Eesti Pank

FINANCIAL STABILITY REVIEW

2/2013

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The international financial environment

In spring this year the first positive signs of an improvement in the outlook for economic growth in Europe appeared and the euro area economy returned to growth in the second quarter after six consecutive quarters of decline. A more favourable macro environment increased the risk appetite of investors in international financial markets. Capital flows and interest rates in financial markets were affected at the same time by the announcement by central banks of the possible withdrawal of extraordinary monetary policy measures.

Money market interest rates in the euro area are likely to remain very low in the medium term and increased certainty about interest rates dynamics was aided by the Eurosystem. In July the European Central Bank used forward guidance for the first time to indicate the direction of monetary policy, announcing that key interest rates were likely to remain low for an extended period of time.

Although economic activity in the euro area has increased, the risks to sustainable growth remain large. Higher unemployment and modest demand mean that the loan quality of a large proportion of European banks has continued to worsen and profitability has fallen. The capitalisation of banks has generally improved in the past year, though the changes have varied from country to country. It is also possible that some banks have underestimated their risk of loan losses in their estimates of capital needs.

The Real Economy and Loan Quality

The steady growth in the loan portfolio in Estonia slowed down in spring 2013 and by the end of August the annual growth in the loan stock of companies and households was 1.3%. The relatively fast growth in corporate loans at the start of the year yielded as growth in the economy proved to be slower than expected. Positive annual growth in housing loans appeared in the spring after almost four years of decline. The relatively moderate growth in activity seen so far in the housing loan market does not give any indication that there is a risk of excessive loan growth in the real estate market or of a resulting inflation of prices.

Despite the modest growth in the Estonian economy, the debt servicing ability of both companies and households remained good in the first half of this year. Higher costs reduced the profitability of companies somewhat, but the balance sheet of the corporate sector remains strong. The financial position of households has been supported in the last two years by positive developments in the labour market and growth in real wages, and this has helped increase the liquid financial buffers of households, which rose to 74% of debt by the end of the first quarter.

The loan quality of the banks continued to improve and the percentage of loans overdue by more than 60 days in the loan portfolio had fallen to 2.7% by the end of August. The baseline scenario of the Eesti Pank June economic forecast shows that the share of loans overdue by more than 60 days in the portfolio will remain at its current level this year and may decline slightly next year as economic growth accelerates. The level of overdue loans could fall faster than forecast however, if banks write more loans off as irrecoverable.

The Strength of Financial Institutions

The improvement in loan quality supported the profitability of the banks in the first half of this year. For eleven consecutive quarters now, the banking sector has been recording more in earlier write downs re-recognised as profit than it has been setting aside in reserves to cover loan

losses. The share of reversals in the profitability of banks is becoming less important however, and future developments in profitability will primarily depend on traditional interest income and the price of funding. As there is little room left for money market interest rates to fall further and the share of deposits is increasing in the funding structure of the banks, the decline in the net interest income resulting from the decline in reference interest rates has probably been exhausted.

The need for funding from parent banks has decreased further as local retail deposits have continued to increase. The aggregate loan to deposit ratio of the banking sector has fallen to 109%. However, parent banks retain an important role in the liquidity management of the banks, even though several banks also hold sufficient liquidity buffers at the local level. In spring 2013 the liquid assets of the banks decreased. Should domestic deposits continue to grow, it will help compensate for the reduction in the liquidity buffers.

The average capital adequacy ratio for the banking sector rose with support from the profits of earlier periods, and reached 24.7% by the end of June. All the bank groups were able to meet the 10% minimum requirement with Tier 1 capital only. The minimum capital adequacy requirement in Estonia has been 10% since October 1997. To ensure that Estonian capital requirements are not weakened when the EU's new regulation on capital comes in at the start of next year, Eesti Pank is planning to start the process of adding a systemic risk buffer requirement of 2% to the base requirement of 8%.

The capitalisation of insurance companies operating in Estonia has so far remained relatively strong. The ability of the insurance sector to earn profit is hampered by the continuing low interest rates and the weak economic environment and the uncertainty around the development of EU legislation for the insurance industry has also caused a lack of clarity in the sector.

Payment and Settlement Systems

The interbank payment systems TARGET2-Eesti and ESTA functioned smoothly and without major disruptions and banks had sufficient liquidity buffers for making payments. The banks are depositing noticeably more funds with Eesti Pank than required. The collateral pooling system, which ensures the technical readiness for intraday credit, is only used by a few banks and the credit line has really only been used to a minimal extent, and the banks did not require overnight loans either.

By February 2014, all the countries of the euro area will start using the payment schemes of the Single Euro Payments Area, SEPA, and this will have an impact on the settlement of interbank retail payments. Eesti Pank will close the ESTA retail payments system at the end of January 2014. The banks operating in Estonia have decided to start settling their domestic interbank payments using a pan-European retail system that meets the SEPA requirements from February next year.

Risks to financial stability

The financial stability assessment by Eesti Pank for autumn 2013 is affected by three main risks, and the likelihood of these risks being realised and their possible impact on the functioning of Estonian financial intermediation depend on both private sector adaptability and measures taken by the authorities.

1. The weak economic environment in Europe may worsen the asset quality of the banks.
Although the economy in the euro area returned to growth in the second quarter, there is a lot of uncertainty surrounding the future and development

varies between countries. The loan quality of banks has worsened particularly in countries that suffered more from the crisis and this has put pressure on the capitalisation of those banks. The lack of capital reduces the capacity of the banks to lend and hinders a rapid return to growth in the economies affected.

The greatest uncertainty in future will surround the quality of the assets of the European banks. It is possible that some banks faced with low profitability have postponed the provisions that should have been made to cover problem loans, meaning their actual capitalisation could be weaker than currently calculated. Equally, banks with a strong credit history may have underestimated possible future loan losses if they have used insufficient risk weights in assessing their risk assets for their capital calculations.

Next autumn the single supervisory mechanism will be introduced for the banks of the euro area. As part of the start up process, the balance sheets of banks will be assessed and stress tests will be carried out. Assessment of the asset quality on a harmonised basis will help reduce uncertainty and will boost the confidence of international investors in European banks. To avoid any negative reaction from the markets to any possible capital shortfalls, the banks have to ensure that they have sufficient buffers and access to additional funding when needed.

Impact on Estonian financial stability. If a worsening of the external environment means that risk scenarios that are much more negative than the baseline scenario are realised, problem loans will increase. The results of the stress tests conducted by Eesti Pank indicate that the impact of this on the capitalisation of the large banking groups in Estonia would be small. Equally, the risk assessments of the markets of the European economy and banks could worsen, which could affect access to funding and the price of funding across Europe. However, confidence in the Nordic countries has remained strong, and this has supported the financial position of the Estonian banking sector as well.

2. Any sharp fall following the rapid rise in real estate prices in the Nordic countries could threaten the economy and the bank groups of the region.

