



FINANSINSPEKTIONEN

Risks in the financial system 2013

14 NOVEMBER 2013





TABLE OF CONTENTS

FOREWORD	3
SUMMARY	4
Risks to financial stability	5
Risks for consumers	5
DEVELOPMENT DURING THE YEAR	7
Calmer financial market	7
Favourable development for life insurance companies	8
Lending continues to increase	8
Swedish banks continue to be strong	8
Stress test and sensitivity analysis of the major banks	9
PRIMARY RISKS	14
Market funding	14
Household indebtedness	16
Unsuitable investments	17
OTHER RISKS	20
Management of market risks by life insurance companies	20
Central counterparties	21
Micro loans and deposit institutions	22
Internal governance and control	23
Internal models	24
FINANSINSPEKTIONEN'S EXPERT PANEL	27
Major economic trends and risks	27
Risks for specific sectors	28
Desired/expected regulatory changes and government actions	29
GLOSSARY	30

Foreword

The “Risks in the Financial System” report highlights the risks that Finansinspektionen (FI) considers to be the most serious in the coming year. It focuses on risks that can affect financial stability and consumer protection on the financial market.

The primary risks we see for financial stability are clear systemic risks: market funding of major banks and household debt. The size of the Swedish banking system and the fact that it is closely interlinked mean that vulnerabilities could be magnified and impact the Swedish financial system as a whole. At the end of August 2013, the Government proposed that FI be given primary responsibility for the “macroprudential tools”, including the countercyclical capital buffer. This mandate entails considerable responsibility and will continue to place high demands on FI in terms of protecting financial stability.

For the consumer, financial products continue to increase in complexity and financial advice in many cases is not governed by the consumer’s best interest. This means that there continue to be risks for consumers.

In the Risk Report we present the risk analysis we conduct to prioritise our supervision work for both consumer protection and financial stability. Going forward, we see these risks being met by measures from the firms and their management.

Stockholm 14 November 2013



Martin Andersson

Director General

Summary

Swedish banks are relatively strong, but they continue to be vulnerable to disruptions on the financial markets, and the development within the Euro zone continues to represent a risk for the Swedish financial system. Household indebtedness is also high from a historical and an international perspective, and Finansinspektionen (FI) believes this entails risks to both stability and consumer protection. Inadequate advice regarding financial products continues to pose a serious risk for consumers as companies are steered more by underlying conflicts of interest than what is best for the customer.

FI compiles a combined risk profile in its work analysing the risks on the financial markets. This profile is intended to highlight risks that exist today as well as to identify future potential risks in order to avoid them. The risk profile indicates the greatest risks to financial stability and consumer protection identified by FI.

TABLE 1. Primary and other risks

Risks	Development during the year	Risk level	Type of risk
Market funding	→	High risk	Stability
Unsuitable investments	→	High risk	Consumer
Household indebtedness	→	Significant risk	Consumer/Stability
Market risk management of life insurance companies	↘	Significant risk	Consumer/Stability
Central counterparties	→	Significant risk	Stability
Micro loans and deposit institutions	→	Risk	Consumer
Internal governance and control	→	Risk	Stability
Internal models	→	Risk	Stability

FI has implemented a number of measures in the form of new regulations and proposals for new regulations to manage these risks. An overview of the measures to manage the largest risks can be seen in Table 2.

TABLE 2. Measures implemented by FI to manage the largest risks

Measure	Status
Mortgage cap, 85 per cent	Introduced autumn of 2010.
Higher capital requirements	Agreement announced in the autumn of 2011 together with the Swedish Ministry of Finance and the Riksbank. New capital regulations as of 2014.
Temporary floor for the discount rate	Announced 7 June 2012. In effect until year-end 2013.
LCR - total and in USD and EUR	Requirement implemented as of 2013.
Risk weight floor - mortgages, 15 per cent	Announced 26 November 2012. Implemented May 2013.
Commission ban	Partial ban on commissions proposed in the spring of 2013.
Requirement on individually tailored amortisation plan	Proposed in the autumn of 2013. Implemented by the Swedish Bankers' Association as a recommendation.
New regulations for calculating the discount rate	In effect as of 2014.

RISKS TO FINANCIAL STABILITY

The situation for companies under FI's supervision improved during the year. During the year, the major Swedish banks reported strong earnings and had solid access to funding. If structural problems in several countries in the Euro zone are not rectified, in the long run this could result in a sharp downturn in this area. This would probably result in additional problems for this area's already weak banking sector. This could also have a negative impact on the Swedish economy and the Swedish banking system.

The Swedish banking system is extremely large compared to the Swedish economy. The Swedish financial system is also closely interconnected and concentrated to a few large banks. This means that problems in one bank could quickly spread to other banks and have a negative impact on the economy as a whole.

The major Swedish banks are heavily dependent on market funding and have a structural liquidity risk, which makes them sensitive to disruptions on the financial markets. The banks have become increasingly dependent on the financial markets over time, and this dependence is larger than for most other banks in Europe. Market funding occurs in both SEK and foreign currency. At the same time, the maturities of loans raised by the major Swedish banks are relatively short, which means that the banks must frequently borrow new funds. This represents a risk, particularly since the banks issue loans with much longer maturities.

The total Swedish capital requirements are high. The banks are currently well capitalised and meet all of these requirements. However, FI's stress test shows that two of the four major banks basically need to maintain current capital levels to be able to handle a sharp downturn in the economy. The requirements may be raised even higher in the future as a result of various macroprudential measures. This means that the major banks need to be conservative in their capital planning and in the long run exercise caution with regard to measures that reduce their resilience, for example share buy-back programmes and dividends.

The indebtedness of Swedish households, a large extent to which consists of mortgages, is high from both a historical and an international perspective. This high level of debt can pose a risk to financial stability. Even if the implementation of the mortgage cap has broken the trend of steadily rising loan-to-value ratios, and households are amortising loans with high loan-to-value ratios, the growth rate of mortgages continues to be high. There are risks associated with this high growth rate, and prudence indicates that there is good cause to consider additional measures relatively quickly if the increase in the rate of growth continues to be high. FI is carefully following the developments on the Swedish mortgage market and is basically not excluding any measures, whether the implementation of new measures or adjustments to existing measures.

RISKS FOR CONSUMERS

The high indebtedness of households also poses a risk to individual households. Some households have small margins, partly in the form of a high loan-to-value ratio but also since only a small portion of their income remains once housing costs and other necessities are paid for. This makes these households vulnerable, particularly in the event of a loss of income or rising interest rates. One way to build up a buffer against such events is to amortise. On October 14, FI proposed that the

banks should provide households with an individually tailored amortisation plan. At the same time, the Swedish Bankers' Association updated its recommendation regarding amortisation and is encouraging its members to introduce individual amortisation plans as soon as possible. It is also important that the banks and households together ensure that the households have sufficient margins when calculating discretionary income. FI will continue to analyse these issues and does not rule out additional measures to mitigate the risk for individual households.

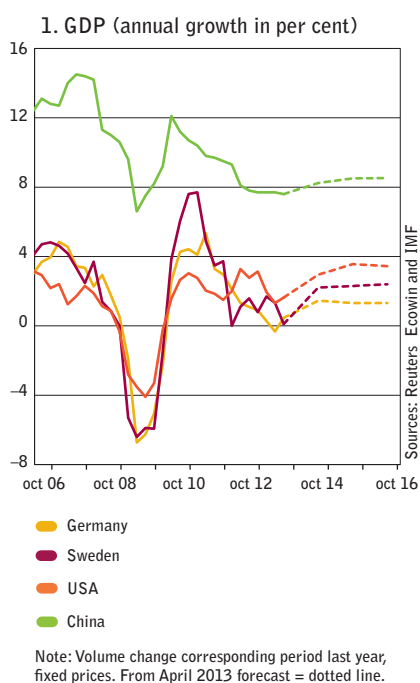
Financial products are becoming increasingly complex. This places higher demands on the knowledge of consumers as well as access to good advice. Complex products and inappropriate advice are still a major risk for consumers. In many cases, the advisors receive compensation in the form of commission, which creates a conflict of interest and a risk that the consumer will receive inappropriate advice. Many companies are not proficient enough about gathering information about their customers to be able to provide suitable advice. At the same time, it is very difficult for a consumer to understand the risk inherent in an investment as well as, in many cases, the return that can be achieved and the manner in which it is achieved.

The acute pressure on the solvency of life insurance companies has decreased as stock markets and market rates have increased. However, there is a risk that the recent increase in market rates, combined with growing competition on the market, will result in the companies once again competing via raised bonus interest rates and financial guarantees. If this occurs without adapting the products to conditions that are more sustainable in the long run, it may result in renewed problems that might not be visible to the consumer for five to ten years.

It could sometimes be necessary for life insurance companies to adapt to more long-term sustainable conditions, for example in the form of lower guarantees. But this can also pose a risk to some consumers. Policyholders may fall victim to an information imbalance in conjunction with offers that entail changes to the terms and conditions. It is the responsibility of the company to ensure that consumers receive sufficiently clear and comprehensible information so that they are able to understand both what they are changing to and what they are giving up.

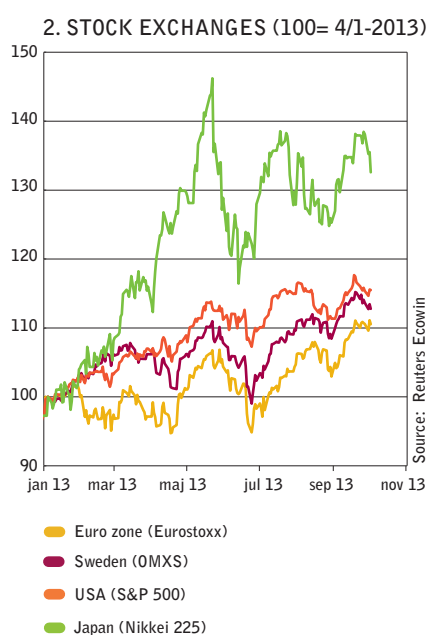
Development during the year

The outlook for the world economy has improved in the past year. The development on the financial market has been relatively good, and the uncertainty that has long been present on the markets decreased. However, the structural problems persist in many countries in the Euro zone and their banking systems, which can lead to renewed uncertainty. For life insurance companies, rising market rates and stock markets have strengthened solvency. Swedish banks continue to demonstrate strong earnings and they are well capitalised compared to European banks. FI's stress test and sensitivity analysis of the major banks, however, show that the margin above the buffer requirements is small. The major banks need to be conservative in their capital assessments in the future.



During the year the world economy has shown signs of a recovery, even if risks of a backslide are still present. The recovery continues in the USA, where households have decreased their debt, the housing market is growing stronger and the situation on the labour market has improved. However, the gridlock in Congress regarding the debt ceiling and the budget poses a risk to both the growth of and confidence in the American economy in the long run, even if Congress reached a temporary agreement in October. The economy in the Euro zone grew during the second quarter for the first time in a year and a half. This growth is very weak, though, and the Euro zone is still considered to be a weak link in the world economy. The general consensus is that there is a considerable need for reform to rectify structural problems and increase competition.

