



Financial Stability Report 2013:2

The Riksbank's Financial Stability Report

The Riksbank's Financial Stability Report is published twice a year. The Report describes the Riksbank's overall assessment of the risks and threats to the financial system and of the system's resilience to them. When necessary, the Riksbank makes recommendations on measures to manage the identified risks. The stability analysis is therefore an instrument that is directly linked to the Riksbank's task of promoting a safe and efficient payment system. By publishing the results of its analysis, the Riksbank wishes to draw attention to, and warn of, risks and events that might pose a threat to the financial system, and to contribute to the debate on this subject.

The Executive Board of the Riksbank discussed the Report on two occasions – on 6 November and 20 November 2013. The Report takes into account data available as of 20 November 2013. The report is available on Sveriges Riksbank's website, www.riksbank.se. It is also possible to order a printed version of the report free of charge on the website, or to download the report as a PDF.

The Riksbank and financial stability

- The Riksbank has the Riksdag's (the Swedish parliament) mandate to promote a safe and efficient payment system. In practice, this task means that the Riksbank is responsible for promoting financial stability. The Riksbank defines financial stability as meaning that the financial system is able to maintain its three basic functions – the mediation of payments, the conversion of savings into funding and risk management – and is also resilient to disruptions that threaten these functions.
- The Riksbank is also the authority that has the capacity to grant liquidity assistance to individual institutions if problems arise that threaten financial stability. To be able to do this in a good way the Riksbank needs to be well prepared for crises by having an efficient crisis organisation.
- The Riksbank shares responsibility for promoting financial stability with Finansinspektionen (the Swedish financial supervisory authority), the Ministry of Finance and the Swedish National Debt Office. The Ministry of Finance is responsible for the regulation of financial enterprises and Finansinspektionen is responsible for supervision. The Swedish National Debt Office is, in turn, managing government support for banks. The interaction between the authorities is important both in the preventive work and in the event of crisis management. The same also applies internationally as financial enterprises increasingly operate across national borders.
- Following the financial crisis, a new policy area that focuses on analysing, identifying and counteracting systemic risks has emerged around the world: macroprudential policy. In Sweden, the Government has proposed that Finansinspektionen should have main responsibility for the macroprudential policy instruments, which should be used to increase the resilience of the financial system to shocks and to prevent the build-up of financial imbalances in the economy. The Riksbank will be part of a financial stability council that also includes the Government, Finansinspektionen and the National Debt Office. The council will be able to discuss risks in the financial system and its assessments of appropriate measures to manage and counteract such risks.
- The financial system plays a vital role in the economy. It is necessary to have a stable and smoothly-running financial system for the economy to function and grow. A serious crisis in the financial system is liable to entail extensive economic and social costs.
- The financial system is sensitive. This is due to the vulnerability of central parts of the system, such as banks. Banks are vulnerable mainly because they fund their operations at short maturities but lend at longer maturities. This imbalance makes them dependent on the general public and the market having confidence in them. If the market participants' confidence in their counterparties or in financial instruments declines, trading may suddenly come to a halt. The various parts of the financial system are also closely interconnected, for instance in that financial institutions borrow from and trade with one another to such a large extent. This means that any problems that arise may quickly spread throughout the system.
- The combination of the sensitivity of the financial system and the potentially large costs of a financial crisis mean that the state has a particular interest in preventing threats to financial stability. Banks and other market participants do not have an incentive to give full consideration to the risks to financial stability to which they are contributing. This is because a large percentage of the costs of a financial crisis fall to others both within and outside the financial system. If a crisis occurs, the government also needs to be able to manage it at the lowest possible cost.
- The Riksbank analyses the financial system's stability on a continuous basis for the early detection of changes and vulnerabilities that could lead to a crisis. In some cases the Riksbank recommends specific measures to counteract risks. These recommendations may be based on the current economic situation, but they may also relate to more structural circumstances. The recommendations can be aimed at banks as well as at other market participants, or at legislators and other authorities.

The Swedish banking system

- The Riksbank's analysis in the Financial Stability Report focuses on developments at the four major banks, Handelsbanken, Nordea, SEB and Swedbank, as they play an important role in the Swedish financial system by mediating payments, converting savings into funding and managing risks.^{1,2}
- The four major banks dominate the Swedish banking market and together have a market share of approximately 70 per cent of both deposits and lending in Sweden. Together with the other Swedish banks, the total assets of the four major banks in Sweden and abroad are four times the size of Sweden's GDP. Sweden thus has a large banking sector in relation to the national economy, which is partly due to the fact that a substantial part of the banks' operations are conducted abroad (see Chart 1 and Table 1).

Table 1. Geographical distribution of the major Swedish banks' lending

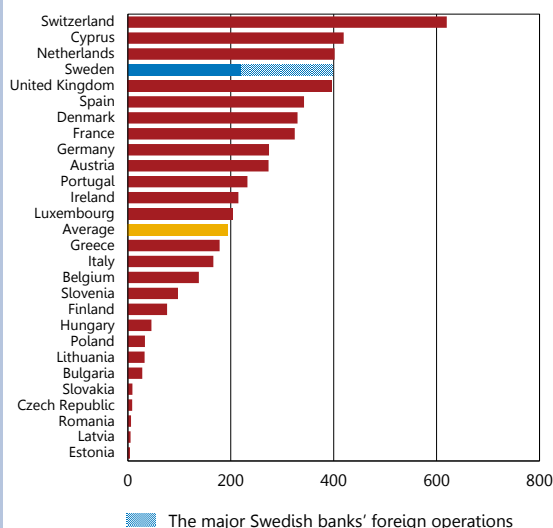
September 2013, per cent

	Handelsbanken	Nordea	SEB	Swedbank	Total
Sweden	66	26	74	86	54
The other Nordic countries	22	70	3	3	36
The Baltic countries	0	2	9	10	4
Other countries	12	2	15	1	6

Sources: Bank reports and the Riksbank

- Over half of the assets of the major banks consist of lending to the public. The banks' borrowers are therefore an important component of the assessment of risks in the financial system. The Riksbank studies the large groups of borrowers particularly closely (see Chart 2) and monitors developments on markets of significance to borrowing, such as the commercial property market and the Swedish mortgage market.
- The financial markets also constitute an important part of the Riksbank's analysis as they play a crucial role in the banks' and companies' funding and risk management. The Swedish banks have a relatively large element of market funding – approximately half of the banks' lending is funded in this way and a large part of this funding is in foreign currency (see Chart 3).

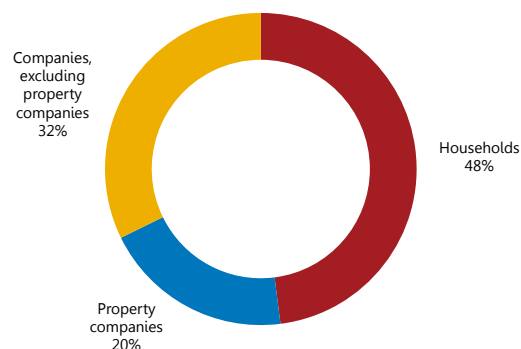
Chart 1. The banks' assets in relation to GDP
December 2012, per cent



Note. Banking assets include all of the assets of the banking groups, both foreign and domestic. The shadowed part of the blue bar shows the four major banks' assets abroad in relation to Sweden's GDP.

Sources: The ECB, the European Commission, the Swiss National Bank and the Riksbank

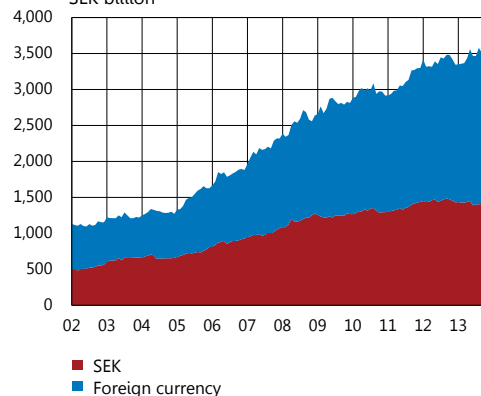
Chart 2. The major Swedish banks' lending per borrower category
September 2013



Note. Including interbank lending and excluding repos.

Sources: Bank reports and the Riksbank

Chart 3. The major Swedish banks' market funding via Swedish parent companies and subsidiaries
SEK billion



Sources: Statistics Sweden and the Riksbank

¹ The term the major Swedish banks refers hereinafter to the Handelsbanken, Nordea, SEB and Swedbank banking groups, including both domestic and foreign operations.

² For more information on the Riksbank's other work with financial stability, see *The Riksbank and Financial Stability*, 2013, and *The Financial Infrastructure*, 2013.

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■ Summary

The Riksbank's assessment is that the Swedish financial system is stable at present. However, the size and concentration of the Swedish banking sector, as well as the banks' extensive market funding, create vulnerabilities that may have a negative impact on financial stability. The high and rising level of indebtedness among Swedish households also poses risks to the financial system and to the real economy. The Riksbank therefore shares Finansinspektionen's assessment that increasing the risk-weight floor for Swedish mortgages from the current level of 15 per cent to 25 per cent is justified. The Riksbank also continues to recommend that the major banks ensure that they have adequate capital and liquidity, and that they improve their public capital and liquidity reporting.

Profitability high at the major Swedish banks

The earnings of the major Swedish banks continue to develop strongly and loan losses are limited. This has contributed to good profitability and good access to market funding. The Riksbank's assessment is that the Swedish financial system is stable at present.

Uncertainty about developments abroad

A stronger development of the international economy and continued stimulation measures by several central banks have helped to reduce stress on the financial markets. However, the situation is still uncertain as several European countries have structural problems and there are question marks about the state of the European banking sector and about future fiscal and monetary policy, primarily in the United States, but also in the euro area.

Household indebtedness poses risks

Swedish mortgages constitute a significant part of the banks' assets and are in turn funded on the financial markets. The fact that household indebtedness is high and rising poses significant risks to the stability of the financial system and the real economy. The Riksbank considers that these risks need to be counteracted using a range of measures designed to strengthen the banks' resilience and reduce household indebtedness. A number of measures have already been taken to counteract these risks, but the Riksbank's assessment is that further measures are needed. The Riksbank therefore shares Finansinspektionen's assessment that increasing the risk-weight floor for Swedish mortgages from the current level of 15 per cent to 25 per cent is justified. This should be done as soon as possible. It is important to continue to promote a responsible lending and amortisation culture.

Structural vulnerabilities in the banking system require measures

The size and concentration of the Swedish banking sector, as well as the banks' extensive use of short-term market funding, create vulnerabilities that may have a negative impact on financial stability. This means that a financial crisis could require extensive government intervention and thus be costly for the taxpayers. The Riksbank therefore recommends that the major banks continue to reduce their structural liquidity risks and ensure that they have enough capital to cope with future losses and disruptions on the financial markets. This would reduce the vulnerability of the financial system. The Riksbank also recommends that the major banks should further improve their public capital and liquidity reporting.

1. Stability assessment and recommendations

A more positive development of the international economy and continued extraordinary measures by the central banks have helped to reduce stress on the financial markets. However, continued structural problems in several European countries, uncertainty over the state of the European banking sector and uncertainty surrounding the future fiscal policy of the United States risk threatening the international economic development in the period ahead. In addition, there is also uncertainty regarding how the global financial markets will be affected by the return to a more traditional monetary policy. In Sweden, the households' high and growing indebtedness entails risks. Several measures to counteract these risks have already been taken, but the Riksbank's assessment is that further measures are necessary. The Riksbank therefore considers it essential to increase the risk weight floor for Swedish mortgages in the coming period. In the light of the structural risks in the Swedish banking system, the Riksbank also recommends the major banks to ensure that they have sufficient capital and liquidity and to further improve their public reporting.

The Riksbank's stability assessment

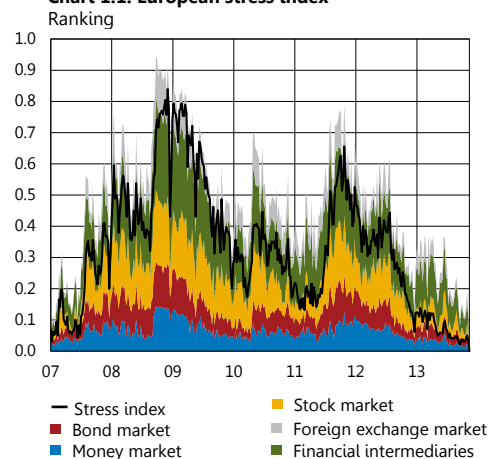
STRESS ON THE FINANCIAL MARKETS HAS DECREASED

Stress on the financial markets has generally decreased recently (see Chart 1:1). This is primarily due to continued extraordinary measures by central banks and brighter growth prospects for countries with developed economies. This has also contributed to the reduction of stress in the Swedish financial system (see Chart 1:2).³

There are signs that the economic situation in the euro area has improved and that the recovery in the United States will continue after several years of weak development in the real economy. However, economic prospects have dampened in several emerging markets (see also Chapter 2). As far as the Swedish economy is concerned, prospects have also brightened after the recent years' slowdown. Sentiment among Swedish households and companies has gradually improved, and together with rising international demand, contributes to an expectation of higher growth in the period ahead. Rising disposable incomes, the improved situation on the labour market and continuing low interest rates are among the factors that have influenced the mood among households.

However, major challenges still remain abroad. Several euro area countries continue to have major structural problems, such as low competitiveness and weak public finances, and need to continue conducting an economic policy to address this. Furthermore, uncertainty also surrounds the state of the European banking sector, which will hopefully be dispersed by the review of the banks' capital requirements which will be conducted by the European Central Bank (ECB) over the next year. Furthermore, there is uncertainty surrounding the future form of US fiscal policy and monetary policy, which has an effect on the development of both the market and the macroeconomy. The return to a more traditional monetary policy may also impact vulnerable emerging markets.

Chart 1:1. European stress index



Note. The European stress index was produced by the ECB and has been published in the ESRB's Dashboard and other sources. The stress level at a specific date is expressed as a value between zero and one, in which one signifies a historically high stress level and zero signifies a historically low stress level. See Holló et al. *CISS – A composite indicator of systemic stress in the financial system*, Working Paper Series no. 1426 March 2012, ECB.

Source: ECB

Chart 1:2. Systemic risk indicators for the Swedish financial system

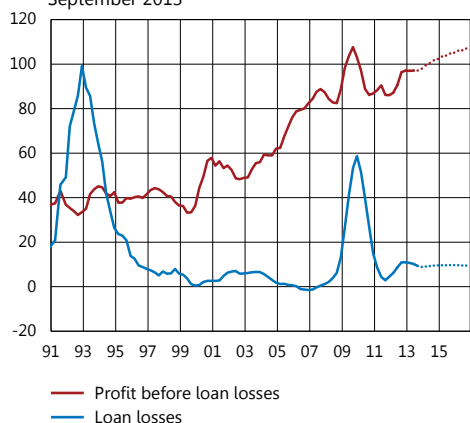


Note. The indicator shows the probability of the four major banks becoming distressed at the same time. See "A systemic risk indicator for the Swedish banking system", Box in the *Financial Stability Report 2011:2*, Sveriges Riksbank.

Source: The Riksbank

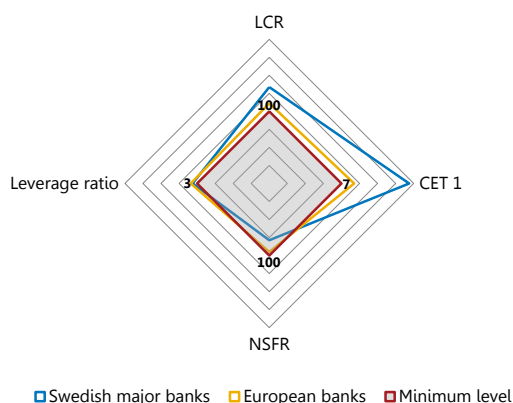
³ *Monetary Policy Report*, October 2013. Sveriges Riksbank.

Chart 1:3. Profits before loan losses and loan losses in the major Swedish banks
Rolling four quarters, SEK billion, fixed prices, September 2013



Note. The broken lines refer to the Riksbank's main scenario.
Sources: Banks reports and the Riksbank

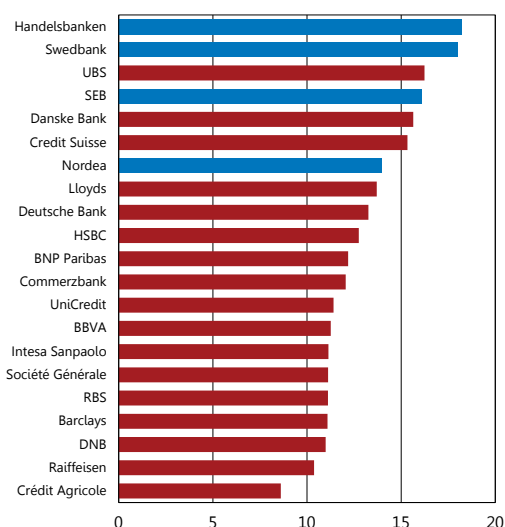
Chart 1:4. The four Basel III measures
December 2012, per cent



Note. The minimum level of the CET 1 ratio includes the capital conservation buffer requirement. The leverage ratio for the Swedish banks is the Riksbank's estimate of the major Swedish banks average leverage ratio according to Basel III without transitional rules. For the Swedish banks, the LCR is according to Finansinspektionen's definition (see FFFS 2012:06).

Sources: Bank reports, EBA, Finansinspektionen and the Riksbank

Chart 1:5. Core Tier 1 capital ratios in accordance with Basel II
June 2013, per cent



Sources: SNL Financial and the Riksbank

THE MAJOR SWEDISH BANKS ARE DEMONSTRATING GOOD PROFITABILITY AND HIGH CORE TIER 1 CAPITAL RATIOS BUT HAVE LOW LEVERAGE RATIOS

Despite a longer period of weak development in the real economy, the major Swedish banks have shown prolonged good results. Among other causes, this is due to comparatively strong demand for credit, primarily from households, and low loan losses (see Chart 1:3). In the Riksbank's main scenario, the major banks' earnings (profits before loan losses) are expected to continue to increase in tandem with the more positive economic development (see also Chapter 4). Loan losses are expected to continue to be low and the banks' results after loan losses are thus expected to increase.

Even if the major Swedish banks are financially strong at present, there are several vulnerabilities in the structure of the Swedish banking system that may affect financial stability. These vulnerabilities include the size and concentration of the Swedish banking sector and its large-scale use of short-term market funding. This means that a financial crisis could require comprehensive public intervention and thus be costly for the taxpayers. To reduce these vulnerabilities, the Riksbank has issued a series of recommendations to the major banks (see the section Recommendations later in this chapter).

In accordance with a recommendation issued by the Riksbank in several previous reports, the major Swedish banks have continually increased their CET 1 ratios and are well-capitalised according to risk-adjusted measures of capital (see Chart 1:4 and Chart 1:5). In this context, it is worth noting that the implemented risk weight floor for Swedish mortgages of 15 per cent does not affect the major Swedish banks' reported core Tier 1 capital ratios – on the other hand, the risk weight floor does mean an increase of the total capital requirement for the banks (see Chart 1:6).⁴

Even if the banks' CET 1 has increased, the CET 1 ratios have become higher, primarily due to the lower average risk weights being used by the banks (see Chart 1:7).⁵ There are two main explanations for this. Firstly, at present, the banks have a larger proportion of lending with lower credit risk than previously. Secondly, the banks calculate an increasingly larger portion of their risk weights using internal risk classification methods. These calculations are based on the banks' historical loan losses and, usually, the calculated risk weights are significantly lower than they would be under the standard models otherwise used. To the extent that the banks' CET 1 ratios have improved due to this reason, the increase in CET 1 ratios does not necessarily reflect improved resilience to loan losses.

The low average risk weights mean that equity forms a relatively small part of the major Swedish banks' total assets, compared with

⁴ In May 2013, Finansinspektionen introduced what is known as a risk weight floor for Swedish mortgages of 15 per cent. The risk weight floor was introduced as a part of Finansinspektionen's total capital assessment in Pillar 2.

⁵ Put simply, the banks' CET 1 capital ratios can be improved either by the banks increasing their CET 1 capital or reducing their assets or their average risk weights. "Average risk weights" refers to risk-weighted assets in relation to total assets.

many other European banks (see Chart 1:8). The same applies in a historical perspective (see Chart 1:9). This illustrates the importance of measuring the banks' capital in several different ways. The Riksbank therefore recommends that the major Swedish banks also report their leverage ratios (see the section Recommendations, later in this chapter).

In an international comparison, the Swedish banks are in a good position regarding the short-term liquidity measure, the Liquidity Coverage Ratio (LCR) (see Chart 1:4).⁶ The high LCR levels can partly be explained by the increased access to liquidity resulting from the central banks' extraordinary measures. This has made it both easy and inexpensive for the major Swedish banks to build up liquidity buffers by issuing bank certificates in foreign currencies and then depositing the money in central banks. At present, the major Swedish banks report the LCR both as an aggregate (that is not divided by currency) and divided into dollars and euros respectively. To provide a more comprehensive view of the four major banks' short-term liquidity situation, the Riksbank recommends that the banks also report the LCR in Swedish kronor.

The major Swedish banks are still taking large structural liquidity risks, which may mean that they may encounter problems in funding their assets if longer periods of stress arise on the financial markets. This is shown by the Riksbank's structural liquidity measure, which has many similarities with the Net Stable Funding Ratio (NSFR) (see Chart 1:4). Even if the major banks have reduced their structural liquidity risks for a prolonged period, the Riksbank considers that they should reduce their risks further and that they should report their NSFR (see the section Recommendations, later in this chapter).

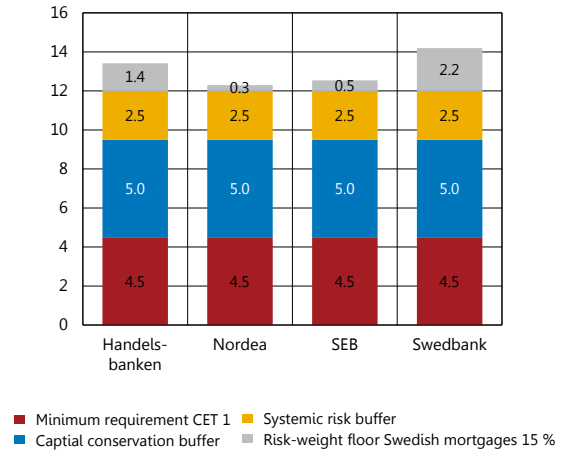
To maintain market confidence, it is important for the banks to be transparent with the risks they are taking, which has also led the Riksbank to recommend the major Swedish banks to report their liquidity risks more clearly. This has contributed towards making them among the most transparent in Europe in terms of liquidity reporting (see Chart 1:10). The Riksbank also considers that the banks' individual capital base requirements (Pillar 2) should be known so that market participants can obtain a complete view of each institution's risk profile.⁷

UNCERTAINTY OVER DEVELOPMENTS ABROAD

Even if there are several signs of brighter economic prospects abroad, uncertainty remains over the recovery of the real economy and future measures by authorities (see also Chapter 2).

