertainty and a lack of confidence may disable the systemically important derivatives markets. Part of the solution has been to introduce a requirement on central counterparty clearing. The emergence of central counterparties has meant that counterparty risks, which were previously difficult to identify and assess, are now concentrated in a single corporation (Figure 2). Counterparty risks on the derivative market are therefore transparent, which makes it easier to manage the risks associated with derivative contracts. The derivatives that must be cleared are determined by the European Securities and Markets Authority (ESMA). The clearing obligation in the first proposals only covered interest rate derivatives denominated in EUR, USD, GBP and JPY. ESMA has now sent out a consultative document proposing that interest rate derivatives in SEK should also be covered by the clearing obligation. FI supports this proposal.[29]

Nasdaq OMX Clearing and the Dutch corporation Euro CCP offer central counterparty clearing (CCP) services in Sweden.

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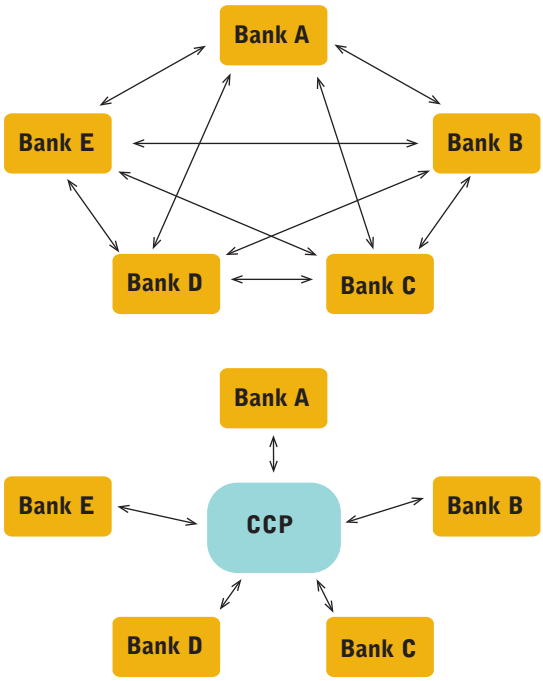
26 Also includes the Swedish Social Insurance Agency in addition to the Riksbank, Finansinspektionen and the Swedish National Debt Office. The Swedish Civil Contingencies Agency provides economic support and central administrative services.

27 Size, interlinkage and substitutability are common criteria for determining systemic importance.

28 OTC = Over The Counter; see 'Glossary' for definition.

29 http://www.fi.se/Regler/Internationellt/EU-samordning/Vardepapper-Esma/Listan/Samrad-om-teknisk-standard-for-clearing/ (in Swedish)

FIGURE 2. Counterparty risks are concentrated to one entity



The transition to centralised clearing with a single central counterparty has many advantages. However, it also means that the risks are concentrated in the central counterparty, which creates a different type of interdependence among participating entities. This dependence is because clearing members must contribute to a default fund, i.e. members assume the risk of having to cover losses if another member defaults and does not have sufficient collateral to cover its obligations.

Imposed collateral requirements are therefore high. A central counterparty must have enough capital to handle the default of its two largest members. Other factors that increase resilience include the central counterparty continuously marking-to-market its exposures, only accepting liquid collateral, having access to ex ante funds in the form of equity and participant contributions to the default fund.

Despite the significant role of central counterparties in the financial market there is currently no framework in place in Sweden to manage a central counterparty that has defaulted or probably will default. Work is underway within the EU on a new framework for the recovery and resolution of, among other things, central counterparties, which will probably be presented in 2015. FI also intends to continue in 2015 its efforts in cooperation with the Riksbank on the issue of managing central counterparties experiencing problems. Similarly, FI will also participate in the work within the EU and the international body CPMI-IOSCO[30] to create stress tests for central counterparties.[31]

30 The Committee on Payments and Market Infrastructures (CPMI) and International Organization of Securities Commissions (IOSCO)

31 For further information, see 'Supervision of the Securities Market', 12 March 2015, FI. http://www.fi.se/Folder-EN/Startpage/Supervision/Other-reports/Listan/Supervision-of-the-securities-market/

LOW INTEREST RATES PUT PRESSURE ON INSURANCE COMPANIES

The importance of insurance companies for financial stability primarily involves the role of these companies as major investors and significant players on financial markets. The part of the sector that is vulnerable is the life insurance companies' commitments in terms of pension obligations. This debt is large and has a long average maturity. Life insurance companies are thus sensitive to falling interest rates.

Long-term commitments of life insurance companies

The large pension debts of life insurance companies have accumulated over decades, largely during a period when the framework and the financial markets were different than they are today. Commitments result from both defined-benefit pensions and defined-contribution pensions with guaranteed interest.

Life insurance companies must manage their current assets so that they can satisfy future commitments. Interest rates affect how much of the assets are currently required today to satisfy their commitments in the future. When interest rates fall the present value of debt increases and insurance companies need to utilise more of their assets to satisfy their commitments. Hence, there will be fewer assets available to assume risk.

The low interest rates can also be seen as an indicator of future returns. For government bonds, the interest rate is equal to the future return until the due date. A risk premium may be expected for risky assets, but low interest rates for these assets also imply a low future return for risky assets.

Low interest rates can therefore result in life insurance companies finding it difficult to live up to their commitments. On the other hand, the two perspectives may explain how different insurance companies choose to deal with the low interest rate environment. Financially weaker corporations may need to reduce their risk-taking when interest rates are low. This cautious investment strategy increases the probability of being able to satisfy the commitment, but limits the opportunity for bonuses, i.e. returns above guaranteed levels. Financially stronger corporations may choose to invest in riskier assets instead. Such behaviour may be justified based on the objective of being able to provide a bonus. However, for financially weaker companies it is imprudent.

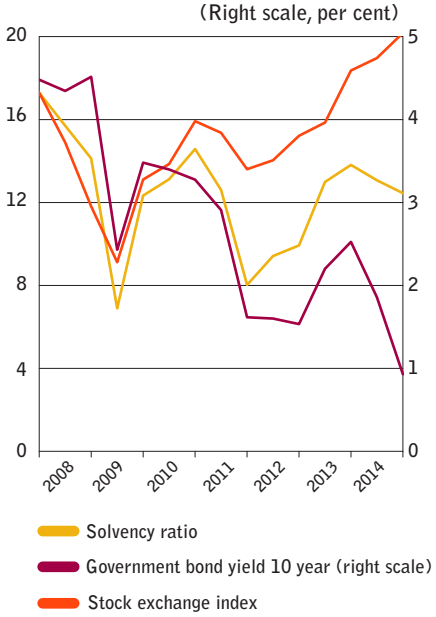
Market risk management of life insurance companies affects stability

Companies with strong financial positions may thus have a higher proportion of risky assets, while weaker companies need more bonds and derivatives. Weaker companies need a higher level of matching; i.e. that assets reflect the nature of the commitments.[32] As the pension commitments are made in nominal amounts, matching involves interest-bearing instruments.

What happens in the event of financial turbulence is that share prices and market interest rates usually fall. The financial position of life insurance companies then becomes weaker. Some companies may need to increase the level of matching and for this reason sell shares and purchase interest-bearing assets, which tend to strengthen the original

32 This primarily involves the time at which money should be paid out, but also whether the commitment involves an amount in nominal terms or is determined with reference to an index for, for example, consumer prices or share prices.

19. SOLVENCY IN LIFE INSURANCE
(Right scale, per cent)



Note. Life insurance companies' solvency in relation to the development for stocks and the interest yield on a government bond with ten years maturity.

Sources: FI and Thomson Reuters Eikon

movement in the market. This kind of self-fulfilling dynamics is usually referred to as 'procyclicality' in the financial markets.

The likelihood of individual companies making major changes to their portfolios increases when the solvency ratio falls sharply in relation to FI's intervention levels. The solvency ratio is based on the companies' financial reporting as well as its periodic reporting to FI and cannot be observed on an ongoing basis (Chart 19). However, long-term market interest rates and share prices function as indicators.

The likelihood that portfolio changes would be driven mainly by regulatory compliance decreased after 2013 when FI changed the framework for how insurance companies are to calculate the value of their commitments (the 'discount rate'). Parts of the debt are calculated using a long-term assumption of interest of 4.2 per cent, far above current market rates. The disadvantage is that the valuation has less connection to economic reality. It imposes greater demands on the company's risk management as it may be difficult for both the company itself and outsiders to assess its actual financial strength. The company needs to differentiate between models and economic reality to prevent future imbalances and problems.

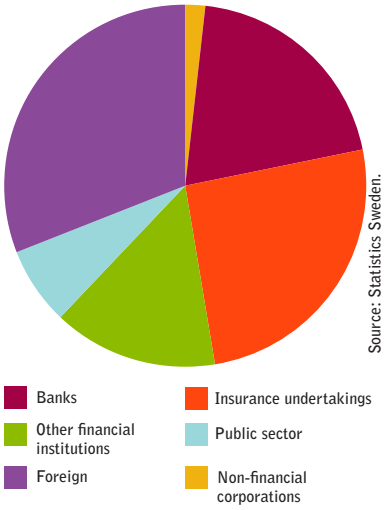
The discount rate model is being changed yet again in the new framework, Solvency II, to be introduced at the end of the year. The discount rate governs what kind of portfolio a weak life insurance company may have. Such a portfolio includes the financial instruments whose market prices are used in the calculation model. The discount rate in Solvency II is calculated using market prices of 'interest rate swaps'. Weak life insurance companies will need large positions in interest rate swaps that they will need to adjust regularly. Such rebalancing of the portfolio has an impact on the interest rate swap market.

Insurance companies fund the banks

Insurance companies affect financial stability through their interconnectivity with the banks. Capital managed in Swedish insurance companies totalled approximately SEK 3,900 billion at the end of 2014. Just over one-half was invested in shares and one-third in bonds. Approximately 40 per cent of the bonds were issued by Swedish banks and mortgage institutions.

The Swedish insurance companies are important funders of the Swedish banking system. For example, Swedish insurance companies own around one-quarter of the outstanding stock of covered bonds (Chart 20). This interconnectivity with the banks represents a potential contagion channel. If the banks have serious problems, these are spread to the insurance sector through changes in the value of bond and share holdings. However, it is also possible to imagine a situation where problems in the insurance sector prevent the sector from being able to continue to fund the banks to the same extent as it did before, even if the likelihood of such a scenario is considered low.

20. OWNERS OF COVERED BONDS
(Share in per cent, Q4, 2014)



Note. All foreign entities, be they non-financial corporations, the public sector, insurance companies or other financial institutions, are included in the foreign category.

Operations and capital of banks

The earnings capacity of Swedish banks and their ability to withstand credit losses continue to be high. The low interest rate environment presents certain challenges for the banks' earning capacity, although these are manageable at the current time. Internationally, efforts are continuing to be made to further strengthen the banking system, for example new risk-weight floors, leverage ratio rules and a total loss-absorbing capacity requirement.

The banking system constitutes a central element of the Swedish financial system by mediating credit for corporations and households requiring capital. Banks need to have a long-term, sustainable business model, including sound and stable earnings, and to be well capitalised in order to perform these functions. It is also important for banks to have good governance, risk management and control. It is fundamental to financial stability that banks can satisfy these functions, even during times of crisis.

FI considers it to be important to have not only stable banks with sound earnings but also good consumer protection. The earnings of banks should not be a result of unfavourable conditions, for example with respect to interest rates and charges for mortgage agreements or advisory services provided. There needs to be both stable banks and a high level of consumer protection.