In Sweden, the economy has been relatively stable. GDP may have decreased during the second quarter, but the forward-looking business cycle indicators are pointing toward a somewhat more positive development in the future (Diagram 1). Stronger economic signals on the international stage are positive for Sweden, which is a small, export-dependent country. The Riksbank has held the key interest rate at one per cent during the year, inflation continues to be low and employment has improved slightly.

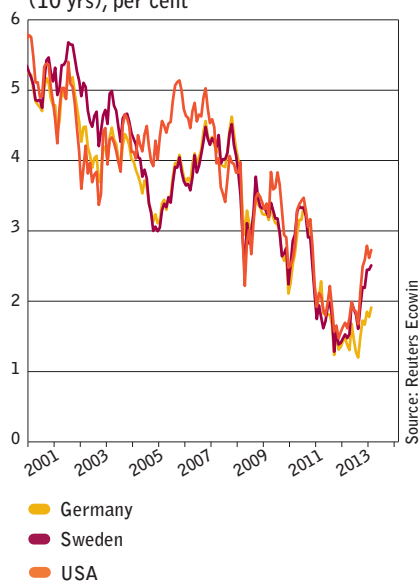


CALMER FINANCIAL MARKET

The situation on the financial market is calmer now than it has been in several years and growth during the year was relatively good. The equity markets have recovered after the fall during the financial crisis and stock exchange indices have risen in both the USA and Europe (Diagram 2). Central bank stimuli and improving outlooks for the global economy are in part responsible for driving growth on the markets.

Even if the debt-burdened countries in Europe are considered to face major structural reforms, the development on the financial markets has not been affected by the debt crisis as much in the past year. The markets have instead to a large extent been affected by the decisions made by the central banks, both through monetary policy stimuli in and of themselves and through expectations of the banks' next steps. One of the major influences is the expectation that the USA's central bank, the Federal Reserve, will reduce its extensive stimulus program. This has led to an increase in the rates on government bonds with long maturities in the USA, which in turn has led to a rise in the rates in other countries that

3. GOVERNMENT BOND RATES (10 yrs), per cent



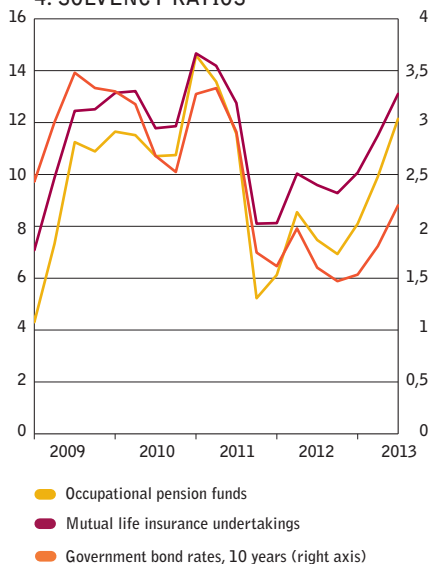
are considered stable. This also applies to Swedish market rates, which rose relatively sharply during the year and have now reached levels that were last noted two years ago (Diagram 3).

FAVOURABLE DEVELOPMENT FOR LIFE INSURANCE COMPANIES

The higher market rates, decreased credit premiums and rising stock exchange indices have been favourable developments for life insurance companies. These developments have led to a gradual improvement in primarily the life insurance companies' solvency (Diagram 4). In particular, the rising market rates have had a strong positive effect on the valuation of the companies' long-term commitments for pensions and insurances. This valuation is based on a calculation of the present value using a discount rate that is based on market rates. When market rates rise, the discount rate rises, which in turn decreases the level of the financial commitments.

Due to the interest rate floor implemented by FI and FI's proposal of a new discount interest rate curve, there is less of a risk of procyclicality, i.e. that the companies' risk management and behaviour magnify the movements of the market. However, this does not change the underlying problems with guaranteed benefits and products that are not sustainable in the long run.

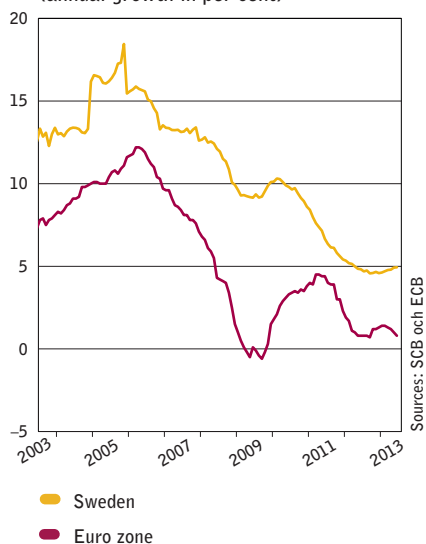
4. SOLVENCY RATIOS



LENDING CONTINUES TO INCREASE

Swedish banks continued to increase their lending to the general public in Sweden during the year. The lending growth rate, however, has slowed in recent years, with the exception of a weak increase during the summer of 2013. Mortgages represent the largest part of lending to households. Growth in mortgages was on average around five per cent in the past year (Diagram 5). Swedish households currently have a debt ratio¹ of 170 per cent, which is high both from an international and a historical perspective (Diagram 6). Since the mortgage cap was implemented, the steadily rising trend in loan-to-value ratios for new mortgages has slowed.

5. HOUSEHOLD AND LENDING (annual growth in per cent)



SWEDISH BANKS CONTINUE TO BE STRONG

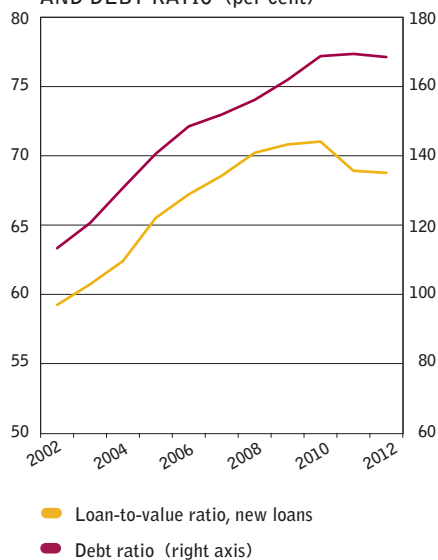
The Swedish banking sector continued to develop positively during the year and the banks are relatively well capitalised. The major banks continued to benefit from the relatively stable development in the Swedish economy and they have had solid access to market funding. All eight banks that are subject to the liquidity coverage requirement (LCR) that was implemented at the beginning of the year currently meet the requirement (Diagram 14).

Good profitability and lower risk-weighted assets contributed to further improvement to the major banks' capital adequacy during the year (Diagrams 7 and 8).² The Swedish Ministry of Finance, the Riksbank and FI

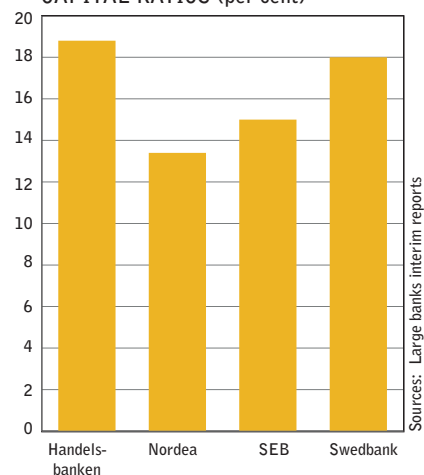
1 The debt ratio is calculated by dividing the total debt of Swedish households by their total disposable income. Thus, the debt ratio also includes the disposable income of non-indebted households.

2 The common equity Tier 1 capital ratios of the major Swedish banks at the mid-year mark were on average 16.5 per cent, without the transition regulations from Basel 1. Recalculated in accordance with the Basel 3 rules, the level would on average be one percentage point lower.

6. LOAN-TO-VALUE RATIO AND DEBT RATIO (per cent)

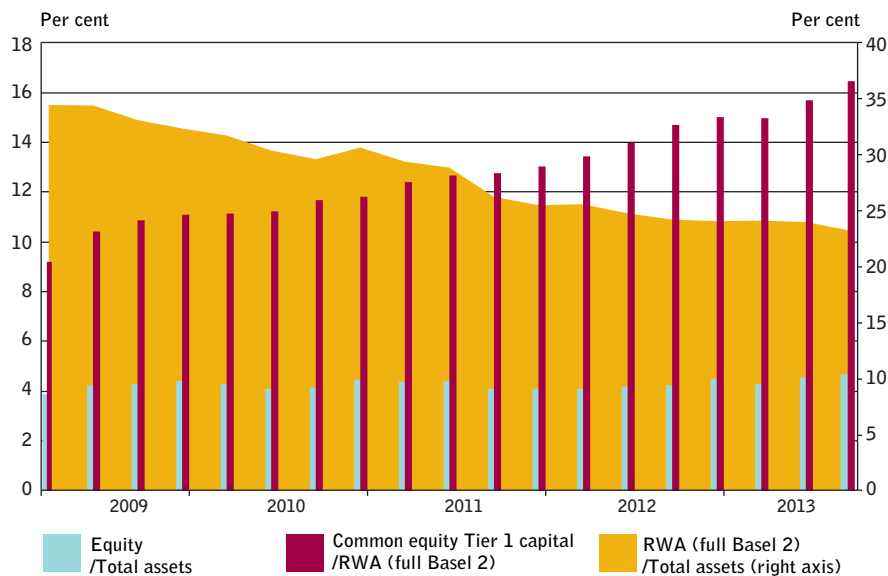


7. COMMON EQUITY TIER 1 CAPITAL RATIOS (per cent)



announced in November 2011 that the major Swedish banks need to have common equity Tier 1 capital ratios of ten per cent by 2013 and twelve per cent by 2015.³ The banks fulfil these requirements today.

DIAGRAM 8. COMMON EQUITY TIER 1 CAPITAL, EQUITY AND RISK-WEIGHTED ASSETS (major banks)



Sources: Large banks interim reports

STRESS TEST AND SENSITIVITY ANALYSIS OF THE MAJOR BANKS

FI's stress test, which is based on data from the third quarter of 2013, shows that the major banks have sufficient resilience to large credit losses even in a scenario in which earnings fall.

Sweden has chosen to implement the new European capital adequacy regulations (CRR/CRD4) in full without a transition period. Sweden has also chosen as of 2015 to implement a systemic risk buffer of 5 per cent on the risk-weighted assets of the four major banks. As a result, the requirement on common equity Tier 1 capital including the buffers will total 12 per cent. This year FI has also introduced a risk-weight floor for Swedish mortgages of 15 per cent.⁴ In addition, the Swedish banks will also be affected by the choices made in other countries, for example Norway's decision to introduce a floor for certain parameters of its risk weight function with regard to exposures to Norwegian mortgages.⁵

The stress test is based on publicly available information and the method is standardised, partly because it does not use a specific macro scenario based on the current status of the market and partly because it does not take account of differences in the quality of each bank's exposures within various lending segments. The banks' resilience is calculated based on a three-year scenario containing a sharp economic downturn. The scenario assumes that the banks experience lower earnings and

3 Does not include the countercyclical capital buffers.

4 The reason the risk weight floor for Swedish mortgages is 15 per cent is that FI made the assessment that the risk weights the banks applied underestimated the actual credit risks in their mortgage lending.

