

# 1. FINANCIAL MARKETS

## 1.1. THE INTERNATIONAL FINANCIAL ENVIRONMENT<sup>1</sup>

The main factor affecting international financial markets in the second half of last year and the start of this was the continuation of **accommodative monetary policy**. Slow economic growth and very low inflation meant that many central banks even eased their monetary policy further. The European Central Bank started a new programme of bond purchases and the central banks of Norway, Sweden, Switzerland and Denmark cut their base interest rates. Although the economy in the USA has grown faster than those in other advanced economies, the Federal Reserve has kept interest rates close to zero so far, though it is expected that they will be raised this year.

Despite the continuing geopolitical tensions and the doubts about the sustainability of the public finances of Greece, the combination of an accommodative monetary policy, very low inflation and low commodities prices has lifted the price of **riskier financial assets** (see Figure 1.1.1). **Interest rates on sovereign bonds** have fallen at the same time, reaching their lowest ever levels in several countries (see Figure 1.1.2). As a result, short-term sovereign bonds from some euro-area countries are trading at negative interest rates.

The negotiations between the Greek government and creditors after the elections in Greece raised the interest rates on Greek bonds. Unlike during the sovereign crisis in 2011–2012, this did not cause the interest rates to rise on the sovereign bonds of any of the other euro-area countries that have had problems, as their national economic indicators have improved and investors are looking to buy bonds with higher returns (see Figure 1.1.3).

<sup>1</sup> This chapter covers developments in the markets up to 30 March 2015.

Figure 1.1.1. Stock indices in the euro area, Japan and the USA (1 Jan 2008 = 100)

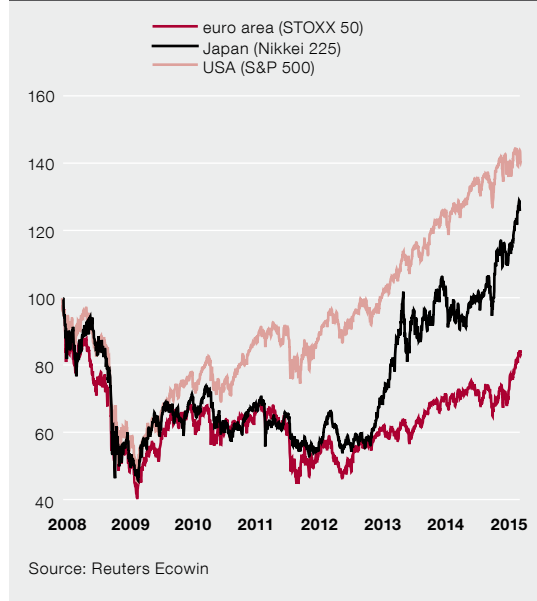
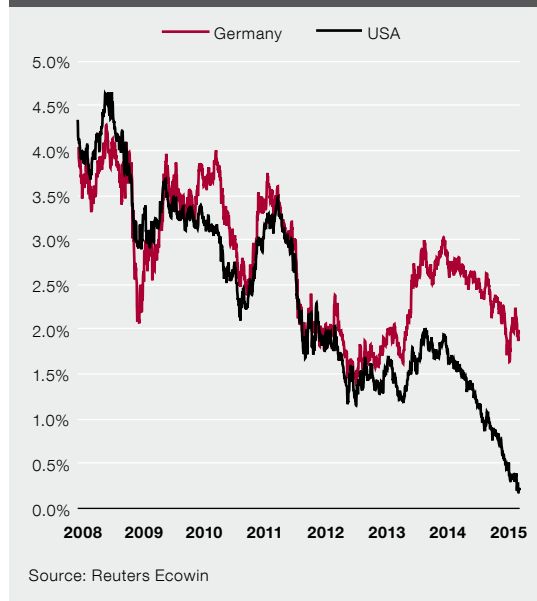


Figure 1.1.2. Interest rates on ten-year government bonds of Germany and the USA



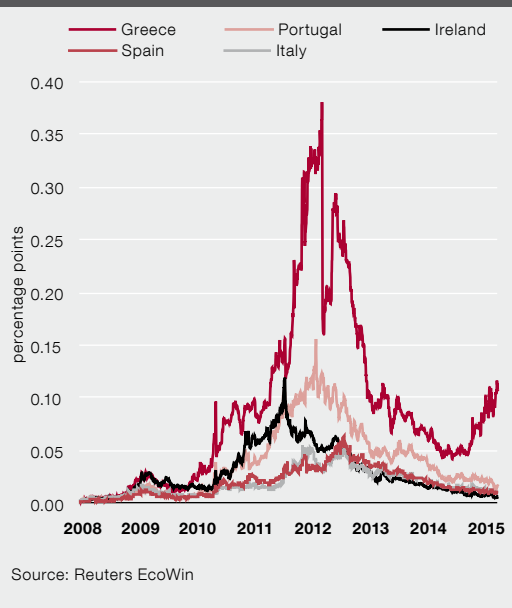
The financial condition of **European Union banks** has generally improved, though differences are discernible between different countries. Greek banks have been subject to a large outflow of deposits, which has sharply increased liquidity and funding risk for them. The biggest challenge for European Union banks remains asset quality. The banks have continued to write assets down and reduce risks. The level of overdue loans has stabilised, though it remains high at a total 6% for the largest banks in the European Union<sup>2</sup>. The proportion of loans that are overdue varies a lot from country to country, and in countries with difficulties it has tended more to increase. Although there has been a significant increase in provisions, the coverage of overdue loans by provisions did not particularly increase in 2014.