Throughout the ongoing economic and debt crisis in the euro area, international financial markets have considered the Nordic countries as safe havens for capital inflows. Unlike those in most other European countries, real estate prices in Sweden, Finland and Norway have risen steadily in recent years and even the eruption of the global financial crisis in 2008 had only a minor and short-term impact on prices there. Housing loans have also increased in those countries, and debt as a share of disposable income has risen notably higher than the European average. Although the growth in housing loans and real estate prices in the Nordic countries is largely a consequence of a steady rise in incomes, low interest rates and specific features of the national real estate markets, the relatively favourable loan conditions offered by the banks have also had an influence.

If real estate prices in the Nordic countries were to fall sharply by a significant amount, it could have a negative effect on private consumption and investment and so harm loan quality. As the financing of the banks in those countries is largely based on mortgage-backed covered bonds, a fall in real estate prices could also hurt market confidence and significantly increase the funding risk for the banks. Investors treat the Nordic countries as a single area, and so a negative development in one country could quickly be transferred to other countries and any decline could be amplified even further.

The relatively generous social insurance systems in the Nordic countries and the large financial buffers of households will help alleviate the

loan repayment risks of households. This means that loan repayment problems are more likely to emerge first and more severely in the business sector should the risks be realised. It should also be noted that the liquidity of the financial assets of households may appear quite low.

To dampen the risks, Sweden and Norway have taken the step of limiting the loan-to-value ratio at 85%. In May this year the minimum risk weight for mortgage loans in the calculation of capital was set for Swedish banks at 15%.

Impact on Estonian financial stability. The risks from developments in the Nordic countries could affect the Estonian financial sector through two main channels. Firstly, a worsening of the economies in Nordic trading partners could damage the outlook for economic growth in Estonia and have a negative impact on the profitability of local banks. Secondly there could be an impact through the increased risks to the funding and liquidity of Swedish parent banks. Although the share of market-based funding in the total funding of banks operating in Estonia has declined, problems for the parent banks would probably affect the funding conditions for subsidiaries and branches. As Nordic banking groups have over 90% of the Estonian banking market, and Swedish banks have around 80%, then there would be a significant impact on Estonian financial stability and the financing of the economy if this risk were to be realised.

3. Rapid rises in real estate prices and wages could threaten the balanced development of the Estonian economy.

The relatively rapid growth in the incomes of Estonian households and in real estate prices given the wider external and macro environment has raised the question of whether this development could cause imbalances if it continues, and under what conditions. If wage pressures strengthen, this could increase costs for companies to a level where they could have a significant impact on the solvency and profitability of companies. If real estate prices continue to rise at their current rapid rate it could lead both buyers and developers to have overly optimistic expectations for future prices. Given low interest rates, this could lead to insufficiently considered financial behaviour and could increase long-term risks and vulnerability.

Structural factors are partly behind the current growth in real estate prices, so moderate supply growth could help to stabilise price growth in future. Households have used more of their own funds to finance real estate purchases and banks are playing a much smaller role than they did in the earlier real estate boom. Loan growth in the Estonian real sector has so far been relatively modest and debt continues to decline in relation to GDP. This means that there is no need to require banks to build counter-cyclical buffers in the coming half year.

The main risks to Estonian financial stability

The weak economic environment in Europe may worsen the asset quality of the banks	
Any sharp fall following the rapid rise in real estate prices in the Nordic countries could threaten the economy and the bank groups of the region	
Rapid rises in real estate prices and wages could threaten the balanced development of the Estonian economy	

minor risk major risk

1. FINANCIAL MARKETS

1.1. INTERNATIONAL FINANCIAL ENVIRONMENT

International financial markets[1]

Developments in international financial markets have this year mostly been driven by assessments of the outlooks for growth in the major economic areas and the monetary policy decisions and messages of central banks.

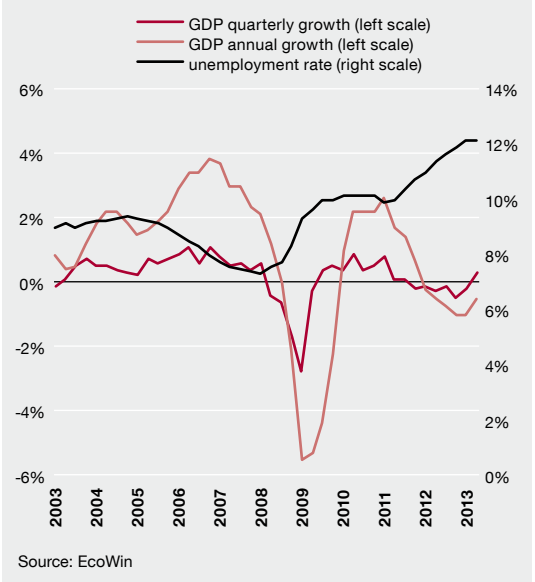
Indexes of economic activity have been better than expected in the USA and Europe since the end of March. After the long six-quarter recession, **economic growth** in the euro area turned positive in the second quarter. GDP was 0.3% higher than in the previous quarter, though growth remained negative in annual terms (see Figure 1.1.1). In June the European Central Bank forecast a decline of 0.4% in the economy this year, followed by growth of 1% next year. Although the first positive signs in the dynamics of the economy appeared in the middle of the year, the labour market has been more subdued than expected and demand will remain weak in the coming quarters. There remain very large differences in economic development between different countries in the euro area economy, and these are amplified in some cases by high sovereign debt and by problems in the funding and capitalisation of the banking sector. The labour market has also been disappointing in the USA and this will restrict the speed of growth in the future.

Monetary policy decisions caught the attention of the markets in May when the US Federal Reserve signalled that it would start to reduce its bond purchase programme in the autumn. However, figures released in September highlighted the risk that the moderate growth thus far in economic activity may not be enough to resist the tightening of financing terms that would follow a withdrawal of the extraordinary measures. In consequence the Federal Reserve decided to continue its purchases of government bonds and mortgage-backed securities at the current level of 85 billion dollars.

The European Central Bank reduced its key interest rate in May from 0.75% to 0.5% and used forward guidance for the first time in July, when the Governing Council announced that it expected the key interest rates will remain low for an extended period of time. The Bank of England used its forward guidance to link a rise in key interest rates to the unemployment rate, deciding that interest rates would not rise above 0.5% until unemployment has fallen to 7% or less. The central bank of Sweden kept interest rates unchanged at 1%.