5 Norway has implemented a floor for the LGD parameter when calculating the capital requirement for Norwegian mortgages. The effect is that the risk weight goes up. For simplicity sake, this is called here a "risk weight floor".

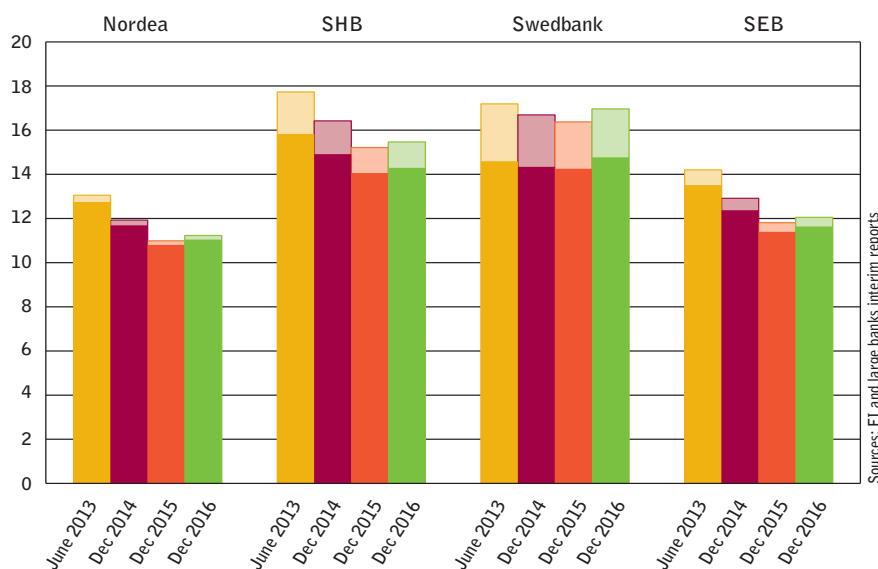
higher credit losses. In the scenario, the credit losses are high in all industries and regions.⁶

In the stress test scenario, it is calculated that the combined total of credit losses for the four major banks is at around the same level as the total combined profit before credit losses for the three-year period (Table 3). The risk-weighted assets are assumed to grow in the scenario, so the overall effect would equal a deterioration in the common equity Tier 1 capital ratios of between 0.3 and 2.1 percentage points per bank (at the most) during the scenario period (Diagram 9).⁷

TABLE 3. Simplified profit and loss account for 2014–2016 (SEK million)

	Nordea	Handelsbanken	Swedbank	SEB
Profit before credit losses	114 766	52 331	53 754	49 324
Credit losses	117 899	51 494	44 661	51 151
Taxes	733	462	2 074	302
Profit after tax	-3 866	376	7 019	-2 130
Dividends	0	553	2 808	0
Change in equity	-3 866	-177	4 212	-2 130

DIAGRAM 9: The stress test scenario's common equity Tier 1 capital ratios as per Basel 3



Note. The stress scenario's common equity Tier 1 capital ratios as per Basel 3 without transition rules from Basel 1 adjusted for the Norwegian risk weight floor. The coloured bars show the capitalisation taking into consideration the risk weight floor while the shadowed bars above show the effects without the risk weight floor.

The stress test shows that the major banks have sufficient resilience to a scenario in which there is a sharp economic downturn that results in falling earnings and high credit losses in all areas. According to the results from the stress test, two banks would need to draw on the planned capital conservation buffer. Use of the buffer, according to the forthcoming regulations, would put restrictions on, for instance, share dividends and bonus payments.

⁶ For more information, refer to the memorandum regarding stress tests of Swedish banks at <http://www.fi.se/Tillsyn/Rapporter/Riskrapporten/Listan/Risk-er-i-det-finansiella-systemet-2013/>.

⁷ The stress test assumes that the risk-weighted assets increase due to capital needs under Pillar 2.

FI's sensitivity analysis of future macroprudential measures shows that it is important that the major banks maintain current capital levels.

When the new capital adequacy regulations enter into Swedish legislation next year, FI could be given the opportunity to also take into consideration systemic risks, for example household indebtedness. Possible measures that could then be considered are a targeted capital requirement, in the form of an increase to the current risk weight floor on Swedish mortgages, and activation of the countercyclical capital buffer during periods of high credit growth.⁸ Through a sensitivity analysis, FI has investigated the extent to which the major banks' capital requirements would be affected by even stricter financial regulations. This is illustrated in three different scenarios.

Scenario 1 shows the effect of raising the risk weight floor for Swedish mortgages to 35 per cent from the current level of 15 per cent. Scenario 2 instead assumes that a countercyclical capital buffer of 2.5 per cent is introduced for exposures to all of the banks' home markets and third countries.⁹ Scenario 3 shows the effect of a combination of the two measures, where the countercyclical buffer is assumed to be one per cent and the risk weight floor for Swedish mortgages is set at 25 per cent. The chosen scenarios should not be viewed as an indication that these measures will be taken. Neither should the assumption be made that these are the levels that would apply in such a scenario. The purpose, rather, is to show how the various regulatory alternatives impact each bank. A prerequisite before any new measures are decided is that a detailed assessment of the effects of the different measures is conducted, including thorough consequence analyses.

The November accord¹⁰, the current risk weight floor for Swedish mortgages and the Norwegian risk weight floor require total common equity Tier 1 capital, including buffer capital, of between 12.4 and 14.1 per cent, depending on the bank.¹¹ This is the starting point for the sensitivity analysis. In addition there are capital requirements for Pillar 2 that vary between the banks.

If the risk weight floor for Swedish mortgages is raised to 35 per cent (Scenario 1, Diagram 10a), the capital need increases by between 0.6 and 4 percentage points, depending on the bank. The need for common equity Tier 1 capital would thereby increase to between 12.9 and 18.1 per cent, depending on the bank. Three of the banks in this scenario would have capitalisation in excess of the capital need, and one bank would just pass the scenario.

If a countercyclical capital buffer is introduced of 2.5 per cent (Sce-

8 For more information, refer to the memorandum, "How FI can decrease the risks inherent in household debt", <http://www.fi.se/Folder-EN/Startpage/Supervision/Miscellaneous/Listan/How-FI-can-decrease-the-risks-inherent-in-household-debt/>.

9 FI is only expected to exercise control over the countercyclical capital buffer to the extent it refers to Swedish exposures.

10 The November Accord between the Swedish Ministry of Finance, the Riksbank, the Swedish National Debt Office and Finansinspektionen, published in November 2011.

11 The capital need for each bank differs since the banks have different exposures to Swedish and Norwegian mortgages and different average risk weights before the risk weight floor was applied. The exposure amounts and risk weights refer to Q1 2013 while the total effects and the current capitalisation are estimated on fully implemented Basel 3 rules as per Q3 2013.

nario 2, Diagram 10b), the total common equity Tier 1 capital need including buffers would be between 14.9 and 16.6 per cent, depending on the bank. In this scenario, two of the banks would have margins in excess of the capital need, one would just pass the scenario and one would not meet the capital need.

The final scenario is a combination of the two measures (Scenario 3, Diagram 10c), i.e. an increase in the risk weight floor for Swedish mortgages to 25 per cent and a countercyclical capital buffer of one per cent. The capital requirement would increase to between 13.6 and 17.1 per cent, depending on the bank. Three of the banks would have capitalisation in excess of the capital need, and one bank would just pass the scenario.

DIAGRAM 10. Effect of different regulatory alternatives on the common equity Tier 1 capital ratio