The profitability of the large European Union banks was slightly lower in 2014 than a year earlier, mainly because of the large provisions. On top of this, profitability is being affected by weak economic growth and low interest rates, which are preventing any rise in interest income. It is not only cyclical factors but also structural factors like increased competition and poor cost-effectiveness that are affecting profitability. These same factors will continue to affect the profitability of banks in the future, which could reduce profits even further.

Despite their low profitability and the weakness of growth in the economy, the European banks have managed to raise additional capital because of favourable conditions in the market, even the banks in countries with problems. The comprehensive assessment of banks found that the banks in the euro area are generally able to cope with negative events. For more on the re-

<sup>2</sup> 56 large European Union banks under the definition of European banking supervision.

**Figure 1.1.3. Spread of ten-year bonds of Greece, Portugal, Ireland, Italy and Spain over Germany**



sults of the comprehensive assessment by the European Central Bank, see Box 1.

The largest risks for global financial markets in the next half year come from slow economic growth and low interest rates. These could lead to **excessive risk-taking in financial markets and a build-up of risks in the financial system**. If investors' appetite for risk should decline and the risk premium for financial assets should rise sharply, it could lead to a sudden drop in prices. The most vulnerable to a rise in interest rates are low-quality bonds and stock markets. The liquidity of such bonds may dry up noticeably if the markets turn downwards more than investors may anticipate, and this could worsen the fall in prices even further. The appetite for risk could be reduced by various factors, including a change in expectations towards the outlook for the economy, or a deepening of geopolitical tensions.

### **Box 1: The Results of the European Central Bank's Comprehensive Assessment**

On 4 November 2014 Europe's Single Supervisory Mechanism (SSM) for banks started up, and the European Central Bank took over direct supervision of the most significant banks in the euro area. Before it assumed its direct supervisory role, the European Central Bank carried out a comprehensive assessment of the banks together with the national supervisors, and the results of the assessment were published on 26 October 2014. The assessment was done partly to get an accurate picture of the financial standing of the commercial banks before the banking union started to operate, and partly to enhance the transparency of the balance sheets of the banks and restore investor confidence in European banks. The result of this would revitalise interbank lending and also lending to companies and households. The assessment covered 128 of Europe's significant banks, which between them account for approximately 85% of the total assets of the euro-area banking system.

#### ***The main findings<sup>3</sup>***

The assessment analysed the capacity of banks to bear a shock during periods of stress. The stress test had two scenarios, where the baseline scenario had a benchmark capital threshold of 8% of Common Equity Tier 1 and the adverse scenario had 5.5%. The adverse scenario assumed that real GDP in the euro area would fall cumulatively by an average of 6.6% against the baseline scenario. Differences between countries were considered when the stress tests were run<sup>4</sup>. The assessment concluded that most of the euro-area banks would be resilient under the adverse scenario despite a significant depletion of their capital. If this scenario were to be realised, the capital of the banks would be reduced by 263 billion euros and the CET1 median capital ratio would fall by four percentage points from 12.4% to 8.3% as CET1 declined by 216 billion euros. An increase in risk-weighted assets of around 860 billion euros would increase minimum capital reserve requirements by 47 billion euros.

It was found that 25 euro area banks did not have sufficient capital, with a total capital shortfall amounting to 25 billion euros. The banks with shortfalls in capital were mainly in southern Europe, but there were also some in Germany and Austria. A further 136 billion euros of non-performing exposures were identified under the harmonised definitions. The banks being assessed started to strengthen their balance sheets and issued additional capital during the assessment and in anticipation of the results. As a result, twelve banks had already covered their shortfalls prior to the end of the assessment. The remaining thirteen banks, which needed an additional 9.5 billion euros in capital, submitted capital plans to the ECB within two weeks of the results being published, describing in detail how they plan to cover those shortfalls. These

<sup>3</sup> The results of the assessment appear on the website of the SSM: <https://www.bankingsupervision.europa.eu/press/publications/html/index.en.html>

<sup>4</sup> For more details see the website of the European banking supervisors: <http://www.eba.europa.eu/-/eba-publishes-common-methodology-and-scenario-for-2014-eu-banks-stress-test>

banks have nine months to increase their capital, until July of this year.

The Estonian banks covered by the comprehensive assessment were Swedbank, SEB Pank and DNB Pank<sup>5</sup>, and they did not see any adverse effects for capital adequacy. While the CET1 median capital ratio of the other participating banks fell in the adverse scenario, it actually increased for the Estonian banks by two percentage points. The Estonian banks would be able to cover potential additional credit losses from interest income or from their existing capital buffers.