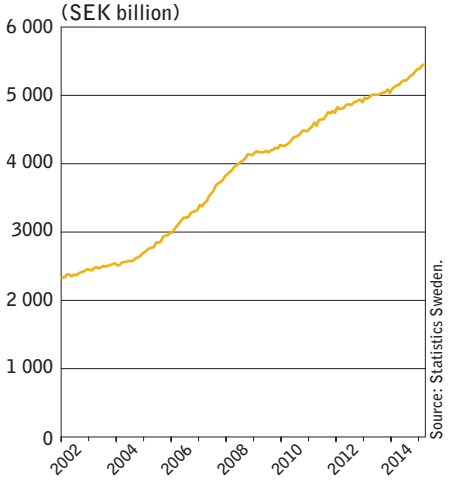
THE BANKS' OPERATIONS

Although the Swedish banking system consists of 89 banks (Table 1), it is dominated by four major banks, the total assets of which constitute approximately 85 per cent of the total assets for all Swedish banks. At the same time, the major banks' total assets correspond to 400 per cent of Swedish GDP.[33] These four banks are systemically important owing to their size and dominant position in the Swedish market. FI furthermore classifies the six medium-sized credit institutions in Sweden as important to the Swedish economy.[34] This group includes Kommuninvest, Landshypotek, LF Bank, SBAB Bank, Skandiabanken and the Swedish Export Credit Corporation. Additionally, there are a large number of smaller banks and other credit institutions, particularly the savings banks, which are primarily large outside metropolitan municipalities. Furthermore, several foreign banks and credit institutions have branches operating in Sweden.

33 See chart in chapter entitled 'The structure and interconnectivity of the system'.

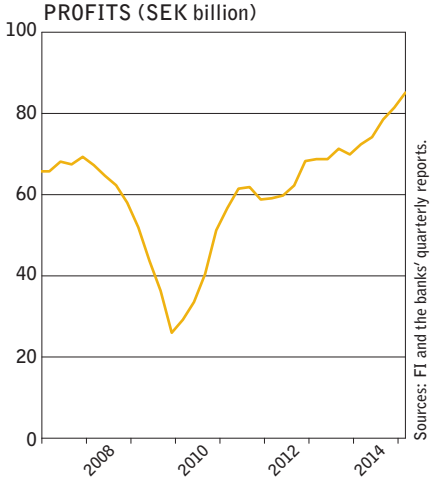
34 FI classifies the banks using a threshold value linked to the size of their balance sheet, which is assumed to have a correlation with the complexity of the operation.

21. LENDING IN SWEDEN (SEK billion)



Note. Refers to Swedish financial institutions lending to households, non-financial corporations and the public sector.

22. MAJOR SWEDISH BANKS' PROFITS (SEK billion)



Note. Refers to profit after tax on an annual basis, i.e. the net income attributed to the shareholders, before dividend payments.

23. RETURN ON EQUITY (Per cent, average of major Swedish banks)

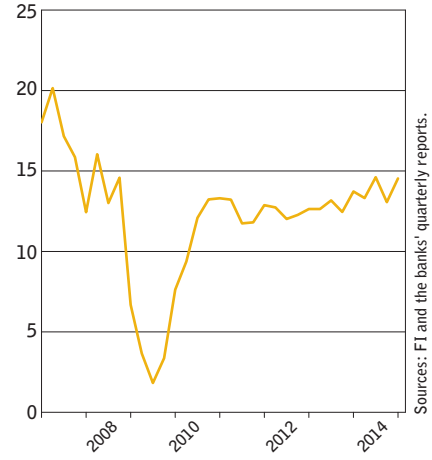


TABLE 1. Number of banks and credit market companies in Sweden 2015

Banking companies	
- of which major banks	4
- of which medium-sized	6
- other	29
Savings banks	48
Members' banks	2
Credit market companies	37
Total	126

Source: FI

Note: Medium-sized banks include Kommuninvest and the Swedish Export Credit Corporation, which are credit market companies, not banks. A members' bank is an economic association, the purpose of which is to promote the economic interests of its members.

Banks' lending increased continuously during the 2000s (Chart 21). Unlike many of the European banks, Swedish banks increased their lending even during the financial crisis. Swedish banks enjoy high investor confidence and are able to fund themselves on favourable terms, both via capital markets and via deposits.

Bank earnings are sound

The profitability of the Swedish banking sector continues to be high (Chart 22). The four major banks generated a profit of just over SEK 80 billion in 2014, which is an all-time high and double the profit of ten years ago. High and stable earnings have made it relatively easy for Swedish banks to satisfy the higher capital requirements imposed by FI. Good earnings also make banks resilient to disruptions, such as increasing credit losses, as capital levels can be rebuilt if profits are not distributed.

The banks' earnings largely consist of net interest income and net commissions. The banks' net interest income is the difference between their interest income and interest expenses and is affected by both volumes and the banks' margins on their deposits and lending. Net commission is the difference between income and expenses from fee-based services, such as advisory services, trade and management. At just over 50 per cent, net interest income is the largest earnings share for the major banks, while average net commission falls just below 30 per cent.[35] Other items include net income from insurance activities, financial instruments, etc.

The banks' profitability, measured as return on equity, continues to be between 10 and 15 per cent, in line with recent years (Chart 23). Swedish banks have a high return on equity compared with other European banks.[36]

Since 2010, major banks' credit losses have remained at low, stable levels (Chart 24). Low interest rates in recent years are likely to have contributed to the low level of credit losses. The combination of low credit losses and high profitability continues to contribute to the sound resilience of banks.

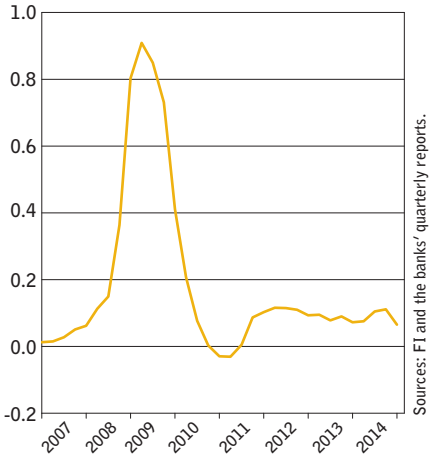
Low interest rates may affect the earnings of banks

FI has evaluated the margins of the major banks on mortgage lending,

35 Source: The banks' annual reports.

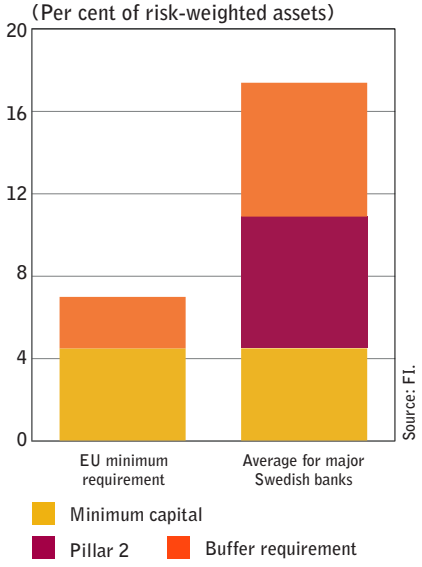
36 https://www.eba.europa.eu/documents/10180/556730/EBA+Risk+Assessment+Report+June+2014.pdf

24. CREDIT LOSSES (Per cent, average of major Swedish banks)



Note. Credit losses as per cent of total lending to the private and public sectors.

25. SWEDISH COMMON EQUITY TIER 1-REQUIREMENTS (Per cent of risk-weighted assets)



Note. The pillar 2 requirements include a risk weight floor of 15 per cent for mortgages, a risk weight floor of 15 to 25 per cent for mortgages, a risk weight floor for Norwegian mortgages, systemic risk in Pillar 2 and other factors Pillar 2. Other factors in Pillar 2 is an example of level, and varies in practice between the different firms. It chiefly consists of capital requirements for interest rate risk in the banking book, pension risk and concentration risk. Buffer requirements include the systemic risk buffer, the countercyclical buffer for Sweden and the capital conservation buffer (also included in EU minimum requirement).

and FI's findings indicate that the margin levels are at historically high levels.[37] This can be traced to the fact that lending rates to households have not having fallen as much as the banks' funding costs. If today's low interest rates continue for a longer period of time, this will introduce a challenge for the banks. Banks find it difficult to drop interest on deposits below zero since this may encourage investors to make large withdrawals. If rates continue to fall, banks' deposit margins will deteriorate, thus putting pressure on the earnings of banks that have largely been funded by deposits.

Banks can compensate, at least to some extent, for deterioration in their deposit margins by increasing charges and taking similar action. Low interest rates also support continued lending growth, as a lower interest burden encourages borrowing. Furthermore, a low interest rate level could also increase the attractiveness of investment funds, which attracts fees and provides income for banks. Taken together, it is thus difficult to say with any certainty how low interest rate levels affect the earnings of banks.

SWEDISH BANKS SATISFY CAPITAL REQUIREMENTS

In simplified terms, a bank's capital is the difference between its assets and liabilities. Capital adequacy requirements are intended to ensure that banks can cover unexpected losses. High capital adequacy also strengthens confidence in the banking system by reducing risks of a default. Strengthening confidence can in turn improve the banks' funding terms. The level of the banks' capital in relation to their risk-weighted assets has improved in the Swedish banking system since the financial crisis, primarily due to increased capital requirements. Requirements for Swedish banks are twice as high as the EU's minimum requirement (Chart 25). The four major Swedish banks continue to satisfy Swedish capital requirements (Charts 27 and 28).

Capital requirements can be divided into two pillars. The capital requirement calculations regulated in detail by the Capital Requirements Regulation are often referred to as 'Pillar 1'. 'Pillar 2' is the umbrella term for the rules governing financial institutions' internal capital adequacy assessment process and FI's supervisory review and evaluation process. On 11 May 2015, FI published the methods that will be used to assess the banks' capital requirements within Pillar 2.[38]

Countercyclical buffer

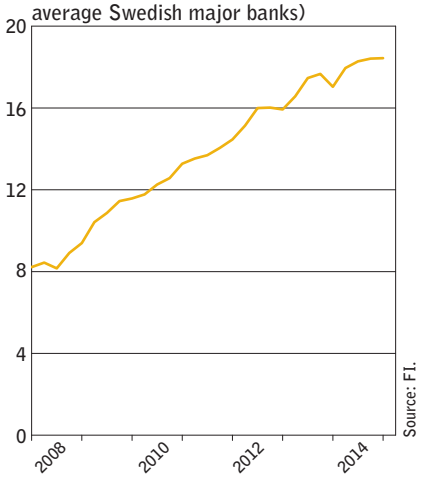
The countercyclical buffer is a time-varying capital buffer that banks must hold. The intention is for the buffer to increase the resilience of banks in times of rapid credit growth as financial risks are accumulating and to be zero at times when credit growth is low. FI's Board of Directors decides on the size of the capital buffer each quarter. A decision was made on 16 March 2015 for the buffer rate to remain at 1.0 per cent.

However, FI's analysis of the latest development suggests that there has been a slight increase in financial imbalances and the cyclical systemic risks that the countercyclical buffer is intended to manage. Total lending to the private non-financial sector has accelerated and is growing at a faster rate than the

37 http://www.fi.se/Tillsyn/Statistik/Bolan/

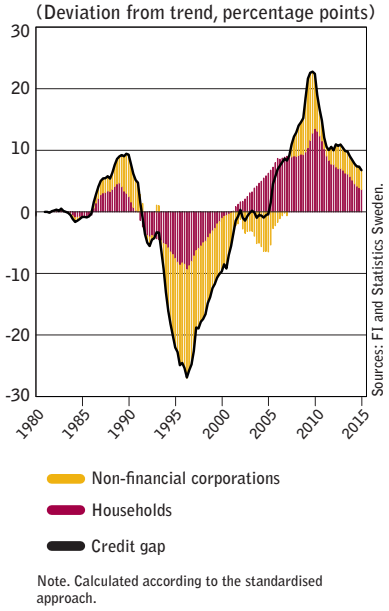
38 http://www.fi.se/Tillsyn/Skrivelser/Listan/FI-publicerar-metoder-for-bedomning-av-kapitalkrav-for-tre-betydelsefulla-risktyper/

27. COMMON EQUITY TIER-1 CAPITAL RATIO
(Per cent of risk-weighted assets, average Swedish major banks)



GDP. The credit gap, which shows the deviation of lending in relation to GDP from the long-term trend, continues to be positive although it is decreasing (Chart 26). There also continues to be an upward trend in respect of the annual lending growth rates for both households and corporations. In particular household indebtedness is high and is expected to continue to be affected by rapidly rising house prices. There is also a risk that the absence of an amortisation requirement may contribute to slightly higher credit growth and house prices. Against this background FI proposed on 26 May 2015 that the countercyclical capital buffer be raised to 1.5 per cent starting in June 2016. FI conducts a more detailed review of its assessment in the memorandum entitled Förslag till ändring av föreskrifter om kontracykliskt buffertvärde [Proposal to amend regulations on the countercyclical buffer rate].[39]

26. CREDIT GAP
(Deviation from trend, percentage points)



Note. Calculated according to the standardised approach.