Government bond markets reacted to macroeconomic developments and the measures taken by central banks in general with a rise in interest rates (see Figure 1.1.2). As investors' risk appetite increased, the interest rates on ten-

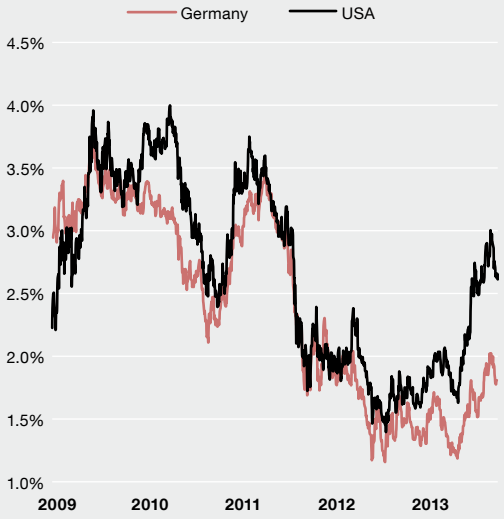
Figure 1.1.1. Real GDP growth and unemployment in the euro area



Source: EcoWin

1 The review covers market developments from the start of 2013 to the end of September.

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



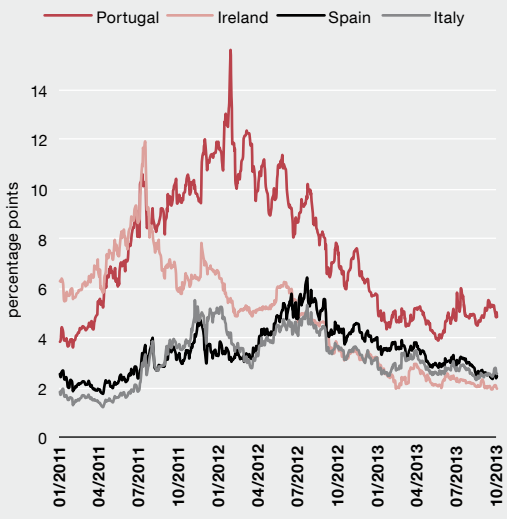
Source: EcoWin

year bonds from the USA, Germany and Sweden rose. In contrast the interest rates on the bonds of the most vulnerable euro area countries mainly fell, with the rates on ten-year bonds from Greece, Ireland and Spain all dropping (see Figure 1.1.3). However, interest rates rose for Portugal following the government crisis that culminated in July and the lowering of its rating by the Standard & Poor's rating agency from stable to negative.

In 2013 the banks of the euro area have repaid to the Eurosystem around one third of the funds they had received in the **very long term refinancing operations** (VLTRO). This has resulted in an expected reduction in liquidity, although it remained at a high level at the end of September.

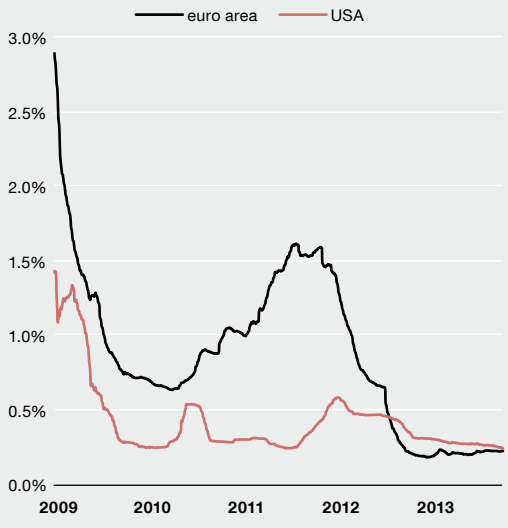
As monetary policy was accommodative, the volatility in **money market interest rates** was modest in the spring and summer months and both EONIA and the three-month EURIBOR remained practically unchanged (see Figure 1.1.4).

Figure 1.1.3. Spread between ten-year bonds of Portugal, Ireland, Italy and Spain with Germany



Source: EcoWin

Figure 1.1.4. Three-month interbank money market rates in the euro area and the USA



Source: EcoWin

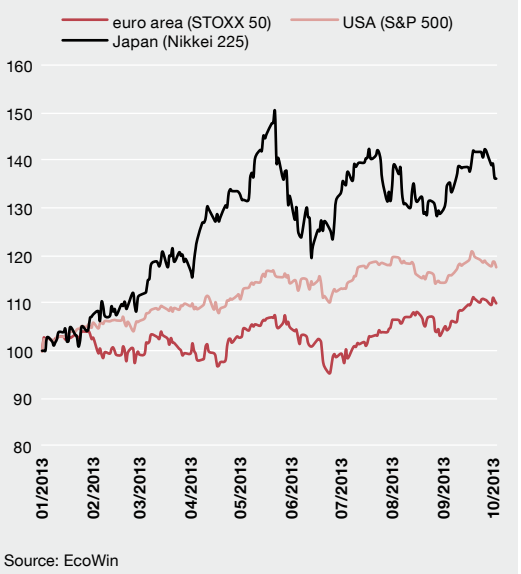
Stock market volatility increased over the six months and on 2 August the main index in the USA, the S&P 500, hit an all time nominal high, beating the peak reached in 2007 during the boom. The STOXX 50 consolidated index for the euro area has risen moderately and has not yet returned to the peak reached during the boom. The world's leading share indexes fell in August in response to the dangers of the war in Syria, but as those risks subsided, the markets rose again in September. By the end of September, the Stoxx 50 in the euro area was up 10% on the start of the year, the S&P 500 in the USA was up 18%, and the Nikkei 225 in Japan was up 39% (see Figure 1.1.5).

The main risks to international financial markets came from various sources in September 2013.

- **The weak euro area economy and problems in government finances.** Several euro area countries still have dangerously high debt levels and some have seen their debt grow in the last year through assistance packages and other measures. Economies have progressed very unevenly across countries and several countries have not yet exited recession. The return of these countries to positive territory is being hindered by weak economic growth in the euro area and by their difficulties in servicing large sovereign debts while simultaneously dealing with structural economic problems.

- **Geopolitical risks.** Political tensions in the Middle East could have a negative effect on economic activity in the region and could impact financial markets. Although the direct global impact of an increase in risks in any one country may be limited, any destabilisation of the whole region could have a negative impact on the global economy by causing a sharp rise in the oil price for example.

Figure 1.1.5. Stock indices in the euro area, Japan and the USA (1 Jan 2013 = 100)



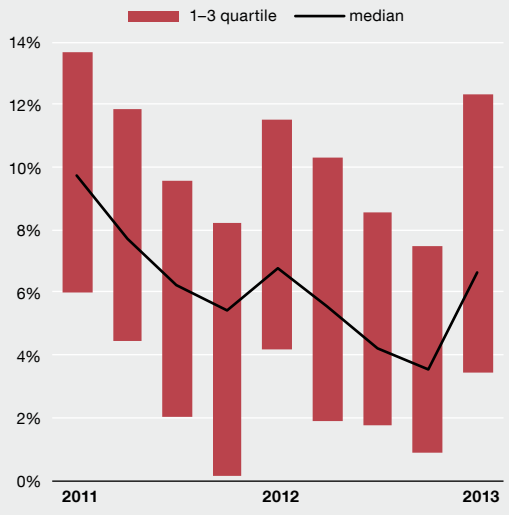
Source: EcoWin

- **Capital outflows from developing markets.** Signals that the accommodative monetary policy in the USA may be going to end have prompted investors to exit investments in emerging markets. In consequence the currencies of developing countries have been very volatile in recent months. The monetary policy tightening has been postponed, but an increase in risk aversion could significantly weaken stock markets and currencies in developing countries. This could in turn have a notable effect on the return and liquidity of investments by global investors and financial intermediaries.