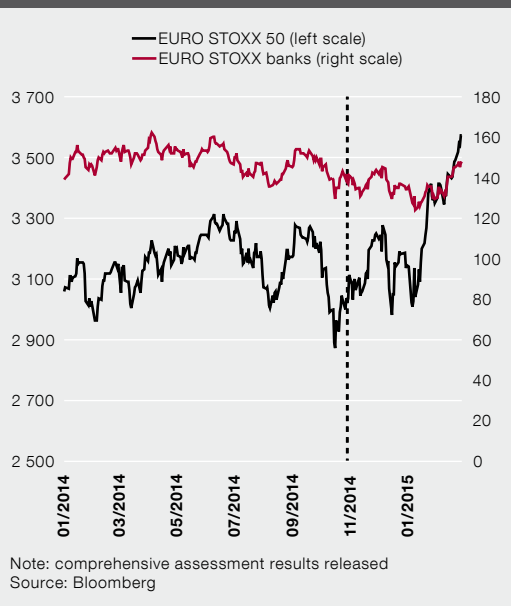
#### **Market reaction to the results of the assessment**

The results of the comprehensive assessment were somewhat better than expected, and investors reacted calmly to them. The markets had expected that some larger banks would fail the test and that the overall capital shortfall would be higher than it actually turned out to be. Although the share index of European banks fell after the results were published, they rose again in March 2015 to close to their average level of 2014 (see Figure B1.1).

The comprehensive assessment pushed banks to take action to strengthen their capital position and increased transparency about the quality of their assets. It can be concluded from the results that the majority of the significant euro-area banks are able to withstand a period of stress without breaching the regulatory capital requirements.

The ECB Bank Lending Survey published in January gives some idea of whether banks have changed their behaviour. Banks eased their credit standards for loans granted to non-financial corporations and to households in the fourth quarter of 2014. Interbank lending has increased, though it remains lower than before the crisis and the trends vary between countries. The comprehensive assessment supported confidence in the banks and also a recovery in lending.

**Figure B1.1. Stock indices in the euro area and euro area banks**



<sup>5</sup> From 4 November 2014, Swedbank and SEB Pank have been under direct supervision from the ECB.

## 1.2. ESTONIAN FINANCIAL MARKETS

### Bond and stock markets

The volumes and trading activity levels in Estonia's securities markets are small. The total capitalisation of bonds issued and stocks quoted on the exchange stood at 2.5 billion euros at the end of February 2015, or 13% of GDP. The small size of the market means that the risks to Estonian financial stability from the local securities markets are small.

The local bond market has been very passive in the past five years. As no new bonds have been listed on the regulated market since 2010, there was no secondary market for bonds in Estonia in 2014. There was a sharp rise in the volume of bonds issued outside the regulated market in the third quarter of last year (see Figure 1.2.1), but this was caused by an individual non-resident issuer who registered issues of bonds in Estonia aimed at non-residents, so there was no real revival in the bond market in 2014. Bonds issued by local governments accounted for 59% of the bond emissions by residents last year and the remainder were issued by individual non-financial corporations. The total capitalisation of the bond market at the end of February 2015 was 664 million euros or 3.2% of GDP.

The total capitalisation of the local stock market at the end of February 2015 was 1.9 billion euros or 9.7% of GDP, which is more or less the same as a year earlier. Share prices mainly fell on the Tallinn exchange in 2014, but they started to rise rapidly in 2015 (see Figure 1.2.2). Prices climbed partly because corporate financial results were better than had been expected, and also because investor sentiment was positive throughout Europe due to expectations for the bond purchasing programme of the Eurosystem. The

Figure 1.2.1 Total volume of bonds issued and new bonds issued quarterly

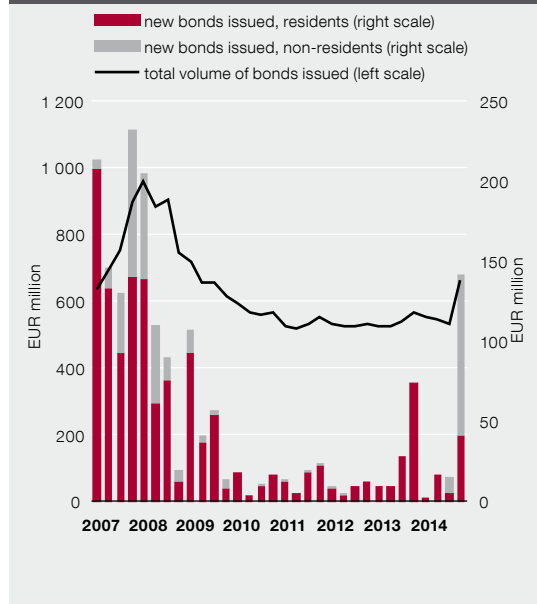
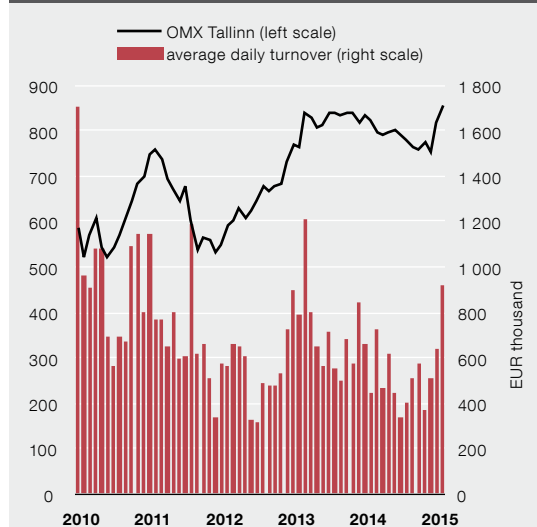


Figure 1.2.2. Tallinn Stock Exchange index OMXT at the end of the month and average daily turnover



Source: NASDAQ OMX Tallinn, Eesti Pank calculations

OMXT index of the Tallinn stock exchange rose 13.4% in the first two months of 2015 and the rapid growth was accompanied by a rise in the level of trading activity. There were around one third more transactions in January and February 2015 than in those months of 2014.