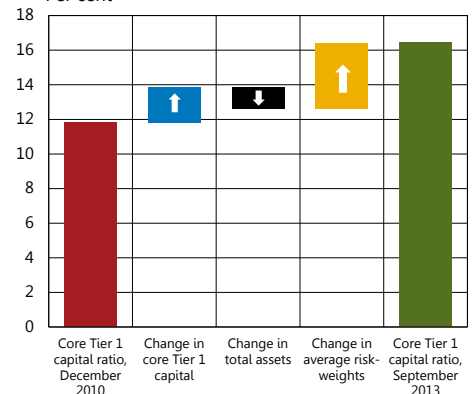
Several countries in the euro area continue to have deficits in their public finances, which means that it can take time before their debts decrease as a proportion of GDP. There are also structural

Chart 1:6. Capital requirement Per cent



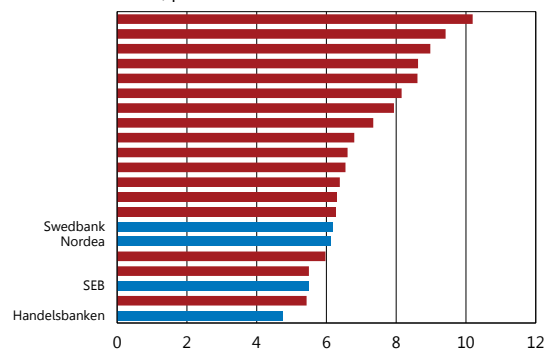
Note. The Riksbank, Finansinspektionen and the Ministry of Finance advocate that the CET 1 ratio requirement for the four major banks should be at least 10 per cent from 1 January 2013, and 12 per cent from 1 January 2015. See the section Recommendations later in this chapter.
Sources: Bank reports and the Riksbank

Chart 1:7. Development of the major banks' core Tier 1 capital ratios, Basel II Per cent



Note. The chart shows the weighted average of the major banks' core Tier 1 capital ratios. The columns in between show how large a part of the increase is driven by changes in core Tier 1 capital, total assets and average risk weights, respectively.
Sources: Bank reports and the Riksbank

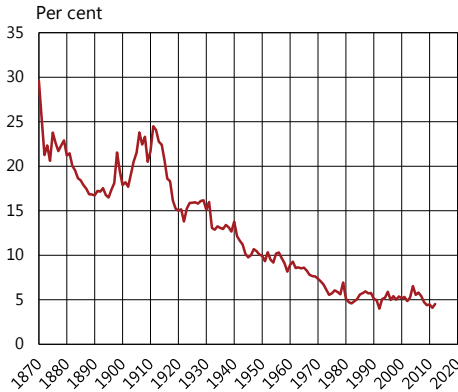
Chart 1:8. Equity in relation to total assets June 2013, per cent



Note. The measure specifies the equity of the Swedish banks (blue bars) and of a sample of European banks (red bars and same sample as in Chart 1:5) in relation to their total assets, with reductions for reverse repos, derivatives and insurance assets. This implies that the measure in this chart is not fully comparable with the measure in Chart 1:4.
Source: Liquidatum

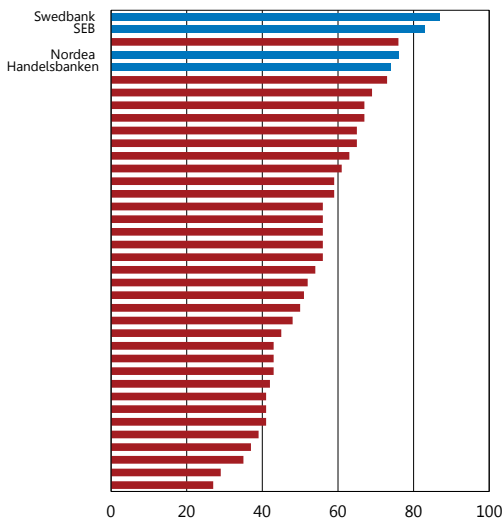
⁶ The LCR measures a bank's ability to manage a net outflow of liquidity in a stressed scenario covering 30 days. In January 2013, Finansinspektionen introduced the LCR as a binding requirement, based on the Basel Committee's definition in *Basel III: International framework for liquidity risk measurement, standards and monitoring*, December 2010, Bank for International Settlements (BIS).
⁷ See the Riksbank's consultation response on the report on new capital requirements, November 2013.

Chart 1:9. Equity in relation to total assets, Swedish banks
Per cent



Sources: Hortlund, Do Inflation and High Taxes Increase Bank Leverage?, *SSE/EFI Working Paper Series in Economics and Finance*, No 612, November 2005 and the Riksbank

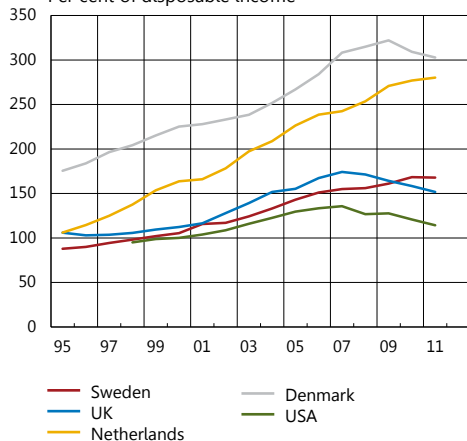
Chart 1:10. Transparency index for liquidity reporting, European and North American banks
March 2013



Note. The transparency index specifies the quality and scope of the banks' public reporting of liquidity risks. The higher the level, the higher the quality and scope. The chart shows the major Swedish banks (blue bars) and a selection of European and North American banks (red bars).

Source: Liquidatum

Chart 1:11. Household debts in various countries
Per cent of disposable income



Source: The OECD

problems in these countries that need to be dealt with. Even if several countries have reduced their cost situations and improved their competitiveness in recent years, a further adjustment will probably be needed. In addition, many banks in countries with sovereign debt problems remain dependent on central bank funding, even if some banks have been able to start repaying their loans to the ECB.

The lack of information on the credit quality of European banks' assets remains and is creating uncertainty over how solvent the European banking sector really is. An examination of the banks' possible capital requirements will be carried out by the ECB, together with the European Banking Authority (EBA), within the next year. At the same time, rectifying the underlying lack of confidence will require credible action plans to manage the problems that such a review may reveal.

Uncertainty over US fiscal policy and monetary policy in the period ahead may also have consequences for both the real economy and the global financial markets.

The US central bank (the Federal Reserve (Fed)) and other central banks around the world are continuing to conduct an expansionary monetary policy. The low interest rates are making investors more inclined to turn to higher-risk investments in their search for yield. This may be contributing towards the accumulation of risks in the financial system. Over the last six months, shifting expectations of a reduction of bond purchases by the Fed have temporarily led to rising interest rates, increased volatility on the bond market and reduced demand for certain types of asset. This shows that the Fed's tapering of bond purchases also risks leading to unease on the financial markets in the period ahead. For example, there is a risk that interest rates will increase more powerfully and rapidly than expected and that emerging markets may be impacted by major capital outflows. For example, there is a risk that interest rates will rise more and faster than expected. This could contribute to capital outflows, particularly from emerging markets that are vulnerable due to factors including financial imbalances.

HOUSEHOLD INDEBTEDNESS DOMINATES THE DOMESTIC RISK OUTLOOK

Housing prices and household indebtedness in Sweden has increased substantially since the mid-1990s (see also Chapter 3). Between 1995 and 2012, real housing prices increased by 143 per cent. At the same time, the aggregate indebtedness of the household sector has increased to just over 170 per cent of households' disposable incomes, after having been at around 100 per cent during the 1980s. This development has been at least as strong as the development in several of the countries that have experienced major problems in conjunction with a fall in prices on the housing market in recent years (see Chart 1:11). One of the reasons behind recent decades' large

price increases is that little new housing is being constructed in certain regions.

Even if the strong price rise dampened somewhat in conjunction with the financial crisis, Swedish housing prices are continuing to rise, above all as regards tenant-owned apartments. Since the start of 2013, Swedish household debts have also shown signs of increasing in relation to disposable incomes, after having stabilised at a high level during the crisis years. This increase is expected to continue in the period ahead (see also Chapter 3). Another factor is that the average amortisation time for Swedish mortgages is currently very long and the proportion of first mortgages that are not amortised remains high (see Chart 1:12).

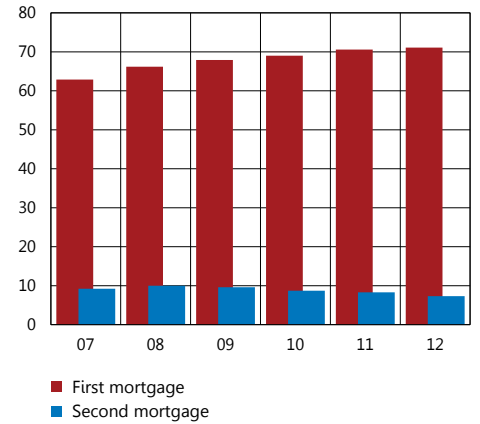
A large part of the upturn in households' aggregate debt ratio (total debt as a percentage of disposable income) can be explained by demand and supply factors such as lowered interest rates, tax changes, urbanisation and a low level of construction. As households' debt in relation to disposable income has almost doubled since the 1980s, households today are more sensitive to changes to such supply and demand factors. A particularly large risk exists if households have unrealistic future expectations, particularly as regards the interest rate situation (see Chart 1:13). Under such circumstances, households may be forced to make large adjustments to their economies, which may have consequences for the real economy.

Households may be even more severely impacted if the macro-economic conditions deteriorate and general confidence in the Swedish economy declines or if housing prices decrease rapidly and uncertainty over the future development of household incomes increases. In this case, indebted households may choose to save and amortise their debts, rather than consuming, in order to compensate themselves for the reduction in value of their homes and thereby restore the weakened balance sheets. After the long period of price rises on the housing market, this may take a long time and lead to large and long-lasting negative effects on the real economy in the form of what is known as a balance-sheet recession, even if the risks of the banks being affected by severe loan losses directly from mortgage lending may seem small at present.

At the same time, the fact that mortgage lending forms a dominant part of the Swedish banks' assets means that the financial system is sensitive to risks linked with indebtedness. The banks largely fund this lending via the market for covered bonds and access to this funding depends on investors having a high level of confidence in the security of the underlying assets.

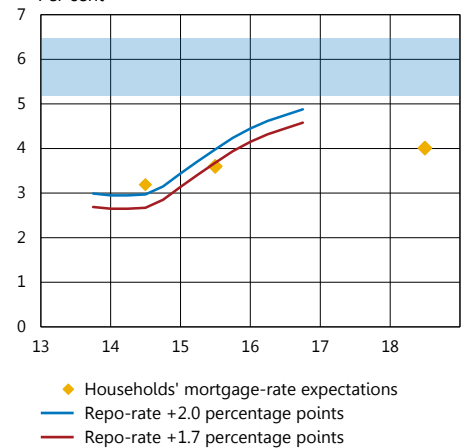
If the development of the Swedish economy is impacted by several negative shocks simultaneously, the consequences of the high and increasing level of indebtedness in the household sector may be tangible both for the real economy and for financial stability.⁸

Chart 1:12. New interest-only mortgages in Sweden
Per cent



Note. First mortgages refers to mortgages with loan-to-value ratios below 75 per cent.
Source: Finansinspektionen

Chart 1:13. Households' mortgage-rate expectations one, two and three years ahead
Per cent



Note. The households' mortgage-rate expectations refer to expectations regarding the variable mortgage rate. The shaded area shows an interval for a conceivable normal interest rate level according to the Riksbank's forecast, based on a long-term repo rate of 3.5–4.5 per cent plus a typical supplement for the difference between a three-month mortgage rate and the repo rate of 1.7–2 percentage points.
Sources: The National Institute of Economic Research and the Riksbank

⁸ This is also confirmed by the responses in the Riksbank's Risk Survey. In this, market participants answered that the risks for the Swedish financial system associated with high indebtedness among Swedish households continue to be large and that they have increased slightly since the spring. See Market participants' views on risks and the functioning of the Swedish fixed-income and foreign exchange markets, Sveriges Riksbank, 2013.

The Riksbank's recommendations

In light of the current stability assessment and the structural vulnerabilities in the Swedish financial system, the Riksbank makes a number of recommendations (see Table 1:1).

Table 1:1. The Riksbank's current recommendations

Current recommendations	Introduced
The risk weight floor for Swedish mortgages should be raised.	Financial Stability Report 2013:2 (NEW)
The major Swedish banks should ensure that they have a CET 1 ratio of at least 12 per cent on 1 January 2015.	Financial Stability Report 2012:1
The major Swedish banks should report their leverage ratios at least once a quarter.	Financial Stability Report 2013:2 (NEW)
The major Swedish banks should continue to reduce their structural liquidity risks and approach the minimum level of 100 per cent in the Net Stable Funding Ratio (NSFR).	Financial Stability Report 2011:2
The major Swedish banks should report their Net Stable Funding Ratios (NSFR) at least once a quarter.	Financial Stability Report 2013:1
The major Swedish banks should report their Liquidity Coverage Ratios (LCR) in Swedish kronor at least once a quarter.	Financial Stability Report 2013:2 (NEW)

MEASURES TO REDUCE RISKS LINKED TO HOUSEHOLD INDEBTEDNESS

Measures are needed to reduce the risks inherent in the high and growing indebtedness among Swedish households. Finansinspektionen's general guidelines for a mortgage cap of 85 per cent of the market value of the housing concerned and for the introduction of a risk weight floor of 15 per cent for Swedish mortgages are welcome measures that have already been adopted. The Swedish Bankers' Association's recommendation that mortgages with loan-to-value ratios above 75 per cent should be amortised over 10–15 years is also having an effect in this direction.

Continued price increases for housing and the continuing increase of household debt from an already-high level suggest that it may be justified to introduce further measures as a precautionary measure.

As this is a matter of risks linked to a specific sector, it may be appropriate to use a targeted capital requirement. In this way, the economic costs of counteracting the identified risks will also be minimised. One measure that could both strengthen the banks' resilience and probably also contribute towards dampening the growth of household indebtedness would be to raise the risk weight floor for Swedish mortgages over the currently applicable level of 15 per cent. Considering this, the Riksbank shares the assessment recently communicated by Finansinspektionen, that risk weights for Swedish mortgages should be raised.⁹ In this context, the Riksbank also takes a positive view of the current work on developing

⁹ See *Risks in the Financial System 2013*, Finansinspektionen, November 2013. *How FI can decrease the risks inherent in household debt*, Finansinspektionen, November 2013.

framework for a countercyclical capital buffer in the Swedish banking system. The countercyclical capital requirement affects the banks' lending to Swedish borrowers and the effect thus becomes broader than that of a targeted capital requirement. If such a framework had been in place today, the countercyclical capital buffer would likely already have been activated (see Chart 1:14).¹⁰ The level of the buffer should be set on the basis of an overall assessment of the systemic risks and also consider other macroprudential policy measures adopted. Once the framework for the countercyclical capital buffer has been introduced, more precise assessments can be made of the interaction of risk weights and countercyclical capital buffers.

Other suitable measures include those promoting a responsible lending and amortisation culture. Consequently, the Riksbank welcomes Finansinspektionen's work on reviewing the banks' standard calculations of the loan scope for new mortgage applicants (the so-called discretionary income calculations). Work in this area is of great importance in enabling banks and households to strengthen their own ability to manage the commitments that follow from mortgage debts, not least when economic conditions change. It is therefore important to continually monitor these efforts in order to be able to assess whether they have had the intended effect.

All in all, the Riksbank thus makes the assessment that further measures will be needed in the period ahead to counteract systemic risks linked with household indebtedness. At the same time, it is important to remember that household indebtedness is largely influenced by a series of structural problems on the Swedish housing market such as a low level of new construction, which cannot be addressed through the use of macroprudential policy measures.

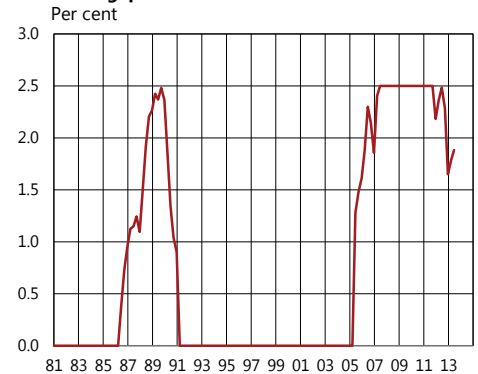
Recommendation:

The risk weight floor for Swedish mortgages should be raised.

The Riksbank makes the assessment that the risks associated with the high and still growing indebtedness in the household sector and their potential consequences, both for the real economy and for the stability of the financial system, justify raising the risk weight floor for Swedish mortgages. The Riksbank shares the assessment recently communicated by Finansinspektionen, that raising the floor for risk weights for mortgages to 25 per cent would be appropriate. The Riksbank considers that this should be done as soon as possible.¹¹

This is expected to lead to a further SEK 32 billion in CET 1 capital being tied up in the banking system.¹² At the same time, the requirement for the major banks' capital base for mortgages will be

Chart 1:14. The countercyclical capital buffer calculated according to a historical measure of the credit gap in Sweden



Note. The calculation of the countercyclical capital buffer is based on a mechanical application of the credit gap according to the BIS standard method. The credit gap shows how much credit granting in relation to GDP deviates from its long-term trend. The long-term trend is calculated using a one-sided HP filter with the help of an adjustment parameter set at 400,000.

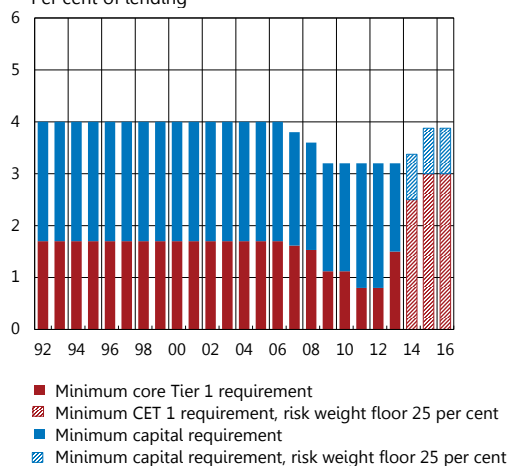
Source: The Riksbank

¹⁰ A mechanical application of the credit gap according to the BIS's standard method indicates a level for the countercyclical capital buffer in Sweden of almost 2 per cent. On a European level, work is underway in the European Systemic Risk Board (ESRB) and elsewhere to develop a framework for the application of the countercyclical buffer, which includes supplementary indicators for the activation and deactivation of the buffer. This work will be concluded in 2014.

¹¹ Finansinspektionen's assessment is that this can take place when the new capital-adequacy directive is incorporated into Swedish law next year. However, the precondition is that Finansinspektionen (contrary to the proposal of the capital-adequacy inquiry) is given the possibility to weigh in the systemic risks that individual institutes give rise to in mortgage lending when assessing an appropriate level for the risk-weight floor.

¹² The Riksbank's calculations are based on a common equity Tier 1 ratio requirement for the banks of 12 per cent.

Chart 1:15. Minimum requirement for the major banks' capital for Swedish mortgages, historical and with a risk weight floor of 25 per cent
Per cent of lending



Note. The solid coloured bars show the statutory minimum requirement for core Tier 1 capital and the capital base under Basel I and the currently applicable transitional rules. The total height of a two-coloured bar thus specifies the size of the minimum capital base that the banks must retain for their mortgages as a proportion of the amount of the mortgages. The red parts of the bars show the lowest requirement for core Tier 1 capital as a proportion of the amount of the mortgage, while the blue parts show that part of the lowest capital base requirement for the major banks' mortgages that can be attained with the use of other capital. The striped bars show the statutory minimum requirement for CET 1 capital and capital base under Basel III after the risk weight floor for Swedish mortgages is raised in accordance with the Riksbank's recommendation.

Source: The Riksbank

restored to approximately the level that prevailed until the middle of the first decade of this century (see Chart 1:15 and the Box Minimum requirement for the banks' capital if risk weights for Swedish mortgages are raised).

Higher risk weights will allow the banks' resilience and the financial system to be strengthened and investor confidence in the banks to be retained. A raised floor for risk weights means that the capital requirement is increased so that the banks build up further buffers by obtaining more CET 1 capital or binding more of the CET 1 capital already existing in the banking system.

The risk of liquidity problems in the banks in the event of a drastic fall in prices on the housing market may decrease if investors' confidence that Swedish banks have sufficient capital is increased further.

A higher floor for risk weights could potentially also have a dampening effect on mortgage debt growth – partly because higher risk weights would make it less profitable for the banks to grant mortgages, and partly because lending rates would be pushed up.

Should a future assessment indicate that the risks associated with household indebtedness have declined, the risk weight floor could be set at a lower level. If, on the other hand, it should become apparent that the risks are not being counteracted to a sufficient degree, further efforts should be considered, either in the form of new measures or in the form of an adjustment of previously-adopted measures. One possible approach could be to raise risk weights further. With an increase to 35 per cent, the major banks' CET 1 capital requirement would increase to the level that applied for the minimum requirement for the total capital base for mortgages prior to 2007 (see the Box Minimum requirement for the banks' capital if risk weights for Swedish mortgages are raised).

THE RIKSBANK'S RECOMMENDATIONS ON THE MAJOR BANKS' CAPITAL LEVELS

Recommendation:

The major Swedish banks should ensure that they have a CET 1 ratio of at least 12 per cent on 1 January 2015.

There are several vulnerabilities in the structure of the Swedish banking system that could have an effect on financial stability. These include the size and concentration of the Swedish banking sector, the banks' extensive operations abroad and the large-scale use of short-term market funding. This means that a financial crisis could require a substantial government intervention and thus be costly for the taxpayers. In light of this, the Riksbank, Finansinspektionen and the Ministry of Finance have assessed that the major Swedish banks should be subject to a CET 1 capital requirement of 12 per cent as of 2015 – which is higher than the requirement of seven per cent adopted in the EU Capital Requirements Directive and Regulation

(CRD IV/CRR)¹³ in June this year.¹⁴ At present, all four major banks already have CET ratios above 12 per cent (see Chart 1:16).

Recommendation:

The major Swedish banks should report their leverage ratios at least once a quarter.

The banks are increasingly using risk-based assessments in their operations. This may have certain advantages but there is reason to question whether these assessments capture the risks associated with high-risk assets.¹⁵ Among other conclusions, several international reports show that the differences between various banks' risk weights do not depend on the risks they are designed to capture to any significant degree.¹⁶ In Sweden, the discussions have primarily focused on the risk weights on mortgages. The discussion has highlighted the need to be able to measure a bank's capital strength in several different ways.

The EU's Capital Requirements Regulation defines a measure of the leverage ratio and the regulation stipulates that the banks are to report their leverage ratio levels to Finansinspektionen in accordance with the CRR definition as of 30 June 2014.