Leverage ratio

One reason Swedish banks have high common equity Tier 1 capital levels is that they hold assets associated with relatively low risk. This implies that Swedish capital levels are not as high when looking at risk insensitive metrics, e.g. the leverage ratio. Nevertheless, the leverage ratio has risen in recent years, exceeding 4 per cent for all major banks during the first quarter of 2015 (Chart 29).[40] Major Swedish banks have a leverage ratio in line with the average of the major European banks (Table 2).

28. TOTAL CAPITAL REQUIREMENT
(Q1, 2015, per cent of risk-weighted assets)

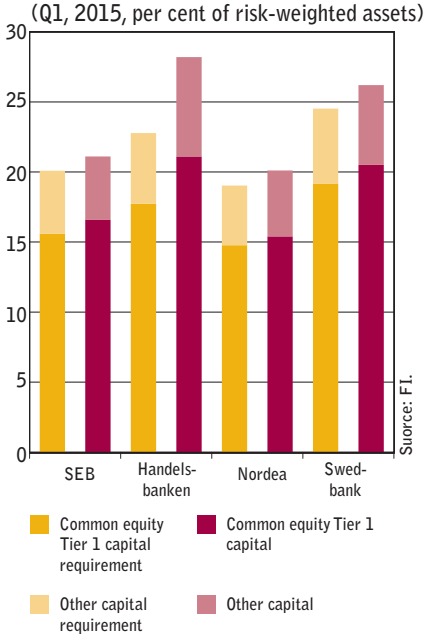


TABLE 2. Leverage ratio

	Q2 2014	Q1 2015
Major European banks	3.9	
Major Swedish banks	4.1	4.3

Sources: EBA, FI and quarterly reports for the major banks.

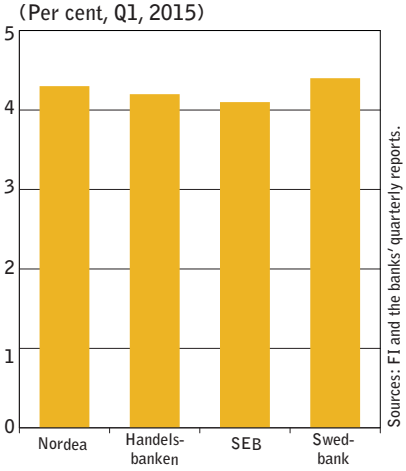
Note: These figures are volume-weighted. For Q2 2014 they refer to fully implemented Basel III rules and are taken from the report entitled 'CRD IV – CRR/Basel III monitoring exercise', 3 March 2015. For Q1 2015 they are calculated in accordance with the EU Commission Implementing Regulation with regard to the leverage ratio that is to be applied as of January 2015. 'Major European banks' means those banks with Tier 1 capital exceeding EUR 3 billion that are internationally active, which includes approximately 40 banks from twelve countries. No data is available for these banks for Q1 2015.

FI considers a leverage ratio requirement to have two advantages compared to a risk-weighted capital measure: it is easy to understand and pre-

39 Förslag till ändring av föreskrifter om kontracykliskt buffertvärde [Proposal to amend regulations on the countercyclical buffer rate], 26 May 2015, FI (2015). http://www.fi.se/Folder-EN/Startpage/Supervision/Miscellaneous/Listan/Proposal-to-amend-the-regulations-on-the-countercyclical-capital-buffer/

40 The quarterly reporting to FI has included information about the banks' leverage ratio since the first quarter of 2014, and the banks are to publish their leverage ratios from and including the first quarter of 2015.

29. LEVERAGE RATIO
(Per cent, Q1, 2015)



Note. Calculated according to the EU Commission's Implementing regulation on the leverage ratio that will apply from January 2015.

sents a lower risk of measurement error (model risk). At the same time, a leverage ratio requirement has significant disadvantages. A capital requirement insensitive to risk, such as the leverage ratio, creates incentives for banks to increase the riskiness of their assets in order to increase their return on equity. Therefore, in the opinion of FI, a leverage ratio requirement should not be so high that it becomes the binding capital requirement, but such a requirement may serve as an important back-stop.[41]

New powers for the resolution of banks

A new, alternative procedure for bankruptcies or liquidation is resolution, i.e. authorities are granted special powers to liquidate or restructure a credit institution in an efficient way. This would make it possible to maintain functions critical for society and mitigate risks associated with financial stability. Under the Recovery and Resolution Directive,[42] Member States can choose to allocate resolution functions to one or more authorities. The Government decided on 11 March 2015 that all resolution powers in Sweden are to be given to the Swedish National Debt Office.[43] This means that the Swedish National Debt Office will be responsible for the resolution procedure, resolution plans, demands on impairable debts and any requirements in respect of the removal of impediments to an effective resolution procedure.

The Directive also introduces new responsibilities for FI. These include, among other tasks, reviewing the institutions' recovery plans and, in the event of financial stress, requiring corporations to take certain measures.[44] FI will also participate in the resolution colleges that are to be established for the major banks and headed by the Swedish National Debt Office. Decisions about the resolution functions will be taken at the colleges, such as resolution plans and requirements for the removal of impediments to resolution. Under the Directive, the Swedish National Debt Office must consult specifically with FI about many of the resolution decisions.

The fact that two different authorities will now supervise the banks – although based on somewhat different perspectives – raises the need for close cooperation between the Swedish National Debt Office and FI. FI has already started to work on how it can best assist the Swedish National Debt Office with this new mandate and how FI will manage its new responsibilities.

FURTHER STEPS FOR STRENGHTENING THE BANKING SYSTEM

The international community has taken many measures in recent years to strengthen the banking system. Owing to the complexity of these issues, it has taken time to formulate this framework and a lot of work still needs to be done.

41 For a more in-depth analysis of the advantages and disadvantages of a leverage ratio requirement, see 'Leverage ratio requirement for Swedish banks', 8 December 2014, FI.

42 Directive 2014/59/EU of the European Parliament and of the Council of 15 May 2014 establishing a framework for the recovery and resolution of credit institutions and investment firms.

43 http://www.regeringen.se/sb/d/20055/a/255620

44 Referred to as 'early intervention' in the Directive.

Risk-weight floor and new standardised approach may affect the capital requirements for Swedish banks

The Basel Committee is currently working on a number of proposals that may be regarded as a new, or updated, capital framework. Intermediate proposals comprise, among other things, a new standardised approach to capital adequacy for various risk categories, a permanent risk-weight floor based on the new standardised approach and a leverage ratio requirement for banks.

There is no explicit objective that these proposals must result in an increased capital requirement at a global level. One objective of the new standardised approach, however, is to make the capital requirement more risk-sensitive than the current methods are. This is very much in line with FI's opinion about how capital requirements should be formulated.

The objective of the Basel Committee's proposal for a new permanent floor for risk-weighted assets is to reduce unjustified variations in the capital requirement between banks to the extent that these are a result of banks' internal models. Most of the major Swedish banks use internal models and are therefore affected by the new risk-weight floor. Pivotal parts of the proposed risk-weight floor are still lacking and therefore it is currently impossible to determine with any accuracy how the proposal may affect the Swedish banks that use internal models.

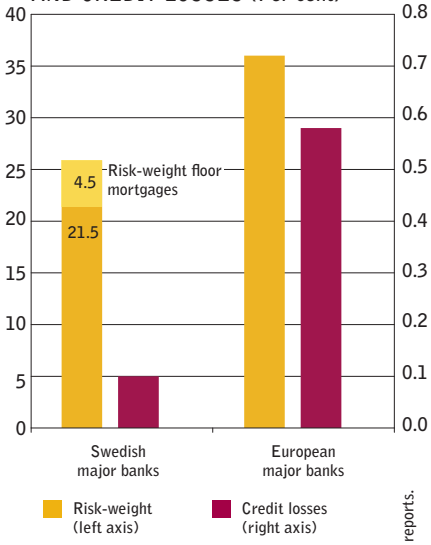
A new risk-weight floor may affect the banks in two different ways. Firstly, the level of the capital requirement for Swedish banks will be higher than today. This is due to the standardised approach stipulating capital levels adapted to the risk level of an average internationally active bank. Swedish banks have significantly lower credit losses (i.e. better asset quality) than the average international bank, both historically and currently. Presently this is reflected to some extent in that the internal models currently used by banks stipulate lower risk-weights for major Swedish banks than those stipulated for major European banks. They thereby have a lower capital requirement (Chart 30). This difference may disappear with the new standardised approach, and such a result is fully in line with the intention of the framework.

Secondly, the capital requirement according to the floor will be calculated in a standardised manner, which implies that the capital requirement for each individual exposure does not reflect the risk as well as it does when it is calculated using internal models; i.e. the capital requirement becomes less risk-sensitive.

It is the opinion of FI that incentives for banks to correctly assess and price their risks contribute positively to financial stability. Risk-weight floors that do not reflect actual risk provide banks with incentives to sell off low risk assets (e.g. mortgages) and increase their exposure to assets with a higher risk and thereby a higher expected return. This may in turn lead to Swedish banks becoming riskier than they currently are, as there is a risk of low risk assets being removed from the banks' balance sheets into a less regulated part of the financial system, where the possibilities to correctly assess the credit risk are inferior. FI therefore considers it important to devise a risk-weight floor whereby the capital requirement remains sensitive to risk, thus giving banks sound incentives to hold assets with a high level of quality.

At the same time, improvements should continue to be made to the inter-

30. AVERAGE RISK-WEIGHTS AND CREDIT LOSSES (Per cent)



Note. The calculations for the Swedish banks include a risk-weight floor of 25 percent. Credit losses refer to net losses that are reported in the income statement for 2014 and are set in relation to the bank's lending to credit institutions and the public respectively. The international comparison group includes European major banks that are subject to the Capital Requirements Regulation, CRR, that lend to the public and publish Pillar 3-reports.

Source: The banks' quarterly reports.

nal model framework, and risk-weights for individual segments may need to be adjusted upwards. All in all, FI therefore believes that the Basel Committee needs to conduct a comprehensive analysis of the effects of the new proposals, both individually and overall, to avoid damaging financial stability. FI is participating in the international discussions.

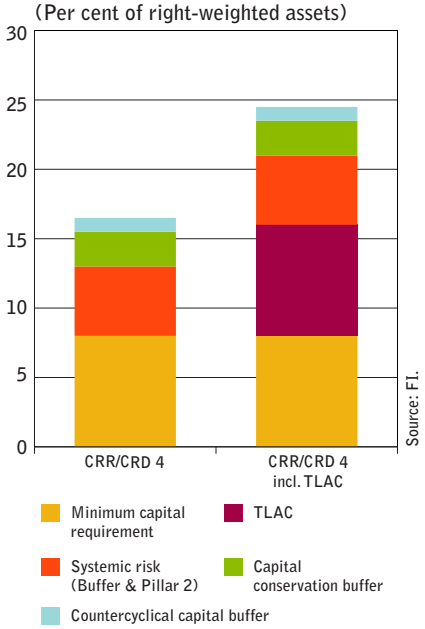
Global initiatives to improve crisis management

The Financial Stability Board (FSB) submitted a proposal in November 2014 for how global systemically important banks should structure their balance sheets to better be able to absorb losses.[45] Besides through equity, this should be done by writing down or converting existing debt instruments, such as bonds, into equity. This is important as equity has often proven insufficient to cover losses arising during a crisis, thus leaving taxpayers to cover the difference. The authorities will impose requirements on banks to both hold capital and issue debt instruments that can be written down in the event of a default in order to facilitate a write-down. This total requirement, which is wider than the capital requirement, is referred to as Total Loss Absorbing Capacity (TLAC). There is a similar requirement in the EU's Resolution Directive, referred to as Minimum Requirements for Own Funds and Eligible Liabilities (MREL). It is primarily through these frameworks that authorities intend to reduce the banks' implicit government guarantee.[46]

TLAC and MREL have the same purpose, but differ in certain respects, for example with regard to which banks will be covered by the requirements and which instruments may be included to satisfy the requirement. Although FI supports the initiative to be able to write down liabilities in the event of a default, FI is sceptical about whether the proposed formulation of the framework will function effectively in a financial crisis. These frameworks may consequently need to be updated and improved over a longer period after they have been applied. One important issue, for example, is who within the financial system will hold these 'impairable' instruments, since the ownership structure may affect financial stability. Finally, with regard to resolution, a balance must be struck between the banks functioning efficiently in normal situations and them still being accessible for liquidation or restructuring in a crisis situation.