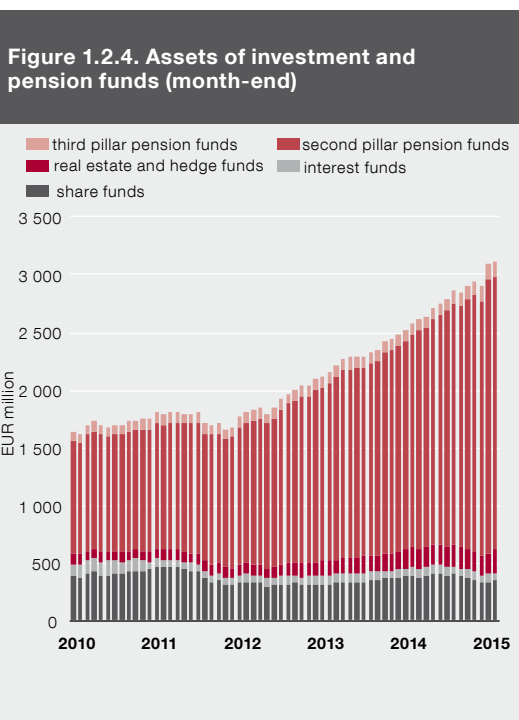
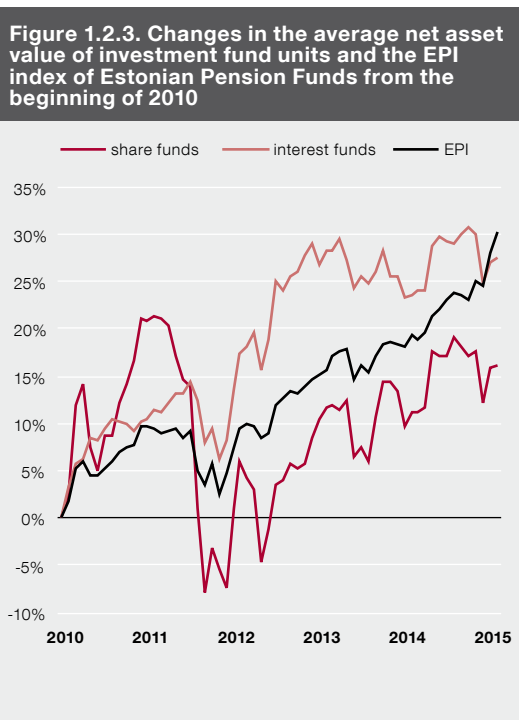
There was no significant change in the share of foreign investors on the Tallinn stock exchange in the first two months of the year, as it dropped by 0.2 percentage point to 40%. The majority of the foreign investors were residents of Luxembourg and the Cayman Islands, who held 11% and 7% respectively of the corporate shares listed on the Tallinn exchange at the end of February.

### Investment and Pension Funds

The fund market in Estonia is dominated by pension funds, which had 2.5 billion euros of assets at the end of February 2015 (see Figure 1.2.3). Other investment funds had assets of 622 million euros at the same point.

The assets of the pension funds grew by 446 million euros last year, with almost three quarters of the growth coming from new contributions. The assets of other investment funds declined by 38 million euros last year in contrast, mainly because of outflows of money to share funds, though the payments into the funds for new units still exceeded payouts.

The accommodative monetary policy in 2014 helped keep returns positive on both pension and other investment funds (see Figure 1.2.4). The EPI index, which reflects the general returns of the second-pillar pension funds, advanced by 9.2% in the year to February 2015. The average returns of share funds and interest funds were uneven, and the results of funds that had invested in Russian securities were particularly affected



downwards by the tensions between Ukraine and Russia. The average annual return of units in share funds was 8.9% at the end of February, and the average for interest funds was 3.3%.

The small size and low liquidity of the local securities market mean that investment funds and pension funds again invested predominantly in foreign assets, and more than three quarters of the total assets of funds at the end of February consisted of securities registered abroad. The share of external assets has not changed much over the past three years. The majority of the foreign assets are securities registered in other European countries, which provided 60% of the total in February 2015. The share of total fund assets that were invested in registered securities in Russia and Ukraine at the end of January was 0.7%, meaning the direct impact of geopolitical tensions on the value of assets of Estonian pension and investment funds was vanishingly small.