DIAGRAM 10A. Scenario 1

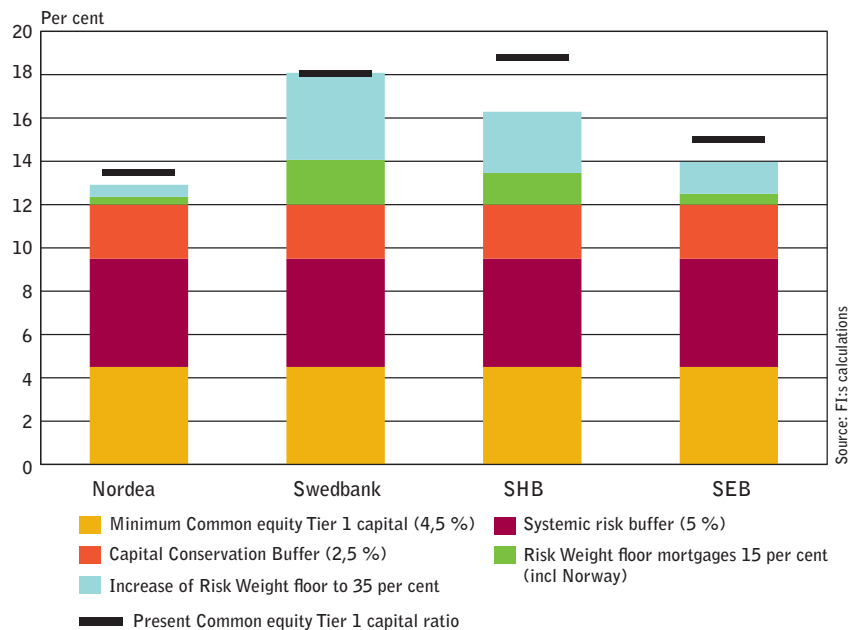


DIAGRAM 10B. Scenario 2

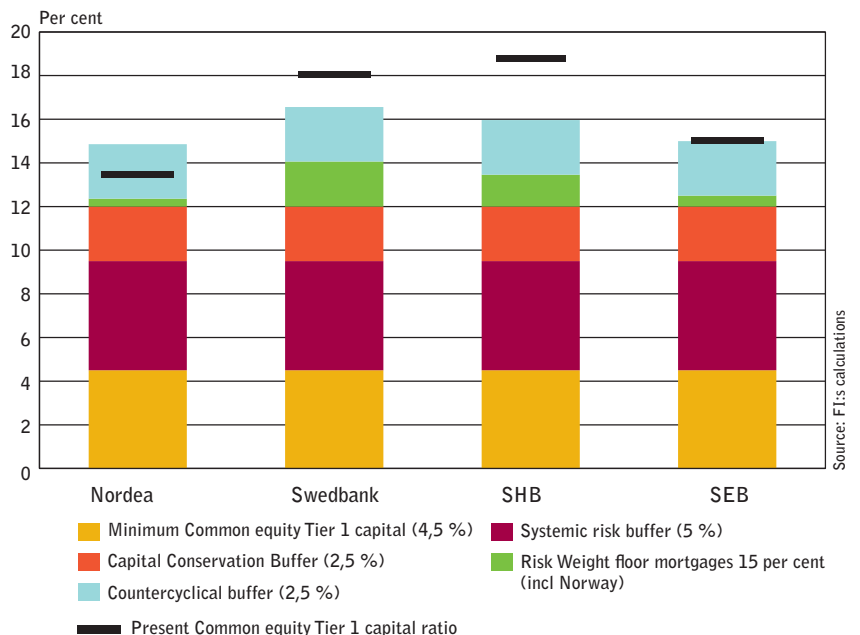
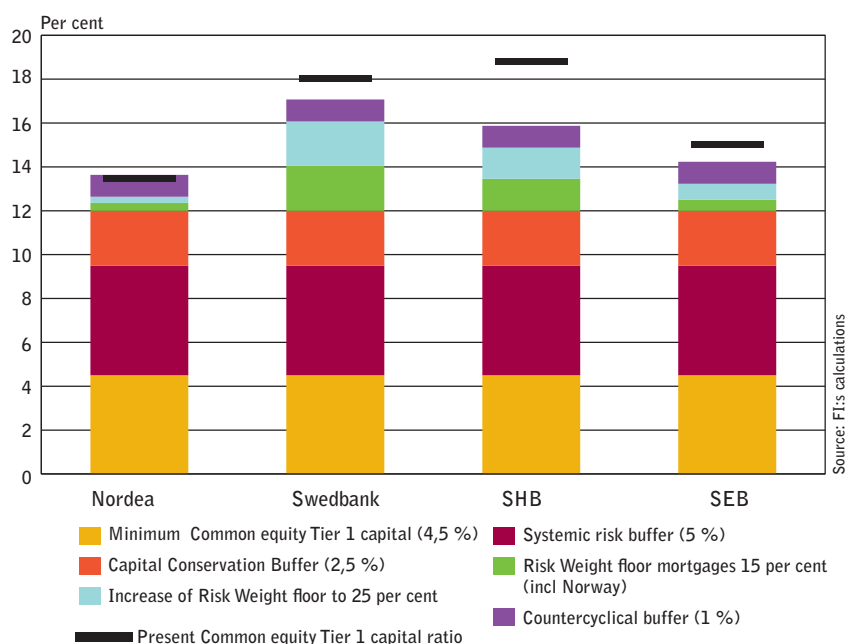


DIAGRAM 10C. Scenario 3



Note: The diagrams (Scenarios 1–3) show current common equity Tier 1 capital ratios as per Basel 3 as well as the need for common equity Tier 1 capital under different assumptions regarding the size of the risk weight floor and the countercyclical capital buffer. Common equity Tier 1 capital ratios refer to the third quarter of 2013 while the exposure amounts for Swedish mortgages refer to the first quarter of 2013 and for Norwegian mortgages the fourth quarter of 2012.

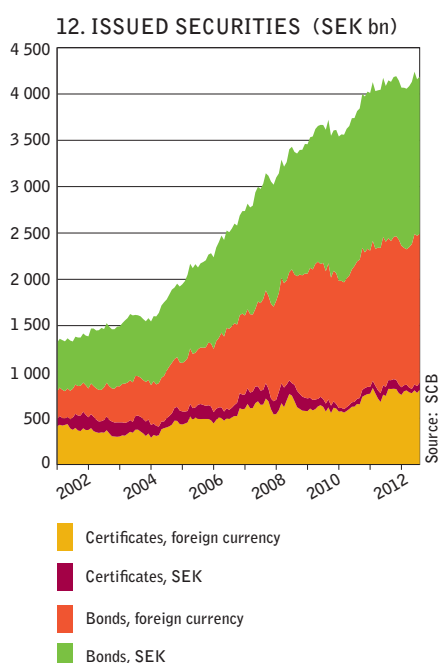
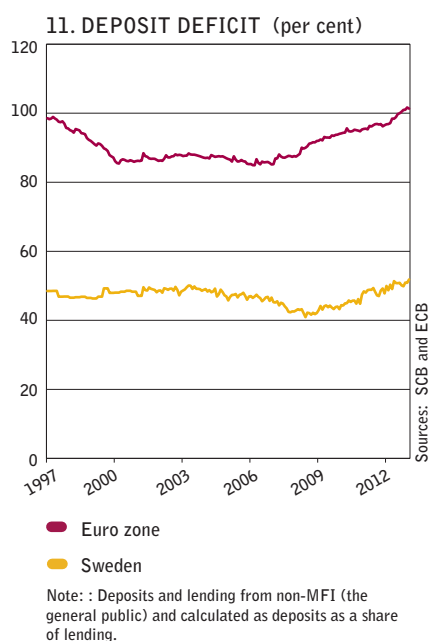
The total Swedish capital requirements are high. The banks are currently well capitalised and meet all of these requirements. However, FI's stress test shows that two of the four major banks would need to utilise the planned capital conservation buffer. The banks basically need to maintain current capital levels to be able to handle a sharp downturn in the economy (Diagram 9). On the other hand, FI believes that these banks could relatively quickly return to sufficient capital levels since they have good underlying profitability.

The three sensitivity analyses show that the margins of the major banks to the buffer requirements are relatively small (Diagram 10). These calculations also do not take into consideration the banks' individual requirements under Pillar 2 (in addition to the risk weight floor).

In summary, the requirements may be raised even higher in the future as a result of various macroprudential measures. This means that the major banks need to be conservative in their capital planning and in the long run exercise caution with regard to measures that reduce their resilience, for example share buy-back programmes and dividends.

Primary risks

Even if Swedish banks are currently relatively strong, there are still risks. The Swedish banking system is large in relation to the Swedish economy and the major banks are vulnerable due to their funding structure. Households indebtedness represents a risk from both a consumer and a stability perspective, and FI is not ruling out additional measures if indebtedness continues to be high. Inappropriate advice during the sale of complex products to consumers is increasingly a problem. Advisors are encouraged to carefully analyse their customer's needs and ability to understand the product that is offered.



MARKET FUNDING

The major Swedish banks are dependent on market funding.

This funding structure makes them vulnerable to disruptions in the financial markets. The banks' total assets, taking into consideration their extensive operations in other countries, correspond to more than four times the Swedish GDP. The Swedish banking system is also concentrated to a few large actors and thereby closely interlinked, which means that the risk of problems in one bank spreading to the other banks is considerable. Problems in one or several banks as a result could spread quickly and have a negative impact on the Swedish economy as a whole.

The major Swedish banks have had higher lending than deposits for a long time. Thus, the banks have a large deposit deficit, even if this deficit has decreased slightly in recent years (Diagram 11). In order to have sufficient funding, they are therefore dependent on the financial markets.

The market funding of the major Swedish banks is currently as large as their deposits from the general public. This distinguishes the major Swedish banks from most foreign banks, where deposits often represent a larger share of total funding. Every year the Swedish banks must refinance around SEK 2,000 billion on the financial markets, which corresponds to more than 50 per cent of Sweden's GDP. On an annual basis, the funding of major banks that matures corresponds to more than 15 per cent of their total assets. This means that the major Swedish banks continue to be vulnerable to unforeseen events on the financial markets.

The major banks issue primarily long-term covered bonds, but they are also dependent on non-covered bonds and certificates. A large part of the market funding is in foreign currency, which makes the major Swedish banks dependent on the international financial markets. Short-term funding is almost exclusively in foreign currency, primarily USD, while approximately half of the long-term market funding is in foreign currency (Diagram 12).

In the past year, the major Swedish banks have had solid access to funding via the financial markets. This applies to both SEK and foreign currency. However, increased uncertainty in the Euro zone or declining confidence in the Swedish financial system could change this.

The major Swedish banks are also exposed to structural liquidity risk.

This risk arises when a bank issues loans with maturities that are longer than its own funding, i.e. practices maturity transformation. The basic idea behind maturity transformation is part of how the financial system

should work. However, compared to other European banks, the structural liquidity risks of Swedish banks are larger.

Some maturity transformation is necessary to have functional credit-issuing operations. The management of structural liquidity risk for the financial system is about establishing limitations and determining where on a scale of total maturity matching and extreme maturity transformation a bank should find itself. In addition to high requirements on the banks' capital, robust regulations regarding the management of liquidity risks are of the highest priority to strengthen stability on the Swedish financial market.

The market funding of the Swedish banks is, and has been for a long time, too short in relation to their assets. The structural liquidity risk that is present is also due to the fact that they have a relatively large share of lending with long maturities in their balance sheets, primarily mortgages. During the financial crisis, when market funding more or less closed, several banks had problems and could not meet their funding obligations.¹² Since then measures have of course been taken to mitigate this risk, but it is still significant.

One way to measure the resilience to short-term liquidity disruptions is to calculate the liquidity coverage ratio (LCR). The major Swedish banks show a slightly better LCR than the average for European banks. All eight banks and credit institutions that are subject to the LCR requirement fulfil it today, and their liquidity reserves have been high during the year (Diagram 14). Swedish banks thereby demonstrate good resilience to short-term liquidity risks.

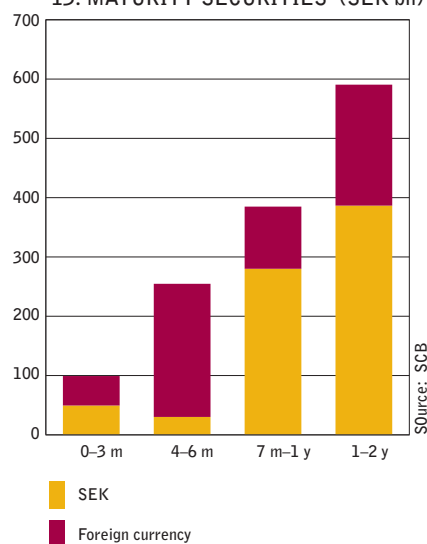
However, resilience declines over a longer perspective. This is evident, for example, in a more long-term structural liquidity measurement like the Net Stable Funding Ratio (NSFR). When this requirement is implemented, the ratio should total 1. In June 2013, the four major banks had a ratio of 0.83. This is lower than most European banks. FI intends to participate in international efforts to develop the measurement for structural liquidity.

The banks' ability to refinance funding that is maturing is to a large extent dependent on the confidence that the participants on the financial markets have in the banks. A bank that has strong resilience to losses therefore faces a lower risk of refunding problems than a weaker bank. As a result, measures to decrease the banks' refinancing risks are closely linked to measures to increase their resilience, for example via increased capital levels.

FI maintains a close dialogue with the major banks to ensure that they are well equipped to meet the forthcoming requirements and that they are more resilient in the event of restricted funding opportunities. It is important that the major Swedish banks work in the future to achieve a better balance in their funding and thereby a greater share of stable, long-term funding. The sensitivity analysis of future macroprudential measures, when viewed in combination with the stress test of the major banks, also shows that it is important that banks are prepared for both future regulatory changes and a sharp downturn in the economy.

12 During the financial crisis, the Riksbank provided the Swedish banking system with liquidity by lending SEK and USD, against collateral, to the Swedish banks. The Swedish National Debt Office also created a state guarantee programme.