The state and the risks of European banking

Banking in Europe has been vulnerable in recent years due to the volatility in financial markets and the macroeconomic weakness. Banks have had to adapt to changes in their operating environment and to new legal standards.

Figure 1.1.6. Return on average equity ratio of large European banks



Source: ECB

The level and the dynamics of the **profitability** of banks vary in different countries around Europe, but in general there has been a decline in profitability (see Figure 1.1.6). Operating incomes for European banks have been affected by low interest rates, changes in risk premiums in international financial markets, and modest demand for financial services because of the weak macroeconomic environment. The banks in the Baltic states recorded their peak loan losses in 2009, but in several European countries the poor quality of loans has been the main cause of the fall in profitability of the banks in the last year. In some countries loan losses have continued to increase.

Loan quality varies between countries because of the differences in the economies. Driven by their desire to avoid recording loan losses yet due to their low profitability and low capitalisation, some banks have reviewed their loan contracts and, for example, have offered clients more flexible repayment schedules. If provisions are insufficient, this could then have a real and harmful impact on profitability and capitalisation at a time when it is not expected. The European Central Bank will work with national authorities to carry out balance sheets assessments of banks in 2014, and will conduct stress tests together with the European Banking Authority (EBA). Running a single comprehensive assessment that is uniformly applied to all the major banks in the euro area will give results that are comparable and will create stronger confidence in the markets.

Low profitability may increase the vulnerability of banks, and limit their ability to raise their capital. The **capitalisation** of banks has generally increased, but varies between countries. The differences can be found in the capitalisation ratios measured in terms of both risk-weighted assets and total assets.

1.2. ESTONIA'S FINANCIAL MARKETS

Bond and stock markets

The local bond market in Estonia has been very passive in recent years, and that trend has continued this year. The average volume of new bonds issued in the first eight months of the year remained at the average level of 2012 and only domestic non-financial firms issued a total of 27 million euros worth of new bonds. The total volume of bonds issued stood at 523 million euros at the end of August, equal to 2.9% of GDP.

The secondary market for bonds also remained passive. An average of 1.4 million euros of bond transactions were executed each month, which was only 2.8% more than a year earlier.

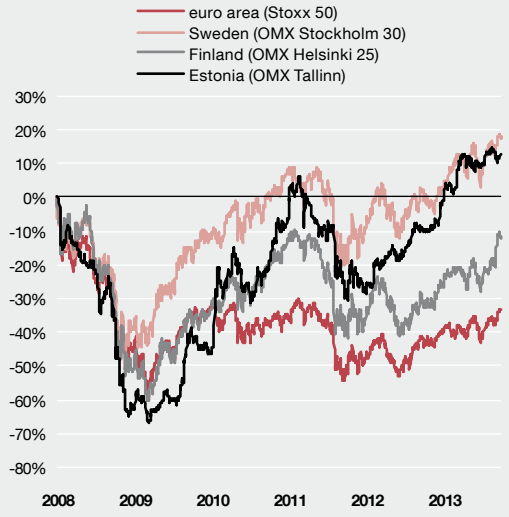
The cause of the low level of activity on the local bond market is the efficiently functioning banking system. Over the last five years the average nominal interest rate on bonds has been noticeably higher than the median interest rate for bank

loans (see Figure 1.2.1). This reflects the significantly higher risk levels of those issuing bonds.

While conditions for bank loans remain relatively favourable, it is probable that the local bond market will remain passive in the near future and so the risks it poses to Estonian financial stability will remain marginal.

Uncertainty mounted in stock markets in April with the result that the Tallinn OMXT index fell by almost 5%, though it remained above where it was at the beginning of 2013 (see Figure 1.2.2). Sentiment changed among investors at the beginning of June and the index started to rise again, returning to its March peak by the middle of August. By the end of September the OMXT index was up 14% from the beginning of the year.

Figure 1.2.2. Tallinn Stock Exchange OMXT index compared to Euro area, Finnish and Swedish indexes, change from the beginning of 2008



Sources: Bloomberg and Eesti Pank's calculations

Figure 1.2.1. Interest rates on corporate bonds and long-term corporate bank loans

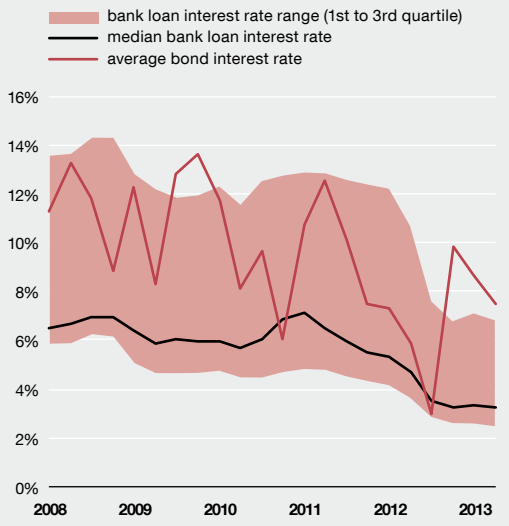
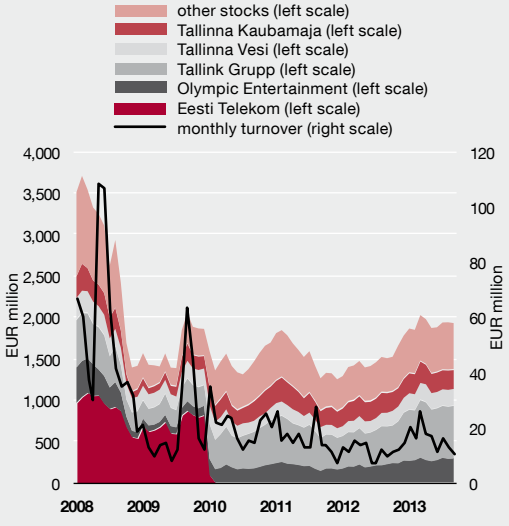


Figure 1.2.3. Market capitalisation and monthly turnover of shares listed on the Tallinn Stock Exchange



Trading activity increased somewhat on the Tallinn stock market in the first half of 2013. An average of 17 million euros of transactions were made each month, which is about one third more than the average for the previous two years. Four large companies accounted for around 80% of the turnover on the exchange.

The total capitalisation of the stock market at the end of September was 1.9 billion euros (see Figure 1.2.3) or 10.7% of GDP and the shares of 16 companies were listed on the regulated market.