### 1.3. MARKET-BASED FINANCING OF BANKING GROUPS

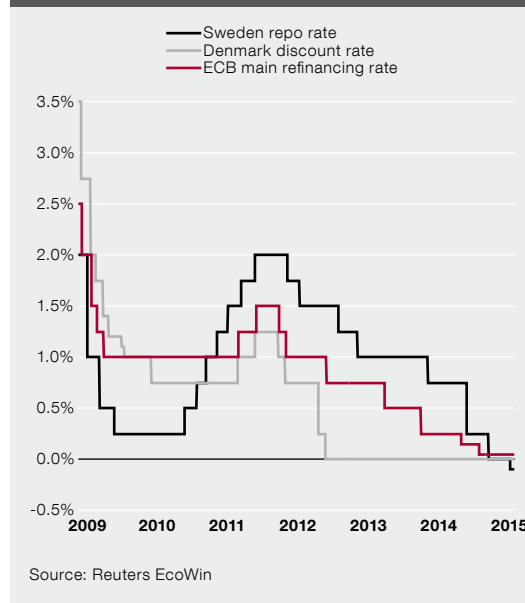
#### Financial strength of the groups of parent banks

Economic growth and client confidence varied between the Nordic countries to some extent in 2014, but there were **low interest rates** throughout the region. The interest rate on the standing deposit facility at the Danish central bank has been negative since 2013 and the Swedish central bank introduced a negative repo rate at the start of this year<sup>6</sup> and announced a 30-billion-krona purchase programme for sovereign bonds (see Figure 1.3.1).

Steps by the central banks to revitalise economies have already had results, as the low price of

<sup>6</sup> There have been negative interest rates on deposits at the central bank since 2014.

Figure 1.3.1. Monetary policy interest rates



funds has encouraged investments and swelled the balance sheets of the banks. However, the measures that have been taken may increase the vulnerability of the banks, as the danger arises that the expansionary climate may lead to risks being taken that are larger than usual and that are not correctly assessed.

Other problems may also worsen. As the credit supply has increased, so have house prices by even more, and so in consequence has household **indebtedness**, which is seen as one of the biggest threats that has arisen in the region (see Figure 1.3.2).

Although the capacity of households to service their debt is generally seen as satisfactory in the Nordic countries, a systemic risk could be posed by the behaviour of households if the economic climate changes. A drop in disposable income or in confidence would be likely to lead to a drop in demand, and the effect of this could then be passed through lower incomes and rising

unemployment back to households. As the main cause of a fall in confidence is likely to be unfavourable headwinds in the external environment, banks would be exposed to problems because of falls in the quality of their assets and the value of their collateral, and probably because of a higher price for funding.

The operating security of the banks depends on their business model and their **capacity to bear losses**. Swedbank has **core equity tier 1 capital** (CET1) of 21%, and the SEB, Nordea and Danske Bank groups have around 15–16%. Although those figures look quite strong in international comparison, the **financial leverage ratio** of those bank groups, or their equity to total assets, has **remained at 4–5%**. This is fairly low for European countries (for more details, see Box 2 The specific features of the Nordic banking sector)

The largest banking groups in the Nordic countries have coped with the difficult environment satisfactorily so far (see Figure 1.3.3). The return on the equity of the parent groups is more than 10% and profitability has been aided by growth in assets and income earned from trading portfolios and asset management.

The quality of the banks' loan portfolios has remained good, but at the same time there appears to have been a slight change of direction in the banks' operating strategies. Greater focus is planned for retail customers in home markets that are well known and the provision of services to companies is seen as an important source of income in the short term.

### Macprudential measures

As low interest rates are encouraging growth in loan portfolios, requirements and limits are being introduced for the banking sector in order to

Figure 1.3.2. Ratio of household debt to disposable income, Q3 2014

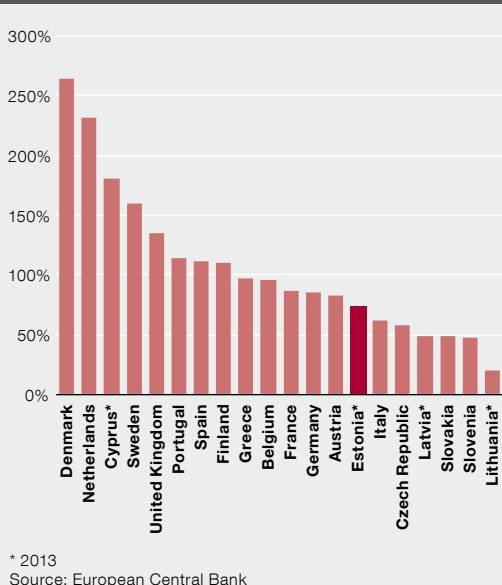
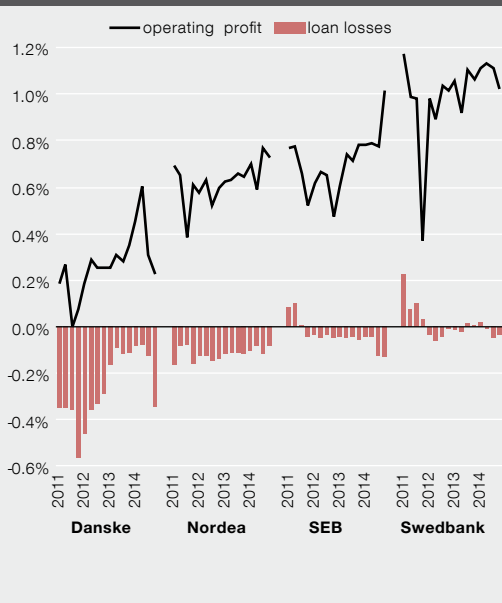