13. MATURITY SECURITIES (SEK bn)



■ Liquidity Coverage Ratio

The liquidity coverage ratio (LCR) aims to create a measurement for the amount of liquid assets a company needs to be able to handle a situation where the funding market in principle is closed for 30 days. The requirement was introduced on 1 January 2013 and is designed as a single comprehensive ratio for all currencies as well as one for USD and one for EUR (but not one specifically for SEK). This ratio places liquid assets in relation to net cash flow during a 30-day period of liquidity-affecting stress. A ratio of 100 per cent, or 1, means that a company's liquid assets are sufficient for meeting its short-term funding obligations (<http://www.fi.se/Regler/FIs-forfattningar/Samtliga-forfattningar/20126/>)

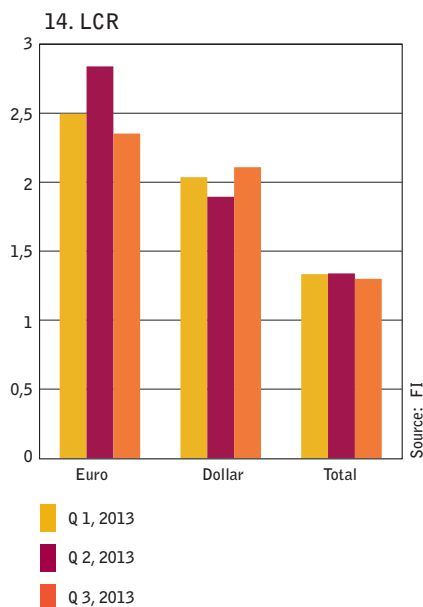
HOUSEHOLD INDEBTEDNESS

The debt of Swedish households is high from an international and a historical perspective. Mortgages represent the largest portion of this debt. This poses a risk for the individual consumer and can pose a risk to financial stability. High indebtedness among households means that they are vulnerable to, for example, a loss of income or rising interest rates. The aggregate Swedish debt ratio is around 170 per cent. Mortgage lending has grown on average by around five per cent during the past year (Diagram 8).

The mortgage cap has broken the trend of steadily rising loan-to-value ratios for new loans. Fewer households are taking on loans that exceed a loan-to-value ratio of 85 per cent (a.k.a. unsecured loans). But the loan-to-value ratio is still high; it is on average 70 per cent for new loans and almost 65 per cent for the mortgage stock as a whole. Some households also have very small margins in their finances. This is evident, for example, in the calculations of discretionary income, where interest rate costs are based on a higher rate than what is currently in effect. According to FI's compilation of such calculations for households with new loans, as many as one-fifth of the households have less than SEK 3,000 left of their disposable income after paying for housing costs and other necessities.¹³ This means that these households are vulnerable to a loss of income or rising mortgage rates.¹⁴ From the perspective of the individual household, the risk is largest in the short term, right after the household has taken on the loan. It is important that the household create a safety buffer against potential negative events.¹⁵

Since the implementation of the mortgage cap, households with heavily mortgaged homes are amortising to a greater extent than before. All households that have a new mortgage with a really high loan-to-value ratio (exceeding the mortgage cap of 85 per cent) amortise, and nine out of ten households with a loan-to-value ratio exceeding 75 per cent amortise.¹⁶ On average, it takes just under ten years to amortise a loan down to 85 per cent. For households with a loan-to-value ratio exceeding 75 per cent, it takes around 13 years to amortise the loan down to 75 per cent.

The story is different, however, for households with a loan-to-value ratio below 75 per cent of the value of the home. These households are clearly less inclined to amortise. The repayment periods are also on average very long. To strengthen the culture surrounding amortisation, FI presented a proposal to the Government on 14 October regarding individually tai-



Net Stable Funding Ratio

The aim of the Net Stable Funding Ratio (NSFR) is for companies to a greater extent to fund long-term assets with long-term liabilities. The measurement is designed as a ratio where the numerator is the weighted funding and the denominator is the weighted asset pool. Funding in the numerator should be equal to or greater than the assets in the denominator, and the ratio thus 1 or greater than 1. The Basel Committee intends to present the final design of the ratio by the beginning of 2014. The Committee has previously announced that NSFR will be implemented on 1 January 2018 (<http://www.bis.org/publ/bcbs188.htm>).

13 The calculations use the banks' discretionary income interest rate, which on average was seven per cent, necessary costs from the Swedish Consumer Agency and amortisation in accordance with the banks' guidelines. Thus, they assume that households reduce consumption to a minimum in the event that there are problems paying the mortgage, but that they do not adjust their amortisation payments.

14 For more information, see FI's report, "The Swedish Mortgage Market 2013", <http://www.fi.se/Tillsyn/Rapporter/Rapporter/Listan/Den-svenska-bolane-marknaden1/>

15 See <http://www.fi.se/Tillsyn/Samverkan/Listan/Protokoll-fran-Samverkansradet-for-makrotillsyn/>

16 The banks are thereby following the Swedish Bankers' Association's recommendation of amortisation of loans with a loan-to-value ratio exceeding 75 per cent.

lored amortisation plans.¹⁷ According to the proposal, the banks should provide the consumer with information about the effects of amortisation in order to enable the consumer to make a more well-founded decision. The Swedish Bankers' Association supported the proposal and at the same time as FI submitted its proposal the Association updated its recommendation for amortisation.¹⁸ The proposal should therefore have an impact relatively quickly.

Increased indebtedness, continued high loan-to-value ratios and a weak amortisation culture among households create risks for individual households, society and financial stability. An economic situation in which negative factors feed off of one another and general confidence in the Swedish economy falls could trigger, for example, a sharp fall in housing prices. In such a situation there is a risk that households would drastically reduce their consumption, which could lead to credit losses in the banks' lending to non-financial firms. A fall in consumption could also lead to lower growth in the Swedish economy and a more drawn-out recession. A sharp fall in housing prices could also have a serious effect on the banks' funding situation, since Swedish banks have a large portion of mortgages in their balance sheets. In the event of an economic development in which negative factors feed off one another and create a downward spiral, the consequences of a high aggregate debt ratio and a debt ratio that continues to grow could be extreme.

If indicators such as the debt ratio and the rate of growth in mortgages continue to be high, FI is not ruling out more measures in addition to those already implemented, e.g. the mortgage cap, higher risk weights for mortgages and individual amortisation plans. Prudence indicates that there is good cause to consider additional measures relatively quickly if the increase in the rate of growth continues to be high. No measures should be ruled out, whether completely new measures or an adjustment to existing measures. However, it will be important to first assess what can be achieved by each measure and conduct thorough consequence analyses. If debt growth continues to be high, two conceivable measures are to raise the risk weight floor and implement the countercyclical capital buffer.

UNSUITABLE INVESTMENTS

FI has been indicating for several years that there are risks that consumers are receiving insufficient advice and that they are being offered products that are complex and unsuitable.

As the complexity of various investment solutions increases, consumers' need for advice and knowledge also increases. In order for advice to be able to function effectively, it must be based on a thorough assessment of whether or not a product is suitable for the individual consumer. Such an assessment must be based, for example, on the consumer's knowledge and experience as well as his/her financial situation and objective for the investment. Companies often do not gather sufficient information about their customers to be able to make an assessment about whether or not

17 More information about individually tailored amortisation plans is available on our website, <http://www.fi.se/Press/Pressmeddelanden/Listan/FI-vill-star-ka-amorteringskulturen/>

18 More information is available at the Swedish Bankers' Association's website, [http://www.swedishbankers.se/web/bf.nsf/\(\\$All\)/CE27450443D059E0C1257C040024CA18?OpenDocument](http://www.swedishbankers.se/web/bf.nsf/($All)/CE27450443D059E0C1257C040024CA18?OpenDocument)

the products they are recommending are appropriate.

Many advisors who sell complex products are paid in the form of commissions. This creates a conflict of interest between the advisor's own interests and those of the consumer. This increases the risk that companies will provide advice that is unsuitable for the consumer. It also steers the advice toward complicated investment solutions even when these are not in the best interest of the customer.

Complex products often create good earnings for companies via various fees, while at the same time these products can incur major costs for consumers. This is often first evident after-the-fact when the product reaches maturity. In other words, the consumer has limited opportunities for achieving a good return on his/her investment, while earnings at the advising company are high. It is also difficult for the consumer to understand how the return is generated, and it is common that the product has a high level of risk, for which the consumer is seldom compensated.

Commission ban for up-front compensation

Both the update of EU's directive with regulations for the securities market (MIFID 2) and the new intermediary directive (IMD 2) propose a commission ban for independent advisors. FI believes a ban on independent advisors to be insufficient since it is difficult for the consumer to assess whether or not the advisor is independent. The new proposals allow national legislators to enhance the ban. In order to rectify the significant conflicts of interest that arise from the presence of commissions, FI supports first and foremost a ban on up-front compensation (fees drawn immediately upon investment). FI is therefore working from the idea that there will be a ban on the Swedish market for up-front commissions for advisors.

There are also companies offering advice on complex products that have not received authorisation, which is a big risk for consumers.

Consumers can be hit hard and have limited opportunities for receiving compensation for any damages that arise. The investments that are made are often associated with high risk, for example extremely complex structured products and direct investments in, or business loans to, small, unlisted companies. In many cases the information about these companies, their operations and investments is often insufficient. There are also cases of dishonest advice regarding PPM funds.

PPM advisory activities require authorisation

Premium pension funds represent a growing share of a private individual's financial assets. The large number of pension savers and an extensive amount of fund capital makes advice and services related to premium pensions potentially very profitable. There is a risk that this will encourage dishonest advice regarding PPM funds. Consumers risk receiving advice that is not adapted to their needs and risk profile.

Funds holding illiquid or unlisted assets can be difficult to value, which can affect consumers.

The models available to the managers for valuing funds are based in part on subjective assumptions. This can create major problems if it turns out that the valuation is not accurate. If the valuation is too low, the existing unit holders' shares are diluted when new unit holder enter the fund. If the valuation is too high, the exiting unit holders gain a disproportionately large share of the fund's value.¹⁹

If the perception that a fund is overvalued spreads among unit holders, this could result in very large outflows, which in and of itself in an illiquid market could lead to a devaluation of the fund. This would affect the shares of the remaining unit holders in the fund. This problem can be magnified during periods of market unrest, partly because inflows and outflows of funds during such periods tend to be large and partly because illiquid assets normally are even more illiquid and difficult to sell during periods of high stress on the markets.

In terms of insurance, there is a risk that consumers can be negatively affected when life insurance companies offer to transfer policies and change the terms and conditions.

■ Rules regarding information

FI has written regulations clarifying the type of information that should be provided when offering a transfer or change in terms and conditions. Even other types of product changes, such as changed allocation of operating costs, contain a risk that the interests of the consumer will be overlooked. In this context, FI has also brought attention to the fact that information regarding historical development and yield that is provided to consumers is often deficient and inconsistent.

The low market rates have been problematic for life insurance companies. Lower interest rates have meant that the present value of the companies' liabilities have risen higher than the present value of their assets, which has a negative effect on solvency. This is most tangible for companies that have issued their customers high yield guarantees for traditional life insurance policies. The companies therefore face strong incentives to convince their customers to switch to other solutions in which the guaranteed benefit is decreased or removed completely.