The Riksbank recommends that the major Swedish banks publicly report this measure at least once a quarter in accordance with the CRR definition, starting no later than in the interim reports for the second quarter of 2014. By publishing this measure, the Swedish banks provide investors with information that can be compared both over time and between banks. At present, Nordea, SEB and Swedbank report their leverage ratios in accordance with the CRR definition (see Chart 1:17 and Table 1:2).

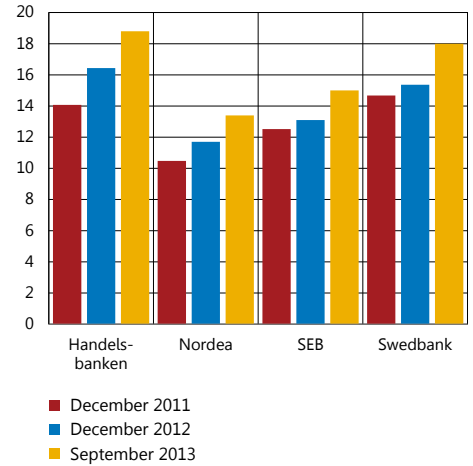
Table 1:2. Public reporting of leverage ratio according to the EU Capital Requirements Regulation

Report leverage ratio according to CRR at least once a quarter	Handelsbanken	Nordea	SEB	Swedbank
	-			

Reports

The Basel Committee is presently producing a proposed leverage ratio measure as a complement to the risk-adjusted capital ratios.

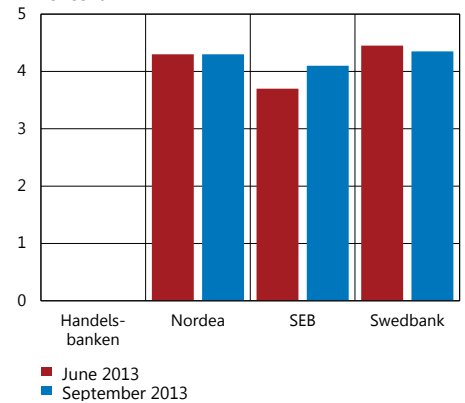
Chart 1:16. CET 1 ratios in accordance with Basel III
Per cent



Note. The CET 1 ratio calculations for the Swedish banks are specified according to the Riksbank's own calculations, based in the Basel III Accord.

Sources: Bank reports and the Riksbank

Chart 1:17. Leverage ratio
Per cent

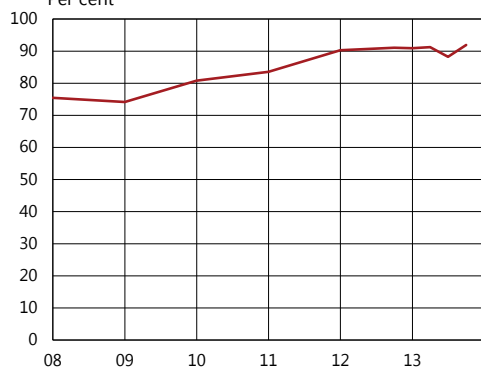


Note: Leverage ratio according to banks reports. Note that this measure differs from the definition of leverage ratio, according to Basel III without transitional rules, as shown in Chart 1:4. Data for Handelsbanken is unavailable.

Sources: Bank reports and the Riksbank

¹³ Capital requirement directive respective capital requirement regulation.
¹⁴ This capital requirement excludes Pillar 2 requirements and the countercyclical capital buffer.
¹⁵ As the banks use their own models, identical assets can be covered by differing amounts of capital, depending on which bank holds them. The banks may also adjust their models with Finansinspektionen's permission. This can mean that the banks' capital requirements decrease over time, even though their risk taking has not changed.
¹⁶ See, for example, *Regulatory Consistency Assessment Programme (RCAP) – Analysis of risk-weighted assets for credit risk in the banking book*; Bank for International Settlements, July 2013 and *Regulatory Consistency Assessment Programme (RCAP) – Analysis of risk-weighted assets for market risk*; Bank for International Settlements, January 2013 (revised February 2013).

Chart 1:18. The major banks' results from the Riksbank's structural liquidity measure
Per cent



Note. Refers to an average for the major Swedish banks. For a more detailed description of the Riksbank's structural liquidity measure, see *Financial Stability Report 2010:2* Sveriges Riksbank.

Sources: Liquidatum and the Riksbank

This measure differs slightly from the CRR definition that is expected to give a slightly higher leverage ratio for any given bank. Using both measures would give a more complete view of the bank's capital strength.

THE RIKSBANK'S RECOMMENDATIONS REGARDING THE MAJOR BANKS' LIQUIDITY RISKS

Recommendation:

The major Swedish banks should reduce their structural liquidity risks and approach the minimum level of 100 per cent in the Net Stable Funding Ratio (NSFR).

The Net Stable Funding Ratio (NSFR) is a measure of the structural liquidity risk and was developed by the Basel Committee. This measurement places the banks' stable funding in relation to their illiquid assets. A low value in the measure thus indicates that the banks are not funding their assets with a sufficient level of stable funding. This, in turn, may mean that they may encounter problems in funding their assets over longer periods of stress.

As only one of the major Swedish banks reports the NSFR in its public reports, it is difficult to assess how the structural liquidity risks have developed for each of the banks. However, the Riksbank has developed a similar structural liquidity measure based on public data.¹⁷ This measure corresponds comparatively well with the NSFR as regards the banking system as a whole. Furthermore, the two measures are highly correlated over time.

According to this measure, the banks increased their NSFR after the financial crisis, among other means by extending the maturity of their market funding (see Chart 1:18). The NSFR is influenced to a great degree by the banks' business models. The Swedish banks' lending largely consists of mortgages with long maturities. Their funding, on the other hand, largely consists of market funding in which the residual maturity is less than one year. In recent years, conditions have been favourable for the Swedish banks to reduce their structural liquidity risks and improve their NSFR. The major Swedish banks can obtain funding for long maturities and their funding costs are lower than for many other European banks.

Work is currently underway to review how the NSFR is to be calibrated. However, the current lack of a complete measure is no reason for the major Swedish banks not to start reducing their structural liquidity risks and approach an NSFR of 100 per cent as the measure is defined by the Basel III Accord from 2010.¹⁸

¹⁷ See *Financial Stability Report 2010:2*, Sveriges Riksbank, for a more detailed description of the Riksbank's structural liquidity measure.

¹⁸ The recommendation is based on the Basel Committee's definition, see Basel III: *International framework for liquidity risk measurement, standards and monitoring*, December 2010, Bank for International Settlements.

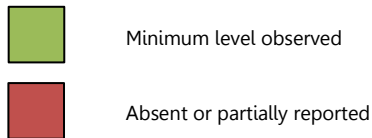
Recommendation:

The major Swedish banks should report their Net Stable Funding Ratios (NSFR) at least once a quarter.

The Riksbank's assessment is that the Swedish banks should report the NSFR. The NSFR is an internationally-accepted measure that makes it possible to monitor developments over time and between banks in a harmonised way. At present, only Swedbank publishes its NSFR (see Table 1:3). In the event that the major banks deem that other measures better illuminate the structural liquidity risks they are taking, the Riksbank urges the banks to report these measures alongside the NSFR.

Table 1:3. Public reporting of the NSFR

Reports the NSFR at least once per quarter	Handelsbanken	Nordea	SEB	Swedbank
Financial Stability Report 2013:2				



Recommendation:

The major Swedish banks should report their Liquidity Coverage Ratios (LCR) in Swedish kronor at least once a quarter.

The LCR measures a bank's short-term resilience to liquidity stress, in which the bank's liquidity buffer is put in relation to a predefined stressed net cash outflow lasting for 30 days. The Swedish banks already report the LCR of all currencies together and separately in euros and US dollars. Supplementing the present reporting with the LCR in Swedish kronor will provide a more complete view of the Swedish banks' liquidity risks in various currencies (see Table 1:4).

At present, no standardised measure is reported for short-term liquidity risks in Swedish kronor making it possible to compare these between banks. As the LCR is a well-established measure in Sweden now, it is reasonable for the major Swedish banks to also report this measure separately in Swedish kronor. In addition, the banks already report the LCR in Swedish kronor to Finansinspektionen. The Riksbank considers that the major banks should complement their public reports with this measure, starting with the interim report for the fourth quarter of 2013.

Table 1:4. Public reporting of the LCR in SEK

Reports LCR in SEK	Handels-banken	Nordea	SEB	Swedbank
	-	-	-	-

RECOMMENDATIONS THAT HAVE BEEN FULFILLED

Since the autumn of 2010, the Riksbank has made recommendations in its Financial Stability Report. Many of these recommendations have now been fulfilled and are therefore not repeated in this report (see Table 1:5).

On 12 November, the Swedish Bankers' Association published a press release stating that the Stibor committee proposes that the board of the Bankers' Association resolves to introduce a requirement for external auditing of the Stibor framework.¹⁹ The Riksbank assumes that such a requirement will now be introduced and thereby considers that the recommendation for a reformation of the framework for Stibor has been fulfilled.²⁰

¹⁹ [http://www.swedishbankers.se/web/bf.nsf/\\$all/E54E88F19057DCFD1257AD400323DB9?open](http://www.swedishbankers.se/web/bf.nsf/$all/E54E88F19057DCFD1257AD400323DB9?open).

²⁰ On 18 September, the European Commission published a proposed regulation on guidelines that includes reference rates among other matters. The proposal places far-reaching requirements on the framework surrounding reference rates. It cannot be ruled out that measures concerning the Stibor framework, above and beyond those proposed by the Riksbank, may arise.

Table 1:5. Recommendations that have been fulfilled

Fulfilled recommendations	Introduced	Observed
The framework for the reference rate Stibor should be reformed through the establishment of clear responsibility, clear governance and control, better transparency, the possibility of verification and an obligation for the banks to conduct transactions at their stated bids on request.	Financial Stability Report 2012:2	Financial Stability Report 2013:2
The major Swedish banks should improve the transparency of their public reporting as regards information on asset encumbrance.	Financial Stability Report 2012:2	Financial Stability Report 2013:1
The major Swedish banks should report comparable key ratios in the form of the sub-components of the Liquidity Coverage Ratio (LCR).	Financial Stability Report 2011:2	Financial Stability Report 2013:1
The major Swedish banks' Liquidity Coverage Ratios (LCR) should amount to at least 100 per cent.	Financial Stability Report 2011:2	Financial Stability Report 2012:2
The major Swedish banks' Liquidity Coverage Ratios (LCR) should amount to at least 100 per cent in euro and US dollars respectively.	Financial Stability Report 2011:2	Financial Stability Report 2012:2
The major Swedish banks should report their Liquidity Coverage Ratio (LCR) at least once a quarter beginning no later than the interim reports published after 1 July 2012.	Financial Stability Report 2011:1	Financial Stability Report 2012:2
The major Swedish banks should improve the transparency of their public reporting by reporting maturity information per asset and liability type, broken down per currency.	Financial Stability Report 2011:1	Financial Stability Report 2012:2

Minimum requirement for the banks' capital if risk weights for Swedish mortgages are raised

The Riksbank deems that the risk weight floor for Swedish mortgages should be raised further to counteract the risks associated with the high and still growing indebtedness of the household sector. This Box presents minimum requirements for the banks' capital for an individual mortgage before and after an increase of the risk weight floor for Swedish mortgages. All in all, an increase of the risk weight floor to 25 per cent means that the banks will need to increase the proportion of CET 1 capital against their mortgage exposures compared with the rules that are currently applicable.

Capital requirements for Swedish mortgages have varied under different regulations and transitional rules. The provisions governing the proportion of the banks' total capital base for mortgages that may be formed by additional Tier 1 capital and Tier 2 capital have also varied.²¹ Furthermore, the definition of core Tier 1 capital has changed. This affects the possibilities of comparing capital requirements for banks over time.²²

Minimum requirement for the banks' capital for Swedish mortgages from a historical perspective

Until the end of 2006, the risk weight for a loan against collateral in the form of housing amounted to at least 50 per cent. During this period, the major Swedish banks were legally required to have a capital base exceeding eight per cent of risk-weighted assets. The major banks were thus forced to have a capital base of four per cent of the mortgage's amount. According to the legislation in force at the time it was also obligatory for banks to have core Tier 1 capital equal to at least 1.7 percentage points of the mortgage's amount.

In 2007, the Basel II Accord was introduced in Sweden, under which the risk weights for mortgages could either be calculated by the banks themselves with the use of internal credit risk models or set at least 35 per cent according to the so-called standard method. In that the major banks started to apply internal credit risk models, the actual risk weights for mortgages were reduced to about 6 per cent. At the same time, the transitional rules between Basel I and Basel II were gradually phased in.²³ For a long period, the capital requirements related to major Swedish banks' mortgages were determined by these transitional rules. In 2007 and 2008, the capital requirement for mortgages was thereby lowered to 3.8 and then 3.6

²¹ The capital base includes the total of core Tier 1 capital, additional Tier 1 capital and Tier 2 capital. Core Tier 1 capital is the capital with the highest quality at a bank. It consists of equity, that is share capital and accumulated non-distributed profits after deductions for certain items.

²² A more detailed review of various capital measures is presented in the Box "How is a capital ratio calculated?", *Financial Stability Report 2013:1*, Sveriges Riksbank.

²³ The transitional rules were introduced for reasons of caution in conjunction with the transition between Basel I and Basel II. See the Box How is a capital ratio calculated?, *Financial Stability Report 2013:1*, Sveriges Riksbank.

per cent of the mortgage's amount, of which 1.6 and 1.5 per cent, respectively, must be made up of core Tier 1 capital. Between 2009 and 2010, under the transitional rules, the capital requirement for mortgages was 3.2 per cent of the mortgage's amount, 1.1 percentage points of which had to be made up of core Tier 1 capital. For 2011 and 2012 the core Tier 1 capital requirement decreased to 0.8 per cent of the mortgage's amount.

The charts in this Box illustrate the minimum size of the capital base and core Tier 1 capital as a proportion of the amount of the mortgage that Swedish banks have had to retain over time. Chart B1:1 specifies in more detail how various requirements for the banks' capital have changed over the same period.

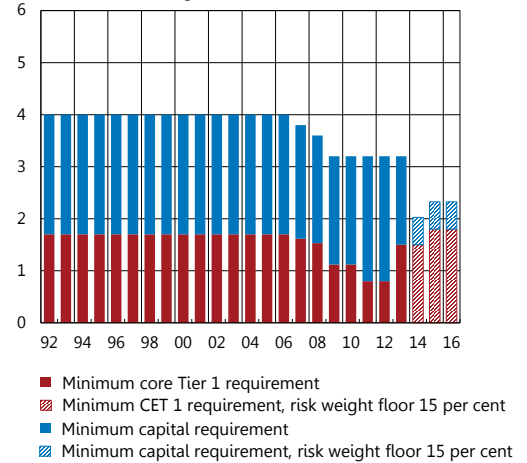
The effect of raising the risk weight floor for Swedish mortgages

In May 2013, Finansinspektionen introduced a risk weight floor for Swedish mortgages of 15 per cent. This means that the minimum requirement for the banks' core Tier 1 capital has increased compared with the situation in 2009–2012.²⁴ Furthermore, other requirements for the banks' capital ratios will be increased as of 2015, which mean that the banks will have to retain slightly more core Tier 1 capital. However, at the same time, the requirement for the total capital base that the banks would have to retain for mortgages would decrease if transitional rules cease to apply on 1 January 2014 (see Chart B1:1 and Table B1:1).

However, an increase of the risk weight floor to 25 per cent means that the banks will need to retain more core Tier 1 capital against their mortgage exposures as under the transitional rules (see Chart B1:2 and Table B1:1). However, in terms of the total capital base, a risk weight floor of 25 per cent and the transitional rules are approximately equivalent. An increase of the risk weight floor to 35 per cent would, in turn, increase the requirement for the banks' core Tier 1 capital above the level that applied to the minimum requirement for the total capital base for mortgages prior to 2007 (see Chart B1:3 and Table B1:1).

The Riksbank's calculations show that a further SEK 25 billion in CET 1 capital would need to be tied up in the banking system if the minimum requirement for the major banks' CET 1 capital was 10 per cent and the risk weight floor was raised to 25 per cent. At present, the banks are deemed to have sufficient CET 1 capital to comply with this minimum requirement. If the requirement for CET 1 capital instead amounts to 12 per cent, the banks will have to further increase their CET 1 capital by about SEK 32 billion to fulfil the minimum requirement. Raising the risk weight floor to 35 per cent

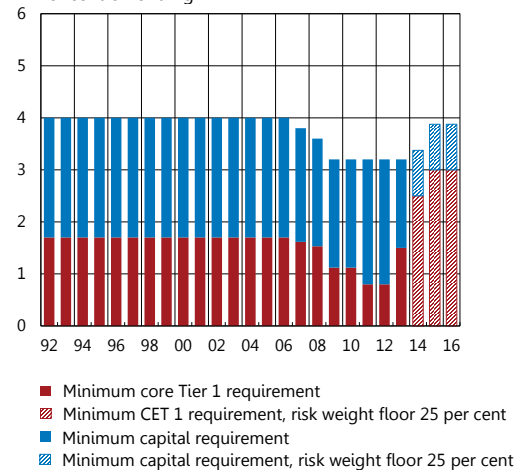
Chart B1:1. Minimum requirement for the major banks' capital for Swedish mortgages, historical and with a risk weight floor of 15 per cent
Per cent of lending



Note. The solid coloured bars show the statutory minimum requirement for core Tier 1 capital and other capital base under Basel I and the currently applicable transitional rules. The total height of a two-coloured bar thus specifies the size of the minimum capital base that the banks must retain for their mortgages as a proportion of the amount of the mortgages. The red parts of the bars show the lowest requirement for core Tier 1 capital as a proportion of the amount of the mortgage, while the blue parts show that part of the lowest capital base requirement for the major banks' mortgages that can be attained with the use of other capital.

Source: The Riksbank

Chart B1:2. Minimum requirement for the major banks' capital for Swedish mortgages, historical and with a risk weight floor of 25 per cent
Per cent of lending

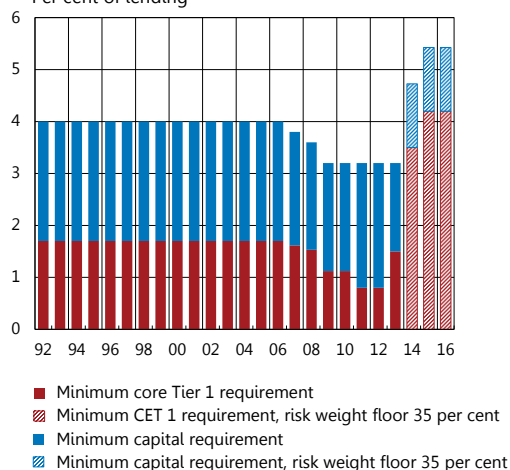


Note. See note to Chart B1:1. The striped bars show the statutory minimum requirement for CET 1 capital and other capital base under Basel III after the risk weight floor for Swedish mortgages is raised to 25 per cent.

Source: The Riksbank

²⁴ The risk weight floor was introduced as a part of Finansinspektionen's total capital assessment in Pillar 2. This means that the risk weight floor does not affect the reported CET 1 ratios of the major Swedish banks. On the other hand, the risk weight floor means an increase of the total capital requirement for the banks.

Chart B1.3. Minimum requirement for the major banks' capital for Swedish mortgages, historical and with a risk weight floor of 35 per cent
Per cent of lending



Note. See note to Chart B1.1. The striped bars show the statutory minimum requirement for CET 1 capital and other capital base under Basel III after the risk weight floor for Swedish mortgages is raised to 35 per cent.

Source: The Riksbank

under a requirement for CET 1 capital of 12 per cent would entail the banks needing to tie up a further SEK 60 billion in CET 1 capital.²⁵

Increasing the risk weights would thus mean that the banks would have to retain more capital per lent krona than would otherwise have been the case. A larger proportion of equity implies a reduction of the banks' return on equity. To keep return on equity at an unchanged level, the banks could choose to raise lending rates to their mortgage customers, which could reduce demand for mortgages. At the same time, confidence in the banks may increase as the banks are holding a larger proportion of equity. In turn, this could reduce the required return placed by investors on equity and debt funding, which could reduce the need to raise lending rates for mortgage customers.

However, if the banks cannot hold return on equity at an unchanged level, higher risk weights may also make it less profitable for the banks to grant mortgages. In this case, the supply of mortgages would also decrease. However, the decision to raise the floor for risk weights for Swedish mortgages only affects those banks that, in accordance with internal credit risk models, apply risk weights below the established floor. Raising the risk weight floor thus affects the banks to different degrees.

²⁵ This data refers to the four major Swedish banks and Landshypotek, Länsförsäkringar Bank and SBAB. The capital requirement of the last mentioned three banks has been calculated on the basis of a minimum requirement for core Tier 1 capital of seven per cent.

Table B1.1. Capital requirements and risk weights over time for mortgages granted by the major Swedish banks

	Year	A. Minimum requirement capital base ratio	B. Minimum requirement core Tier 1 capital ratio	C. Risk weight mortgages	D. Risk weight according to IRB	E Minimum requirement Capital base (A×C)	F. Minimum requirement core Tier 1 capital (B×C)
Basel I rules	1992–2006	8.0%	3.4%	50.0%	-	4.0%	1.7%
	2007	8.0%	3.4%	47.5%	6%	3.8%	1.6%
	2008	8.0%	3.4%	45.0%	6%	3.6%	1.5%
Transitional rules	2009–2010	8.0%	2.8%*	40.0%	6%	3.2%	1.1%
	2011–2012	8.0%	2.0%**	40.0%	6%	3.2%	0.8%
	2013	8.0%	10.0%	15.0%***	6%	3.2%***	1.5%***
Basel III and risk weight floor of 15%****	2014	13.5%	10.0%	15.0%	6%	2.0%	1.5%
	2015–2016	15.5%	12.0%	15.0%	6%	2.3%	1.8%
Basel III and risk weight floor of 25%	2014	13.5%	10.0%	25.0%	6%	3.4%	2.5%
	2015–2016	15.5%	12.0%	25.0%	6%	3.9%	3.0%
Basel III and risk weight floor of 35 %	2014	13.5%	10.0%	35.0%	6%	4.7%	3.5%
	2015–2016	15.5%	12.0%	35.0%	6%	5.4%	4.2%

Note. According to transitional rules, the minimum requirement for 2007 must amount to at least 95 per cent of the capital requirement calculated according to the older Basel I rules, which corresponds to a risk weight of $95\% \times 50\% = 47.5\%$ for the major banks. At the same date, the actual risk weights for mortgages according to the banks' internal ratings-based models (IRB) amounted to about 6 per cent on average. For 2008, the minimum requirement is at least 90 per cent of the capital requirement under Basel I. The corresponding minimum requirement for 2009–2013 amounts to 80 per cent. Note that the effects of the banks' minimum requirement under the transitional rules have been calculated in a slightly simplified fashion using a single transaction as a starting point, rather than the bank's total exposures.

* In December 2008, the maximum proportion of additional Tier 1 capital that may be included in the Tier 1 capital when calculating the capital base was raised from 15 per cent to 30 per cent, meaning that the minimum requirement for the core Tier 1 capital ratio was reduced.