Figure 1.3.3. Operating profit of the Nordic banks and loan losses as ratio to assets





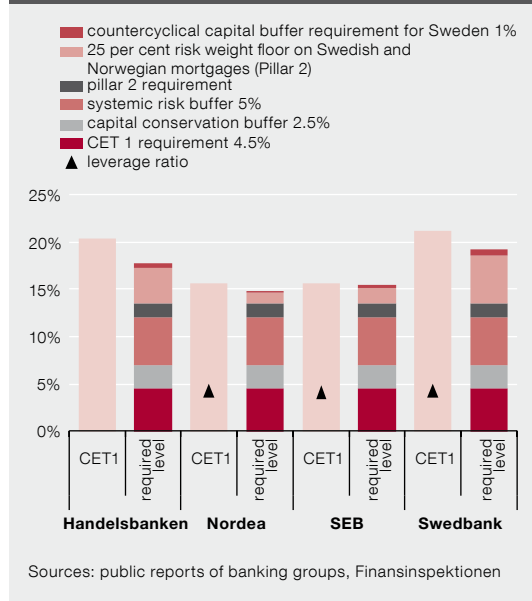
**reduce the build-up of risks and to strengthen the capitalisation of the banks.** Funds have so far been sufficient for meeting requirements and the measures taken have helped to ensure that the share of own funds has not fallen.

**Sweden** introduced an additional systemic risk buffer of 5% from 1 January 2015 for systemically important banking groups (see Figure 1.3.4). A 2.5% capital conservation buffer was also introduced with immediate effect in Sweden. From September 2015, banks will have to hold common equity tier 1 funds of 1% of loans issued in Sweden to meet the countercyclical buffer requirement. As the 1% countercyclical buffer has also been introduced in Norway, the banks will have to hold additional own funds of 1% of the loans issued in Norway on top of the positions in Sweden.

Both Sweden and Norway have found in their efforts to reduce the risks stemming from real estate loans that retrospective risk assessment models are not necessarily able to estimate the current risks accurately. As a result, the Swedish financial supervisory authorities set a 25% risk weight floor on mortgages and Norway has introduced a minimum rate for loss given default (LGD) of 20%.

Growth in household debt levels and rises in real estate prices have also been encouraged by extended maturities for loans, which has led to some loans being issued where the client pays only the interest back to the bank on a regular basis. In response the Swedish supervisory authorities have announced plans to introduce a requirement in 2015 for borrowers whose loan principal exceeds 70% of the value of their collateral to pay back at least 2% of the principal each year as well as the interest, while borrowers whose outstanding loan is for 50–70% of the value of the collateral must reduce the loan principal by at least 1% each year.

**Figure 1.3.4. The major Swedish banks' CET 1 capital ratios and requirements in Q4 2014**



As well as strengthening the capitalisation requirements, Sweden has focused on reducing liquidity risks for the banks. The eight largest banks in Sweden have been subject to a minimum liquidity coverage ratio (LCR)<sup>7</sup> of 100% since 2013, both in overall terms and for the euro and the dollar separately.

The CET1 requirement for banks in **Norway** is being raised to 11% by the middle of 2015, with a basic requirement of 4.5%, a capital conservation buffer requirement of 2.5%, a systemic risk buffer requirement of 3%, and a countercyclical buffer requirement of 1%. It is planned that the requirements for systemically important banks will be raised by a further 1% in 2015 and again in 2016. Calculation of the capital requirements for domestic real estate loans must cover at least 20% of the loss given default of the loans.

<sup>7</sup> This ratio comes from Basel III and shows the relationship between a bank's liquid assets and the net outflows of liquid funds during a stress period of 30 days.

The systemic importance of banks in **Denmark** has been assessed and the requirements for systemically important banks will rise gradually by 1-3% by 2019, depending on the risk category of each individual bank. It is planned that requirements for both capital conservation and countercyclical buffers will be raised gradually to 2.5% by 2019.

### Financing and liquidity of parent banks

The funding of the Nordic banks is based largely on funds from the financial markets, which supply almost half of all the funds needed. Almost half of this market-based financing is in the form of covered bonds and so the price and availability of market-based financing is important for the Nordic banking groups. Such a funding model implies that the banking groups are vulnerable to any possible shocks to the financial markets (for more details, see Box 2 The specific features of the Nordic banking sector).

Low interest rates and the good profitability of parent banks have allowed the banks to benefit from favourable borrowing conditions for their market-based financing. Interest rates on covered bonds, their main finance instrument, continued to decline throughout the year (see Figure 1.3.5) and market interest rates fell for bonds with a range of maturities.