One way for the companies to improve their financial situation is to adapt their commitments to conditions that are more sustainable in the long run by trying to transfer market risk to the policyholders. This has been done by, for example, lowering guarantees on new insurance policies, changing the terms and conditions of existing agreements or transferring to new agreements, normally from a traditional insurance policy to a unit-linked insurance policy. Even if these changes are necessary, they do entail risks for some consumers. In particular, there is a risk associated with offers to change terms and conditions or transfer an insurance policy that the policyholders' informational disadvantage will be taken advantage of. This risk consists of companies presenting biased information that is based first and foremost on the companies' best interests. It is the company's responsibility to ensure that consumers understand both what they are changing to and what they are giving up as well as how the risk varies across products.

Rising interest rates are fundamentally positive for the financial strength of life insurance companies. However, from a longer perspective, there is a risk that the companies will once again begin to compete via higher bonus interest rates and more generous financial guarantees. If this occurs without the products being adapted to conditions that are more sustainable in the long run, this can result in the reappearance of problems in the future. This once again emphasises the importance of proper market risk management, regardless of how market rates and capital markets develop.

¹⁹ A large portion of the capital invested in funds in the Swedish management companies that are subject to FI's supervision consists of consumers' private and pension savings. On 30 June 2013, the Swedish management companies that are subject to FI's supervision had around SEK 1,915 billion invested in their funds.

Other risks

The probability of acute solvency problems for life insurance companies has decreased, but many companies still inadequately manage their market risks. FI's decision regarding a new discount rate makes life insurance companies less sensitive to changes in market rates. However, there is a risk that a pre-determined discount rate can hide problems in companies over a long period of time. Trade in derivatives is subject to new rules, which among other things places lays down requirements about using central counterparties and provides greater insight into the derivatives market. At the same time, the concentration of risk to the central counterparties is increasing, which makes them increasingly important participants on the financial markets.

■ New model for the discount rate

On 12 November, FI decided on new rules for calculation the discount rate for insurance undertakings (FFFS 2012:23). The rules are based on the principles behind the method in Solvency 2, the forthcoming EU regulatory framework for the insurance industry. The firms shall use market data for up to twenty years and a pre-determined long-term rate. For the Swedish discount rate curve, the level is 4.2 per cent. The market rates are given full weight up to ten years. The market rates beyond this maturity are phased out up to twenty years, at the same time as the long-term rate is phased in.

The new method of calculating the discount rate will not be as sensitive to short-term volatility since it combines a market-based and a model-based valuation for the commitments. The new rules will go into effect on 31 December 2013.

MANAGEMENT OF MARKET RISKS BY LIFE INSURANCE COMPANIES

Management of market risk is not just about capital management and the danger of excessive risk-taking. FI highlighted in previous reports the problem with deficient management of market risk among life insurance companies. For example, they apply inappropriate valuation models that do not capture the risk in guarantees and options. This can lead to the companies designing products with conditions that are not sustainable in the long run. As a result of relatively generous guarantees in their financial commitments, Swedish life insurance companies often demonstrate greater sensitivity to interest rates than life insurance companies in many other European countries. FI believes that additional measures are necessary to promote market valuation and effective risk management. Deficiencies in this management could otherwise result in negative consequences for consumers.

Low interest rates over a long period of time and uncertainty on the stock market can lead to solvency issues in insurance companies. In order to improve solvency and lower the risk level, companies may be forced to make short-term changes to their portfolios to meet current regulations. This can magnify market fluctuations and thereby make the situation even worse, i.e. procyclicality. When companies sell assets with higher risk but also higher potential future returns, there is a risk that the portfolio will be locked into low returns for a long period of time. In the end, this affects consumers, who get a lower return on their insurance capital than what would have otherwise been the case.

The risk that life insurance companies will take short-term decisions and the risk for procyclicality decreased during the year due to rising market rates, the interest rate floor FI implemented last year and FI's decision regarding a discount rate curve that is adapted to the Solvency 2 regulations. However, there is still a risk that market uncertainty will return and that there will be a long period of low interest rates. During a long period of low interest rates and weak growth on the stock market, it is possible in a worst-case scenario that the companies cannot stand behind their guaranteed commitments and thereby be threatened by insolvency. This is because there is a risk that the average return in the portfolio in the event of extended low market rates could be less than the level of the

guarantees in the long-term commitments.²⁰ However, this will first be evident in five to ten years.

The implementation of a new, partly model-based discount rate curve decreases the sensitivity of the life insurance companies to changes in the long-term market rates. However, a model risk does arise since the calculation of the present value of the longest commitments uses a pre-determined long-term interest rate. According to the decision, this interest rate is 4.2 per cent, which is based on long-term expected economic growth and inflation. Since there will be periods during which the long-term interest rates deviate from the pre-determined interest rate, there is a risk that companies will develop products that are not sustainable in the long run and that the commitments cannot be sufficiently covered in the financial markets. If market risk is not managed properly, particularly while interest rates are low, potential problems could be hidden for a long period of time and result in necessary measures being taken too late.

CENTRAL COUNTERPARTIES

The use of central counterparties for trade in derivatives contracts (OTC derivatives) that are traded outside of regulated markets will become increasingly important and the central counterparties will have a more central role in the financial system. Clearing through central counterparties means that counterparty risks, which previously were difficult to identify and assess, are concentrated to a single company. The purpose of central counterparty clearing is to bring counterparty risks in the OTC derivative market to the surface and to facilitate risk management of derivative contracts. The clearing obligation, which is expected to enter into force within the EU in 2014, is an obligation to use central counterparties. This means that all actors trading with derivatives, including Swedish actors, will face greater exposure to both Swedish and foreign central counterparties.

There are many advantages to transferring the management of risks in derivatives bilaterally between counterparties to centrally via a central counterparty. But this also means that the risks are concentrated to the central counterparty and creates dependence between the participating parties. Losses and delayed deliveries at one participant can spread to other participants in an unpredictable manner and have consequences for the financial system. A central counterparty, however, is assumed to have robust systems and resources that can handle the losses and requirements on liquidity that arise. A central counterparty should be able to withstand a situation in which its two largest members in terms of exposure become insolvent. By continuously marking-to-market its exposures, regularly accepting liquid collateral, maintaining access to pre-financed funds in the form of equity and contributions from participants to a loss distribution fund, there should be protection from losses. With access to liquid collateral of high quality and other liquid resources, preparations should be in place to meet obligations at an early stage. If the central counterparties, when competing for members, place too low requirements on marginal collateral under normal market conditions and try to compensate for this with sharp increases in collateral requirements under stressed market conditions, it could be difficult to bring in the collateral and lead to magnified market fluctuations.

²⁰ The average maturity of the commitments is between 15 and 20 years.

It is also very important to prepare clear and credible regulations for how central counterparties should be wound down or restructured in the event they become insolvent. Central counterparties have pre-determined action plans for managing losses up to a certain level. In a situation where these resources are insufficient, there should be a plan for the recovery or organised winding down of the operations so that the disruptions to the financial system are as predictable as possible. Work on such plans is currently underway both at the central counterparties and in ongoing European regulatory work.

Without such rules, there is a considerable risk that increased uncertainty about a central counterparty could create extensive disruptions in the derivatives market. Since the derivative market represents a central part of financial institutions' liquidity and risk management, so disruptions on this market can have major effects on the entire financial system and, by extension, even for the economy as a whole.

European Market Infrastructure Regulation (EMIR)

On 16 August 2012, Regulation (EU) No 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories entered into force. The regulation is directly applicable in all Member States. The aim is to reduce the risks inherent in trading in OTC derivatives. The regulation contains, among other things, rules regarding mandatory clearing via a central counterparty of OTC derivatives that have been declared appropriate for clearing, requirements on reporting of derivative contracts to transactions registers and authorisation of central counterparties and registration of transaction registers.

MICRO LOANS AND DEPOSIT INSTITUTIONS

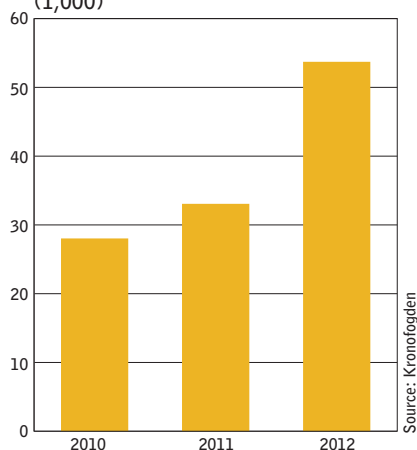
Companies that issue micro loans are not currently subject to FI's supervision.

Micro loans and SMS loans can be associated with high costs for the individual and an increasing number of cases related to these types of loans are ending up at the Swedish Enforcement Authority. Between 2010 and 2012, the number of cases almost doubled (Diagram 15). This can have long-term consequences for those affected, particularly for young consumers who could have difficulties signing for a rental contract or a mortgage in the future. FI believes that the companies that issue micro loans should be subject to an authorisation requirement. A proposal regarding this matter is under investigation by the Government. The fact that microloan companies are currently obligated to register with FI is misleading. Being registered can be perceived as being the same as being subject to the same supervision as companies that require authorisation, which is not the case.

Deposit institutions do not face the same requirements on holding capital as, for example, a bank or a credit market company.

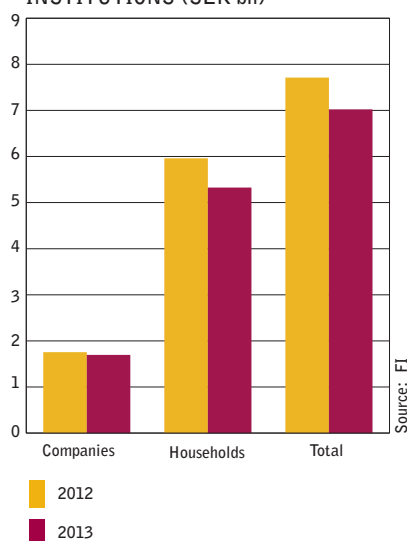
Deposit institutions²¹ are also not covered by the government deposit guar-

15. MICROLOAN CASES WITH THE SWEDISH ENFORCEMENT SERVICE (1,000)



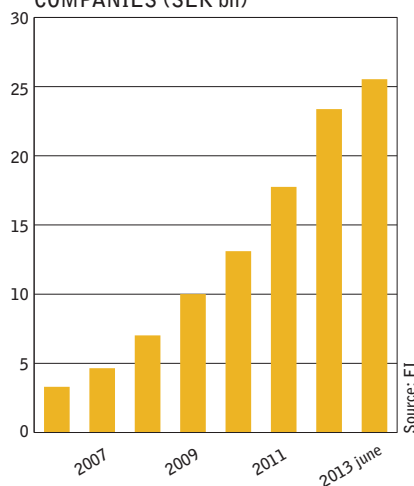
21 Firms and associations that only are registered in accordance with the Deposit Business Act (2004:299).

16. DEPOSITS WITH DEPOSITS INSTITUTIONS (SEK bn)



Three firms were de-registered in 2012–2013. They are not included in the statistics. In September 2013 there were 23 deposits firms.

17. DEPOSITS WITH CREDIT MARKET COMPANIES (SEK bn)



antee.²² This means that consumers risk losing their deposited funds if the institution were to enter into bankruptcy. FI has observed cases where the authorisation requirement in the Banking and Financing Business Act has been circumvented by placing the deposit activities in one company and the lending activities in another.