** On 31 December 2010, the maximum proportion of additional Tier 1 capital that may be included in the Tier 1 capital when calculating the capital base was raised from 30 per cent to 50 per cent, meaning that the minimum requirement for the core Tier 1 capital ratio was reduced.

*** In May 2013, Finansinspektionen introduced a risk weight floor for Swedish mortgages of 15 per cent. The risk weight floor was introduced as a part of Finansinspektionen's total capital assessment in Pillar 2. As the total capital assessment is forward-looking, this assessment considers the new higher capital requirements that are expected to come into effect when the regulations of the Basel III Accord are introduced into Swedish law. This implies a CET 1 ratio requirement of at least 10 per cent as of 1 January 2013 and at least 12 per cent as of 1 January 2015. The minimum requirement for CET 1 capital thus amounts to $10\% \times 15\% = 1.5\%$, but the minimum requirement for the capital base is the same as before.

**** In the calculation of this data, it has been assumed that the transitional rules will cease to apply as of 2014. No decision has been taken as to whether the transitional rules will continue to apply after 2013.

■ 2. Financial markets

Brighter growth prospects and expectations of reduced stimulation from central banks have led to a rise in yields for long-term bonds since the spring. The increased uncertainty surrounding central banks' future stimulation measures and surrounding US fiscal policy temporarily led to reduced demand for certain types of high-risk asset and increased volatility on the bond market. In the euro area, a slow adjustment of competitiveness and capital flows between the countries with sovereign debt problems and the core countries is taking place. However, economic development in the euro area countries with sovereign debt problems is still being affected by growing public debts and uncertainty over the situation in the banking sector.

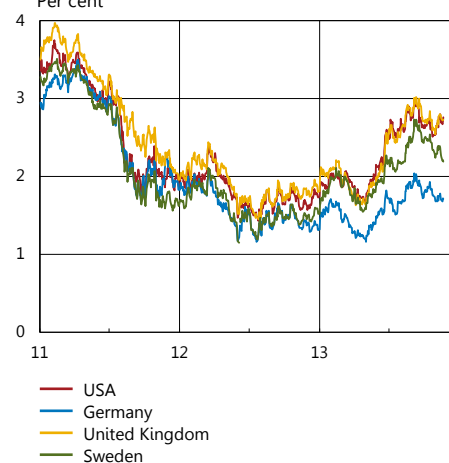
Recent developments on the financial markets

CONTINUED EXPANSIONARY MONETARY POLICY FROM CENTRAL BANKS

Central banks around the world are continuing to pursue an expansionary monetary policy. The US central bank, the Federal Reserve (the Fed), announced earlier that its policy rate would remain at the current level at least as long as US unemployment exceeds 6.5 per cent. In addition, the Fed is continuing to purchase government bonds and mortgage bonds to a value of USD 85 billion per month with the aim of holding long-term yields down and stimulating the economy. Both the ECB and the Bank of England have issued guidance to the effect that they will conduct expansionary monetary policies for a longer period to come. The aim of this guidance is to reduce uncertainty over future monetary policy once the economy has recovered. The Bank of Japan is continuing to purchase assets with the aim of making its monetary policy more expansionary to reverse deflation and fulfil its inflation target of two per cent.

Improved growth prospects in the United States have given rise to a discussion of when the Fed will reduce its support purchases of bonds.²⁶ Expectations that Fed would soon begin tapering off support purchases contributed towards sharply rising long-term bond yields in the spring (see Chart 2:1). However, in September, the Fed announced that its bond purchases would not be reduced until the economic prospects in the United States had improved further, which caused the rise in yields to come to a halt. The shifting expectations surrounding the Fed's stimulatory measures also led to increased volatility on the bond market (see Chart 2:2). This indicates that the Fed's future decisions and monetary policy communication may have a large impact on the bond market in the period ahead. However, the lack of clarity currently prevailing has not contributed towards a larger increase of stress on the Swedish financial markets, among other things shown by the Swedish stress index (see Chart 2:3).

Chart 2:1. Yields on ten-year government bonds
Per cent



Source: Macrobond

Chart 2:2. Expected volatility on the stock and bond markets
Index

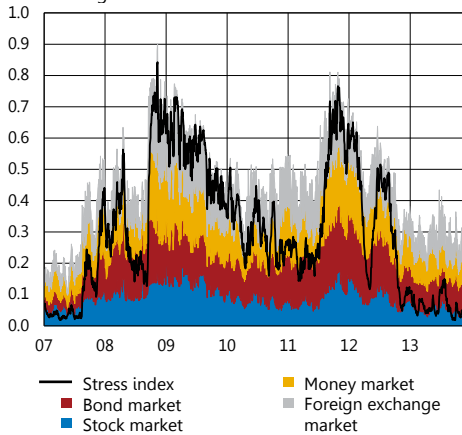


Note. The chart refers to the expected volatility within 30 days that can be derived from pricing on the options market.

Source: Reuters EcoWin

²⁶ See also the Box "Expected tapering of the Federal Reserve's asset purchases" in *Monetary Policy Report*, October 2013, Sveriges Riksbank

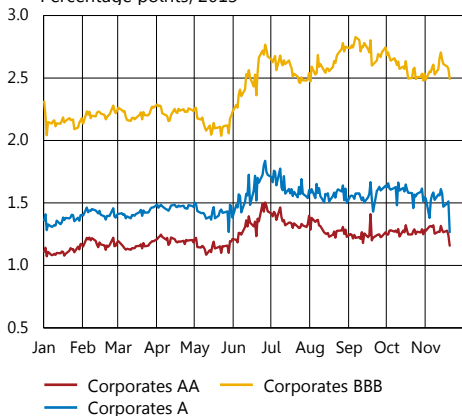
Chart 2:3. Swedish stress index
Ranking



Note. The stress index is a correlation-weighted average value of the stress levels on four submarkets. The stress level at a specific date takes a value between one and zero, where one signifies the historically highest stress level and zero signifies the historically lowest stress level.

Sources: Bloomberg, Reuters EcoWin and the Riksbank

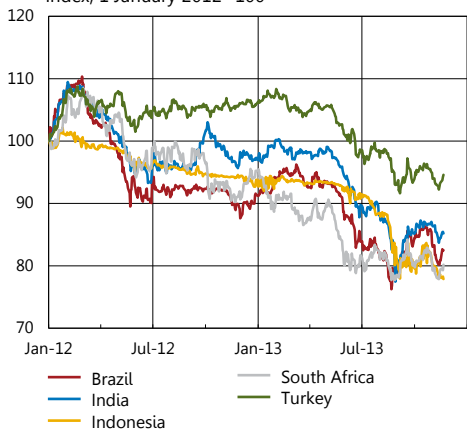
Chart 2:4. Difference between yields on US corporate bonds and government bonds
Percentage points, 2013



Note. The chart shows the difference between the yields for a corporate bond with a certain credit rating and a US government bond with a corresponding maturity.

Source: Reuters EcoWin

Chart 2:5. Emerging markets economies' exchange rate to the US dollar
Index, 1 January 2012=100



Source: Bloomberg

Demand for higher-risk assets dampened temporarily during the autumn.

This was also associated with increased expectations for an imminent phase-out of the Fed's bond purchases. For example, yields on US corporate bonds with lower credit ratings rose as expectations increased (see Chart 2:4). Investors also chose to move capital from certain emerging markets, particularly from countries with current account deficits. The slightly worsened economic prospects in several emerging markets have also contributed to this. The outflows of capital led to a weakening of the exchange rates for India, Brazil, Indonesia, Turkey and other countries (see Chart 2:5). Since September, when the Fed announced that bond purchases will continue at an unchanged rate, yields on US corporate bonds have fallen back and the exchange rates of the emerging markets have strengthened. However, the major market movements in May and June indicate that demand for certain types of high-risk assets may fall when the Fed withdraws its stimulus measures.

There is also uncertainty about US fiscal policy.

In October, some public sector operations were closed down due to political disagreement on the government budget. Furthermore, protracted negotiations on raising the ceiling for government borrowing led to a temporary rise in interest rates on short-term treasury bills. Finally, the US Congress managed to reach a temporary agreement on a budget until 15 January 2014 and for a raising of the debt ceiling until 7 February 2014. According to calculations from the US Office of Management and Budget, the government will be able to fund the national debt until March or possibly June. However, additional protracted negotiations on the debt ceiling run the risk of damaging confidence in the US government's ability to service its debts.

SIGNS OF RECOVERY IN THE EURO AREA

The competitiveness of the euro area countries with sovereign debt problems is slowly improving.²⁷ Among other things, this can be illustrated by the decreased unit labour costs in certain countries.²⁸ The current account deficits of the countries with sovereign debt problems have also decreased compared with before the crisis. This is mainly because imports into these countries have decreased but also because exports have increased to a certain extent. The countries' need to fund their deficits by borrowing on the international capital markets has thereby been reduced. Even if the economic development of the euro area is still being weighed down by weak competitiveness and high indebtedness, there are signs of brighter growth prospects. In the second quarter of 2013, the euro area's GDP increased after having fallen for six quarters in a row.²⁹

²⁷ The Euro area countries with sovereign debt problems primarily means Greece, Ireland, Italy, Portugal and Spain.

²⁸ See Figure 1:8 in the *Monetary Policy Report*, October 2013, Sveriges Riksbank.

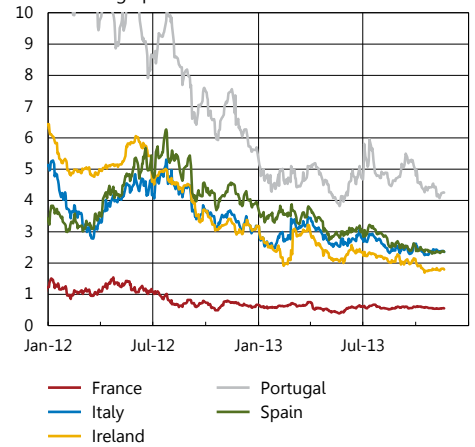
²⁹ See *Monetary Policy Report*, October 2013, Sveriges Riksbank.

The difference in borrowing costs between the euro area countries with sovereign debt problems and Germany is continuing to decrease (see Chart 2:6). This may be because the investors judge that the actual risk linked with investing in government bonds from euro area countries with sovereign debt problems has decreased.³⁰ It may also be because investors now demand lower compensation for this risk. However, for Portugal, the interest rate differential against Germany has been higher in the summer and autumn due to the uncertainty over the government's ability to reform the economy. The public debt of several euro area countries also remains high and growing (see Chart 2:7). In addition, the countries with the largest problems, Greece, Ireland, Portugal and Cyprus, are receiving support loans from the EU and IMF.³¹ Ireland has started to return to market funding ahead of the expiry of the support programme in December, but it is unclear whether Portugal will be able to obtain funding on the market when its support programme expires in June 2014. In addition, the IMF has drawn attention to the risk that Greece's public finances are not sustainable over the long term.

Uncertainty remains over the credit quality in the banks' assets in several euro area countries. Banks in countries such as Spain and Italy are still reporting a large proportion of non-performing loans (see Chart 2:8). However, due to the different methods used to calculate and manage non-performing loans, it is unclear how large the problems in the various countries' banks actually are.³² This is contributing to a low price to book valuation of the banks on the stock market. To address the uncertainty surrounding the state of the banking sector, the ECB will carry out a review of the banks to be overseen by the Single Supervisory Mechanism (SSM).³³ At the same time, the EBA will review the quality of the banks' assets in other European countries. The final stage in these reviews will be a stress test to clarify how much capital the European banks may need.

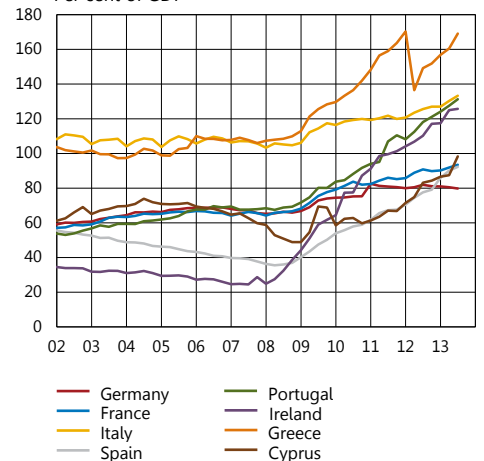
Credit granting in the debt-ridden euro-area countries is still weak. This is partly due to the low demand from households and companies as a result of the poor economic development. But it is also because the supply of loans from the banks is limited. Lending rates for companies are still much higher in the indebted countries than they are in for example Germany (see Chart 2:9). One important explanation for this is that the banks in the countries with sovereign debt problems have higher funding costs than banks in Germany (see Chart 2:10). But even though funding costs have fallen compared with last year, lending rates to companies have not fallen to the same

Chart 2:6. Differences in government bond yields compared to Germany
Percentage points



Note. The chart refers to bonds with a maturity of ten years.
Source: Macrobond

Chart 2:7. Public debt of euro area countries
Per cent of GDP



Note. Greek national debt fell in the beginning of 2012 due to the write-down of the debt to private investors.
Source: Bloomberg

Chart 2:8. Non-performing loans in the banking sector
Per cent of bank assets



Note. The series are not entirely comparable as non-performing loans are defined in different ways.
Sources: Bank of Spain, Reuters EcoWin and the Riksbank

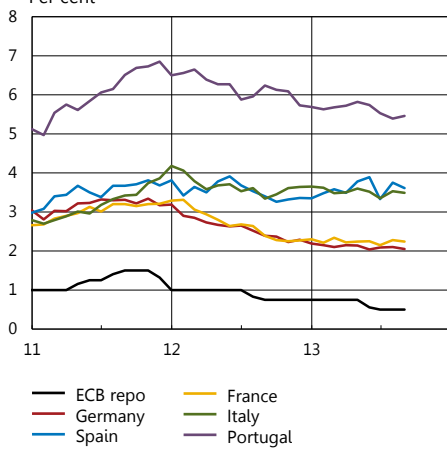
³⁰ In *Market participants' views on risks and the functioning of the Swedish fixed-income and foreign exchange markets*, Sveriges Riksbank, 2013, respondents consider that the risks associated with the development of the euro area could still have serious consequences for the Swedish financial system, but that the probability of this happening has decreased somewhat.

³¹ Furthermore, Spain has received a targeted bank support programme.

³² On 21 October, the European Banking Authority published a common definition of non-performing loans to be used going forward.

³³ This review will start in November 2013 and is expected to take one year.

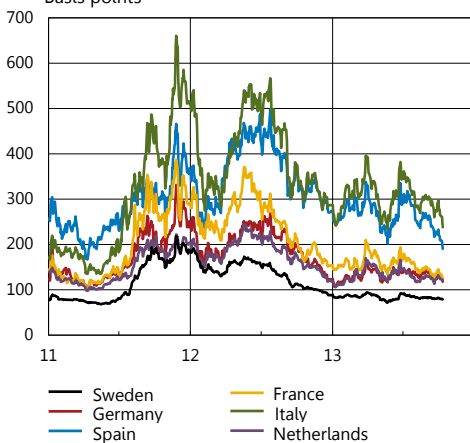
Chart 2:9. Interest rates on unsecured corporate loans
Per cent



Note. Refers to new and renegotiated loans regardless of maturity.

Source: ECB

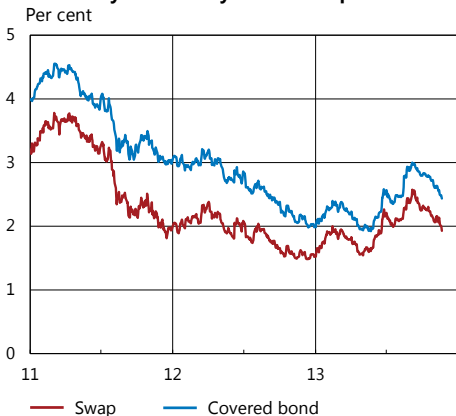
Chart 2:10. Five-year CDS premia for European banks
Basis points



Note. The chart refers to a selection of major banks in each country.

Sources: Bloomberg and the Riksbank

Chart 2:11. Yields on Swedish banks' covered bonds with five-year maturity and the swap rate
Per cent



Note. The swap rate refers to an interest-rate swap with a five-year maturity.

Source: Bloomberg

extent. The banks' lending to companies is also continuing to decrease in both Spain and Italy.

Markets that are important for Swedish banks' funding

THE MARKETS FOR THE BANKS' LONG-TERM FUNDING

Financially-strong banks in countries with good public finances have low funding costs. This is demonstrated, among other things, by the low CDS premiums for banks in countries such as Sweden, Germany and the Netherlands (see Chart 2:10). In line with the decrease of unease on the European financial markets, funding costs for banks in Spain and Italy have fallen compared with last year. On the one hand, reduced unease on the financial markets benefits the Swedish banks' market funding. On the other, Swedish banks' good access to cheap funding could be impaired when investors become more willing to invest in other banks.

Yields on the Swedish banks' long-term bonds have risen, however (see Chart 2:11). This is in line with developments abroad, where the long-term market rates have also risen. However, the difference between the yield on covered bonds and the fixed rate in an interest-rate swap³⁴, which is often used by market participants to estimate the risk-free interest rate, has been relatively constant.³⁵ This indicates that the rising yields on the Swedish banks' covered bonds are not due to investors demanding increased compensation for the risk linked with investing in these bonds.

The banks in the euro area are continuing to repay their loans from the ECB. They have now repaid almost EUR 380 billion of the three-year loans totalling EUR 1,100 billion that the ECB issued in December 2011 and February 2012.³⁶ It is primarily banks in the core countries and Spain that have reduced their borrowing from the ECB (see Chart 2:12). However, the banking systems in several of the countries with sovereign debt problems remain dependent on the ECB for their funding. It is thus uncertain whether the banks will be able to return to market funding or whether they will need new loans from the ECB when the three-year loans mature in December 2014 and February 2015.

Banks in several European countries have reduced their issuance of bank bonds. This particularly applies to the banks in the countries with sovereign debt problems. In 2013, issuance by these banks amounted to an average of EUR seven billion per month, compared

³⁴ An interest-rate swap is an agreement between two parties to exchange interest payments over a certain period of time. Usually, one party pays a fixed rate and receives a variable rate in exchange.

³⁵ As the parties in an interest-rate swap are exposed to each other, interest-rate swaps are associated with a certain amount of counterparty risk. However, interest-rate swaps are associated with low risk as the parties entering the swap contract make frequent settlements, meaning that they do not have major exposures to each other.

³⁶ The three-year loans can be repaid on a voluntary basis each week until the loans mature.

with an average of EUR 31 billion per month over the previous six years. In particular, issuances of covered bonds have decreased. The low issue volumes are probably due to banks in these countries reducing their indebtedness to strengthen their balance sheets. The banks may also already have met part of their funding requirements through borrowing from the ECB. The banks in the euro area's core countries and the Nordic countries have not reduced their issuance volumes to the same extent.

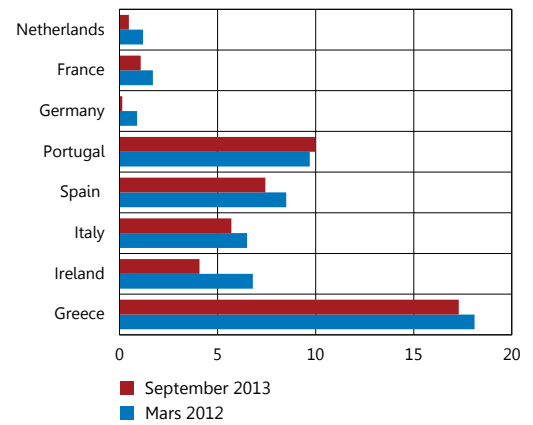
MARKETS IMPORTANT TO THE MANAGEMENT OF LIQUIDITY

Risk premiums on the interbank market remain low in Sweden and abroad (see Chart 2:13). This is largely due to the continued good access to liquidity on the markets. In the euro area and the United States, the central bank's support measures are contributing to a surplus of liquidity. This also benefits Swedish banks as their funding is mainly conducted in euros and dollars. Furthermore, in Sweden's banking system, there is a structural liquidity surplus in Swedish kronor towards the Riksbank that the banks deposit with the Riksbank overnight. Since the beginning of the year, the banks have chosen to invest parts of this surplus in the Riksbank's weekly certificates instead of merely depositing it overnight. This suggests that uncertainty over the banks' liquidity situation has decreased. As compensation for the more long-term investment, the banks receive a ten basis points higher interest.

Turnover on the repo market in Europe is increasing again.

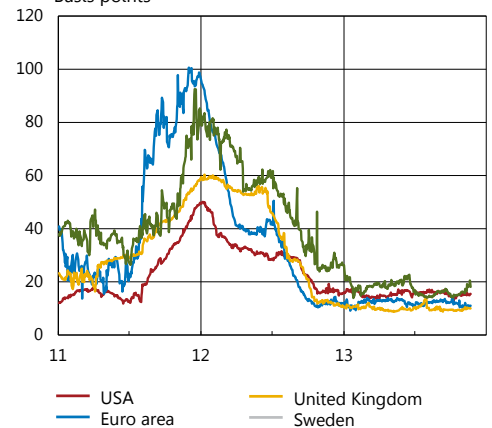
According to an investigation by the International Capital Markets Association (ICMA), activity on the repo market increased by seven per cent between December 2012 and June 2013, after having fallen in the previous year.³⁷ In Sweden, turnover on the repo market for government bonds has also increased, while turnover on the repo market for covered bonds has decreased.³⁸ The increased activity on the repo market in Europe may indicate increased trade between the banks' customers but also an increase in the banks' confidence and willingness to trade with one another. However, unsecured lending between banks in different euro area countries is still low.³⁹

Chart 2:12. Banks' borrowing from the ECB
Per cent of bank assets



Sources: Bloomberg, ECB and the Riksbank

Chart 2:13. The risk premium on the interbank market
Basis points



Note. The risk premium for Sweden is calculated as the difference between the three-month Stibor rate and the overnight index swap rate (STINA).

Sources: Bloomberg and the Riksbank

³⁷ ICMA European Repo Market Survey, June 2013.

³⁸ According to the Riksbank's statistics on turnover on the money and foreign exchange markets.

³⁹ According to the ECB's statistics on deposits in the banks.

■ 3. The Swedish banks' borrowers

The level of household debt in Sweden continues to increase from an already high level and the assessment is that debts will continue to increase somewhat more rapidly than incomes in the period ahead. Lending to Swedish companies is, on the other hand, more subdued. The ongoing low level of interest rates means that both companies and households are well able to service their loans at present. However, an increasing number of households have chosen variable-rate mortgages and they are expecting low interest-rates. This could have an impact on the households' ability to maintain their level of consumption if a rapid rise in interest rates or a fall in housing prices were to occur. In such a case, the profitability of the Swedish companies may also be affected and the risk of loan losses for the banks may increase. The prospects for the banks' borrowers abroad are somewhat mixed. In Finland, a weaker economic outlook has undermined the debt-servicing ability of the borrowers, while the creditworthiness of borrowers in the Baltic countries continues to improve.