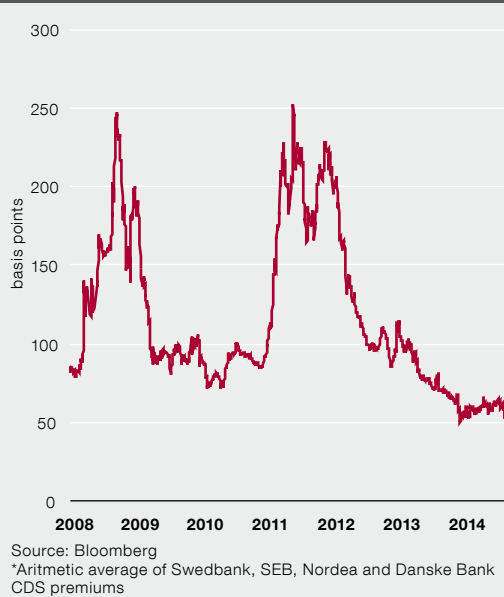
Reports from the banks show that investors continue to be interested in the bonds issued by the banks. The positive attitude of investors is also reflected in the premiums in the credit default swaps (CDS) of the parent banks, which were at their lowest for six years at the start of 2015 (see Figure 1.3.6).

Overall the short-term liquidity of the banking groups was good in 2014 because of their strong

**Figure 1.3.5. Average bond yields of Swedish parent bank groups\***



**Figure 1.3.6. CDS premiums of parent banking groups\***



financial buffers. All the largest banks in Sweden had a liquidity coverage ratio (LCR) above the required 100%, both in overall terms and for the euro and the dollar separately.

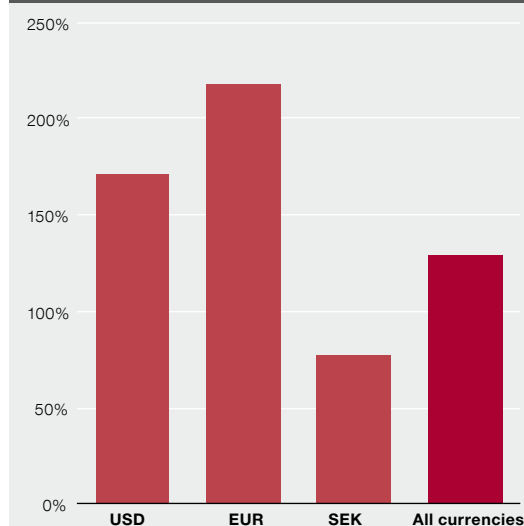
The Swedish bank groups use quite a lot of foreign currency in their funding and their volumes of liquid assets in Swedish krona are relatively small. This means that one possible short-term liquidity risk for the Swedish banking groups still comes from the liquidity risk of the Swedish krona. This is reflected in the liquidity coverage ratio for the Swedish krona, which is lower than that for other currencies (see Figure 1.3.7). Although there is currently no requirement for the LCR for krona, the Swedish central bank has drawn attention to this risk and has advised the financial supervisory authority to set a requirement of 60% for the liquidity coverage ratio in krona<sup>8</sup>.

The Swedish parent banking groups kept the same structure as earlier for their long-term liquidity risk in 2014, which was shown in a large difference between the maturities for assets and liabilities. The difference comes about because the banking groups finance the mortgages on their balance sheets, which generally have maturities of 30–50 years<sup>9</sup>, by issuing much shorter-

8 Riksbank, Financial Stability Report 1/2014

9 Riksbank, Financial Stability Report 1/2014

**Figure 1.3.7. The major Swedish banks' Liquidity Coverage Ratios across different currencies (September 2014)**



Source: Riksbank, Financial Stability Report 2/2014

term covered bonds. The most recent Financial Stability Report issued by the central bank<sup>10</sup> said that the average maturity of the covered bonds issued in Sweden was three years. This suggests that if pressures in the financial or real estate markets led investor sentiment to worsen, it may become more difficult and more expensive for the banks to refinance the covered bonds they have already issued.

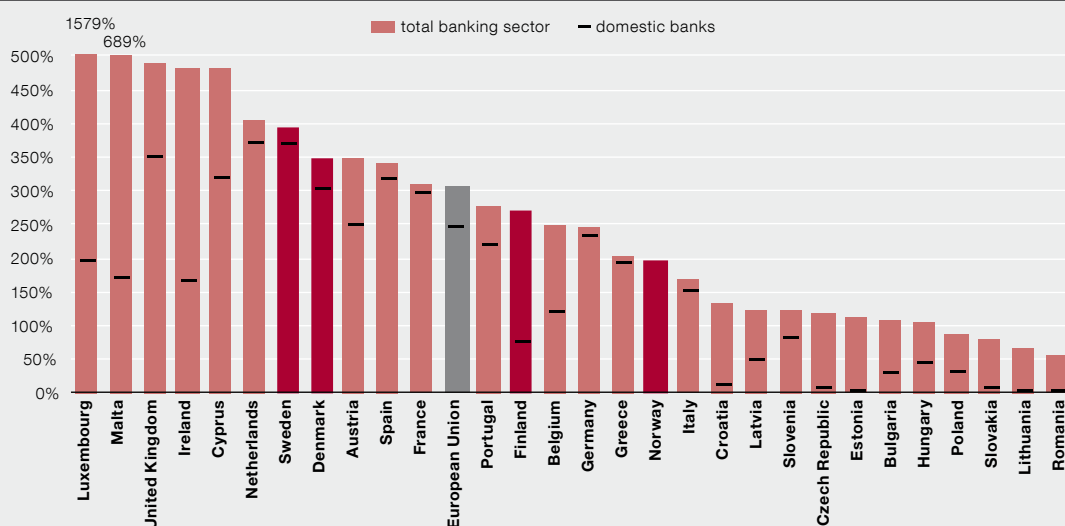
10 Riksbank, Financial Stability Report 2/2014

## Box 2: The specific features of the Nordic banking sector

The Nordic banking sector is one of the largest in the European Union in relative terms. The total assets of the banking sector in Denmark are more than three times as large as GDP, while those in Sweden are almost four times as large (see Figure B2.1). Sweden and Denmark have particularly notable domestic banking sectors<sup>11</sup> in comparison to other European Union countries, as almost 90% of the total sector is domestic. Domestic banks have a more modest share of the sector in Finland in contrast, as they account for less than one third of the total sector.