These companies offer a number of services similar to those that consumers can receive at a bank or a credit market company, although consumers are at the same time exposed to risks that they have a difficult time understanding. FI believes that, from the perspective of consumer protection, deposits should only be received by companies that have authorisation as a bank or credit market company. This would mean that the operations would be subject to a higher level of requirements and FI would thus have greater possibilities for intervening against companies that do not fulfil the requirements. In addition, consumers lending their money would be protected by the government deposit guarantee.

INTERNAL GOVERNANCE AND CONTROL

More and more companies have applied to become a credit market company or a bank, and their business models are based on funding the operations through deposits from the general public that are covered by the government deposit guarantee.

The companies pay a fee for this deposit guarantee, but the fee is not related to the risk that the companies pose to the guarantee system. Deposits to this type of company have increased sharply in recent years, but still only correspond to 1.3 per cent of the total deposits (Diagram 17).

To attract deposits, they offer a higher deposit rate than their competitors. In order to still maintain a high level of profitability, this means that lending rates are high, and loans are often issued to credit-weak borrowers. If a company can no longer attract deposits from the general public, it may find it very difficult to fund its operations. These companies would then have liquidity problems and find it difficult to survive. Other companies with similar business concepts could then also have problems. In turn, this could affect confidence in the financial sector.

One risk that FI has pointed out previously is financial institutions with weak boards of directors and insufficient internal control functions.

The deficiencies in internal governance and control manifest themselves in different ways in different organisations, and the maturity of the companies demonstrating deficiencies varies. Boards of directors do not always prioritise internal control functions.²³ They also do not always have the level of insight that is necessary to demand a sufficient basis for making decisions and conducting follow-ups. The board of directors thus does not receive sufficient information about the company's risk exposure and risk management. In turn, this means that necessary measures for mitigating risks are not taken or are taken too late.

Some boards of directors do not create the conditions for an effective

²² The deposit guarantee applies up to EUR 100,000, which corresponds to around SEK 870,000.

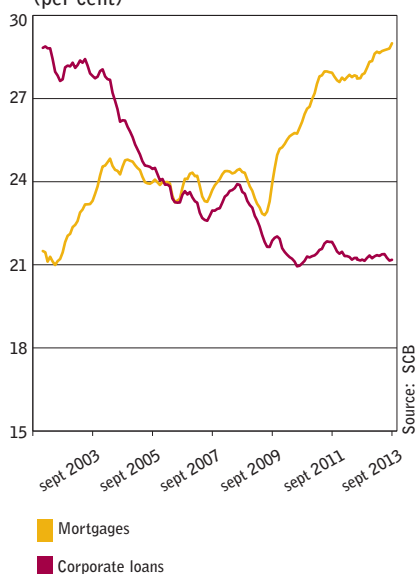
²³ Risk control function, compliance function and internal audit.

organisation with clear division of responsibility between the business's risk management and the risk control function's control of the risk management. In these cases, the control functions are insufficiently staffed, do not receive sufficient system support or do not have sufficient access to the information needed to execute the work effectively.

Another risk related to internal governance and control is that firms subject to FI's supervision increasingly are outsourcing their compliance function to consulting firms. Consulting companies often have insufficient knowledge about the specific company in question since a large part of the assignment is normally not conducted onsite at the client, but rather at the consulting company, and that many consulting companies have a large number of similar assignment with companies subject to FI's supervision.

Since consulting companies often charge by the hour, there are incentives for the financial institution to hesitate about contacting consulting companies in the event that compliance questions arise in the day-to-day operations. There is also a risk that a greater use of consulting companies will result in the financial institutions not having sufficient knowledge internally about the regulations that govern their operations. This could lead to a situation where the institutions do not have the ability to adequately follow up on the work of the consulting companies. This trend increases the risk that the institutions would neither discover nor rectify breaches of the regulations.

18. MORTGAGES AND CORPORATE LOANS AS A SHARE OF LENDING (per cent)



INTERNAL MODELS

According to the current capital adequacy regulations, banks can receive authorisation to measure and cover their credit risks using an internal ratings-based approach (IRB). The internal models should ensure that the risk rating of the banks' exposures is more accurate than the risk rating assigned under the standard approach regulation.

However, the IRB approach has proven to have some limitations that have contributed to the banks' risk weights, and thereby their capital requirements, falling in recent years. Falling risk weights means that, everything else equal, the capital adequacy requirements that the banks must fulfil fall to the same extent.²⁴ If the risk weights become too low, this could mean that they no longer reflect the risk in the underlying portfolios, which in turn means that there is a risk that the amount of capital the banks are holding is too low.

Capital requirements under the standardised and the IRB approaches

Banks may measure the risk in their credit portfolios by using either the standardised approach or a method that utilises internal models. Both of these methods aim to determine the amount of capital that the banks must hold to cover their risks. The standardised approach uses risk weights stipulated by current regulations for the various exposures, while the internal ratings-based approach, following approval by FI, uses the banks' own models to determine the risk weight for their exposures. The risk weights are then used to decide the amount of the bank's risk-weighted assets, and based on this number the capital requirement for credit risks.

²⁴ The assumption is that other limitations like the leverage ratio or Basel 1 floor are not binding.

Lower risk weights have a major impact on the capital requirement. Say, for example, that a bank has a credit portfolio with exposures totalling 100. Under the standardised approach, this portfolio, in accordance with certain principles, has an average risk weight of 75 per cent. Risk-weighted assets in the institution are then $100 \times 0.75 = 75$. According to the regulations, the capital requirement for credit risks shall be at least 8 per cent of the risk-weighted assets. The bank's capital requirement is thus $0.08 \times 75 = 6$. If the bank instead is authorised to use IRB for the same portfolio, and the models give an average risk weight for the portfolio of 50 per cent, the capital requirement, everything else equal, is instead $100 \times 0.50 \times 0.08 = 4$.

Since 2006, the risk weights of the four major banks' total credit portfolios have fallen on average by 42 per cent. The main reason for this is that the banks have gradually gone over to using internal models to measure credit risks. The risk weights for two of the four major banks fell by around 20 percentage points between the end of 2006 and the beginning of 2009. During this period, the banks began to use internal models for the majority of their portfolios (Table 4).

The composition of the banks' balance sheets has also changed over the years (Diagram 18). The percentage of mortgages in relation to corporate lending rose in 2009 and 2010. The fact that their balance sheets contain a larger share of assets with lower risk has been a major reason behind the fall in the banks' average risk weights. Since 2009 the banks also received authorisation to use internal models for other parts of their operations. They have also changed the construction and calibration of the models ex post. These changes were made within the framework of the regulations, but contributed to further decreasing the risk weights of all of the major banks.

TABLE 4. The major banks' average risk weights for their total credit portfolios 2006-2013 and average use of internal models, risk weights and share in per cent

Year	Nordea	SHB	SEB	Swedbank	% IRB
2006	46	54	58	61	0
2009	45	35	48	40	79
2013	36	21	32	26	81

Source: FI

There are two major problems with internal models from a stability perspective. The first is that the construction of the models may be flawed, both in terms of choice of method and the data on which the models are based. This risk is mitigated in that FI tests all new IRB models and major changes to existing models to ensure that they result in an accurate risk classification. Even if the banks do not use model assumptions that are contradictory to the regulations, they face strong incentives to use assumptions that result in low risk weights and thereby lower capital needs.

Second, the models are based on the assumption that future risks can be predicted by historical data. Even long time series can be misleading if structural changes have taken place that are not reflected in the data. Since forward-looking elements as a rule are not included in the models, potential new future risks are also not captured. FI has limited possibilities through its tests of the models of ensuring that the risk measurement

takes future financial situations into consideration. In such cases, the risk can be mitigated through targeted actions in the form of new regulations. For example, in the spring of 2013 FI implemented a risk weight floor for Swedish mortgages to prevent the risk weights from becoming too low for the underlying risk.

The major Swedish banks also have lower risk weights for their corporate portfolios than many of their European counterparts since losses during the financial crisis were lower in Sweden than in other countries. However, the models are backward-looking and, therefore, the risk weights do not necessarily correspond to future risks. FI is also following the development of risk weights for corporate exposures and is participating in international projects to investigate the need for continued floor regulations or other types of limitations to the risk weights.

Finansinspektionen's expert panel

According to this year's panel, the risks in the world economy are slightly less focused on the European debt crisis, even if major risks, primarily political risks, are still present. The panel also views there to be a possible risk related to the development in emerging countries, where growth is limping and the financial markets can be negatively affected by a decrease in central bank stimuli. This year's panel includes Viral Acharya (New York University), Douglas W. Diamond (University of Chicago), Albert S. Kyle (University of Maryland) and Marco Pagano (University of Naples Federico II).

In each risk report, Finansinspektionen (FI) turns to a group of prominent economic researchers. They provide their assessment of the macro economy and the trend seen in the international financial system. They also highlight the greatest risks they see ahead to the economic trend in Europe and the rest of the world.

MAJOR ECONOMIC TRENDS AND RISKS

- What do you see as the major macroeconomic risks in the next twelve months in terms of impact on the financial system?
- What are the biggest risks for the European Union? What is the risk for a country leaving the euro?
- What do you think about the FED's plans to reduce their bond buying program? What impact will this have on the US economy? And what spillover effects can we expect to other markets?
- Is there a need of further central bank interaction, e.g. by the ECB, Bank of England and Bank of Japan? In that case, what tools are left in the toolbox?

In other years, the expert panel has been in agreement that the largest macroeconomic risks have been associated with the debt crisis in Europe. This year, however, the panel is split and also highlights other risks, although there is still considerable concern about the development in Europe. The panel points primarily at different political risks. These are related in part to a political inability to take control of necessary structural reforms in the debt-burdened countries, but also in part to difficulties in establishing a well-functioning banking union within the EU. Some members of the panel still believe there is some risk that a country will leave the euro in the future. Just like last year, Greece and Germany are mentioned as potential countries that could leave.

In addition to the risks in Europe, there are also risks primarily related to the potential negative effects resulting from the possible reduction in the monthly bond buying program of the American central bank, the Federal Reserve (Fed), that has occurred since the autumn of 2012. According to most of the panel members, the most prominent risk associated with this reduction is that emerging countries will have problems linked to large outflows of capital. This can create instability on the financial markets and force an overly strict monetary policy to defend these countries' currencies. As a whole, this poses a risk to these countries' banks and economic growth, and these problems can also spill over into other

countries. However, one panel member takes the position that the probability that these risks will materialise is most likely exaggerated.

Regarding the effect of the Fed's possible reduction on the American economy, the panel members believe there is a risk that the country's recovery will be derailed. However, the panel takes the position that this risk is relatively small, partly because the reduction will only occur when the recovery is considered to be sufficiently strong and partly because the central bank has promised to keep the key interest rate at around zero for a long period of time. One panel member also takes the position that decreased stimuli would be good for stability since the extremely low interest rates have forced investors to move into more risky investments in search of returns.