The structure of investors in the companies on the market had not changed significantly since the start of the year and at the end of September 2013 the majority of them were Estonian investors, who held 58% of all the shares in the market. Investors from Luxembourg accounted for 9.6% of the non-residential investment, the largest share, while those from the Cayman islands accounted for 7.8%.

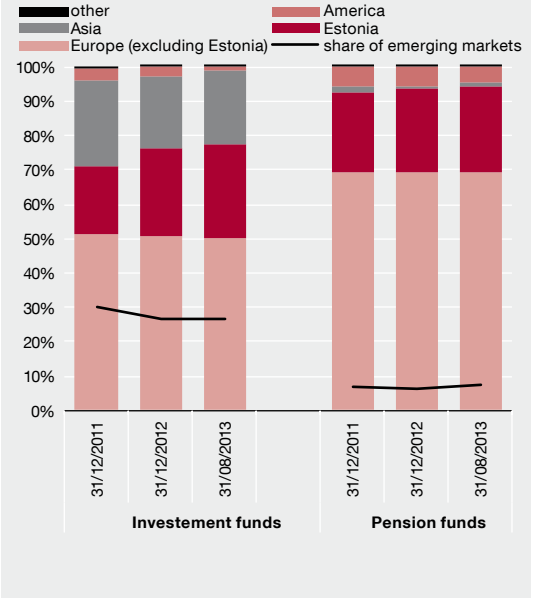
Investment and pension funds

The fall in share prices in the second half of May had a negative impact on the returns on investment fund units (see Figure 1.2.4). By the end of June the return on the average fund unit since the start of the year was negative for both equity and interest funds. Although the situation in the markets improved somewhat in July, most funds still remained below where they had started the year. At the end of August the return for equity funds since the start of the year was –2.3%, and for interest funds it was –3.3%. The EPI index, which shows the average return for funds for the second pillar of the pension system, managed to finish August in positive territory and was up 0.6% on the start of the year. Pension funds managed a better return than investment funds by putting a smaller share of their investment portfolio into emerging markets (see Figure 1.2.5).

The total assets of investment funds stood at 567 million euros at the end of August 2013

Figure 1.2.4. Changes in the net asset value of investment fund units and Estonian Pension Funds index EPI

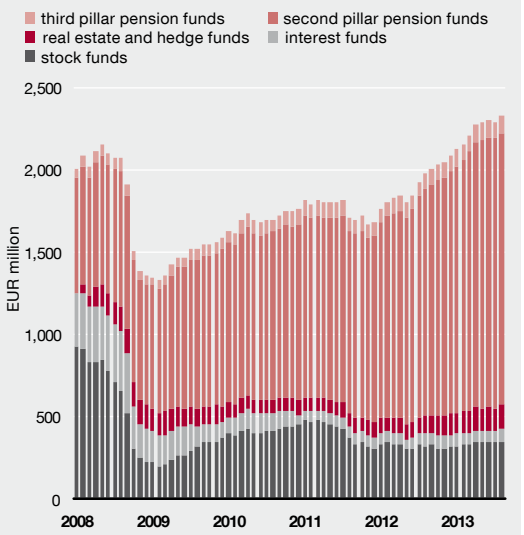
Figure 1.2.5. Geographical distribution of investment and pension fund assets



(see Figure 1.2.6), which was 7% higher than at the beginning of the year. The growth in assets was primarily driven by inflows into funds and although outflows were larger than inflows in January 2013, the monthly payments into investment funds have exceeded payouts since February. From February onwards, the average monthly amount paid in was 15 million euros, while payouts were 9 million euros. The assets of pension funds grew by 10% from the start of the year and reached almost 1.7 billion euros at the end of August 2013.

No major changes were made in the investment classes in the portfolios of investment or pension funds from the start of the year and at the end of August 2013 shares and units of equity funds made up 42% of the total portfolio, bonds and units of other funds made up 42% and deposits made up 13%.

Figure 1.2.6. Investment and pension funds' assets (month-end)

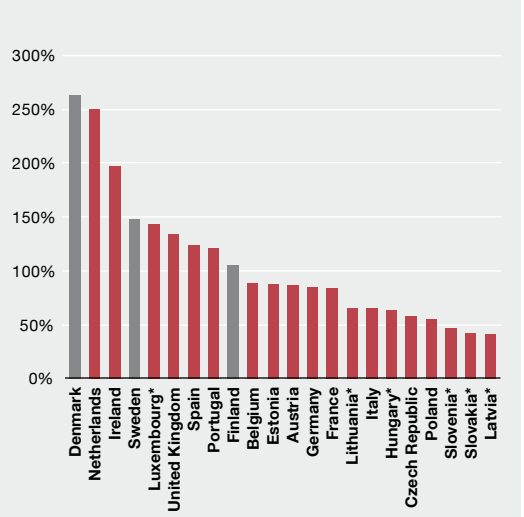


1.3. MARKET-BASED FUNDING OF BANKING GROUPS

Financial strength of the groups of parent banks

The low prevalence of direct links between the Nordic bank groups and the regions which have recently been considered to be of higher risk has so far allowed the banks to access funds on more favourable terms than their competitors in the EU. Lower confidence among external trading partners has, however, already had some effect on the outlook for growth in the Nordic countries too. A decline in foreign demand is usually first apparent in a reduction in investment activity among clients of credit institutions, but looking further ahead, current clients could face a reduction in their ability to service their debts if unfavourable conditions continue. High private-sector debt levels in the Nordic countries (see Figure 1.3.1) are an important risk factor that could also have a negative impact on domestic demand, which could lead to a fall in confidence among house-

Figure 1.3.1. Household debt / gross disposable income in 2012



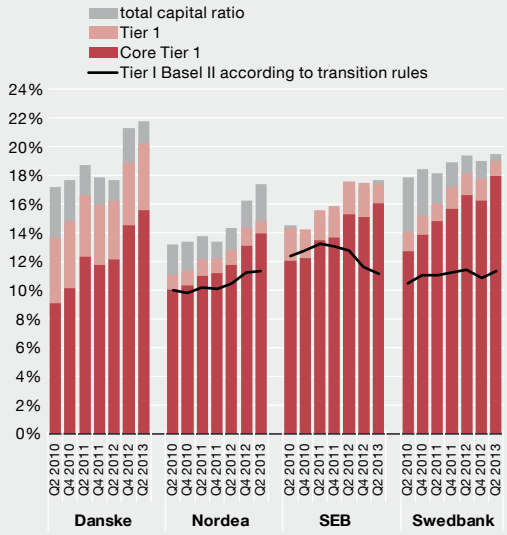
Sources: ECB, Eesti Pank
*2011

holds. Household confidence depends on the labour market and the outlook for incomes and because of the high debt levels of households, then possibly also on house price movements.