FI believes a TLAC requirement offers one possible approach for avoiding a situation where the public sector has to assume losses in the banking system while also reducing risk-taking in the banking system.[47] However, FI believes that the current proposal itself creates new systemic risks. Among other things, FSB proposes that when a bank's liabilities are insufficient to cover requirements, this should be viewed to be the same as not satisfying authorization requirements. FI obviously believes that failing to satisfy the requirements is serious, but believes that it would be more appropriate for the institution to be subject to special supervision and to set up a plan for how it will satisfy the requirements.

31. TLAC
(Per cent of right-weighted assets)



Note : The TLAC-requirement is above the minimum capital requirement but less than the buffer requirements in the chart, since the TLAC-requirement is to be met before the buffer requirements, under the current proposal. According to the proposal, the TLAC-requirement should be at least twice as large as the minimum capital requirement. TLAC-requirement of 16 percent in the chart includes the minimum capital requirements. CRR/CRD 4 = Capital Requirements Regulation and Directive.

45 http://www.financialstabilityboard.org/2014/11/fsb-consults-on-proposal-for-a-common-international-standard-on-total-loss-absorbing-capacity-tlac-for-global-systemic-banks/

46 See FI Analysis: Den implicita statliga garantin till systemviktiga banker ['The implicit government guarantee for systemically important banks'], 28 April 2015, FI. http://www.fi.se/Tillsyn/Rapporter/Listan/FI-analys-Den-implicita-statliga-garantin-till-systemviktiga-banker/

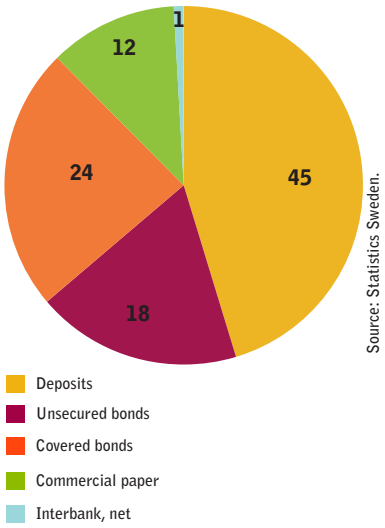
47 http://www.fi.se/upload/43_Utredningar/40_Skrivelser/2015/fi-riksgalden-globalt-systemviktiga-banker.pdf

Chart 31 shows a simplified illustration of the requirement. The point of departure according to the proposal is that the TLAC requirement should be twice as large as the capital requirements, excluding buffer requirements. The TLAC requirement must be satisfied before capital can be added to the buffers. This means that the role of the buffers changes, specifically their capacity to absorb losses.

Banks' funding and liquidity risks

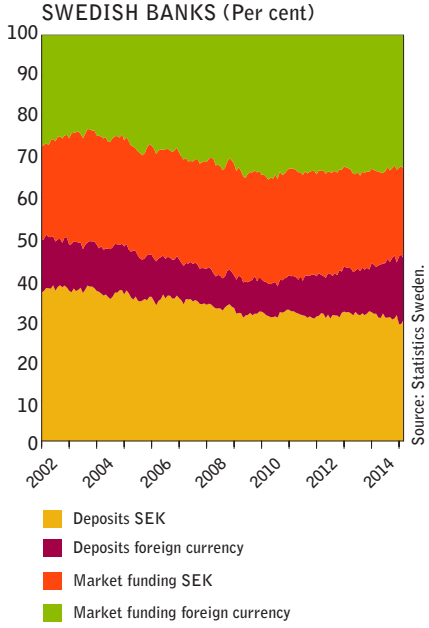
Swedish banks currently have good access to low-cost funding owing to continued low interest rates and high confidence in the Swedish banking sector. Swedish banks have a substantial need for market funding, rendering them vulnerable to funding disruptions. FI believes that Swedish banks have a good capacity to withstand a liquidity squeeze in the short term, but that they ought to continue to prepare for forthcoming regulation and extend their funding of illiquid assets.

32. DISTRIBUTION OF FUNDING
(Per cent, Q1, 2015)



Note. Refers to Swedish monetary financial institutions.

33. FUNDING STRUCTURE, SWEDISH BANKS (Per cent)



Note: Refers to Swedish monetary financial institutions.

A financial system is only stable if the general public and the markets have confidence in it. One precondition for banks having good access to funding is that they also enjoy the high confidence of depositors and investors. Impaired confidence may mean that the banks encounter funding problems, which would have a negative impact on the banks' resilience. This may eventually result in disruptions in the Swedish financial system.

DISTRIBUTION OF FUNDING

Swedish banks are largely funded by deposits from households and corporations as well as market funding by issuing bonds and commercial paper in the financial market. In addition banks also hold equity.

Funding need is largely covered by market funding

At the end of the first quarter of 2015 (Chart 32), 45 per cent of Swedish banks' total funding consisted of deposits, which is low in a European comparison. Just below 70 per cent of deposits are denominated in SEK and the remaining 30 per cent are in various foreign currencies (Chart 33).

When the banks' customers receive a lower return on their deposited money, it is possible that they may want to reduce their deposits. However, low interest rates do not seem to have affected the proportion of deposits of the banks' total funding so far. This is probably because most banks have not yet decided to apply negative interest on their deposits, nor do depositors consider alternatives to deposits to be attractive.[48]

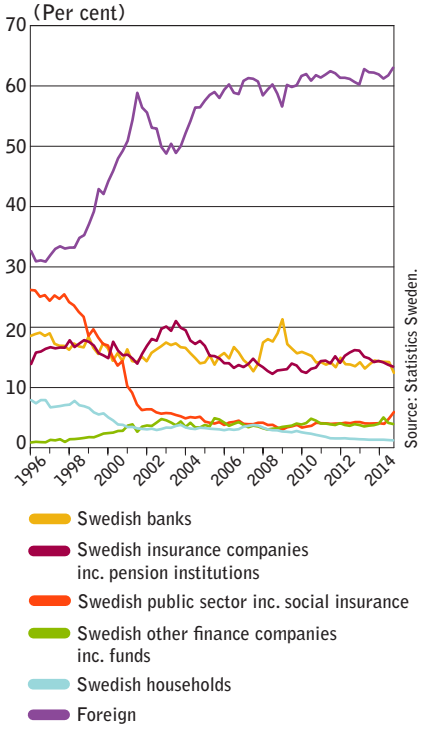
As the banks' lending exceeds deposits, they largely obtain funding from markets by issuing various kinds of securities. Half of the market funding (almost a quarter of the banks' total funding) comprises borrowing via covered bonds (Chart 32). Around 60 per cent of the banks' outstanding securities are issued in foreign currency (Chart 33) and these are largely owned by foreign entities (Chart 34).

While most covered bonds are issued in SEK, short-term funding primarily comprises commercial paper in foreign currency (Chart 35). The market in SEK is small and hence the banks' outstanding commercial paper is primarily issued in USD.

Swedish banks currently have good access to low-cost funding owing to continued low interest rates and high confidence in the Swedish banking sector (see the chapter entitled 'The state of the economy').

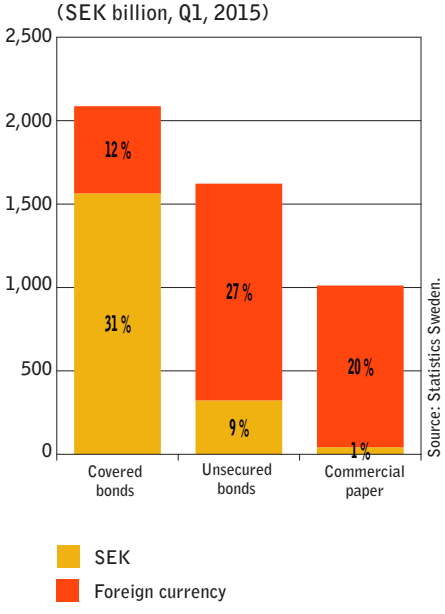
48 So far major Swedish banks have only introduced negative interest rates in relation to a few major corporations.

34. OWNERSHIP OF SWEDISH BANKS' OUTSTANDING SECURITIES
(Per cent)



Note: Refers to issued securities from Swedish monetary financial institutions. 'Securities' refers to both covered and non-covered bonds and certificates. Interbank loans and deposits are not included.

35. BANKS' SECURITIES FUNDING
(SEK billion, Q1, 2015)

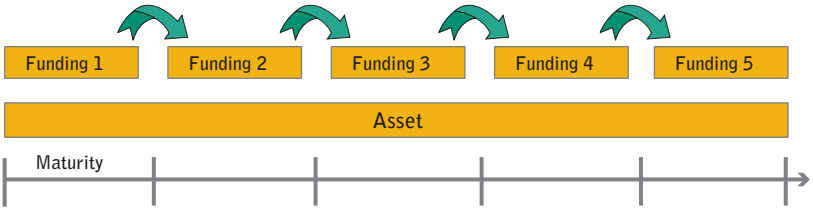


Note: Refers to Swedish monetary financial institutions.

MATURITY TRANSFORMATION LEADS TO LIQUIDITY RISKS

A key part of the banks' business activities is bringing households and corporations with a surplus together with those with a deficit. However, depositors often want access to their money at relatively short notice, while borrowers want to borrow over a long period of time while knowing when they have to pay back the loan. For example, mortgages are an asset with a long maturity while the average maturity of the liabilities that fund the mortgages, such as bonds and deposits, is shorter. Hence, the banks' funding is relatively short-term, while the maturities for their lending are longer. This gives rise to 'maturity transformation', which is of great value to both investors and borrowers (Figure 3), but also exposes banks to risks.

FIGURE 3. Maturity transformation



Maturity transformation involves banks being exposed to refinancing risk; i.e. the risk of not being able to roll over funding at a reasonable cost or not being able to replace maturing funding at all. The shorter the maturity of the banks' liabilities, the more frequent their need to find new funding and hence the more frequently they are exposed to refinancing risk.

The average maturity for the major Swedish banks' market funding is approximately three years, which is relatively short in international comparison. Swedish banks are to a large extent funded by issuance of securities with maturities of less than one year while the average European bank is funded by securities with longer maturities (Chart 36).

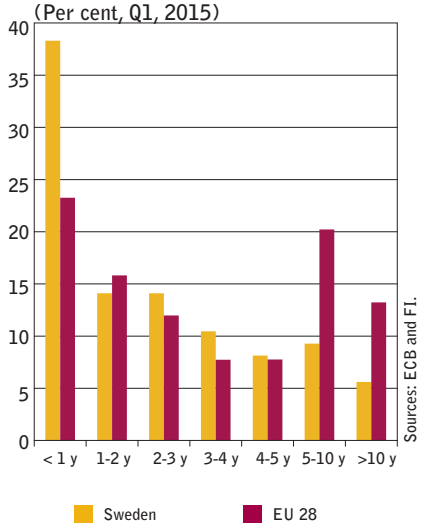
Despite refinancing risks, a banking system without maturity transformation is undesirable as it would hamper the possibility of funding more long-term investments. The focus should instead be on striking a balance whereby the banks' risks are reasonable while still enabling the benefits of maturity transformation.

Different funding sources present varying degrees of risk

Most of the banks' deposits can be withdrawn at short notice. However, as a substantial part of the deposits made by the general public are covered by the state-provided guarantee of deposits (deposit insurance), deposits are generally considered to be a stable funding source that does not give rise to major liquidity risks. Deposits differ from market funding in that they do not have to be automatically repaid on a certain date.