The Swedish household sector

Household debt has continued to increase from an already high level.

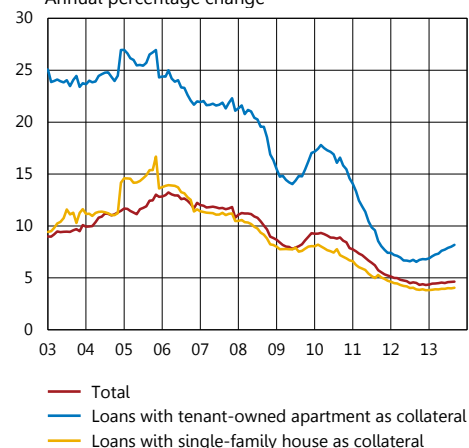
The growth in borrowing can mainly be explained by the fact that mortgages with tenant-owned apartments as collateral have increased (see Chart 3:1), which reflects the continued high level of activity on the Swedish housing market. Housing prices have also risen during the year, particularly the prices of tenant-owned apartments (see Chart 3:2), and more households than previously believe that housing prices will be higher in the period ahead.⁴⁰ To a certain extent this can be related to an improvement in the financial situation of the households during the year thanks to rising disposable incomes and a stronger labour market.⁴¹ The households are also more optimistic about the future than earlier.⁴²

Household debt is expected to increase somewhat faster than household income in the years ahead (see Chart 3:3).

The aggregated debt ratio for the entire household sector (total household debt as a proportion of disposable income) was 172 per cent in the second quarter of this year and was thus high in both an historical and an international perspective. This measure also includes households that are not in debt but have an income. The debt ratio is expected to increase in the period ahead as the Swedish economy strengthens and housing prices rise. The debt ratio will not, on the other hand, increase as dramatically as previously. This is partly because interest rates are expected to rise and because the possibility to take a mortgage with a very high loan-to-value ratio is limited by the mortgage cap.

Many households have increased their existing loans. According to Finansinspektionen's statistics on new mortgage holders, the households that were included in the random sample from 2011 have increased their total debts by 11 per cent over the course of one year, despite the fact that 32 per cent of these households have amortised

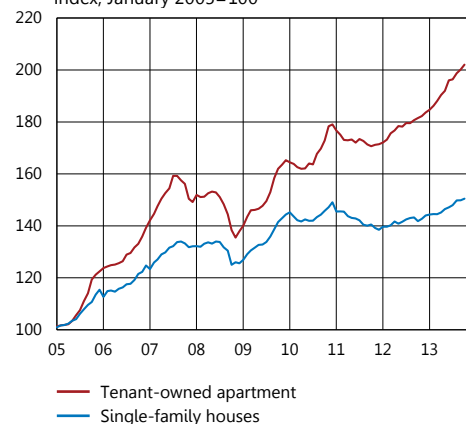
Chart 3:1. The Swedish households' debt
Annual percentage change



Note. Total lending comprises all loans from monetary financial institutions (MFI) to households, including households' non-profit organisations.

Sources: Statistics Sweden and the Riksbank

Chart 3:2. Nominal housing prices in Sweden
Index, January 2005=100



Note. Housing prices are seasonally adjusted.

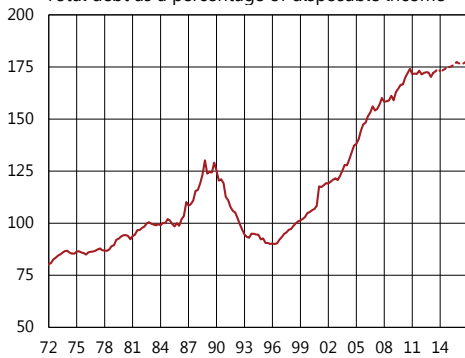
Sources: Valueguard and the Riksbank

⁴⁰ *Housing price indicator*, October 2013, SEB.

⁴¹ *Monetary Policy Report*, October 2013, Sveriges Riksbank.

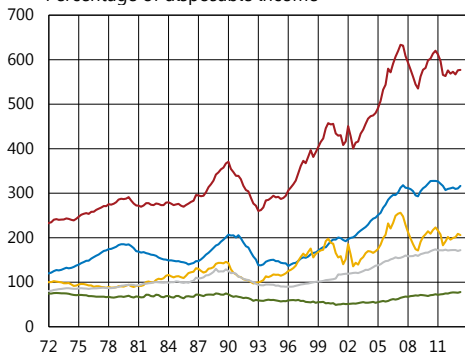
⁴² *Business Tendency Survey*, October 2013, National Institute of Economic Research.

Chart 3:3. The Swedish households' debt ratio
Total debt as a percentage of disposable income



Sources: Statistics Sweden and the Riksbank

Chart 3:4. The Swedish households' assets and debt
Percentage of disposable income

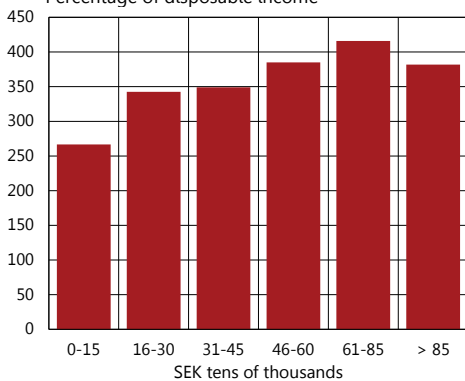


— Total assets excluding collective insurance
— Real assets
— Liquid assets
— Debt
— Cash and bank deposits

Note. Liquid assets refers mainly to cash, bank deposits, bonds, mutual funds and shares. The figures for liquid assets have been revised upwards from the beginning of the second quarter 2002. Real assets are for example houses.

Sources: Statistics Sweden and the Riksbank

Chart 3:5. Debt ratios for new mortgage holders in Sweden per different income groups
Percentage of disposable income



Sources: Finansinspektionen and the Riksbank

their mortgages.⁴³ This means that net amortisation (gross amortisation minus new loans) among these households has been negative. This behaviour on the part of existing borrowers indicates that it is not only households that buy or change homes that contribute to the increase in debt.

The value of the households' total assets exceeds the amount of the households' debts (see Chart 3:4). Total assets (excluding collective insurance saving) have also increased in value during the year as a result of higher share and house prices and amounted to almost 600 per cent of disposable income at the end of October. The value of the households' liquid assets has been revised upwards as their holdings of unlisted shares are now included in the statistics.⁴⁴

The overall balance sheet also shows that the households' net assets (total assets minus debts) are four times greater than their disposable income. However, both assets and debts are unevenly distributed between different income groups. At the same time, however, Finansinspektionen's statistics on new mortgage holders show that there is a limited spread in the debt ratio between different income groups (see Chart 3:5).⁴⁵

Housing, shares and mutual funds make up a large part of the households' assets. However, the value of these assets can vary. In periods of financial turmoil, the value of the assets may change rapidly and significantly. The nominal amount of the debts does not change, however, which means that the households' net assets may quickly decrease if unease arises on the financial markets. In turbulent times, it may also be difficult for the households to sell their assets in order to pay off their loans if problems arise. This is because the households' assets include housing, which it may be difficult to sell quickly, particularly during periods with falling housing prices. If one disregards illiquid assets and assets that can fluctuate sharply in value the households' remaining assets, that is cash and bank deposits, have increased at a somewhat slower rate than their debts.

Household saving has increased (see Chart 3:6). Total saving amounted to just over 12 per cent of disposable income during the second quarter of 2013. The households' financial saving also increased and amounted to almost three per cent of disposable income at the same point in time. These are high levels in historical terms and have contributed to a slight increase in the households' buffers during the year. The fact that saving has increased in recent

⁴³ This type of micro data contains updated information (for example on current debts, interest rates and amortisation payments) for the households covered in the surveys conducted in 2011 and 2012. When the data from the sample in 2011 is updated with data for 2012 some borrowers drop out of the sample, partly because they have changed banks. It is unclear whether the amortisation behaviour of the borrowers that drop out differs from that of those who do not.

⁴⁴ The upward revision applies from the beginning of the second quarter of 2002. Statistics Sweden has also revised its definitions of financial derivatives, collective insurance saving and short-term and long-term loans and conducted a general review of revaluations.

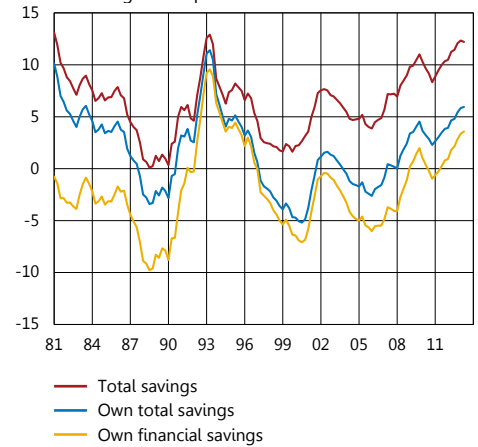
⁴⁵ See *The Swedish Mortgage Market 2013*, Finansinspektionen.

years could be due, among other things, to the general guidelines, recommendations and tighter credit conditions that have been introduced in Sweden since 2010. Apart from the mortgage cap's capital-investment requirement, the banks now demand, for example, that highly-mortgaged households amortise their loans to a greater extent than previously.⁴⁶

There is a clear historical link between the households' saving and changes in their balance sheets (see Chart 3:7). The households tend to be more cautious when their assets decrease in value, and vice versa. One explanation of this is that the households reduce their consumption and save more in the event of a fall in prices in order to compensate for the reduction in value.⁴⁷ This pattern has been observed in several countries following the financial crisis where price falls on the housing and stock markets have led to a decline in household consumption and, consequently, to a subsequent decline in investment.⁴⁸ A fall in the value of the assets may thus have consequences for households' consumption.

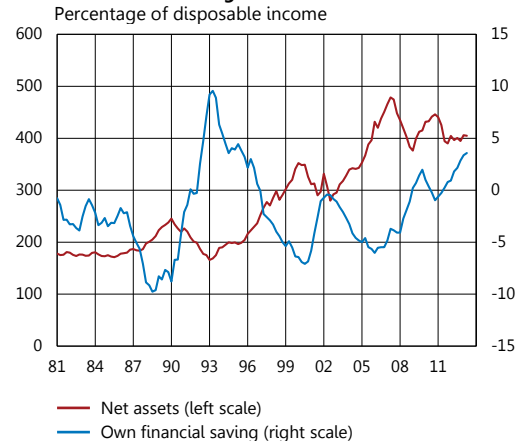
Low interest rates mean that the debt-servicing ability of the households is generally good. The interest ratio (the households' interest expenditure as a percentage of their disposable incomes) has also decreased somewhat during the year and was approximately four per cent during the second quarter of 2013. This is low in an historical perspective and puts the households in a good position to be able to service their debts. However, interest rates are expected to rise towards the end of 2014 and the households' interest expenditure will therefore also increase. Simple calculations show that the interest ratio in a normal interest-rate situation, given the current level of the debt ratio, is significantly higher than the current level (see Chart 3:8). At the same time, more than half of the households have chosen variable interest rates (see Chart 3:9). The high level of indebtedness and the shorter and shorter fixed-rate periods thus mean that the Swedish households are more affected by interest-rate changes today than they were 15 years ago.

Chart 3:6. The Swedish households' savings
Percentage of disposable income



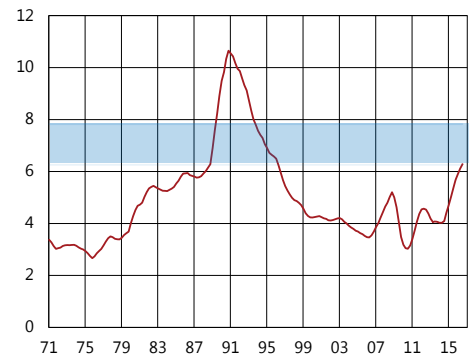
Note. Total saving includes collective saving in occupational saving schemes, funds in premium reserve pension scheme, own financial saving and the households' real saving. Total personal saving excludes collective insurance saving, but includes real saving. Own financial saving is total savings excluding collective saving and real saving.
Sources: Statistics Sweden and the Riksbank

Chart 3:7. The Swedish households' net assets and own financial saving
Percentage of disposable income



Sources: Statistics Sweden and the Riksbank

Chart 3:8. The Swedish households' interest expenditure
Percentage of disposable income



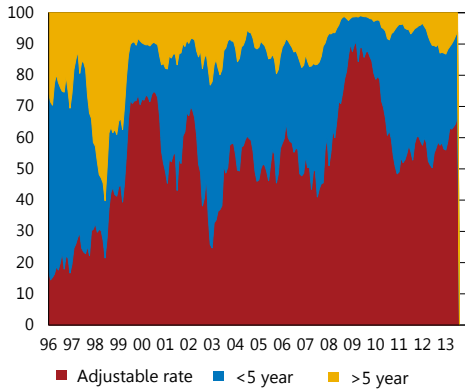
Note. The shaded area shows an interval for the long-term level of the interest ratio, given a debt ratio of 172 per cent. The interval is based partly on an interval for the long-term repo rate of 3.5-4.5 per cent (which is assumed to correspond to a normal level) and partly on an interval for the difference between a three-month mortgage rate and the repo rate of 1.7-2 percentage points. The dotted line is the Riksbank's forecast.
Sources: Statistics Sweden and the Riksbank

⁴⁶ See The Swedish Mortgage Market 2013, Finansinspektionen.

⁴⁷ However, it is not certain that households will always react in this way. For more information see the Box "The household balance sheet and the macroeconomic assessment" in *Monetary Policy Report, February 2013*, Sveriges Riksbank.

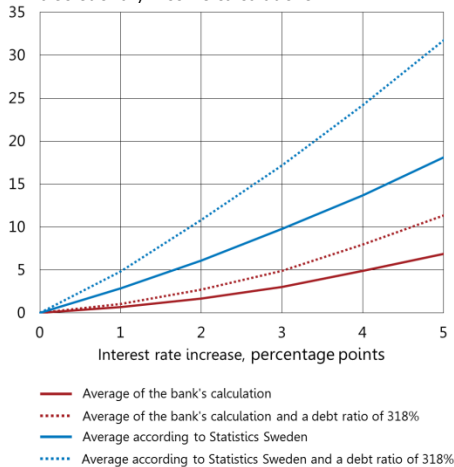
⁴⁸ Similar relationships have been seen in Denmark, the Netherlands and the United Kingdom after the financial crisis. There are also several international studies that show that the consequences of a fall in housing prices are worse if the level of household indebtedness is high. For more information see the Box "Financial imbalances in the monetary policy assessment" in *Monetary Policy Report, July 2013*, Sveriges Riksbank.

Chart 3:9. Fixed-rate periods in Sweden for new mortgages
Per cent



Sources: Statistics Sweden

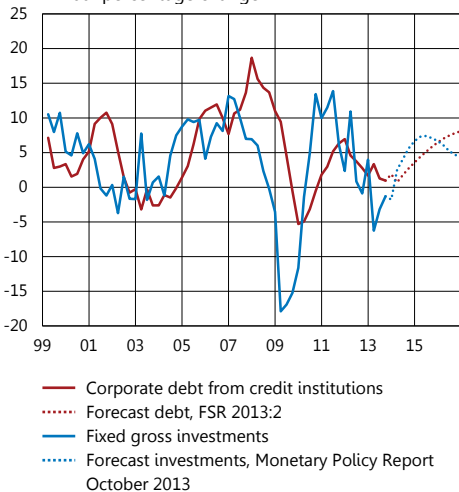
Chart 3:10. New mortgage holders in Sweden in deficit at different interest-rate increases given different living costs and debt ratios
Percentage of households with deficits in the discretionary income calculations



Note. The chart shows the percentage of households that end up with a deficit in their discretionary income calculations if increases are made in the actual interest rate in their mortgage contracts. A debt ratio of 318 per cent corresponds to the median in Finansinspektionen's random sample for new mortgage holders from 2012.

Sources: Finansinspektionen, Statistics Sweden and the Riksbank

Chart 3:11. The Swedish corporate debt from credit institutions and fixed gross investment
Annual percentage change



Sources: Statistics Sweden and the Riksbank

Even if the households are still able to meet their interest expenditure, there is a risk that the high level of indebtedness will dampen household consumption when interest rates rise in the future. There is, furthermore, a risk that this dampening of consumption will be significant if there are households that have been too optimistic in their expectations of their future incomes or the future level of interest rates. For example, surveys show that the households expect mortgage rates to be much lower in the long term than is compatible with the Riksbank's forecast for the repo rate (see Chart 1:13). This may lead some households to borrow more than they would otherwise and the mortgage thus becomes a greater burden than the household expected. It is the case that stress tests carried out by Finansinspektionen with the help of data on new mortgage holders show that the debt-servicing ability of the households is generally good even in periods with rapidly-rising interest rates or other macroeconomic disruptions.⁴⁹ However, these tests do not illustrate what the impact on household consumption will be if, for example, the households' interest expenditure increases or housing prices fall. Calculations based on data from Statistics Sweden show, for example, that the actual expenditure of the households is significantly higher than the standard values for living costs that the banks use when assessing the debt-servicing ability of the households (see Table 3:1). This indicates that the households may be more sensitive to changes in mortgage rates than the banks' own calculations show, which could be of significance to the households' ability to maintain their level of consumption if there were to be a rapid rise in mortgage rates (see Chart 3:10).⁵⁰

⁴⁹ This does not mean that specific households never run into problems. This applies mainly to households that have recently taken their first mortgage and in general have larger debts in relation to their incomes than other homeowners. See *Financial Stability Report 2013:1*, Sveriges Riksbank, and *The Swedish Mortgage Market*, 2013, Finansinspektionen.

⁵⁰ A deficit in a discretionary income calculation in connection with a credit assessment does not necessarily mean that the household concerned will be unable to meet its interest expenditure. However, the household will need to reduce its saving or its consumption in order to be able to do this. See, for example, *Financial Stability Report 2013:1*, Sveriges Riksbank.

Table 3:1. Household living costs according to various calculation methods

SEK per month	Living costs, per adult
Average according to Statistics Sweden	6,850
Average according to banks' own calculations	4,950
Swedish Consumer Agency guideline	4,800
Swedish Enforcement Authority guideline	4,700
National Board of Health and Welfare guideline	4,050

Note. The table shows an average of the standard values for living costs that the banks used in their credit assessments (discretionary income calculations) in 2012 and the corresponding actual expenditure of the households according to Statistics Sweden's survey of household expenditure (HBS) in 2009. The calculations based on HUT include change in consumption per capita between 2009 and 2012. Living costs do not include car costs, the costs of eating lunch out or the costs of childcare but do include food, clothing/shoes, hygiene/healthcare, sporting/leisure activities, telephone/television/newspapers, laundry/cleaning, utensils and home insurance. The table also shows the guidelines and standard costs used by the Swedish Consumer Agency (reasonable living costs), the Swedish Enforcement Authority ("normal amount") and the National Board of Health and Welfare (norm for welfare benefits) to determine how much money an adult needs each month to maintain a reasonable standard of living.

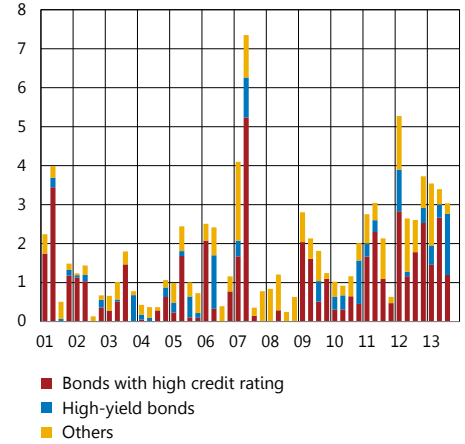
Sources: Statistics Sweden, Finansinspektionen, Swedish Consumer Agency, Swedish Enforcement Authority, National Board of Health and Welfare and the Riksbank

The Swedish corporate sector

The banks' lending to Swedish companies has been low during the year (see Chart 3:11). This is mainly due to the fact that economic activity in both Sweden and abroad has been relatively weak, which has made companies wait with new investments. Some companies have also chosen other forms of funding than bank loans. Several large companies have, for example, raised funds on the market for corporate bonds (see Chart 3:12).⁵¹ This has meant that corporate debt as a percentage of GDP remains high in an historical perspective (see Chart 3:13).⁵² The assessment of the Swedish banks is that lending to companies will increase in the year ahead due to the brighter economic outlook.⁵³ However, the recovery is expected to take many years and the companies' assessments of the future development of economic activity are unusually divided.⁵⁴

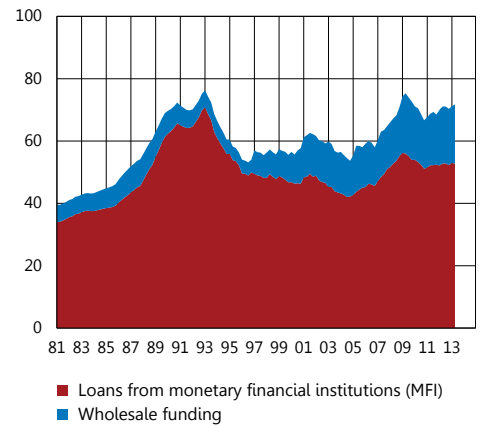
The creditworthiness of the Swedish companies is expected to improve in the period ahead. Although the prolonged recession has led to a slight increase in the default rate during the year, the rate has slowed down recently and is expected to fall somewhat in the year ahead (see Chart 3:14). According to the indicator for expected default frequency, the level of default for listed Swedish companies is also expected to fall in the period ahead.⁵⁵ The companies' interest expenditure is still low and the recent positive growth signals from the euro area will have a positive impact on,

Chart 3:12. Issuance volumes for Swedish corporate bonds, regardless of currency
EUR billion



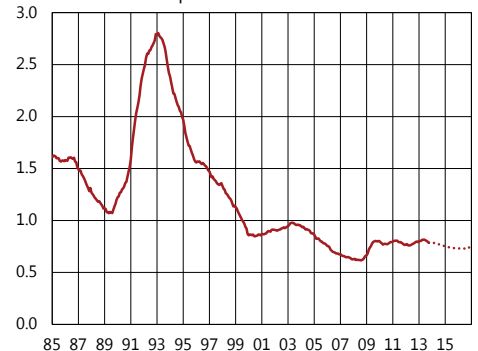
Sources: Dealogic and the Riksbank

Chart 3:13. The Swedish corporate debt
Total debt as a percentage of GDP



Sources: Statistics Sweden and the Riksbank

Chart 3:14. Default rate for Swedish companies
Per cent of companies



Note. Default rate is defined as the number of defaults divided by the number of companies.

Sources: Swedish Companies Registration Office, Statistics Sweden and the Riksbank

⁵¹ Strong demand and low interest rates in recent years have meant that more companies than previously are issuing bonds. More companies without a credit rating are also choosing to issue bonds on the market. The companies that have no credit rating include companies that are highly creditworthy as well as those that are less so.