The profitability of the Nordic banks mostly remained close to its earlier levels in the first half of 2013 despite the difficult economic environment. The interest income of the banks was supported by rather favourable ratings and the deposit base, though this varied for different bank groups. Increases in uncertainty among clients may have had some impact on loan demand, but growth has continued in credit portfolios, at an annual rate of 2–3% in Sweden and 3–4% in Finland (see also Appendix 2). The profitability of banks has also been supported by a decline in the need for write-downs, as the quality of the loan portfolios of the Nordic banks has remained relatively stable in recent quarters and the earlier problems from real estate loans for commercial properties in Denmark and Germany or residential properties in the Baltic states have eased.

One of the issues that has affected the capitalisation of the Nordic bank groups has been expectations of changes to the legal rulebooks. If current profitability endures, the bank groups should be able to meet stricter requirements than at present as expected. Larger foreign banking groups operating in Estonia exceed the current requirements, and the ratio of Tier I own funds of the SEB and Swedbank groups passed 17% at the end of the first half year, calculated using Basel II principles (see Figure 1.3.2). At the same time, the groups have faced relatively few problems over quite a long period and this has allowed them to assess domestic risks as inappropriately low. If the capitalisation of the bank groups is calculated using the principle that a minimum of 80% of the risk assets calculated under the Basel I methodology must be taken into the account, then the Tier 1 own funds capitalisation of the three biggest Nordic bank groups operating in Estonia reached 11%.

Figure 1.3.2. Capital adequacy of Nordic parent banking groups (based on Basel II)



Source: public reports of banks

To increase the resilience of banks in the current macro-financial environment, the Nordic supervisory authorities have issued the banks with several additional guidelines to reduce risks. Additional guidelines for bank lending, financing and liquidity requirements have been issued and banks are expected to release publicly more detailed and more frequent disclosures of their positions so the public are better equipped to assess the riskiness of the banks. The Swedish supervisory authority announced in May its decision to set the minimum level of risk weights for housing loans at 15%, meaning that the risk position ought to be capitalised up to at least 1.2%. The central bank of Sweden has recommended that banks hold additional capital buffers and has drawn their attention to the need to reduce structural liquidity risks, or the gap in the maturities between funds borrowed and loans granted, and to approach the minimum level of 100 per cent in the Net Stable Funding Ratio. Banks are expected to publish detailed funding positions on a quarterly basis. In addition, the authorities have communicated that a regulatory increase in

the capitalisation requirements has been under consideration.

Banks are also continuing to review their own activities in expectation of volatility in the economic environment and a tightening of legal requirements. One measure that some have taken in their optimisation programmes is a re-evaluation of their earlier plans for expansion into new markets. The SEB group has signalled a retreat from its retail activities in Germany and Ukraine, while the Swedbank group is exiting Russia and Ukraine and the Nordea group announced in the second quarter of the year that it had sold its Polish portfolio to Bank Polski.

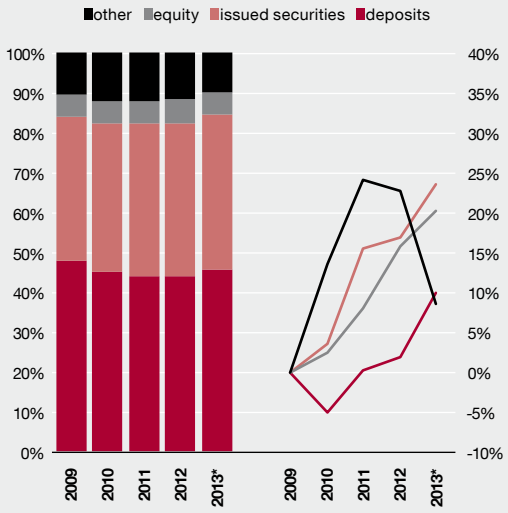
Funding and liquidity of parent banks

The share of deposits in the funding structure of the Swedish banking sector has increased to an extent since the end of 2012 (see Figure 1.3.3). At the same time, the gap between loans granted and deposits received has increased or remained the same for the majority of parent banking groups (see Figure 1.3.4).

Markets still consider the Nordic bank groups to be more secure than the banks of other European countries. The average CDS premium for Nordic banks was 57 basis points lower than the average premium for the euro area financial sector throughout the first nine months of 2013 (see Figure 1.3.5).

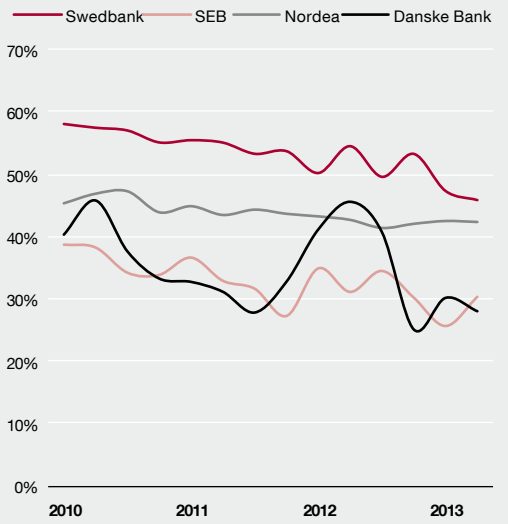
The yield to maturity of the covered bonds that the parent bank groups have so far used as their main funding instrument had fallen for both long-term and short-term bonds, but since the second quarter of this year the yields on long-term bonds have started to rise in the markets. This has been caused by investor expectations that the US Federal Reserve would start to wind down its stimulation measures in the near future (see Figure 1.3.6). The consequence of this is

Figure 1.3.3. Swedish banking sector balance sheet structure and change of liabilities and equity



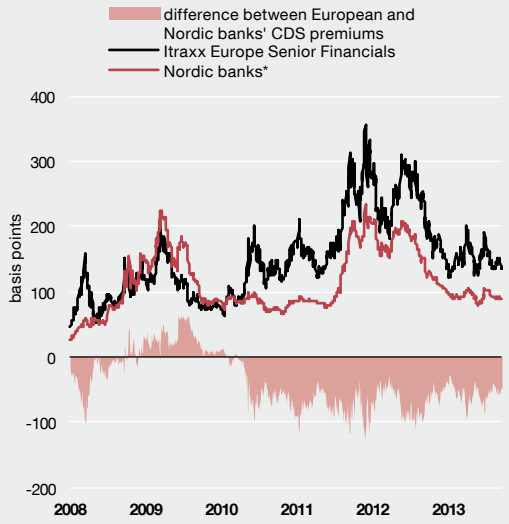
Source: Statistics Sweden
*31/08/2013

Figure 1.3.4. Banking groups' share of wholesale funding need in total loans [(loans–deposits)/loans]