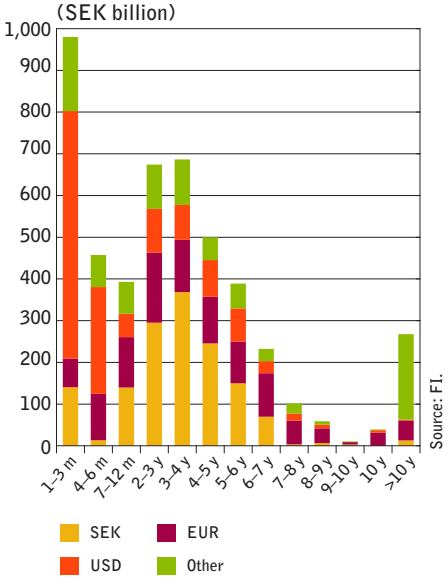
Market funding has advantages such as creditors not being able to claim their money back from the bank before the debt matures and it is also often easier to quickly borrow large volumes in the capital markets than attract larger deposits from customers. The extent of the risk presented by market funding depends, among other things, on the maturity of the funding, and the diversification and depth of investor demand. Because there is no deposit guarantee for investors, they must bear the entire loss

36. MATURITY PROFILE, OUTSTANDING SECURITIES
(Per cent, Q1, 2015)



Note. Refers to Swedish and European major banks, does not include shares or financial derivatives.

37. MATURITY PROFILE, OUTSTANDING SECURITIES, Q1, 2015
(SEK billion)



Note: Swedish major banks.

if a bank cannot fulfil its commitments.[49] This generally makes investors more likely to withdraw their investment than depositors.

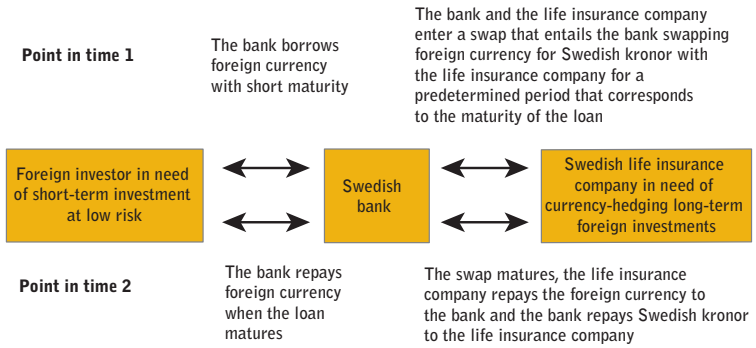
Swedish banks' funding in foreign currency

The major Swedish banks issue securities in the Swedish and international financial markets. By having a diversified investor base, the major banks have several alternative funding channels that can be used to varying degrees depending on what is most advantageous at the time.

The major banks' borrowing in foreign currency funds their assets in foreign currency; for example, a large proportion of short-term foreign funding is used to fund assets included in the major banks' liquidity buffers in foreign currency (Chart 37). Through this foreign funding, the banks can also satisfy their customers' needs for loans and currency hedging in foreign currency. Finally, funding in foreign currency is also used to fund assets in Swedish kronor.[50] The maturity and liquidity of the assets funded by the foreign funding largely determine what risks they are associated with.

Exchange rate risk arises if assets in Swedish kronor are funded in foreign currency. Banks manage this type of risk by using currency swaps (Figure 4). Swedish life insurance companies and pension providers have an opposite need for currency hedging. These investors have both Swedish and foreign investments to diversify their portfolios, but their insurance obligations are mainly in Swedish kronor. The foreign assets mean that life insurance companies and pension providers expose themselves to an exchange rate risk that is the opposite of the major banks. This makes them natural counterparties for banks in terms of currency hedging.

FIGURE 4. Short-term funding and currency hedging



Because the banks use currency hedging, foreign funding does not pose any substantial exchange rate risks, as long as the currency swap market functions adequately. However, just like market funding directly in Swedish kronor, the currency swap market may involve liquidity risks if assets in Swedish kronor with longer maturities are being funded. One difference compared with funding directly in Swedish kronor is that foreign investors might be considered more likely to withdraw their investments than Swedish investors because they do not necessarily have

49 This applies as long as the state does not enter to cover those deficits that arises at the bank after the equity has been wiped out.

50 Hilander (2014), Storbankernas kortfristiga upplåning i utländsk valuta och deras användning av den kortfristiga valutaswapmarknaden ['Short-term funding in foreign currency by major Swedish banks and their use of the short-term currency swap market'], Penning och valutapolitik ['Monetary and Currency Policy'] 2014:1, the Riksbank.

the same knowledge about Swedish general conditions as domestic investors. Furthermore, the behaviour of foreign investors may be affected by disruptions that are not closely linked to either the major Swedish banks or Swedish fundamentals in general. Hence, dependence on foreign investors creates a channel of contagion through which disruptions abroad may affect the Swedish banks.

Liquidity buffers reduce short-term funding risks

It is important for banks to have sufficient buffers to be able to handle funding disruptions. Such buffers, or liquidity reserves, consist of assets deemed sufficiently liquid to convert into cash equivalents even in times when a bank has funding problems.

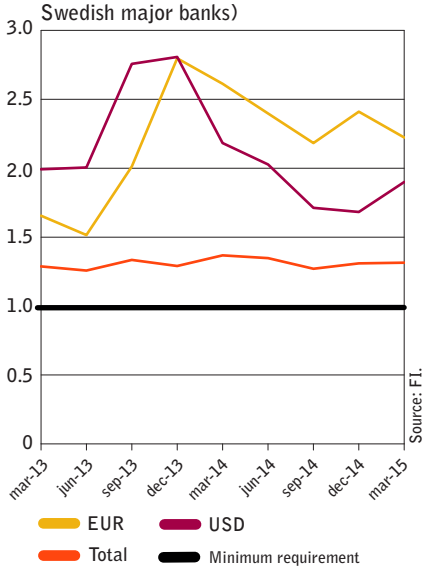
Risk awareness among banks has increased and measures have been taken since the financial crisis. For example, the banks now hold larger liquidity reserves and have better risk management. FI has also worked actively on strengthening the banks' resilience to funding disruptions. An important part of this is the introduction of quantitative liquidity requirements, such as the Liquidity Coverage Ratio (LCR).[51] LCR is a risk measure reflecting the short-term liquidity risk (Figure 5).

FIGURE 5. Liquidity coverage ratio

$$\frac{\text{Liquid assets}}{\text{(Outflows – inflows)}} = \text{Liquidity coverage ratio}$$

The LCR requirement means that banks must hold a liquidity reserve equating to at least 30 days' net cash outflows in stressed conditions. Requirements apply in EUR and USD, as well as for all currencies combined. The reason for having specific requirements in the banks' two most common foreign funding currencies is that the Riksbank cannot provide the same support in foreign currency as in SEK. The total liquidity coverage ratio for the major Swedish banks has been at a level above the regulated threshold of one (1) since the introduction of the requirement in early 2013. The liquidity coverage in EUR and USD has remained at significantly higher levels than the minimum requirement since the end of 2013 (Chart 38).

38. LIQUIDITY COVERAGE RATIO
(Share of net cash outflow, average of Swedish major banks)



Note. Refers to major Swedish banks' liquid assets as share of net cash outflows.

Liquidity risks are primarily structural

FI's analysis of the major banks' funding and liquidity management shows that they have relatively sound resilience to liquidity disruption in the short term. It would take more than a month before they experience a funding deficit even using a simulated stress of the banks' inflows and outflows. On the other hand, the structure of the banks' long-term assets (e.g. mortgages) means that they are market funded with a significantly shorter average maturity. This entails a liquidity risk for the banks.

FI thus believes that Swedish banks have a good capacity to withstand liquidity disruptions in the short term, but that they ought to continue to prepare for forthcoming regulation by extending their funding of illiquid assets in order to reduce the risks associated with maturity transformation.

Net Stable Funding Ratio limits the risks

The Basel Committee has introduced a Net Stable Funding Ratio (NSFR)[52] to limit the risks associated with the banks' maturity transfor-

51 This requirement was introduced on 1 January 2013 and encompasses financial corporations with a balance sheet exceeding SEK 100 billion.

52 http://www.bis.org/bcbs/publ/d295.htm

mation and for banks to better match the maturities between assets and liabilities. NSFR is a risk measure that relates the bank's stable funding to its illiquid assets. In somewhat simplified terms, the purpose of the measure is for banks to largely fund assets with a maturity exceeding one year with liabilities with a maturity also exceeding one year. The measure is a ratio that must be at least one (1); that is, stable funding must be at least as large as the assets that require stable funding (Figure 6).

FIGURE 6. Net Stable Funding Ratio[53]

$$\frac{\text{Stable funding}}{\text{Illiquid assets}} = \text{Net Stable Funding Ratio (NSFR)}$$

NSFR will be a minimum requirement from 2018 in accordance with a decision made by the Basel Committee. Due to the Basel Committee having made a decision in 2014 to revise the NSFR calculation, the major Swedish banks are now not far off the minimum requirement, and FI currently has no plans to introduce NSFR as a binding requirement prior to 2018.

MEASURES IN THE EVENT OF FUNDING PROBLEMS

Robust liquidity reserves provide banks with a certain amount of time to cope with shorter liquidity squeezes without involving government support. Liquidity requirements also give banks the incentive to internally limit the liquidity risks that they create in their activities, thereby counteracting excessive risk-taking. Even though liquidity buffers reduce the risk of the public sector needing to intervene, there are situations where liquidity support may be required. In such situations, liquidity buffers fulfil an important role by giving authorities time to review the scope of the problems and the measures that need to be applied.

Overall system disruptions

A system-wide liquidity crunch may affect both the function of the payment system and financial stability. During the 2008 financial crisis the Riksbank made it clear by its actions that liquidity-supporting measures can contribute efficiently to remedy or alleviate such problems. The Riksbank may apply general liquidity-strengthening measures such as offering loans with longer maturities than normal and accepting other types of collateral for lending than previously. The Riksbank may also offer liquidity support to solvent banks on special conditions. These roles result from the unique power of central banks to provide unlimited quantities of domestic currency.

If a bank believes that it will be able to borrow from the Riksbank in the event of a system-wide liquidity crunch this may ease its potential reluctance to lend money in times of market turbulence or disrupted funding situations.[54] This may curb the consequences of a liquidity crisis.

Expectations regarding how the Riksbank will act in times of crisis are also important for FI's supervision, as these affect FI's view of the banks' individual liquidity situation and recovery plans.

53 A slightly simplified description of the measure that is based on assets and liabilities being weighted on the basis of how liquid or illiquid the assets are and also how stable or unstable their funding is.

54 Carlson, Duygan-Bump, Nelson (2015), 'Why do we need both liquidity regulations and a lender of last resort?' A perspective from Federal Reserve lending during the 2007–09 US financial crisis, BIS Working Papers No 493.

Supplementary funding if problems arise

How a liquidity crisis is best handled depends on its nature. The banks' liquidity buffers and liquidity support from the Riksbank are two supplementary measures, but they can be used at different times.

If disruptions affect a single bank, FI believes that the bank in question should use its liquidity buffer and be given time to resolve the problems itself, unless financial stability is jeopardised.

If there is a systemic disruption to funding markets, for example in the event of an international financial crisis, the fact that the Riksbank can offer liquidity support is very important. This support may include both general liquidity-strengthening measures and liquidity support targeted at solvent banks. Banks would most likely not be able to use their liquidity buffers in the event of a comprehensive system-wide disruption in the same way as an individual bank affected by problems could due to an insufficient demand for the type of securities that the banks would need to sell from their liquidity reserves. Consequently, it is difficult for banks to build up buffers to manage this risk. However, if this situation were to arise, the Riksbank could be in a position to prevent a liquidity squeeze. This type of liquidity support, i.e. in the event of systemic risks, would not increase the incentives for banks to take risks to the extent that liquidity support to individual banks that are experiencing problems would.[55]

Liquidity regulation is an important tool for both individual disruptions and market disruptions. Funding problems and insolvency are often closely interlinked. However, liquidity regulation on its own does not counteract any contagion effects. The fear of a default may lead to funding difficulties at other banks regardless of whether caused by worries about an individual bank's solvency or related to a system wide disruption. In such a scenario, both liquidity buffers and support from the Riksbank are required to prevent contagion.[56]

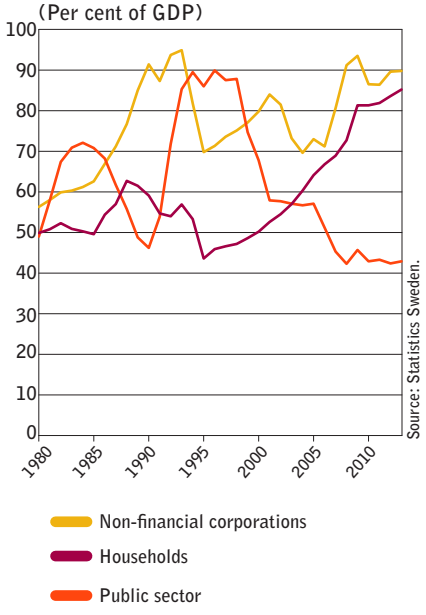
55 Ibid.