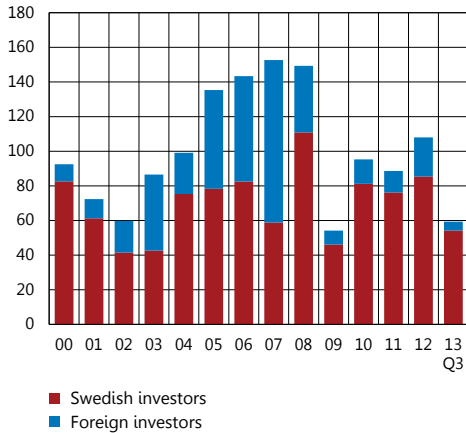
⁵² Statistics from the Bank for International Settlements (BIS) also indicate that corporate debt as a percentage of GDP is high in international terms. However, it is difficult to interpret a direct comparison between countries as BIS also includes intra-company loans in its definition of corporate liabilities. There is thus a risk that countries with companies that have a large percentage of intra-company loans will be perceived as more indebted than they actually are.

⁵³ *Almi's loan indicator*, September 2013.

⁵⁴ *Monetary Policy Report*, October 2013, Sveriges Riksbank and the *Riksbank's Business Survey*, September 2013.

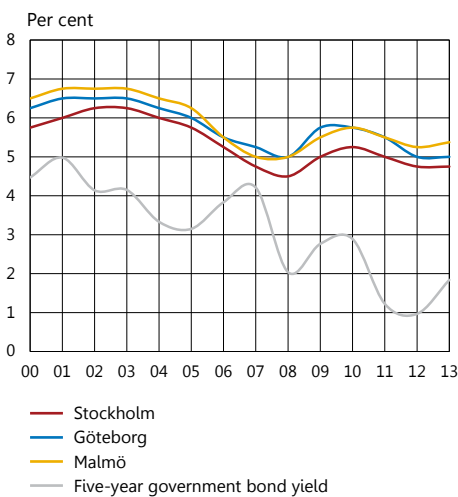
⁵⁵ Moody's KMV.

Chart 3:15. Transaction volumes for Swedish property companies
SEK billion



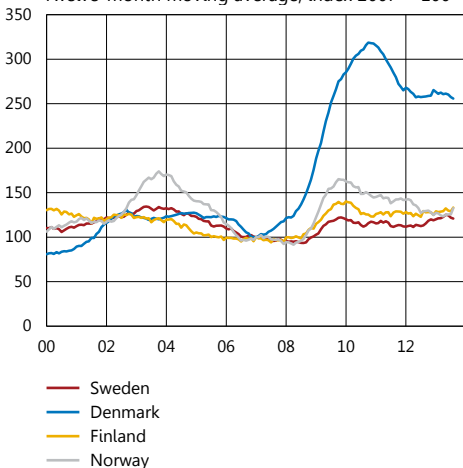
Source: Pangea Property Research

Chart 3:16. Average yield levels for modern office premises in city centres



Sources: Pangea Property Research and EcoWin

Chart 3:17. Number of corporate bankruptcies
Twelve-month moving average, index 2007 = 100



Sources: Reuters EcoWin and the Riksbank

above all, the Swedish export companies. Increased confidence in the household sector is also expected to contribute to a further increase in domestic consumption. Interest rates are expected to rise towards the end of 2014, which will increase interest expenditure for the companies. On the basis of the prevailing economic situation, however, the assessment in the main scenario is that the debt-servicing ability of the Swedish companies will remain good in the period ahead.

Activity on the commercial property market remains subdued.

Activity, as reflected in the number of transactions, is still dominated by Swedish investors who focus on relatively low-risk properties. This has led, among other things, to an increase in the proportion of investments in housing properties to almost 40 per cent during the year.⁵⁶ On the other hand, interest in higher-risk investments, such as office premises, has declined somewhat. As in the years following the financial crisis, interest on the part of foreign investors is low (see Chart 3:15). This is partly due to a relatively high level of risk aversion in combination with relatively highly-valued properties from a European perspective. The high level of risk aversion is also apparent in the fact that the investors' direct-return requirements are high in relation to the risk-free interest rate (see Chart 1:17Chart 3:16).⁵⁷ The low level of activity is contributing to a moderate development of prices for most types of property, even though the proportion of investments in housing properties indicates rising prices for housing. Activity on the commercial property market is expected to increase as economic activity improves, which may push up prices and thus also increase the Swedish banks' lending to property companies. The debt-servicing ability of the property companies is deemed to be good in general, although there are regional differences with regard to vacancies and rental income.

The Swedish banks' borrowers abroad

DENMARK

The debt-servicing ability of Danish companies is still deemed to be weaker than that of other Nordic companies. Although the number of defaults has fallen in recent months to the lowest level for approximately five years, the level is still higher than normal (see Chart 3:17). The development of the Danish corporate sector can to some extent be related to weak domestic consumption.

The Danish households are consuming less, but are servicing their debts. This is shown, for example, by the fall in the number of enforced sales of housing and by the fact that the proportion of late mortgage payments has been relatively stable recently (see Chart

⁵⁶ Pangea Property Research.

⁵⁷ The difference between the direct-return requirement and the interest on a risk-free investment can be interpreted as a risk premium on the commercial property market.

3:18). The Danish households have benefited from the fact that interest rates have been low for a long time, but also from the fact that many households have been allowed to defer their amortisation payments. Interest-only loans were introduced in 2003 and have since increased from approximately six per cent to approximately 54 per cent at the end of 2012.⁵⁸ According to Danmarks Nationalbank, the introduction of interest-only loans was one of the reasons for the dramatic price increases on the Danish housing market in the years preceding the financial crisis.⁵⁹

FINLAND

The debt-servicing ability of borrowers in Finland has weakened as a result of a poorer economic outlook.

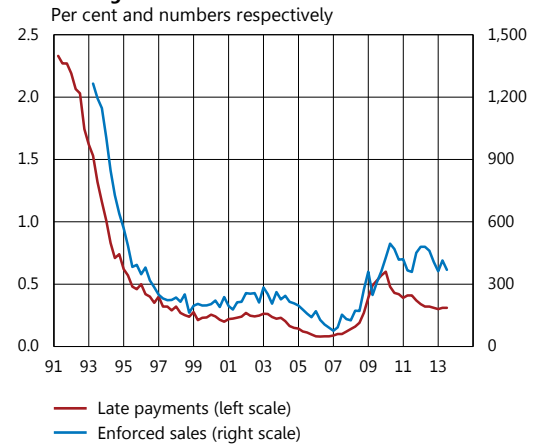
The Finnish households are under pressure from higher unemployment and low increases in real wages. The poorer outlook has also led to a decline in household borrowing during the year. Important export companies in the electronics and paper industries have also been hit hard by the downturn in the euro area, which has given rise to negative contagion effects for subcontractors and manufacturing companies. The number of defaults has increased in recent months and the Swedish banks' loan losses from Finnish companies are expected to increase somewhat in the period ahead (see Chapter 4).

NORWAY

The debt-servicing ability of Norwegian borrowers is generally good.

Growth in Norway is also relatively good and strong domestic consumption has increased the profitability of Norwegian companies. The Norwegian households have also benefited from significant increases in real wages, ongoing low interest rates and a high rate of employment. However, rising prices for houses and apartments have led household indebtedness to increase much more rapidly than household incomes in recent years. This has led to an increase in the households' interest burden. The households are also sensitive to interest rates as a large percentage of the loans have been taken at variable interest rates. Although housing prices have fallen somewhat in recent months, the price level is still high. Given the risks on the housing market, the Norwegian authorities have planned to increase risk weights for mortgages. In September, Norges Bank proposed that the Norwegian banks should increase their capital through a countercyclical capital buffer. The buffer that is built up should be used to cover potential losses during periods of financial stress and thus also increase resilience in the Norwegian banking sector.⁶⁰

Chart 3:18. Late payments and enforced sales of housing in Denmark



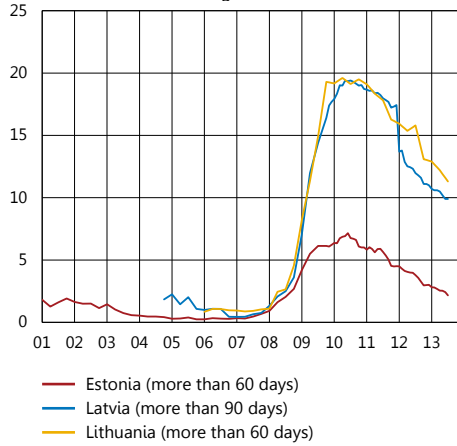
Source: Association of Danish Mortgage Banks

⁵⁸ *Market developments for mortgage-credit institutions in 2012*, Finanstilsynet.

⁵⁹ *Monetary review 1st quarter – Part 1, 2011*, "The housing bubble that burst: can house prices be explained? And their fluctuations be dampened?" Danmarks Nationalbank.

⁶⁰ *Monetary policy report with financial stability assessment 3/13*, Norges Bank.

Chart 3:19. Late payments in the Baltic countries
Per cent of outstanding loans



Note. The definition of late payments differs from country to country. The breaks in the series for Latvia and Lithuania in 2012 can be explained by the fact that data from Parex Bank and AB Utkio Bankas has been excluded from the statistics.

Sources: Eesti Pank, Financial and Capital Market Commission and Lietuvos bankas

THE BALTIC COUNTRIES

The creditworthiness of borrowers in the Baltic countries

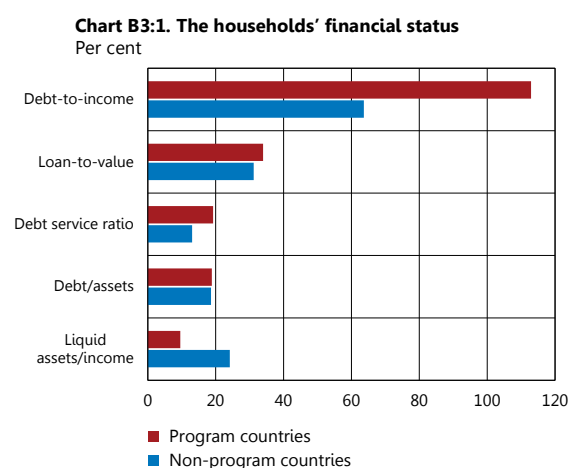
continues to improve. This largely relates to the improvement in the economic situation. The households are benefiting above all from the improved situation on the labour markets. The low interest rates together with a fall in borrowing also mean that the households' interest expenditure has fallen somewhat during the year. The debt-servicing ability of the Baltic companies has also improved thanks to a good inflow of new orders and stable earnings (see Chart 3:19). In January 2014, the currency risk that the private sector in Latvia has previously carried in the form of loans issued in euro will disappear when Latvia joins the EMU.

The households' financial status in the euro area and the economic crisis

This Box describes differences between measures of the financial status of the households⁶¹ in various euro countries and how the differences have co-varied with the severity of the financial crisis in the various countries. Data indicates that households in countries that were hit relatively hard by the crisis often had higher debts, less liquid assets and higher interest expenditure in relation to income than in countries that were hit less hard. On the other hand, measures that specify the size of debts in relation to incomes show less co-variation with the severity of the crisis. Although the analysis in this Box is not exhaustive, it may act as a starting point for further studies of indicators of vulnerabilities in the financial status of the households.

The economic crisis has left deep scars on Europe. Unemployment has increased and public finances have been seriously undermined in several countries. However, some countries have been hit harder than others. This Box uses recently-collected data on the financial status of the households, compiled by the ECB, to study differences and similarities between euro countries that were hit hard or less hard by the crisis.⁶² However, there are no quantitative criteria to distinguish between those countries in the euro area that were hit "hard" or "less hard" by the crisis. This being the case we can instead study the differences between countries that applied for economic support from the EU and/or the IMF – so-called programme countries – and countries that did not – non-programme countries. The data covers the following countries (programme countries in italics): Belgium, Germany, *Greece*, *Spain*, France, Italy, *Cyprus*, Luxembourg, Malta, Netherlands, Austria, *Portugal*, Slovenia, Slovakia and Finland. Most of the data was collected in 2010.

The data shows that on average there are differences between programme countries and non-programme countries for different measures of the financial status of the households. The biggest differences relate to the debt ratio (debts as a proportion of income), liquid assets⁶³ as a proportion of income and the interest ratio (interest expenditure as a proportion of income). In general, the households in the programme countries have a higher debt ratio, a lower proportion of liquid assets in relation to income and a higher interest ratio. If, on the other hand, we compare the size of the households' debts relative to their assets or the leverage ratio (the size of the mortgage in relation to the value of the home) there are no significant differences (see Chart B3:1). Measures that include cash



Sources: ECB and the Riksbank

⁶¹ The term "measures of the financial status of the households" refers in this Box to measures that can be calculated on the basis of the households' incomes and balance sheets (including real assets).

⁶² The Eurosystem Household Finance and Consumption Survey (2013), ECB, Statistics Paper Series No 2 April 2013. (<http://www.ecb.int/pub/pdf/other/ecbsp2en.pdf>). Although the key ratios used in this Box have been calculated by the ECB, all the conclusions are those of the Riksbank and should not be interpreted as the views of the ECB.

⁶³ In the data, liquid assets are approximately equivalent to financial assets (excluding pensions and insurance savings) minus debts that do not have housing as collateral (see the ECB's publication for a detailed definition of the underlying variables).

flows (that is incomes and/or expenditure) thus show considerable differences between programme countries and non-programme countries, while measures that only specify the composition of the balance sheet show small or no differences at all.

Although the comparison above indicates that measures that include cash flows are more informative than those that do not, it is important to remember that this comparison does not claim to be exhaustive. First, the data does not make a closer examination of the relations between causes and effects possible. For example, it is not possible to determine whether the low value of the households' liquid assets in the programme countries was due to the fact that households in these countries entered the crisis with limited liquid assets or whether the value of these assets was low because the households began to liquidise them already before the ECB began to collect data. Second, there may be other variables, such as the composition of the households' financial assets, the degree of foreign dependency in the funding of housing and the volume of previous housing investments, that are relevant in this context. The differences in key ratios described in the Box should therefore be seen as a starting point for a further analysis of the vulnerabilities in the financial status of the households, while isolated differences are not necessarily of decisive importance to macro-financial stability in an individual country.

■ 4. Developments in the Swedish banking groups

The earnings of the major Swedish banks have continued to develop positively and loan losses are low. This in turn has contributed to a high level of profitability in comparison with many other international banks. The major banks are also in an advantageous funding situation at present and their CET 1 capital ratios are high in international terms. However, the latter is rather the result of the major banks having low risk weights for their assets than of them having more loss-absorbing capital than other banks. This means that their leverage ratios are somewhat lower than the average for other banks. In addition, there are still significant differences between the maturities of the banks' assets and liabilities, which means that the structural liquidity risks are comparatively high in the major Swedish banks.

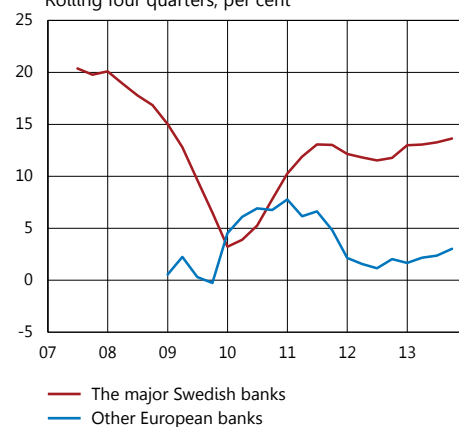
Profitability and earnings

The major Swedish banks have continued to report positive and stable results and good profitability over the preceding two quarters. Their profitability measured as return on equity reached an average of just over 13 per cent during the third quarter of 2013, which is high in comparison with many other major European banks (see Chart 4:1). The fact that the Swedish banks' loan losses are low is an important contributory factor to the comparatively high level of profitability. It is also one of the reasons why the major Swedish banks are generally valued higher on the stock market than other European and US banks (see Chart 4:2).

The profitability of the major banks is still lower than before the financial crisis. One reason for this is the low level of interest rates, which means that the banks' deposit margins are generally small.⁶⁴ Another reason is that the profitability of the banks is affected by new regulations that, among other things, include higher capital adequacy requirements. All else being equal, having to hold more capital means that profitability expressed as return on equity will fall. However, the requirements in the new regulations will also improve the resilience of the banks. This should in turn lead to a lowering of the shareholders' return requirements, which indicates that profitability will not return to its previous levels.

The gross margin on new mortgages has decreased during the year (see Chart 4:3). This is also a factor that has contributed to the slower rate of increase in the banks' net interest income than previously. It is probable that the smaller margins on new lending are the result of the increased competition between the major banks for mortgage customers in Sweden. Another sign of increased competition is the fact that the difference between the banks' listed lending rates and the rates actually offered has increased, which means that the average interest rate discount has increased.

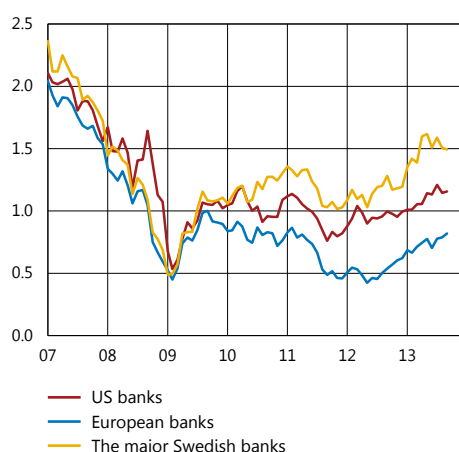
Chart 4:1. Return on equity
Rolling four quarters, per cent



Note. The blue line shows the mean value for a sample of other European banks.

Sources: SNL Financial and the Riksbank

Chart 4:2. Price to book ratio



Note. The sample consists of major US and European banks.

Sources: SNL Financial and the Riksbank

⁶⁴ In simple terms, the deposit margin is the difference between the interest a bank can earn if it invests money on the market and the interest the bank pays on the customers' deposit accounts. If market rates fall, the bank will receive less interest when it invests money on the market and so the bank will also lower the interest it pays on its customers' deposits. However, interest is low or even zero on many deposit accounts. As the bank cannot set its deposit rate below zero, lower market rates will thus also mean lower deposit margins for the bank.

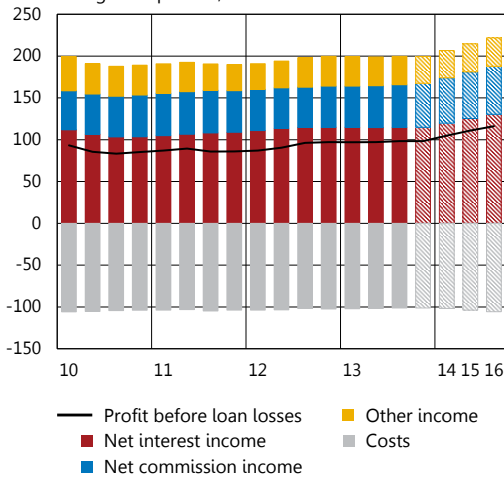
Chart 4:3. Gross margin on the major banks' new three-month, fixed-rate mortgages
Per cent



Note. The gross margin are calculated as the banks' lending rates minus funding costs.

Sources: Bank reports, Reuters EcoWin and the Riksbank

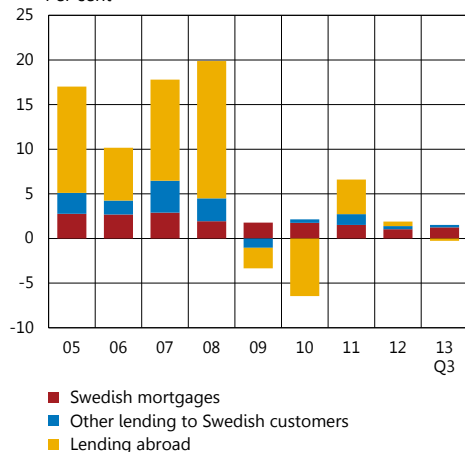
Chart 4:4. The major banks' earnings and costs
Rolling four quarters, SEK billion



Note. The shadowed bars show the forecast according to the Riksbank's main scenario.

Sources: Banks reports and the Riksbank

Chart 4:5. Annual change in the major banks' lending
Per cent



Note. The sum of the colored areas in each period shows the change in total lending. Thus, between 2005 and 2006 the total lending increased with 10 per cent. Each colored area show how the change is distributed among different borrowers. The calculation does not take changes in exchange rates into account.

Sources: Bank reports, Statistics Sweden and the Riksbank

However, the gross margin on new mortgages is still significantly higher than prior to 2011. One of the reasons for this is probably the new regulations concerning liquidity and capital that have been imposed on the banks since then. When attempting to determine how the gross margin will develop in the future, one needs to take into account both the competitive situation on the mortgage market and the content of the new regulations. It is probable, for example, that higher risk weights for mortgages will to some extent result in higher lending rates. At the same time, new regulations should lead to lower risks in banking operations. This suggests that there is no great need for the banks to increase their gross margins.

The Riksbank's assessment is that the earnings of the major banks will increase in the years ahead (see Chart 4:4). The most important reason for this is that net interest income is expected to increase. This is due, first, to the fact that the banks' deposit and lending volumes are expected to increase as the economy grows. And, second, higher interest rates at the end of the forecast period are expected to lead to an increase in the banks' deposit margins. It is also assessed that economic growth will lead to a continued increase in the banks' other sources of income, such as net commission income.

Lending and credit risk

The total lending of the major Swedish banks' has increased at a moderate rate over the last 12 months (see Chart 4:5). Lending is growing mainly in Sweden and in the other Nordic countries, where the banks also have the greater share of their operations. However, the relatively low level of economic activity in the Nordic countries has limited lending to companies and the growth is thus primarily related to increased lending to households.

A large part of the total growth in the major banks' lending over the last 12 months comes from mortgages in Sweden. Between September 2012 and September 2013, the major banks' lending for housing purposes in Sweden increased by over 5 per cent. As such lending is also the type of lending that has increased most over the last five years, Swedish mortgages now make up a larger share of the banks' total lending. Since the beginning of 2009, Swedish mortgages as a share of total lending have increased from 19 to 25 per cent (see Chart 4:6).

On the other hand, the major banks' lending to companies and households in eastern Europe has declined since 2009. Following a rapid expansion of their operations in the Baltic countries and in Poland, Russia and Ukraine, the major banks' lending in these countries amounted to approximately 8 per cent of their total

lending in 2009. Since then, write-downs of problem loans, low credit growth and the divestment of operations have led to a decline in lending. During the third quarter of 2013, lending in these countries made up approximately 5 per cent of total lending. As lending to customers in eastern Europe is relatively risky, this change has also helped to reduce the banks' credit risks.

The Riksbank's assessment is that the major banks' lending will increase in the period ahead. It is above all lending to households and non-financial companies in the Nordic countries that is expected to increase as a result of stronger economic growth. However, it is the Riksbank's assessment that growth will be higher in Sweden and Norway than in Denmark and Finland. Lending is therefore expected to increase more in the major banks' Swedish and Norwegian operations. In the Baltic countries, on the other hand, the demand for loans will probably remain relatively low in the years ahead.