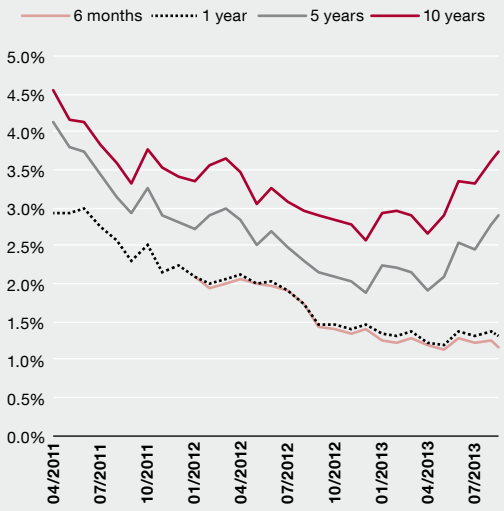
Sources: public reports of banks, Eesti Pank's calculations

Figure 1.3.5. CDS premiums of Nordic and European banks



Sources: Bloomberg, Eesti Pank's calculations
*Nordic banks: Swedbank, SEB, Nordea, Handelsbanken, Danske Bank (arithmetic average)

Figure 1.3.6. Swedish parent bank groups' average bond yields



Sources: Bloomberg; Eesti Pank's calculations
*Swedbank, SEB, Nordea (arithmetic average)

that long-term funding from the financial markets has become somewhat more expensive for the parent bank groups.

The financial stability review published in May by the central bank of Sweden made clear that the largest Swedish banks have relatively large liquidity buffers that have been ensured by the introduction of the minimum liquidity coverage ratio requirement at the beginning of 2013. The favourable situation in the market has enabled Swedish banks to increase their liquidity buffers simply and at lower cost by issuing short-term bonds and depositing the funds received with the central bank. At the end of 2012 all three bank groups operating in Estonia had already surpassed the minimum liquidity coverage ratio requirement of 100%, meaning their short-term liquidity was good.

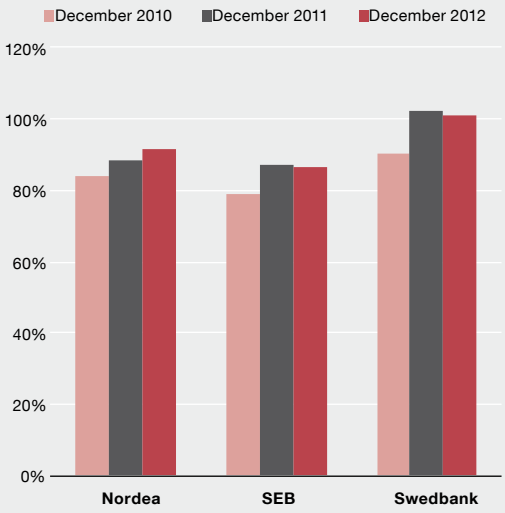
In the long-term the weakness remains in the Swedish banking sector of a relatively large gap between the maturities of liabilities and assets. The structural liquidity measure calculated by the central bank of Sweden[2] has improved from its position of two years ago for the bank groups, but it still remains below 100% for the majority of groups (see Figure 1.3.7). Improvements in the measures have primarily come from a lengthening of the maturities of funds from the financial markets.

One of the largest risks for the parent bank groups remains the danger of negative developments in the euro area. If uncertainty were to increase sharply in the euro area, it could make it harder for the banks to access funds from the financial markets, which is an important source of funding. Equally, a sudden correction in prop-

2 The structural liquidity measure shows the proportion of stable funding in relation to the illiquid assets.

erty prices in Sweden could reduce the confidence of bond investors in the bonds issued by the parent bank groups, particularly covered bonds. Negative developments in the home market could also affect the solvency of borrowers and so increase the credit risk.

Figure 1.3.7. The Riksbank's structural liquidity measure



Source: Riksbank Financial Stability Report 2013:1

2. THE REAL ECONOMY AND LOAN QUALITY

2.1. CREDIT PORTFOLIO OF BANKS[3]

The moderate growth in the loan portfolio that began in 2012 and reached 2% year on year in the first quarter of 2013 slowed in the second quarter, mainly due to a decline in corporate borrowing. The total **volume of loans** and leases given by banks to the real sector stood at 15 billion euros[4] at the end of August 2013, an increase of 0.8% over the year (see Figure 2.1.1).

The annual growth in the corporate loan portfolio was 1.7% in August 2013, which was markedly slower than the growth of up to 6% seen at the start of the year. The slower growth in loans to companies was mainly caused by a reduction in the loan demand from the logistics, infrastructure and manufacturing sectors, which had driven the earlier growth, and even lower levels of borrowing from the real estate and construction sector (see Figure 2.1.2). The corporate loan stock was also reduced in the second quarter by the closure of the Estonian branch of UniCredit and the reclassification of some real sector companies as financial sector companies. The growth in the corporate loan portfolio would have slowed down even without the impact of those one-off events. The only exception was the agricultural sector, where the annual growth in the loan stock has been around 20% since the end of 2012.

The housing loan portfolio has stopped shrinking as household borrowing has picked up and the housing market has recovered, and by the end of August it had reached the same level of 5.8 billion euros as a year earlier. The car lease portfolio of households started to grow even faster and it was more than 10% larger at the end of August than it was a year earlier. The portfolio of other consumer loans shrank at the same time, meaning that the overall stock of other loans to households fell by 0.8%.

3 Includes loans, leases and factoring

4 Also includes 224 million euros of loans and leases to non-residents.

Figure 2.1.1. Banking sector loans and leases to businesses and households

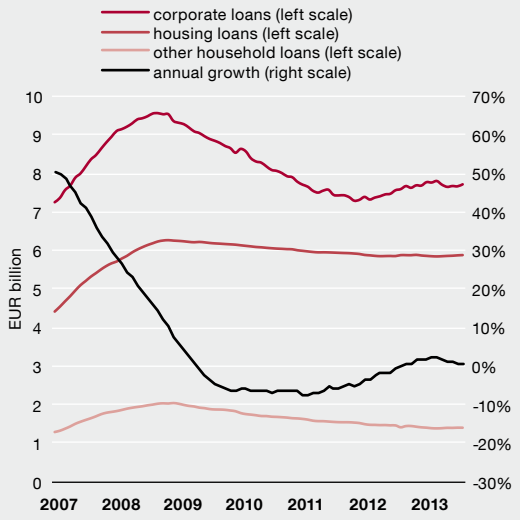
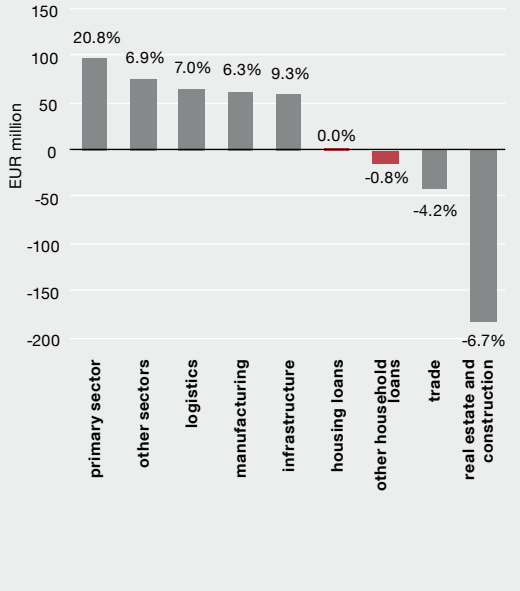
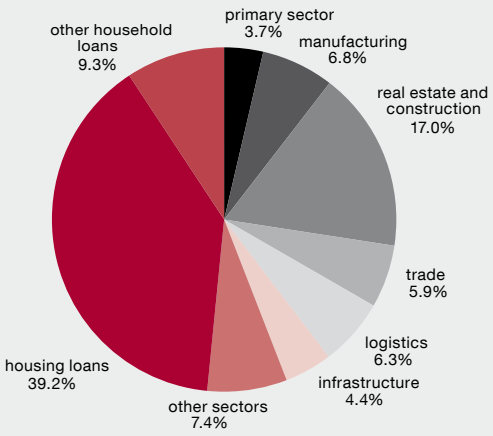