56 Ibid.

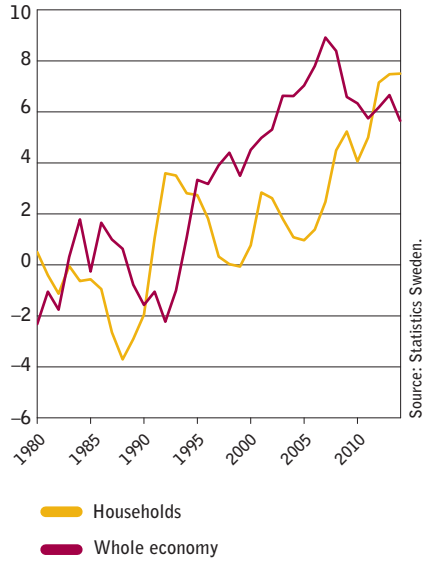
Indebtedness and the Swedish economy

It is FI's assessment that the indebtedness of neither households nor non-financial corporations currently jeopardises financial stability. However, since the proportion of households with high loan-to-value ratios has increased and remained at a high level, the Swedish economy has become more vulnerable to macroeconomic shocks. FI believes that an amortisation requirement should be introduced for new mortgage holders as a result of the high loan-to-value ratios.

39. DEBTS IN VARIOUS SECTORS
(Per cent of GDP)



40. NET LENDING (Per cent of GDP)



Indebtedness enables corporations and households to invest and consume without having to build large savings in advance. Indebtedness may therefore contribute to a more efficient use of capital and a smoothing of household consumption over time. It is therefore beneficial for the economy that households and corporations can take on debt. However, high indebtedness involves vulnerabilities for lenders, borrowers and the economy at large. It is thus important to monitor the risk-taking of non-financial corporations and households and ensure that imbalances do not build up.

Asset prices and debt can quickly rise in an environment with low interest rates, rapidly rising income and healthy economic growth. In the event of an unexpected downturn borrowers' ability to service their debt could weaken and asset prices could fall. This could also lead to financial and economic instability.

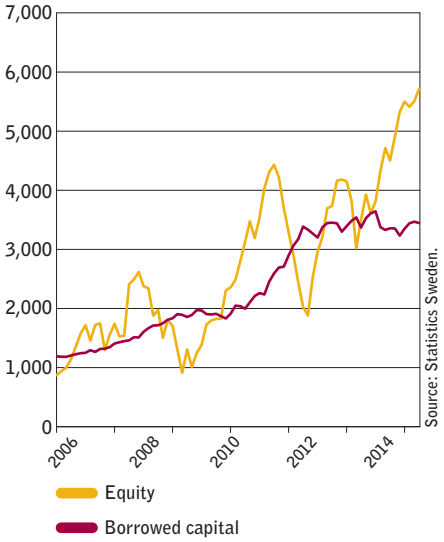
THE PRIVATE SECTOR IS BOTH INDEBTED AND ECONOMICAL

Non-financial corporations and households, in particular, are indebted. They each account for approximately 40 per cent of total debts, while the public sector accounts for the remaining 20 per cent (Chart 39). The indebtedness of non-financial corporations follows the business cycle relatively closely, while household indebtedness is driven by more long-term factors. The increase in household debt over the past two decades has been largely due to increasing degree of home-ownership, late entry to the labour market, rapid urbanisation, lower housing taxation and lower mortgage rates.[57]

At the same time as indebtedness increased, savings in the economy have also been high. Household net lending has been positive for some time, but increased rapidly in conjunction with the financial crisis and in recent years accounted for around 7 per cent of GDP (Chart 40). In addition, non-financial corporations and the public sector have had a positive savings balance in general over the past two decades. All in all, this means that the total net lending has been positive since the mid-1990s. All three sectors have seen their net wealth increase since the 1990s. This build-up of wealth has generally helped to improve resilience to financial turbulence and increased the margin for manoeuvre if a crisis occurs after all.

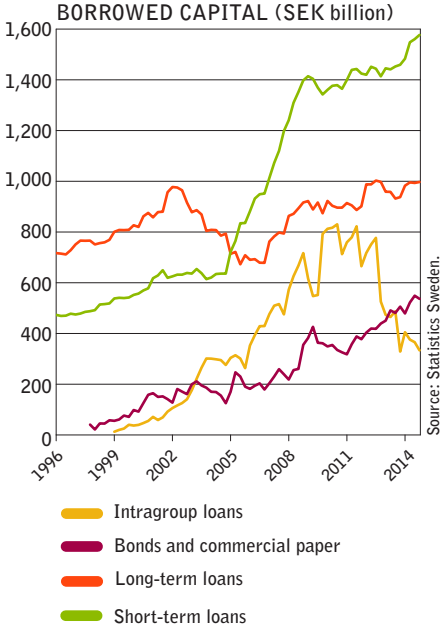
57 Hansen (2013), 'Explanations for the development in household debt since the mid-1990s', Analytical support from the Council for Cooperation, Memorandum 1, FI. http://www.fi.se/upload/90_English/95_Supervision/pm1-household-debt-131014en.pdf

41. CORPORATE FUNDING SOURCES (SEK billion)



Note. Equity includes shares and other forms of ownership. The equity varies a lot in the short term since the share equity is valued at market prices. Borrowed capital include loans, bonds and commercial papers. Pension rights, trade credit and other unpaid expenses are not included.

42. CORPORATE FUNDING, BORROWED CAPITAL (SEK billion)



CORPORATE LENDING DOES NOT CONSTITUTE A VULNERABILITY

Non-financial corporations fund their business using equity and borrowed capital. Equity primarily comprises share equity and internal funds, while borrowed capital comprises, among other things, loans from credit institutions and market funding via bonds and commercial paper (Chart 41). This choice of funding is affected by several factors, e.g. costs, risks and taxation rules.

Different kinds of capital also fulfil different needs at corporations, such as long-term borrowing for investments and short-term credit for managing cash flows. At the beginning of the 2000s, corporations largely replaced long-term loans with short-term loans (Chart 42). Lower interest rates for short-term loans reduce costs, but increase exposure to interest rate changes as well as refinancing risk. Another clear trend over the past few decades has been the increase in borrowing through the issue of bonds and commercial paper. The emergence of this market diversifies the funding of corporations, while making them less reliant on banks. Corporations are thus less exposed to disruptions in the banking sector, but more sensitive to market disruptions. It is in particular large corporations that use market funding, as establishment on the bond market involves substantial costs.

A substantial component of the debt of non-financial corporations comprises intragroup loans. These do not pose the same risks to the financial system as other loans because the relationship between the lender and borrower is not the same as for e.g. a bank loan.[58] Intragroup loans have been increasing for some time as many corporations have used them for tax planning purposes.[59] The government introduced rules in 2009 and 2013 limiting the opportunities for corporations to benefit from tax relief on interest paid on internal loans, which has reversed this trend.

Housing investments soon at the same level as before the crisis

High investments in properties contribute to increased vulnerability among property companies. Property companies assume risks during the production phase. This risk is mitigated when a property is finished and is generating an income, or ceases if the property is sold. Profitability in the property sector is good at present, and property companies are considered to be in a good position to pay off their loans.[60] Nonetheless, more extensive construction could increase the vulnerability of property companies.

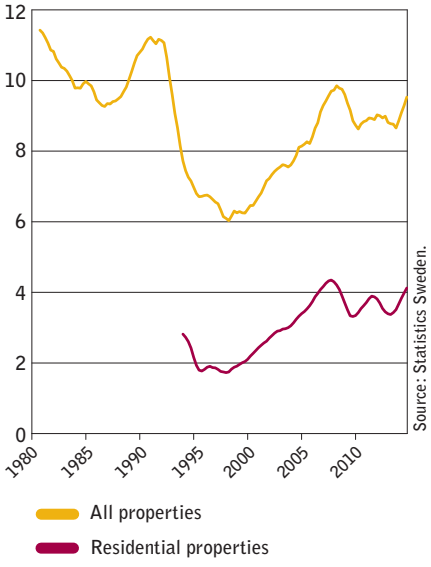
Housing investments in Sweden rose during the decade preceding the financial crisis and have since accounted for a relatively stable proportion of GDP (Chart 43). In a European comparison, it is noteworthy that housing investments have not fallen during this period. This could possibly be explained by the initial low level, by the level not being notably high when the crisis occurred and by a rapidly growing population.

58 If these loans had not been consolidated in the statistics, the debts of the non-financial corporations would have been 125 per cent of GDP instead of 90 per cent of GDP; see European Commission (2015), Country Report Sweden, Commission staff working document, SWD (2015) 46 final.

59 Blomberg et al. (2012), Skatteplanering kan ha bidragit till hög skuldsättning hos svenska företag ['Tax planning may have contributed to high indebtedness among Swedish companies'], Ekonomisk kommentar ['Economic Commentary'] Number 3, 2012, the Riksbank.

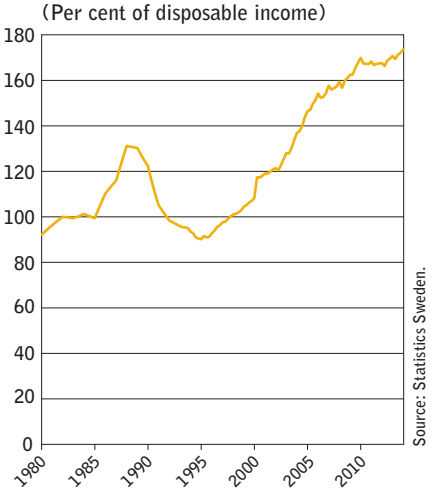
60 The Riksbank (2014), 'Financial Stability 2014:2'.

43. INVESTMENTS
(Per cent of GDP)

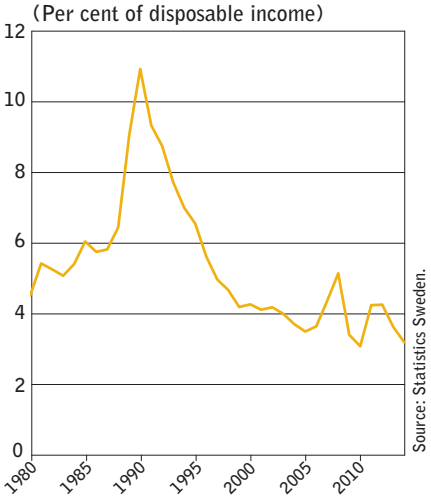


Note. Investments refer to gross fixed capital formation according to the National Accounts.

44. HOUSEHOLD DEBT
(Per cent of disposable income)



45. HOUSEHOLD INTEREST-TO-INCOME RATIO
(Per cent of disposable income)



Note. Interest payment is stated after tax.

Housing investments increased by 20 per cent in 2014, although the volume of investments was slightly lower than it was in 2007. Investments will probably continue to rise in the future though at a slower rate.[61] A substantial increase in housing investments may be a sign of unsustainable development, and thereby signal an increased likelihood of a sharp fall in house prices.[62] For example, housing investments were high in the United States, Spain, Denmark and Ireland, all of which experienced a significant fall in house prices. However, this relationship does not apply to all countries. Hence, it is difficult to draw any generalised conclusions. Housing investments in Sweden have been low for some time, which may suggest that the likelihood of a major decline in house prices is smaller.