11 Banks controlled by local residents.

Figure B2.1. Banking sector total assets to GDP (December 2013)



Sources: European Central Bank, Eurostat, Statistics Norway, Eesti Pank's calculations

There are several reasons why the Nordic banking sector is relatively large. The first is that the financing of the economy in the Nordic countries, as in other European Union countries, is bank-centred. A second is that the debt levels of the Nordic non-financial sector are relatively high, with household indebtedness in Denmark and Sweden high in international comparison and financed mainly by the banking sector. A third reason is that the largest Nordic bank groups, especially the largest Swedish and Danish groups, are quite active in foreign markets (see Table B2.1), so a part of the assets of the banking sector are outside the home country of the groups.

The Nordic banking sector is very concentrated as there are quite a lot of banks, but a large majority of them are small. Most banking comes from a few large bank groups, with the four or five largest groups accounting for more than 80% of the assets of the total sector in almost all the Nordic

Table B2.1. Loan portfolio of Nordic banks across countries

	Danske	Nordea	SEB	Swedbank	Handelsbanken	DNB
Sweden	14%	28%	74%	87%	66%	
Norway	17%	18%	2%	3%	11%	81%
Denmark	47%	27%	1%		4%	
Finland	18%	22%	1%		6%	
the Baltic States		3%	9%	9%		
Germany			11%			
Russia		2%				
other *	5%		3%	1%	12%	19%

\* Banks allocate their loan portfolios in different ways in their reports, so "other" may also include countries that are listed in the table.

Source: Public reports of banks, Eesti Pank's calculation

countries. Banking is particularly concentrated in Finland, where the three largest bank groups hold almost 92% of the total assets of the sector<sup>12</sup>.

The Nordic banks are relatively closely interconnected and their main operations outside their home countries are in other Nordic countries. The behaviour of these banks and their risks depend in consequence on the economic climate in other countries in the region and on the risks prevailing there.

The total assets of the Nordic banking sector are relatively large and clients have historically preferred to invest their money elsewhere rather than in bank deposits. This has meant that the Nordic banks fund themselves from financial markets notably more than is the case in other European Union countries. The biggest Nordic banking groups have largely funded their mortgage lending by issuing covered bonds. A large part of the funding from the financial markets comes from bonds issued in foreign currencies because the domestic bond markets are relatively small and the banks have cheap and easy access to the money and capital markets of the euro area and the USA. The Nordic bank groups also use bonds issued in foreign currencies to finance assets in foreign currencies.

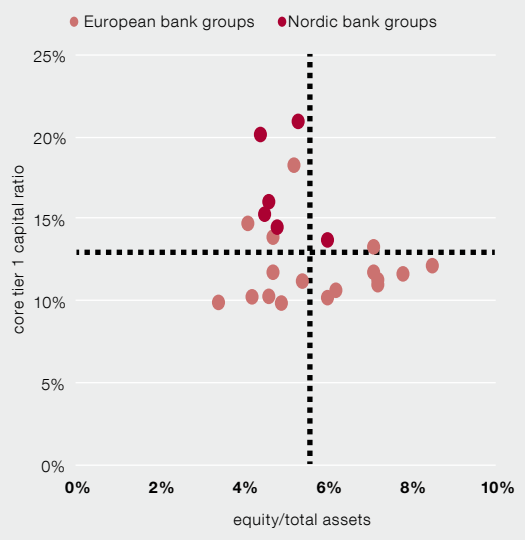
The financial leverage of the Nordic banking sector is relatively high, and although the capitalisation of the Nordic bank groups is relatively high in comparison to other European banks, their ratio of equity to total assets is below average (see Figure B2.2). This has been possible because the Nordic banks have gone over to internal risk assessment models in their capital adequacy calculation with the result that risk weights have been reduced for risk assets and capital requirements have been reduced.

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***The impact of the specific features of the Nordic Banking Sector on regional financial stability***

As the assets of the Nordic banking sector are relatively large against GDP and the sector is highly concentrated, the banks play an important role in the Nordic economies. This makes the banking sector vulnerable to any possible economic shocks, while the large share of funding from the financial markets makes the Nordic banks vulnerable to any financial shocks. The close ties between the Nordic banks and the economies mean that investors tend to look at the region as a whole, so that problems in one country could lead to a less favourable assessment of risks in other neighbouring countries.

**Figure B2.2. Banks' CET 1 capital ratios and equity in relation to total assets in June 2014**



Source: Riksbank Financial Stability Report 2/2014  
 Note: The dashed lines represent mean values

<sup>12</sup> Bank of Finland Bulletin 2/2014: Financial Stability