CREDIT RISK

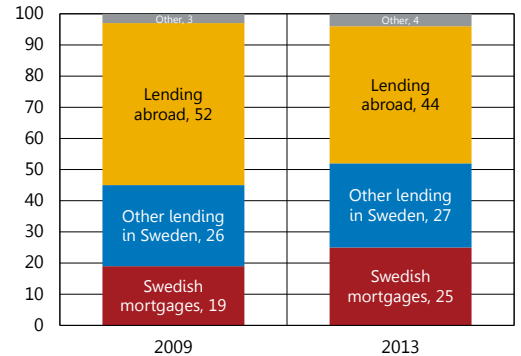
The loan losses of the major Swedish banks are low. Over the last 12 months, the loan losses of the major Swedish banks have corresponded to 0.13 per cent of lending. One reason for this is that the low level of interest rates has helped to keep the banks' customers' interest expenditures low, which improves their debt-servicing ability. The economic situation in Sweden has also been relatively good compared to the situation in many other European countries.

Loan losses from lending in Denmark have continued to form a relatively large part of the major banks' total losses (see Chart 4:7). The major banks' lending to customers in Denmark accounts for just over 10 per cent of total lending. However, loan losses from operations in Denmark amounted to just over 30 per cent of the total losses during the third quarter. The main reason for this is the weak growth of the Danish economy, which has had a negative impact on the non-financial companies.

Loan losses continue to be low in the Baltic countries as a result of reversals of earlier provisions.⁶⁵ The economic situation and the debt-servicing ability of the borrowers have improved in these countries, so that loan losses have not been as high as the banks expected in 2009 and 2010 when several major banks made provisions for probable future losses. The banks have therefore been able to reverse some of these earlier provisions. These reversals were most extensive in 2011 and 2012, but are still helping to keep net loan losses low.

⁶⁵ "Loan losses" refers to the item on the banks' income statements that in accounting terms is referred to as net credit loss. This item consists, firstly, of provisions for anticipated and actual losses that have a negative impact on the banks' profits. Secondly, the item consists of recoveries of previous actual losses and reversals of earlier provisions which have a positive impact on profits. Together these components thus add up to the total loan losses.

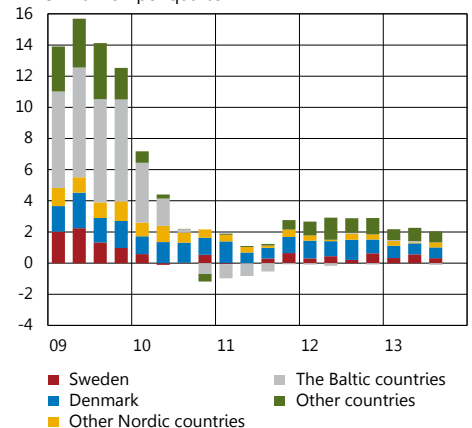
Chart 4:6. Breakdown of the major banks' lending
Per cent



Note. Refers to the first quarter of 2009 and the third quarter of 2013. The major banks' lending to public amounted to approximately SEK 7,100 billion and SEK 7,200 billion respectively at these points in time.

Sources: Bank reports, Statistics Sweden and the Riksbank

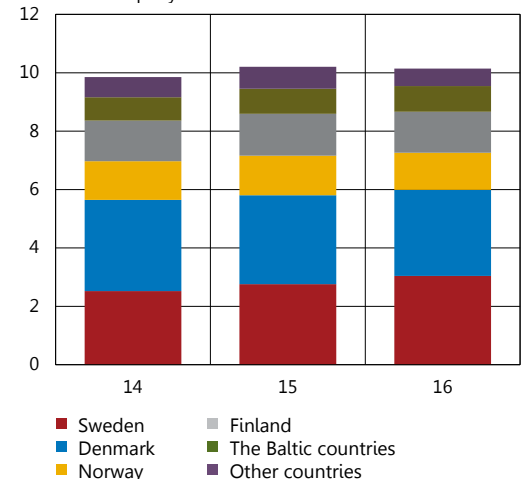
Chart 4:7. The major banks' loan losses, geographical breakdown
SEK billion per quarter



Note. The category "Other countries" includes loan losses in the other countries in which the banks have operations as well as losses that are not allocated to a specific country in the banks' public reporting.

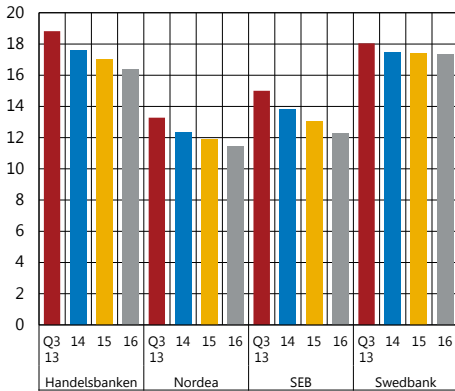
Sources: Bank reports and the Riksbank

Chart 4:8. Forecast of loan losses according to the Riksbank's main scenario
SEK billion per year



Source: The Riksbank

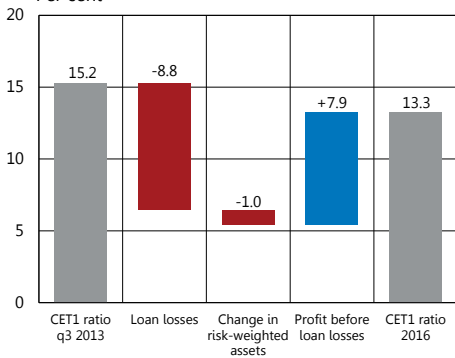
Chart 4:9. CET 1 ratios according to Basel III, initially and in the stress test
Per cent



Note. The CET 1 capital ratios are in accordance with the Riksbank's own calculations based on a full implementation of the Basel III Accord.

Sources: Bank reports and the Riksbank

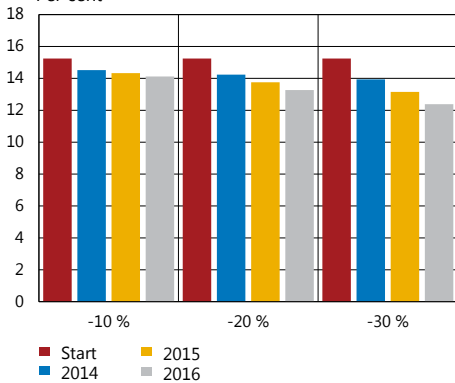
Chart 4:10. Changes in the major banks' CET 1 ratios in the stress test
Per cent



Note. The CET 1 capital ratios are in accordance with the Riksbank's own calculations based on a full implementation of the Basel III Accord.

Sources: Bank reports and the Riksbank

Chart 4:11. The major banks' CET 1 ratios, initially and in the stress test, given different assumptions about a reduction in profits before credit losses
Per cent



Note. Refers to weighted mean value. The percentages on the x axis specify how much lower annual profits before loan losses are assumed to be in the stress test compared to the banks' reported profit before loan losses in 2013.

Sources: Bank reports and the Riksbank

The Riksbank's assessment is that the major banks' loan losses will increase somewhat in the coming period (see Chart 4:8).

Loan-loss levels are expected to continue to be higher in Denmark than in the other Nordic countries. These losses are expected to decrease as the Danish economy improves. In Finland, on the other hand, the losses are expected to increase. These losses are above all expected to stem from non-financial companies that are affected by weak economic growth in Finland and in other euro countries. Loan losses are also likely to increase in the Baltic countries as the reversals of earlier provisions decrease.

STRESS TEST OF THE MAJOR BANKS' RESILIENCE TO LOAN LOSSES

In the Riksbank's stress test, substantial loan losses lead to a decrease in the banks' CET 1 ratios (see Chart 4:9).⁶⁶ The stress test assumes a sharp decline in the state of the economy with falling GDP and rising unemployment and interbank rates (see Table 4:1).^{67,68} As a result, the major banks' total loan losses increase to just over SEK 264 billion over a period of three years. The banks' capital ratios would thus decrease and at least one bank, Nordea, would no longer have a CET 1 capital ratio above 12 per cent, which is the lowest level the banks are recommended to hold from 1 January 2015. The most important explanation for this is that the banks' profits before loan losses remain relatively high despite the severe stress (see Chart 4:10). In other words, the banks' earnings are expected to continue to remain high enough to absorb most of the loan losses that arise as a result of the stress.⁶⁹ A sensitivity analysis also shows that the major bank's CET 1 ratios remain relatively high even if one makes stricter assumptions about the development of the banks' profits before loan losses in the stressed scenario (see Chart 4:11).

⁶⁶ In order to calculate the banks' capital ratios in the stress test, the Riksbank makes the following assumptions: (1) Profits before loan losses are assumed to be 20 per cent lower than the banks' profits per the third quarter of 2013 (most recent four quarters). It is assumed that this result will remain constant during the stressed period. (2) The banks' risk-weighted assets increase by five per cent per year, (3) the banks pay no dividends and conduct no share repurchases; (4) the banks do not try to reduce their risk-weighted assets, bring in new capital or change their operations in any other way; (5) one of the respective bank's largest counterparties, measured in terms of the amount loaned without collateral, suspends payments.
⁶⁷ Interbank rates are used as an indicator of the banks' funding costs, which are assumed to rise as a consequence of higher credit risks, rising risk premiums and increased stress on the financial markets.
⁶⁸ For further information on the stress scenario and on the method used for the stress test see Appendix in *Financial Stability Report 2013:1*. Sveriges Riksbank
⁶⁹ However, due, among other things, to increased funding costs, it is assumed that the banks' earnings will fall by 20 per cent in the stress test compared to the banks' reported results for 2013.

Table 4:1. GDP and three-months interbank rates in the stress test

Annual percentage change in GDP / three-month interbank rates (per cent)

	2014	2015	2016
Sweden	0.0 / 3.3	-2.5 / 5.8	-2.7 / 3.7
Other Nordic countries	-3.7 / 2.7	-3.9 / 4.4	-1.9 / 2.8
The Baltic countries	-0.1 / 2.6	-6.6 / 5.5	-6.2 / 3.6
Other countries	-5.2 / 1.5	-5.5 / 2.7	-2.7 / 1.1

Note. Other countries refers to Germany and the United Kingdom.
Source: The Riksbank

There is a substantial fall in the banks' profits in the stress test, which increases the risk that their credit ratings will be lowered.

A lower credit rating may in turn mean that some types of investor may no longer be able to purchase the banks' securities as their investment strategies require that they only invest in securities with a higher credit rating. This effect is not captured in the Riksbank's stress test. Nor does the stress test capture the concentration and contagion risks that exist in the Swedish banking system. The risks in the banking system as a whole may thus be greater than the results for the individual banks suggest. It is, for example, probable that confidence in all the major banks would be affected if one of them were to suffer substantial losses. This could in turn undermine the banks' access to market funding.

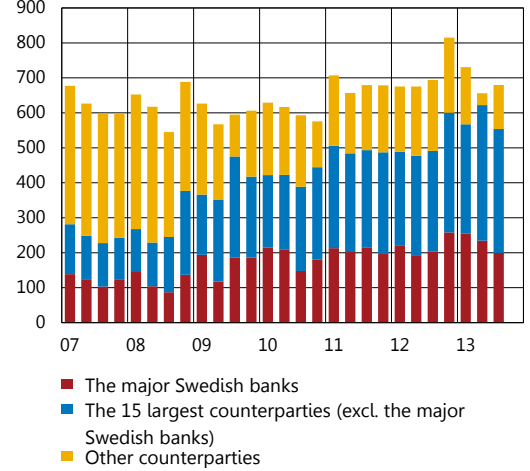
CONCENTRATION RISK

The Swedish banking system is concentrated. The four major banks together have a market share of approximately 70 per cent of both deposits and lending in Sweden. The major banks are also interlinked through loans on the interbank market, repos and derivatives contracts and through the fact that they have extensive holdings of each others' securities. The high level of concentration may lead to a higher level of systemic risk, which means that problems at one bank can more easily spread to the other banks.

Concentration in the banking sector has increased in recent years in that the banks' holdings of each other's securities have increased (see Chart 4:12). The banks' holdings of each others'

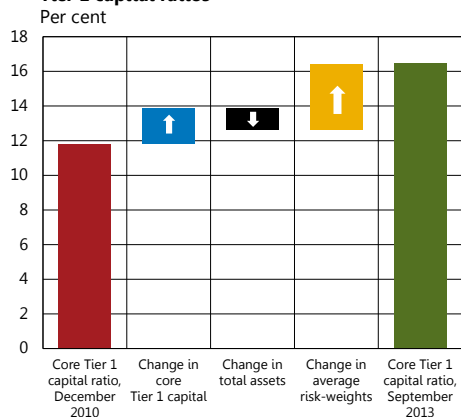
securities have doubled since 2007 and now amount to a sum equivalent to approximately 35 per cent of their equity. One reason why the major banks own each others' securities is that they act as market makers for Swedish covered bonds. In order to be able to perform this role, the banks hold both their own bonds and those of other banks. The major banks also hold other banks' covered bonds as part of their liquidity buffers. This is largely a case of covered bonds that are issued by the major Swedish banks, but a significant portion is also issued by other large Nordic banks. The banks are usually among the major banks' other 15 largest counterparties with regard to securities exposures. The major banks' holdings of

Chart 4:12. The major banks' counterparty exposures through securities holdings
SEK billion



Note. The chart shows the breakdown of the major banks' total securities holdings on the basis of who issued the securities.
Source: The Riksbank

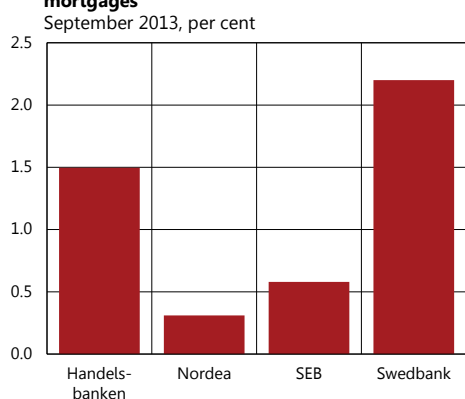
Chart 4:13. Development of the major banks' core Tier 1 capital ratios



Note. Weighted average of the major banks' Core Tier 1 capital ratios for December 2010 (red bar) and September 2013 (green bar). The other bars show how different factors have contributed to the change. According to Basel II without transitional rules.

Sources: Bank reports and the Riksbank

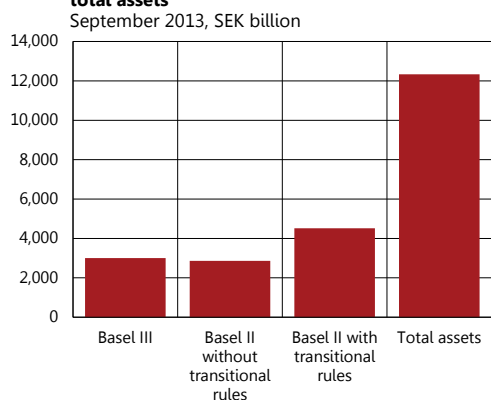
Chart 4:14. Capital add-on from Finansinspektionen's risk-weight floor for mortgages



Note. Calculated as the capital surcharge in relation to the risk-weighted assets. Note that this is only part of the surcharge for Pillar 2.

Sources: Bank reports and the Riksbank

Chart 4:15. The major banks' risk-weighted assets according to different regulatory frameworks and total assets



Sources: Bank reports and the Riksbank

securities from this category of counterparties have almost tripled since 2007 (see Chart 4:12).

Capital

The major Swedish banks have continued to improve their CET 1 capital ratios. All of the major banks have CET 1 capital ratios in accordance with Basel III that exceed 12 per cent, which is the minimum level the Swedish banks will be required to hold from 1 January 2015. However, in addition to this minimum level the banks must also hold capital for the so-called Pillar 2 add-on determined by Finansinspektionen. This consists, among other things, of the risk-weight floor for mortgages that was introduced earlier this year (see Chart 4:14).⁷⁰ In addition, the European capital requirements directive CRD IV permits individual countries to introduce a countercyclical capital buffer. The activation of such a buffer will lead to a further increase in the capital requirement for banks.

Lower average risk weights are the most important reason why the major banks' core Tier 1 capital ratios have increased in recent years (see Chart 4:13). In addition, the banks have increased their core Tier 1 capital, which has also contributed positively to the core Tier 1 capital ratios. However, this has partly been counteracted by the fact that the banks have also increased their total assets.

The lowering of the risk weights is partly due to the fact that the major banks now have a larger proportion of low-risk lending. In recent years, they have, for example, reduced their lending in several countries in eastern Europe where the credit risk is higher. They have instead increased their lending in the Nordic countries. In addition, a smaller proportion of the major banks' lending now goes to the corporate sector and a larger proportion to the household sector. As the lending to households consists for the most part of loans with collateral in housing, which historically have been associated with a lower level of risk than corporate loans, this usually results in lower average risk weights.

Another reason for the lower average risk weights is that the banks have begun to calculate an increasing proportion of their risk weights using internal models. Following the implementation of the Basel II regulations in Sweden in 2007, the banks were able, after approval by Finansinspektionen, to use internal models to calculate their risk weights. Since then, the banks have changed from using standardized methods to using internal models to calculate risk weights in an increasing proportion of their loan portfolios. As risk

⁷⁰ The capital adequacy regulations are based on a statutory requirement (Pillar 1) and a Pillar 2 assessment. The capital requirement for Pillar 1 is calculated using either predetermined standard methods or internal models. The Pillar 2 add-on is determined by Finansinspektionen and aims to capture the risks not taken into account in the Pillar 1 assessment, for example concentration risks. While the Pillar 1 requirement is public and affects the risk-weighted assets, the Pillar 2 add-on is not public as yet and does not affect the risk-weighted assets.

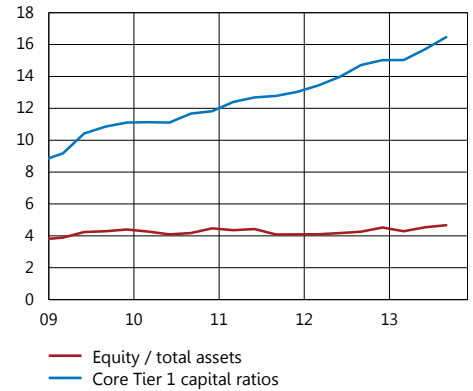
weights tend to be lower when they are calculated using internal models, the transition often automatically leads to a lowering of risk weights.⁷¹ This may lead to lower capital requirements on the banks even though the composition of, and the level of risk in, their loan portfolios remains unchanged. However, in order to limit this a separate floor for the capital requirement was introduced through the transitional rules in Basel II. With this floor, the major banks' total risk-weighted assets amount to just over SEK 4,500 billion, while without the floor they amount to just under SEK 3,000 billion (see Chart 4:15).⁷²

The lower risk weights have led to an increase in the difference between the major banks' risk-adjusted and non-risk-adjusted capital ratios (see Chart 4:16). In order to increase their non-risk-adjusted capital ratios⁷³ the banks need to either increase their equity or reduce their assets. However, since the end of 2008 the banks' equity has increased to approximately the same extent as their assets. The ratio between capital and total assets has thus increased only marginally. Despite the fact that the core Tier 1 ratios of the major Swedish banks are among the highest in Europe, the ratio between their equity and total assets is relatively low (see Chart 4:17).

Funding and liquidity risks

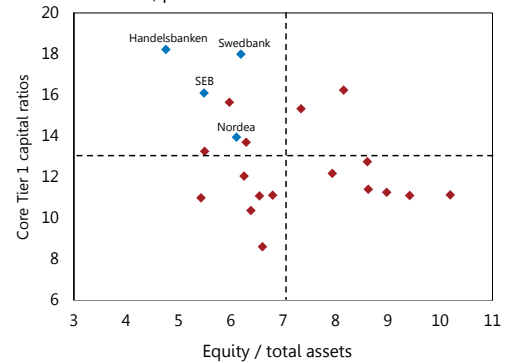
Funding costs for the major Swedish banks are currently low in comparison with those for many other European banks. This applies to both short-term and long-term borrowing in Swedish kronor as well as in foreign currencies. The advantageous funding situation can partly be explained by the fact that the major Swedish banks have high credit ratings compared to many other banks in Europe. They have also benefited from the fact that economic development in Sweden has been relatively good. However, it is probable that once confidence in other European countries and their banks is restored, foreign investors will again choose to invest money in other European banks to a greater extent. This could undermine the current relative advantage of the major Swedish banks.

Chart 4:16. Major Swedish banks' core Tier 1 capital ratio and proportion of equity to total assets
Per cent



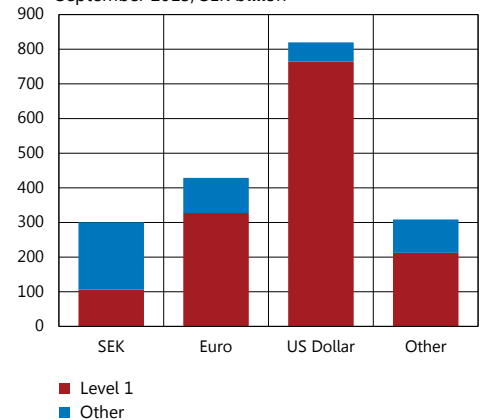
Note. Core Tier 1 capital ratios in accordance with Basel II without transitional rules.
Sources: Bank reports and the Riksbank

Chart 4:17. Swedish and European banks' core Tier 1 capital ratios and equity in relation to total assets
June 2013, per cent



Note. The broken lines represent mean values, the red dots show a sample of European banks. In the calculations of equity/total assets the total assets have been reduced by reverse repos, derivatives and insurance assets. Core Tier 1 capital ratios in accordance with Basel II without transitional rules.
Sources: Liquidatum, SNL Financial and the Riksbank

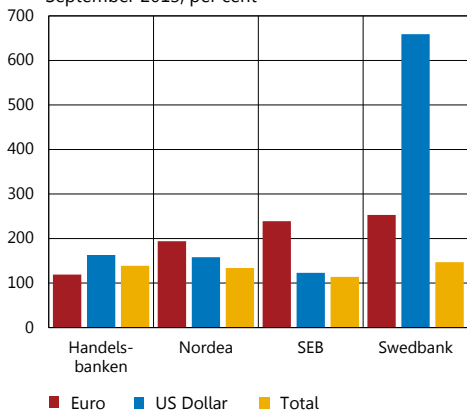
Chart 4:18. Liquidity buffers of the major banks
September 2013, SEK billion



Note. "Level 1 assets" refers to cash, deposits with central banks and government securities.
Sources: Bank reports and the Riksbank

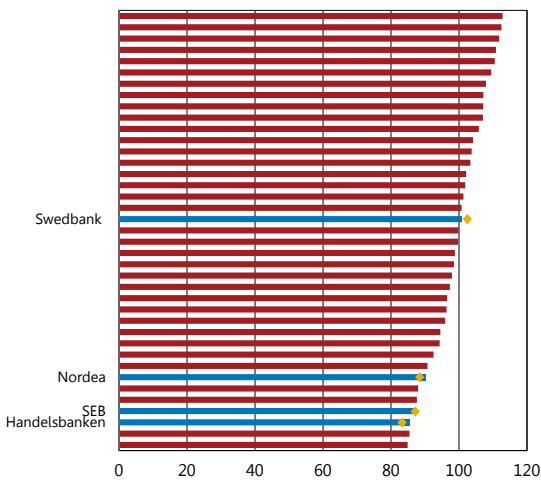
⁷¹ For a more detailed discussion see *Risk-weight floor for Swedish mortgages*, 2013, Finansinspektionen.
⁷² The floor is actually designed so that a bank's capital base may not fall below 80 per cent of what the capital requirement would have been under the Basel I regulations. However, this is often translated into risk-weighted assets. As the transitional rules were intended to apply during a limited period, the banks' capital ratios are often specified in terms of Basel II without the transitional rules. For more information on the transitional rules see the Box "How is a capital ratio calculated?" *Financial Stability Report 2013:1*. Sveriges Riksbank.
⁷³ The Basel Committee has introduced a non-risk-adjusted capital measure, the leverage ratio. Due to limited access to data equity in relation to total assets is instead used as a non-risk-adjusted capital measure here.