Conclusions

FI believes that corporate profits will develop positively on account of the fact that growth is expected to be strong in the Swedish economy. A rising share of profits in the business sector may also help corporate profits grow slightly faster than GDP.[63] Combined with low lending rates, FI therefore assesses that the solvency of non-financial corporations, including property companies, is good and that their debts do not constitute a vulnerability that jeopardises financial stability. However, a pronounced increase in housing construction in the future may increase vulnerabilities. This depends on several factors, including how housing investments are funded and whether households have the willingness to pay for the newly produced homes.

HOUSEHOLDS HAVE GOOD PAYMENT ABILITY BUT ARE VULNERABLE TO A FALL IN HOUSE PRICES

To assess the vulnerabilities associated with household indebtedness it is important to study several different dimensions, including the capacity of households to service their debt, i.e. pay interest and amortise according to plan, and also the value and composition of household assets.

The debt-to-income ratio (i.e. household debt relative to their disposable income) currently exceeds 170 per cent and has been relatively stable since 2010 (Chart 44). However, experience and research suggest that it is more important to look at the change in the debt rather than its level, although this indicator is not perfect either.[64] The rate at which household debt was increasing experienced a sharp slowdown in 2010, but has started to pick up again and is now just over 6 per cent annually. Rising house prices and anticipated pick-up in economic growth could boost lending growth further. Rapidly rising house prices could therefore contribute to increasing uncertainty about the future price level and affect both volatility and the likelihood of a fall in prices.

61 National Institute of Economic Research (2015), Konjunkturläget mars 2015 ['The Swedish Economy, March 2015'].

62 National Institute of Economic Research (2013), Bostadspriser och bostadsbyggande – en internationell utblick ['House prices and housing construction – an international overview'], The Swedish Economy, December 2013.

63 National Institute of Economic Research (2015), Konjunkturläget March 2015 ['The Swedish Economy, March 2015'].

64 Bunn and Rostom (2014), 'Household debt and spending', Quarterly Bulletin 2014 Q3, Bank of England.

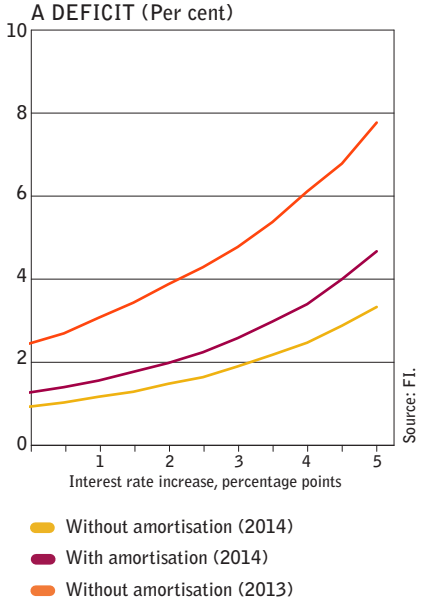
Households have good payment ability

Interest expenses as a proportion of household disposable income ('the interest-to-income ratio') has fallen substantially since the early 1990s and is now lower than it has been for the past 35 years (Chart 45). This fall can largely be explained by the current historically low lending rates, despite an increasing number of indebted households and a higher average outstanding debt having acted in the opposite direction.

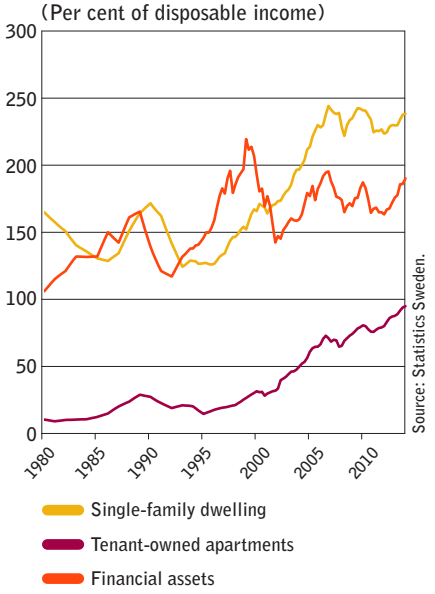
Household disposable income is likely to grow faster as the economy improves. Concurrently the risk of a falling income due to unemployment decreases. However, this development could be curbed by rising profit shares in the business sector and raised taxes.[65] It is also reasonable to expect that interest rates and thus interest expenses will eventually rise. The Riksbank assesses that the mortgage rate may be expected to be between 5.2 to 6.5 per cent in a normal interest rate environment.[66] If mortgage rates were to increase to within this interval in a few years' time, current aggregate debt-to-income ratio implies that the aggregate interest-to-income ratio for households would amount to 6 to 8 per cent and hence exceed the average for the past 20 years.[67] However, the IMF considers that global real rates, which largely steer Swedish long-term real rate levels, will remain very low for many years ahead.[68] This is an indication that mortgage rates may be lower than the levels considered likely by the Riksbank.

A complementary picture of household resilience may be assembled by analysing how individual households are affected by economic disruptions. FI therefore carries out regular stress tests for new mortgage holders to identify the extent to which households, which are at risk of not being able to service their debt and therefore have to cut down on other consumption or withdraw from their existing savings, could eventually lead to credit losses for the banks. FI's stress tests show that households have substantial resilience to higher interest rates, loss of income and declining house prices.[69] For example, a rise of 5 percentage points in interest rates means that around 4 per cent of new mortgage holders cannot manage their interest expenses without making major adjustments to their consumption and/or their savings (Chart 46). Resilience among households has increased significantly compared with 2013, when an increase of 5 percentage points led to shortfall for almost 8 per cent of households. This difference may be explained to some extent by the lower average interest rates in 2014, although it is mostly due to a reduction in the proportion of borrowers with small margins. All-in-all the resilience of Swedish households is considered to be substantial, and the risks of major credit losses linked to household indebtedness are considered to be low.

46. INTEREST RATE INCREASE, SHARE OF HOUSEHOLDS WITH A DEFICIT (Per cent)



47. HOUSEHOLDS' FINANCIAL ASSETS AND SINGLE-FAMILY DWELLING (Per cent of disposable income)



Note. Tenant-owned apartments are classified as a real asset in this context. Foreign shares and investment funds as well as Swedish unlisted shares are not included since they are not comparable over the whole period. Pension rights, e.g. occupational pension and Premium pension, are not included.

65 Konjunkturläget mars 2015 ['The Swedish Economy, March 2015'], National Institute of Economic Research.

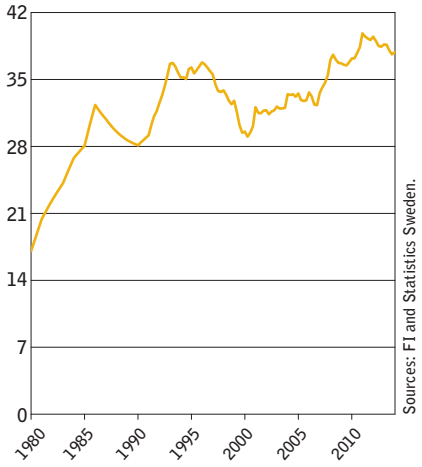
66 'Financial Stability Report 2014:1', the Riksbank.

67 Such an upturn in mortgage rates would probably coincide with an increase in disposable income, which would slightly curb the upturn in the interest rate ratio.

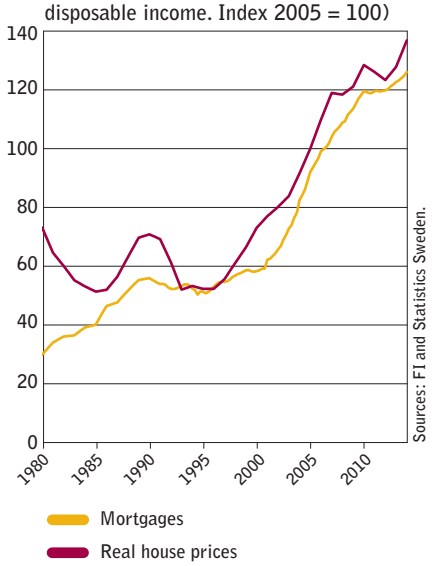
68 'World Economic Outlook', April 2014, IMF.

69 'The Swedish Mortgage Market 2015', 14 April 2015. http://www.fi.se/Folder-EN/Startpage/Supervision/Other-reports/Listan/The-Swedish-Mortgage-Market-2015/

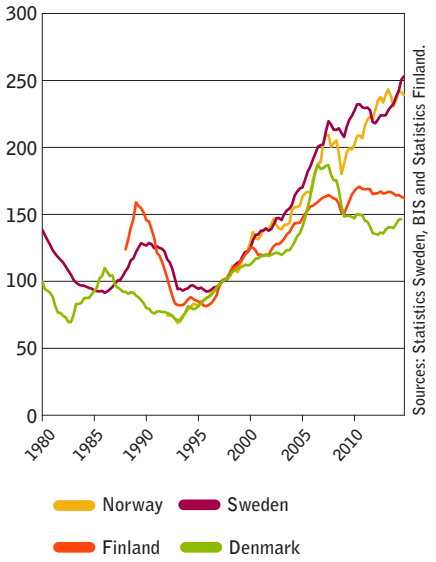
48. AVERAGE LOAN-TO-VALUE RATIOS FOR ALL HOUSEHOLDS
(Per cent of asset value)



49. HOUSEHOLDS' MORTGAGES AND REAL HOUSE PRICES (Per cent of disposable income. Index 2005 = 100)



50. REAL HOUSE PRICES IN NORDIC COUNTRIES
(Index, 1997 = 100)



Household assets exceed their debts

Household assets have grown at approximately the same rate as household debt has increased. This indicates that increasing household indebtedness has been used to purchase assets, rather than for consumption. Household assets primarily comprise single-family dwellings, tenant-owned apartments and financial assets (Chart 47). The value of household assets is approximately three times larger than their debts. The relationship has been stable for the past 35 years. This means that household net wealth is high, although unfortunately there is no information about the distribution of assets and debts for individual households. The degree to which net wealth differs between households is therefore unclear.

Mortgages make up the major part of household lending. The mortgages' proportion of total lending increased from just below 70 per cent in 2001 to almost 80 per cent in 2008, and has been stable since then. There is no official data about mortgage lending prior to 2001 although it is possible to calculate an aggregated household loan-to-value ratio for the period 1980 to 2013 if one makes certain assumptions about what lending was actually used for during the period 1980 to 2001 (Chart 48).[70] This loan-to-value ratio rose rapidly in the 1980s and at the start of the 1990s – from 17 to 37 per cent – then fell back to 30 per cent by the end of the 1990s. Thereafter, it increased and now amounts to around 40 per cent. The average loan-to-value ratio in the Swedish economy is thus significantly lower than both the average loan-to-value ratio in the mortgage stock and the loan-to-value ratio for new loans.[71]

A relatively high proportion of lending in the late 1980s went to consumption rather than the purchase of property. The high level of consumption during this same period meant that households ended up having negative net lending (Chart 40). Thus, it was not surprising that the crisis at the beginning of the 1990s led to a dramatic upturn in household net lending with a view to restoring the relationship between assets and debts. The situation is different today because household net lending is high and the household sector has built up financial assets and housing wealth in parallel with indebtedness (Chart 47). Their net financial position (assets relative to debts) is also significantly stronger than it was in the 1980s and the early 1990s, even excluding occupational pensions and savings in the Premium Pension system. FI thus considers the financial status of Swedish households to be generally sound.

The probability of a substantial fall in house prices has increased

Real house prices have been accelerating recently. Price trends are closely linked to mortgage trends (Chart 49). Key questions when analysing financial and economic stability are therefore whether the current price level is sustainable and what the consequences would be if prices were to fall in the future.

Swedish house prices have also risen rapidly in an international comparison (Chart 50). Several studies have investigated house prices based on

70 The Riksbank (2014), Från ax till limpa: den svenska bolånemarknaden och dess roll i det finansiella systemet ['From A to Z: the Swedish mortgage market and its role in the financial system'], Riksbank studies, April 2014.