The panel says that across the board the central banks' stimuli have supported the recovery. However, the challenge remains to re-establish confidence in the financial markets, primarily with regard to the banks in Europe. One panel member takes the position that an important step in this process is ECB's overview of the European banks' balance sheets, which should be completed during 2014.²⁵

RISKS FOR SPECIFIC SECTORS

- In your opinion, how far have banks and other financial institutions come in their recovery since the last risk report?
- After a long period of very low interest rates, have your fears with such a situation materialised? What is your opinion regarding the future?
- Which sectors do you believe will be the most vulnerable in the next twelve months?

The panel as a whole agrees that the banking sector in the USA and in parts of northern Europe have taken considerable strides to increase their resilience through higher levels of capital. However, the panel indicates that there is still work to be done. The panel members are also in agreement that the southern European banks appear to be weaker, and that there probably are still major losses that have yet to be discovered in these banks. One panel member also expresses concern that banks in emerging countries, particularly China, appear vulnerable and can have problems handling lower growth or unfavourable market fluctuations in the future.

Many of the members of the panel indicate that the low interest rates created by the extensive central bank stimuli have had significant effects on the financial markets. This has been primarily visible through higher investments in assets with greater risk. As a result of the expectation that stimuli will be reduced in the future, some price corrections have already taken place, but several panel members believes that there still can be major price fluctuations in the future. Some panel members also believe that the low interest rates create inflation risks in the long run. Decreased stimuli, which raise longer rates while short rates are still held at very low levels, can result in increased liquidity risks in the financial system.

25 Internationally, the overview is called "Asset Quality Review".

DESIRED/EXPECTED REGULATORY CHANGES AND GOVERNMENT ACTIONS

- Do you consider that the new and higher capital and liquidity requirements that will be implemented are sufficient? Is there a need to raise the requirements even more? Is the proposal regarding a leverage ratio sufficient? Is there a need to implement other, more stringent rules?
- According to you, what macroprudential tools are most important to implement?

When it comes to financial regulation, the panel believes that the higher capital and liquidity rules have been necessary. However, many of the panel members point to the importance of a rapid adaptation, primarily with regard to achieving a higher capital level. Several of the members of the panel also believe that it would be desirable to establish stronger links between capital and liquidity rules, since the solvency and liquidity risks they are meant to counteract to a large extent influence one another. The financial institutions that are least stable in terms of capital can be expected to have the greatest problems with re-financing in the event uncertainty increases. The panel members are not in agreement regarding the requirement of a leverage ratio. Some believe it is a step in the wrong direction, away from interlinked capital and liquidity rules, while another believes that it is a good complement to decrease the importance of the banks' risk weight calculations.

In terms of macroprudential supervision, the panel proposes different types of tools. Most of the members of the panel believe that a well-functioning regulatory framework for the winding down of crisis banks should be very important for stability. According to one panel member, a countercyclical financial and monetary policy that supports the financial regulation is another important factor. Another panel member believes that the results from well-balanced stress tests can be an important signal both for actors on the financial market and for supervisory authorities. Finally, one panel member believes that focus should be on ensuring that there are sufficient levels of capital and that other countercyclical or indicative tools are less important.

Glossary

Basel Committee/Basel regulations The Committee that negotiates the regulations for banks and credit institutions that will apply on a global level. Examples of accords include capital requirements and liquidity reserve requirements for credit institutions and requirements on credit institutions to publish information. The first regulatory framework was created in 1988 and was called Basel 1. Basel 3 will be implemented in the EU in 2014.

Bond Interest-bearing security which can be issued by governments, municipalities, credit market companies, mortgage institutions and large corporations. Bonds have a duration of at least a year and the nominal amount is repaid upon maturity. Until then, bondholders receive payments mainly in the form of interest. Bonds issued by corporations are called corporate bonds and are an alternative to funding through e.g. bank loans.

Capital adequacy A measurement of the buffer capital that the banks have to manage future losses.

Capital requirement According to the rules governing capital adequacy, the capital requirement is linked to the bank's current and future risk profile, a self-conducted measurement of risk and an assessment of risk capital needs. For insurance undertakings, the capital requirement is called the solvency margin.

Central counterparty (CCP) A player who acts as an intermediary between a buyer and seller in the management of a securities transaction. In central counterparty clearing, the original contract between buyer and seller is replaced by two contracts with the central counterparty. Therefore, the original counterparties in the transaction no longer have any risk vis-à-vis each other, but instead vis-à-vis the central counterparty.

Common equity Tier 1 capital Tier 1 capital (chiefly comprising equity and profit in the company) less capital contributions and reserves which may be included in the capital base and as Tier 1 capital according to Chapter 3 Section 4 of the Capital Adequacy and Large Exposures Act (2006:1371).

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

Countercyclical capital buffer Entails that the banks are obligated to hold more equity in periods during which systemic risks are building, particularly as a result of high credit growth. In periods during which the financial system is under pressure, the buffer is lowered or completely removed and the banks can then utilise the capital. The purpose of the countercyclical capital buffer is to reduce the build-up of systemic risks in economic booms and simultaneously maintain the supply of credit during downturns.

Covered bonds Bonds issued by credit institutions, the issuance of which requires special authorisation. If the institution enters bankruptcy, the bond holders have a special right of priority to the cover pool consisting primarily of mortgages.

Derivative instruments Financial contracts that are linked to events or conditions at a specific future point in time or period of time. The value of a derivative instrument is linked to the value of the underlying asset. Derivatives redistribute risk and can thus be used both to increase and reduce investors' risk exposure. Examples of derivative instruments are options, futures and swaps.

Finansinspektionen's general guidelines and regulations (FFFS) Regulations which supplement the laws and regulations that fundamentally govern financial operations. Regulations are binding while general guidelines act as

guidance.

IMD (Insurance Mediation Directive) EU directive regarding insurance mediation.

LCR (Liquidity Coverage Ratio) A short-term liquidity measurement which measures a bank's ability to manage a stressed net liquidity outflow for 30 days.

Maturity The amount of time remaining until the payment of a liability or until a bond falls due.

Market funding When a country, a bank or a corporation borrows money by issuing different types of securities on capital markets.

MIFID (Markets in Financial Instruments Directive) EU Directive regarding markets in financial instruments. Contains regulations about the operations of trading venues and transparency requirements for securities transactions.

Option A type of derivative instrument where the party that issued the option undertakes, at a pre-determined future point in time, to buy something from, or sell something to, the holder of the option. The holder is entitled but not obligated to utilise the option.

OTC (Over the Counter) Trade that occurs directly between a buyer and seller, but outside a market place. OTC derivatives are derivatives that are traded between two parties without using a market place and with fully or partly concealed order information.

Risks:

Counterparty risk The risk of a counterparty to an agreement not being able to meet his/her commitments and obligations.

Credit risk The risk of a borrower failing to meet his or her obligations.

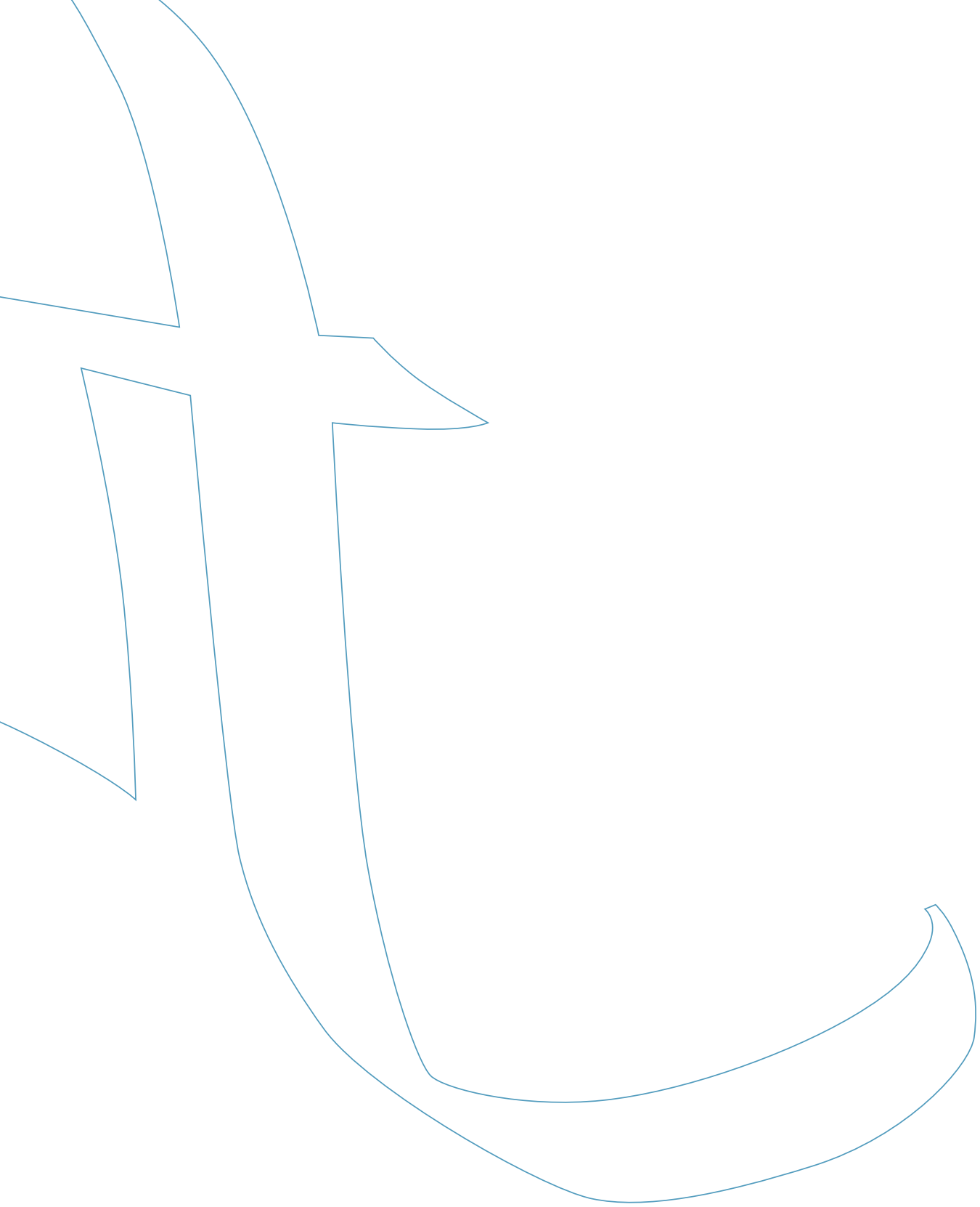
Liquidity risk The risk of not being able to meet payment obligations due to insufficient liquidity.

Market risk The risk of losses due to an unfavourable trend on financial markets, mainly for rates, equities and currencies.

Risk-weighted assets By combining the value of all of the assets of a bank and weighting the risks of these assets using certain percentages, a value for the risk-weighted assets of the bank is obtained. The percentages used in the calculation are called risk weights.

Risk-weight floor on mortgages Entails that FI requires the banks to apply a minimum level to the percentages the banks use to determine risks in their mortgage lending.

Trading venue Market for trading in financial instruments, for example investment firms which organise trading, stock exchanges or MTFs. Also called market place.



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

www.fi.se