Chart 4:19. The major banks' liquidity coverage ratios (LCR)
September 2013, per cent



Note. According to Finansinspektionen's definition FFFS 2012:6.
Sources: Bank reports and the Riksbank

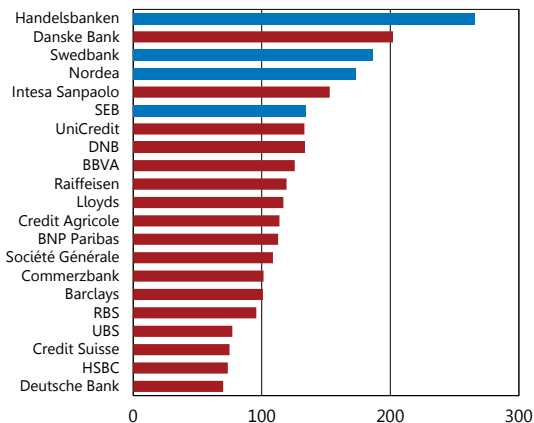
Chart 4:20. The Riksbank's structural liquidity measure
December 2012, per cent



Note. The red bars show a sample of European banks. The yellow marks show the levels for the major banks' in the measure as per December 2011.

Sources: Liquidatum and the Riksbank

Chart 4:21. Loan to deposit ratio
June 2013, per cent



Note. Excluding repos and reverse repos.
Sources: Liquidatum and the Riksbank

The favourable funding situation of the major Swedish banks is helping them to maintain substantial liquidity buffers in euros and US dollars (see Chart 4:18). This is because the low borrowing costs of the major banks have enabled them to borrow US dollars on the money market and to make a profit by investing these dollars at a higher rate, either directly with the Federal Reserve or by first converting dollars into euros on the currency swap market and then investing these euros with the European Central Bank. As reserves at central banks are included in the banks' liquidity buffers, the major Swedish banks currently have substantial buffers in US dollars and euros. Investments at central banks also belong to the most liquid type of assets, so-called level 1 assets,⁷⁴ which are treated favourably when calculating the liquidity coverage ratio (LCR). This also means that the banks' LCRs in US dollars and euros are high (see Chart 4:19).

However, the major banks have limited liquidity buffers in Swedish kronor (see Chart 4:18). This is evident if one compares them with the liquidity buffers in dollars, especially when one considers that the major banks' operations in Swedish kronor are much more extensive than their operations in dollars. In addition, a relatively small part of the banks' liquidity buffers in Swedish kronor consists of the most liquid type of assets, that is, level 1 assets (see Chart 4:18).

The structural liquidity risks in the major Swedish banks are high in comparison with many other banks.⁷⁵ In the Riksbank's structural liquidity measure, three of the four major banks have among the lowest results in a sample of comparable European banks. This indicates that their structural liquidity risks are among the highest in the sample (see Chart 4:20). One reason for this is that the major Swedish banks fund a relatively small part of their lending with deposits (see Chart 4:21). The banks instead use wholesale funding that to a relatively large extent matures within one year and is therefore not considered to be stable when calculating the measure. At the same time, the banks have a large share of illiquid assets, primarily in the form of mortgages and corporate loans at long maturities. Viewed over a long period of time, all of the major Swedish banks have improved their results in the Riksbank's structural liquidity measure. Last year, however, the overall improvement was relatively small (see the difference between the blue bars and yellow marks in Chart 4:20).

⁷⁴ In accordance with the Basel Committee's definition in the framework for LCR.

⁷⁵ The structural liquidity measure measures the banks' stable funding in relation to their illiquid assets. In simple terms, stable funding refers to borrowing at maturities longer than one year while illiquid assets are assets that do not mature and, it is assumed, cannot be sold within one year. The measure is therefore similar to the Net Stable Funding Ratio (NSFR) in the Basel regulations. See the Riksbank's recommendations concerning the NSFR in Chapter 1. For a more detailed description of the Riksbank's structural liquidity measure, see *Financial Stability Report 2010:2*.

New tool for managing failing banks – bail-in

In June, Europe's finance ministers reached a broad political agreement on the proposed framework for dealing with failing banks⁷⁶ – the bank recovery and resolution directive. The directive's final wording is now being negotiated between the EU Council of Ministers⁷⁷ and the European Parliament. In short, the bank recovery and resolution directive shall contain provisions on plans and tools so that authorities can intervene when banks are encountering various stages of financial difficulties. In general, the Riksbank is supportive of clear rules for dealing with failing banks and of measures that will impose higher costs on the private sector than at present for doing so. The bank recovery and resolution directive is aimed at reducing the risk of financial instability and minimising the costs to society of dealing with distressed banks. Among other things, it shall provide authorities with a number of tools for resolving banks that are not deemed to be viable. This Box briefly describes one of these tools - the bail-in tool.⁷⁸

During the financial crisis, the public sectors in several EU countries contributed public funds to support banks that were facing severe financial difficulties. This was to prevent the spread of the crisis, thereby mitigating the consequences for society. One purpose of the bank recovery and resolution directive is to provide governments with tools for dealing with distressed or failing banks without having to inject public funds. The bail-in tool is one of those tools.

The bail-in tool provides a resolution authority⁷⁹ with the right to, in combination with other measures, write down a bank's liabilities to cover losses, or to convert the liabilities to share capital to recapitalise the bank, in order of priority as determined in advance. This means that the need for using public funds to recapitalise the bank can be postponed, reduced or completely avoided. The aim is for the bank's creditors, rather than the taxpayers, to contribute towards the recapitalisation of failing banks in the future. The aim is to recapitalise the bank quickly at the same time as all or parts of the bank's operations can continue to function.

The EU proposal

The proposed bank recovery and resolution directive describes which liabilities can be subject to bail-in (that is to say can be written down or converted to share capital). Furthermore, it includes a method for calculating a minimum requirement, the aim of which is to ensure that banks have sufficient capacity to handle losses in the event of failure and provisions specifying the circumstances under which

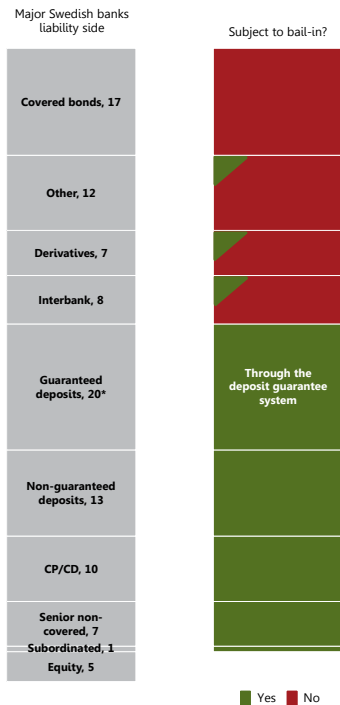
⁷⁶ The term banks refers to credit institutions and securities companies.

⁷⁷ Also known as the Council. It consists, in this case, of economic and finance ministers from the EU countries.

⁷⁸ The Swedish translation of the proposed bank recovery and resolution directive translates the term bail-in tool as debt writedown tool. However, the tool involves both the writedown of debts and the conversion of debt to share capital.

⁷⁹ Each country is to appoint such a resolution authority with responsibility for planning for financial crises.

Chart B4:1. Liabilities that can be subject to bail-in
Aggregate of the four major Swedish banks,
percentage of total debt and equity, September 2013



Note. The illustration is based on the consolidated level, not institute level.

* The percentage of guaranteed deposits for all banks except SEB is an assumption based on calculations from Barclays.

Sources: Bank reports, Barclays research, Proposal for a Directive of the European Parliament and of the Council establishing a framework for the recovery and resolution of credit institutions and investment firms 11148/13 and the Riksbank

exceptions from using the bail-in tool may be made. These parts of the proposal are described below.

Liabilities that can be subject to bail-in

The basic idea is for all the banks' creditors to be able to contribute towards recapitalisation. However, it has not been considered appropriate to use the tool for all types of bank liabilities, as some of these may be too systemic or too complex for the tool to be applied. The proposed bank recovery and resolution directive means that debts against collateral (for example covered bonds and repos), interbank loans with maturities of less than seven days⁸⁰ and certain other liabilities such as debts to employees and suppliers are exempt from bail-in and are thus neither written down nor converted to share capital. The largest part of the derivative contracts on the liabilities side are also exempt⁸¹ (see Chart B4:1 for an illustration of which instruments qualify for bail-in).

According to the proposed bank recovery and resolution directive, to absorb losses and recapitalise the bank, share capital should primarily be reduced or diluted⁸² and only secondarily should the bail-in tool be applied, considering the above exceptions and in the following order:

1. Subordinated debt (for example convertibles).
2. Unsecured bonds, certificates and non-guaranteed deposits from large companies.⁸³
3. Non-guaranteed deposits from small and medium-sized companies⁸⁴ and private individuals as well as liabilities to the European Investment Bank.
4. Guaranteed deposits (can be subject to bail-in through the deposit guarantee system).

As hitherto, guaranteed depositors will continue to be completely protected. In some areas, the new framework will even be an improvement for depositors as it means that a failing bank can continue to function and the depositors will thus continually have access to their deposits without the interruption that can currently arise in the event of a bankruptcy. In contrast, if all other instruments that are subject to bail-in have been written down or converted to shares, the deposit guarantee system may incur losses.

⁸⁰ Interbank loans with original maturities of less than seven days correspond to a large part of interbank loans. Liabilities with a remaining maturity of less than seven days that have arisen through participation in systems for the transfer of payments and securities are also exempt.

⁸¹ This is because all netting agreements and pledged collateral will be taken into account, meaning that the derivative amount that can be subject to bail-in is significantly smaller than the amount visible on the banks' liabilities side under IFRS. Under IFRS, a number of criteria must be fulfilled for derivatives under a netting agreement to be netted on the balance sheet. The Riksbank's interpretation is that the proposed bank recovery and resolution directive does not set criteria resembling IFRS and that pledged assets will also be considered, meaning that a very small part of the derivatives presently existing in the major banks' balance sheets (the seven per cent in Chart B4:1) could be subject to bail-in.

⁸² Primarily core Tier 1 capital. Other applicable capital instruments are then written down or converted before the bail-in tool is used.

⁸³ This category also includes the other liabilities not exempted, such as interbank loans with original maturities exceeding seven days.

⁸⁴ Microenterprises and small and medium-sized companies according to the definition in Article 2.1 in Recommendation 2003/361/EC.

Calculation of minimum requirement

There is a risk that banks could restructure their liabilities sides in a way that makes the bail-in tool ineffective, for example by only issuing liabilities that are exempt from bail-in. If such a bank then becomes distressed, there would not be enough liabilities to write down or convert to recapitalise the bank via the bail-in tool. Another example is that the banks could choose to obtain funding at short maturities. Investors in debt instruments with short maturities have a tendency to withdraw in times of financial stress and this could also lead to there not being enough liabilities left to write down or convert to recapitalise the bank when it is no longer deemed to be viable.

To counteract this risk and ensure that banks have sufficient capacity to cover losses in the event of failure, each member state is to ensure that its banks, at any point in time, retain enough capital and enough debt instruments with longer maturities that may be subject to bail-in. This will be regulated through a minimum requirement, a ratio, in which the banks must remain above a minimum permitted level. The proposed bank recovery and resolution directive includes a calculation method for this minimum requirement:

$$\frac{(\alpha + \beta + \gamma)}{(\delta + \alpha) - \theta} \geq x$$

Where:

α = *Own funds*

β = *Unsecured liabilities with a remaining maturity > 1 year*

γ = *Deposits from large companies*⁸⁵

δ = *Total liabilities*

θ = *Derivative liabilities*

The variable x in the above ratio thus denotes the minimum requirement. The proposal sets no uniform minimum levels for x at the EU level. Instead, this is left up to the national resolution authorities, in consultation with the supervisory authorities. The level shall be determined on a bank-by-bank basis.

Exemptions from bail-in

During negotiations on the bank recovery and resolution directive, it has been argued that bail-in is a relatively untested tool that may possibly be unusable in a systemic crisis due to the risk of contagion effects. An exception has therefore been included in the proposed bank recovery and resolution directive, saying that, under exceptional circumstances, authorities may use alternative solutions, such as recapitalisation of a bank using government funds. However, this may not be done until the European Commission⁸⁶ has granted its

⁸⁵ Deposits from companies that are not defined as microenterprises or small and medium-sized companies according to the definition in Article 2.1 in Recommendation 2003/361/EC.

⁸⁶ The European Commission's task is to propose new laws and monitor member states' compliance with EU legislation.

approval and liabilities and own funds equivalent to at least eight per cent of the bank's total liabilities and own funds or 20 per cent of its risk-weighted assets have been written down or converted to shares.⁸⁷ Swedish authorities may use the second alternative, that is to say 20 per cent of the risk-weighted assets.⁸⁸

Possible consequences and timetable

The introduction of the bail-in tool may lead to it becoming more expensive for banks to fund themselves using unsecured debt instruments, but the effect on total funding costs is harder to assess.

The explicit target is for the EU Council of Ministers and the European Parliament to have reached agreement on the bank recovery and resolution directive before the end of 2013. It should also be mentioned that the bail-in tool differs from other resolution tools as regards the timetable for its entry into force. In order to give investors in debt instruments that will be subject to bail-in time to adapt, the current proposal has determined that the tool does not need to be applied until, at the latest, four years after the directive has entered into force. Other parts of the directive should start to be applied as soon as one year after.

⁸⁷ In such a situation, the government may contribute capital equivalent to no more than five per cent of the bank's liabilities and own funds.

⁸⁸ This is because Sweden has a resolution fund exceeding three per cent of guaranteed deposits. There is no corresponding flexibility for euro area countries with access to the European Stability Mechanism (ESM) or for banks with balance sheets exceeding EUR 900 billion. At present, no country other than Sweden has investments in funds that exceed three per cent of guaranteed deposits. However, in the future, non-euro area countries that have built up their funds may also make use of the 20 per cent of risk-weighted assets alternative.

Glossary

Balance sheet recession A balance sheet recession can arise when a financial crisis has been preceded by a sharp and loan-financed increase in prices on an asset market. The unemployment and the uncertainty about future developments that arises as a result of the crisis may lead households and companies to choose to restore their balance sheets, that is to substantially reduce their debts when the asset concerned falls in value. Consequently, most of their income for some time after the crisis will be used for amortisation rather than consumption and investment, which will further aggravate the crisis.

Basel II: International regulatory framework for financial institutions that mainly regulates banks' capital adequacy, that is how much capital a bank must hold in relation to the risk it takes. The regulations also stipulate requirements concerning the banks' risk management and the disclosure of public information. Basel II was implemented in Sweden in 2007.

Basel III: International regulations for financial institutions that replace the Basel II regulations on the banks' capital adequacy. Compared to Basel II, Basel III entails increased capital requirements and regulations on capital buffers. Basel III also regulates the bank's liquidity management. The Basel III Accord will be progressively phased in by 2019.

Capital conservation buffer: A requirement for a capital buffer consisting of Common Equity Tier 1. If the buffer is not complete, the bank must retain a portion of its profit to improve its capital ratio. The buffer requirement must be fully implemented by January 2019.

Capital market: Generic term for the stock market, credit market and derivatives market.

CDS, Credit Default Swap: A contract between agents on the credit market aimed at transferring the credit risk of an asset, such as a bond, from one agent to another. The buyer of a CDS contract buys credit protection from the seller of the CDS contract by paying a premium over the contract's duration or until a credit event occurs. If a credit event occurs, the buyer transfers the insured asset to the seller in exchange for the nominal value of the asset.

CDS premium: Annual cost in basis points for buying a CDS contract.

Certificate: A security for trading in the money market, issued for example by a bank or a company with the purpose of borrowing money. Maturity is a maximum of one year.

CET 1, Common Equity Tier 1 Capital: Stricter version of the core Tier 1 capital, in accordance with the Basel III Accord.

Core Tier 1 capital: Tier 1 capital with deduction for capital contributions and reserves that might be included in the capital base as Tier 1 capital pursuant to Chapter 3, Article 4 of the Capital Adequacy and Large Exposures (Credit Institutions and Securities Companies) Act (2006:1371).

Core Tier 1 capital ratio: Core Tier 1 capital in relation to risk-weighted assets.

Covered bond: A bond whose holder has a special benefit right in the event of a bankruptcy. Covered bonds normally entail a lower credit risk than unsecured bonds, which means that the borrowing costs are lower.

Credit gap: The deviation from the trend in lending by monetary financial institutions to companies and households in relation to GDP.

Credit risk: The risk of borrowers failing to meet their commitments.

Credit terms: The terms and conditions laid down in a loan agreement covering, for example, the interest rate and the repayment schedule. Credit terms can also include the maximum loan-to-value ratio allowed for a mortgage.

CRD/CRDIV, Capital Requirements Regulation/Capital Requirements Directive IV: Proposed EU regulation with directives that implement the Basel III Accord. The regulations include stipulations on the banks' capital adequacy, leverage and liquidity.

Currency swap: An agreement to buy or sell a currency at the daily rate and then sell or buy back the same currency on a later date at a pre-determined rate.

Debt ratio: Total household debt in relation to disposable income.

Default rate: The number of bankruptcies divided by the number of companies.

Disposable income: The total of a person's or a household's incomes less taxes and charges.

Earnings: Profits before loan losses.

EBA, European Banking Authority: The European Banking Authority establishes joint regulatory and supervisory standards in the EU and conducts stress tests of European banks.

ESM, European Stability Mechanism: A permanent international financial institution founded by the euro-area countries to safeguard stability in the euro area. The ESM will replace the earlier crisis management funds such as the EFSF.

ESRB, European Systemic Risk Board: The European Systemic Risk Board is responsible for the macroprudential supervision of the financial system within the EU.

Gross margin on mortgage: Difference between a credit institution's lending rate and the cost of borrowing for a mortgage in relation to the amount lent.

Gross solvency: This measure specifies the banks' equity in relation to their total assets less reverse repos, derivatives and insurance assets.

Impaired loans: Loans which will probably not be repaid in accordance with the terms of the loan contract. Impaired loans are listed on the balance sheet at their full amount, even if only parts of the loans are covered by collateral.

Interbank market: Financial market where banks trade interest and currencies with each other.

Key policy rate: Interest rate that a central bank sets for monetary policy purposes. In Sweden, they are the repo rate and the deposit and lending rates to the banking system. The repo rate is the Riksbank's most important policy rate.

LCR, Liquidity Coverage Ratio: Liquidity measurement defined by the Basel Committee that measures a bank's ability to deal with a stressed net outflow of liquidity for 30 days. In simple terms, an LCR of 100 per cent means that a bank's liquidity reserves are adequate to enable the bank to manage an unexpected liquidity outflow for 30 days.

Liquidity: Measure of the ability of a company or organisation to meet its payment obligations in the short term. Can also describe how quickly it is possible to convert an asset into money.

Liquidity buffer: Funds an institution holds to ensure its short-term debt-servicing ability.

Liquidity risk: The risk of not being able to meet payment commitments due to a lack of liquidity. Liquidity risk in a financial instrument means that an investment cannot be immediately liquidated at all or without falling sharply in value.

Liquidity assistance: Measures that a central bank may take to support the ability of one or more financial institutions to meet payment obligations in the short term with the purpose of avoiding a serious disruption in the financial system and strengthening confidence in the payment mechanism.

Loan-to-value ratio: A borrower's debt in relation to the market value of the collateral for the loan. For example, a household's loan-to-value ratio for its home corresponds to the household's debt collateralised by the home divided by the market value of the home.

Mortgage cap: Finansinspektionen's general guideline for a maximum loan-to-value ratio of 85 per cent of a property's value. It only applies to new loans.

Mortgaged assets: Assets to which certain owners of receivables have priority if the borrower should be unable to repay the debt.

Net interest income: Interest income from lending less interest expenditure for funding and deposits.

Net commission income: Income less cost of financial services sold (apart from interest), for example services related to payments, share trading, asset management and card operations.

NSFR, Net Stable Funding Ratio: Liquidity measurement defined by the Basel Committee. The measurement puts a bank's stable funding in relation to its illiquid assets in a stress scenario that covers a period of one year.

Pillar 2: The basic capital requirement (Pillar 1) stipulates that a bank, at any one point in time, shall have a minimum capital base equal to the sum of the capital requirements for credit risks, market risks and operational risks. In addition, the capital base shall also cover the capital requirement for additional identified risks not captured in Pillar 1, so-called supervisory review and evaluation process (Pillar 2). Pillar 2 is an individual capital requirement that varies between different banks. For Swedish banks, the Pillar 2 requirement is determined by Finansinspektionen. While the Pillar 1 requirement is public and affects the risk-weighted assets, the Pillar 2 add-on is not public as yet and does not affect the banks' risk-weighted assets.

Provisions: Provisions for probable loan losses.

Risk premium: The additional return an investor requires as compensation for an additional risk.

Risk weight: In simplified terms, to calculate a bank's risk-weighted assets, the amount lent is multiplied by a risk weight. The risk weights are determined on the basis of how likely it is that the borrower will be unable to fulfil its loan commitment and thus varies from borrower to borrower – a high risk weight implies a greater risk than a low risk weight.

Risk-weighted assets: Assets recorded in the balance sheet and off-balance sheet commitments valued by credit, market and operational risk in accordance with the capital adequacy regulations (see Basel II and Basel III).

Reversals: Previous quarters' provisions for probable loan losses that are reversed.

Securitisation: A financing process whereby a number of loans (for example mortgages or credit card loans) are bundled together and sold on to a company created specifically for the purpose and financed by issuing securities in the market.

Stibor: Stockholm interbank rate.

Tier 1 capital: Equity less proposed dividends, deferred tax assets and intangible assets such as goodwill. Certain types of subordinated debt, so-called additional Tier 1 capital or hybrid capital, are also allowed to be included in Tier 1 capital.

Unsecured bonds: A bond whose holder does not have a special benefit right in the event of a bankruptcy. Unsecured bonds normally entail a higher credit risk than covered bonds, which means that the borrowing costs are higher.

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