71 The average loan-to-value ratio in 2014 amounted to 63 per cent for the mortgage stock and to 70 per cent for households with new mortgages. This information relates to a volume-weighted average; i.e. is calculated taking account of the size of the loan so that large loans have a greater impact on the average.

fundamental driving forces, but there are no clear answers about whether the Swedish housing market is overvalued.[72] The studies indicate, among other things, that changes in a number of fundamental factors since the mid-1990s have contributed to rising house prices and thus also to increased indebtedness. These include factors such as low real interest rates, the abolition of property tax, rapid urbanisation combined with a poorly functioning rental market, the low level of new construction, higher disposable incomes and a rise in interest-only loans.

However, it is possible to find arguments to suggest that house prices could be overvalued by considering both indicators and econometric models, such as supply and demand factors.[73] First of all, the banks' terms for interest rates and amortisation are favourable compared with other countries and the tax system helps reduce the cost of house purchases funded by loans. Furthermore, access to rental accommodations is restricted by long queues. One traditional indicator of overvaluation, price compared to income, indicates that current house prices in Sweden exceed the long-term trend by 25 per cent, which may be compared with a deviation of 15 per cent a year ago.

However, there is a risk that the prices will fall even if homes in Sweden are not overvalued. Prices are currently rising rapidly, and there is a high level of uncertainty about what constitutes a fundamentally reasonable price. FI therefore considers that the risk of a fall in house prices to have increased slightly compared to six months ago. When such falls occur, the fall tends to be significant because households' expectations for future price trends may go down. Empirical studies suggest that a fall in house prices has a negative impact on private consumption. For example, the National Institute on Economic Research estimate that an isolated fall in house prices of 20 per cent could result in household consumption declining by 1.7 percentage points and unemployment increasing by 1.1 percentage points.[74] However, this impact increases slightly if the fall in prices is permanent or combined with global financial turbulence.

High loan-to-value ratios affect macroeconomic development

Good household payment ability and the fact that household assets exceed debts suggest that household indebtedness does not pose a direct threat to financial stability. However, indebtedness may increase macroeconomic instability. International experience suggests that highly leveraged households tend to reduce consumption to a larger extent during economic disruptions, such as a fall in house prices, and thus deepen economic downturns.[75] There may be many reasons for the stronger reaction; for example that households have short planning horizons, they underestimate risks or their expectations about the future change

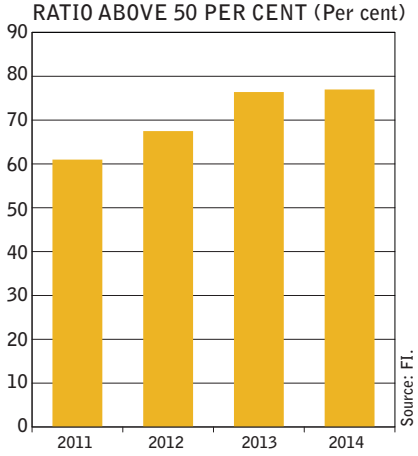
72 Sörensen (2013), 'The Swedish Housing Market: Trends and Risks', Report to the Swedish Fiscal Policy Council, 2013/5; IMF (2013), Nordic Regional Report – Selected Issues, IMF Country Report No. 13/275, September 2013, International Monetary Fund.

73 European Commission (2015), 'Country Report Sweden 2015', Commission staff working document, SWD (2015) 46 final.

74 Gustafsson et al. (2015), 'Macroeconomic Effects of a Decline in Housing Prices in Sweden, Working Paper 138, National Institute of Economic Research, March 2015.

75 Andersen et al. (2014), 'Household debt and consumption during the financial crisis: Evidence from Danish micro data', Working Paper, Danmarks Nationalbank; Dynan and Karen (2012), Is household debt overhang holding back consumption, Brooking Papers on Economic Activity.

51. SHARE OF NEW MORTGAGE HOLDERS WITH A LOAN-TO-VALUE RATIO ABOVE 50 PER CENT (Per cent)



quickly. Households, for these or other reasons, could have saved too little or taken excessive risks during the years preceding the economic downturn.

However, the proportion of households with loan-to-value ratios above 50 per cent has increased in recent years in line with the rise in house prices, although the rate of this increase declined substantially in 2014 (Chart 51). It is FI's assessment that households with loan-to-value ratios above 50 per cent tend to react strongly to changes in their economic conditions, and hence amplify economic fluctuations. Thus, attempts to limit the proportion of households with high loan-to-value ratios could be justified, which is why FI presented an amortisation requirement in March 2015 down to a loan-to-value ratio of 50 per cent. It was proposed that new mortgages be amortised by two per cent of the initial loan annually, down to a loan-to-value ratio of 70 per cent, and subsequently by one per cent down to a loan-to-value ratio of 50 per cent. An amortisation requirement would reduce the risk that business cycle fluctuations would be amplified and increase household resilience to disruptions. At the same time, several of the bodies to which the proposal was sent for consideration believed that the legal basis for FI to mandate such a requirement was insufficient. FI therefore reached the conclusion that the authority's powers need to be clarified in this area before introducing a regulation. FI will postpone further regulatory work on this matter until further notice.

Measures for sustainable indebtedness among households

FI has implemented and announced a number of measures to reduce the risks associated with household indebtedness and the housing market. The following measures have been taken or announced since 2010 in addition to the ongoing work to supervise the banks' credit assessment processes:

- In 2010 FI introduced a loan-to-value limitation on loans collateralised by homes of 85 per cent (the 'mortgage cap').
- FI increased the risk-weight floor for mortgages in two stages (2013 and 2014 – from 5 to 25 per cent) to ensure that the banks' internal models do not underestimate the credit risk associated with their mortgage portfolios, as well as to ensure that the systemic risks posed by mortgages are considered.
- New capital requirements to strengthen the banks increase the banks' resilience in a crisis.
- A decision was made regarding the countercyclical buffer in September 2014, setting the buffer rate at 1.0 per cent applicable as of September 2015. FI proposed on 26 May 2015 that the countercyclical capital buffer be raised to 1.5 per cent starting 1 June 2016.
- FI, in consultation with the Swedish Bankers' Association, has also worked to offer bank customers individually tailored amortisation plans in connection with new mortgages from 2014.

FI considers there to be a need for an amortisation requirement in line with its proposal and that such a requirement should be introduced in the near future. An amortisation requirement increases household resilience to disruptions and reduces the risk of the Swedish economy being adversely affected should anything unexpected happen in Sweden or abroad. FI therefore considers there to be a need for FI to be granted cla-

rified powers as soon as possible to enable it to introduce such a requirement.

Glossary

Basel 3 A global framework established by the Basel Committee. The Basel 3 agreement for the banking sector contains regulations regarding capital adequacy, leverage ratio and liquidity regulation. In the EU these regulations are being implemented through the Capital Requirement Regulation (CRR) and the new Capital Requirements Directive (CRD 4).

Capital requirements Regulations about the minimum amount of capital a financial firm must maintain to conduct operations. The requirement is linked to the extent of the firm's risk-taking and should function as a buffer if losses arise.

Central counterparty A financial corporation that enters as a party to financial transactions and takes over the responsibility that obligations are fulfilled.

Commercial paper A financial product that is issued by financial and non-financial corporations and traded on the money market. The certificates have a maturity of up to one year and are a part of the corporations' short-term funding.

Common equity Tier 1 capital In principle, denotes equity, i.e. share capital and accumulated non-distributed profits. In other words, the capital that absorbs losses first.

Common equity Tier 1 capital ratio Relationship between common equity Tier 1 capital and risk-weighted assets.

Countercyclical capital buffer The countercyclical capital buffer is a time-varying capital requirement that aims to manage systemic risks linked to the credit cycle (the variation of the credit market over time).

Covered bonds A bond whose holder has a special right of priority in the event of bankruptcy. Credit risk is normally lower than for unsecured (uncovered) bonds, which means a reduction in borrowing costs.

Credit gap Indicator that shows how much the debt of households and non-financial corporations in relation to GDP deviates from its estimated long-term trend.

Debt-to-income ratio A measure of indebtedness. It is defined as the household's total debt divided by the household's annual disposable income.

European Banking Authority (EBA) Authority that is responsible for the regulation of banks within the EU.

European Securities and Market Authority (ESMA) Authority that is responsible for the regulation of the securities markets within the EU.

Interbank rate The interest rate on an unsecured loan between banks. The Swedish interbank rate is called STIBOR (Stockholm Interbank Offered Rate) and is used as a reference rate for derivatives and loans with floating rates denominated in SEK.

Interest-to-income ratio A measure of how much of a household's income is spent on interest rate expenses. It is defined as the household's interest expenses after tax divided by the household's disposable income.

Internal ratings models (IRB models) Calculation models banks develop and, after receiving permission from FI, use to calculate how much capital is needed to cover various credit risks.

Leverage ratio Measure that states the extent of the bank's capital in relation to the bank's total assets and commitments outside of the balance sheet. The measure is used as a supplement to the risk-based capital adequacy

requirements. There is an ambition for leverage ratio requirements to be introduced in the EU in 2018.

Liquidity risk The risk of not being able to fulfil payment obligations on the due date without the cost increasing considerably. Liquidity risk in financial instruments is defined as the risk that a financial instrument cannot immediately be converted into liquid funds without declining in value. This risk is often called market liquidity risk.

Liquidity Coverage Ratio (LCR) A measure within the new capital requirement framework (CRD 4) that requires banks to hold sufficient liquid assets to be able to fulfil its short-term obligations during a 30-days period of stress.

Mortgage cap The mortgage cap came into effect on 1 October 2010 through FI's general guidelines FFFS 2010:2. These guidelines state that a loan collateralised by a home may not exceed 85 per cent of the market value of the home.

Net commission The difference between revenues and expenses from fee-based services.

Net interest income The difference between interest income from lending and interest-bearing securities and interest expenses from deposits and borrowing.

NSFR – Net Stable Funding Ratio A liquidity measure that places a bank's stable funding in relation to its illiquid assets in a stressed one-year scenario. The EU Commission intends to submit a NSFR proposal in 2016.

Over the Counter (OTC) Denotes financial products (such as derivatives) that are traded directly between buyers and sellers outside of a stock market or multilateral trading facility.

Pillars 1, 2 and 3 The Basel 3 capital adequacy regulations are divided into three pillars. Pillar 1 is the minimum capital requirements for credit risks, market risks and operational risks that are calculated using explicit calculation rules. Pillar 2 entails the supervisory authority identifying risks and assessing the risk management from a broader perspective. This can result in additional capital requirements in excess of Pillar 1. Pillar 3 defines various transparency requirements.

Risk premium The extra yield demanded by investors as compensation for taking on higher risk.

Risk-weight When the capital need of a bank is calculated, the value of each asset, for example a mortgage or corporate loan, is multiplied by a risk-weight. The risk-weights vary between the various assets based on how large the credit risk for each asset is judged to be. By combining the value of all of a bank's assets, weighted at the different risk-weights, it is possible to produce a single value for the risk-weighted assets in the bank.

Solvency 2 An umbrella term for the new regulations for the financial position and strength (solvency) of insurance companies being drawn up in the EU.

Solvency margin The solvency margin is the lowest acceptable level for own funds. Its calculation is based on the nature and scope of operations. In Solvency 2, the concept solvency capital requirement is introduced instead, with more detailed calculation rules.

Solvency ratio A measure designed to measure how well the insurance companies handle their obligations to insurance holders. An insurance company's capital base divided by the solvency margin. The solvency requirement implies that the solvency ratio must exceed 1.

STIBOR See Interbank rate.

Stress test Analysis of various scenarios to test resilience to unforeseen and negative events.

Systemic risk The risk of key functions being seriously disrupted or completely put out of action in all or parts of the financial system.

Tier 1 capital The sum of Common Equity Tier 1 capital and Additional Tier 1 capital. Additional Tier 1 capital is, for example, perpetual subordinated loans with certain characteristics. A subordinated loan is an unsecured loan with lesser seniority than a bond, which means that in the event of a default the holder will be paid after other creditors, but before equity holders.

Tier 2 capital Mainly consists of short-term subordinated loans (see Tier 1 capital), selected reserves and other supplementary capital that the supervisory authority has recognised as Tier 2 capital.

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