Figure 2.1.2. Annual growth in loans and leases to businesses and households as at 31/08/2013



Although corporate borrowing declined, it remained at a markedly higher level than household borrowing, increasing the share of corporate loans in the **structure** of the total loan portfolio (see Figure 2.1.3).

Figure 2.1.3. Structure of banks' credit portfolio 31/08/2013



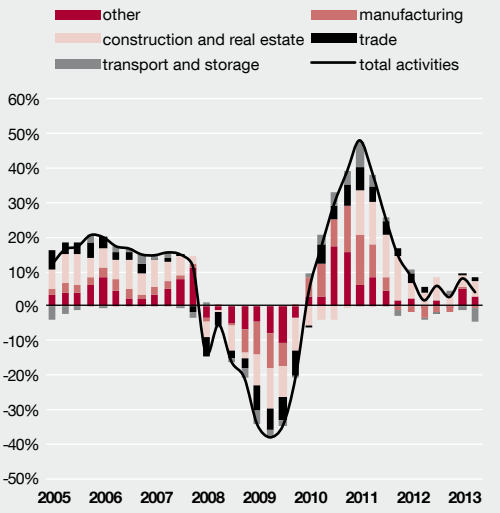
2.2. LOAN REPAYMENT ABILITY OF COMPANIES

Although corporate financial results have deteriorated following the slowdown in economic growth and the acceleration of wage growth, this has not yet started to have an impact on the loan repayment ability of companies. The buffers built up in recent years by companies are probably sufficient to withstand the short-term problems in the economy without major difficulties in making payments. However, if economic activity should slow further or economic growth remained stagnant for a longer time, the payment behaviour could worsen and payment difficulties may arise.

Corporate financial results

Although real economic growth has come to a standstill in recent quarters, growth in the **sales turnover** of companies continued in the first half of 2013 at around 10%, which was mostly due to relatively good growth in businesses focused on domestic demand. As corporate costs increased even faster at the same time, however, **profit** growth remained well below sales growth (see Figure 2.2.1).

Figure 2.2.1. Profit (operating surplus and mixed income) growth by sectors



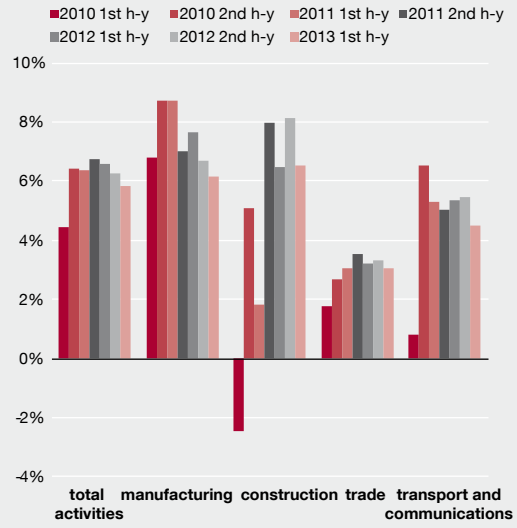
Source: Statistics Estonia

As a **result** the return on sales has diminished somewhat for companies in the past half year, as profit as a share of sales turnover has fallen, albeit from a relatively high level having climbed quickly in 2010–2012 (see Figure 2.2.2).

The future profitability of companies depends largely on how quickly external demand recovers and how far companies can manage wage

growth at current levels of turnover growth. The somewhat better economic indicators for the euro area and the European Union in the second quarter give some hope that Estonian export growth should increase, supporting economic growth. There is a worry about the economy in Sweden, Estonia's biggest trading partner, which performed worse than expected in the first half of the year. The barometers of the Estonian Institute of Economic Research show that manufacturing companies that are more focused on exports expect some improvement in the next few months. The Eesti Pank forecast of June 2013 expects growth in external demand to recover slightly in the second half of 2013, and the resulting increase in exports to lead to some degree of acceleration in growth in Estonia.

Figure 2.2.2. Profitability by sectors



Source: Statistics Estonia

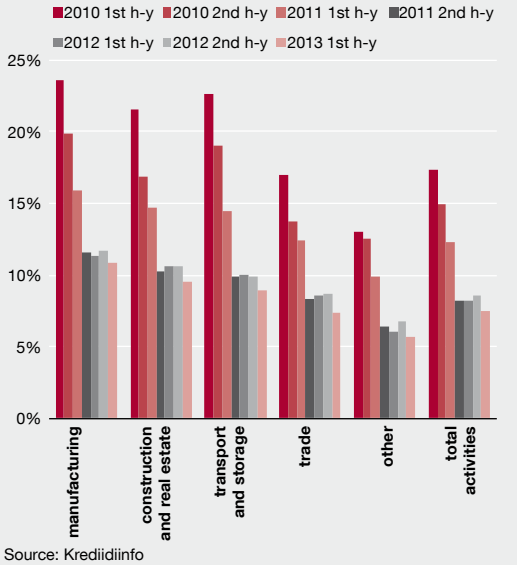
Payment behaviour of companies and bankruptcies

Despite the slowdown in economic growth and the fall in profitability, the payment behaviour of companies has not so far worsened significantly. Although payment difficulties increased to some extent in some areas, payment behaviour in general improved.

There was a decrease in the first half 2013 in the number of companies faced with **payment defaults** and **payment difficulties** in almost all the main industries. The number of companies with payment difficulties only remained at its level of 2012 in transportation and storage, which have also had weak financial results recently (see Figures 2.2.3 and 2.2.4).

The reduction in the share of companies facing difficulties with payments and payment defaults has mainly resulted from the improved payment behaviour of micro firms with between one and nine employees. There was also a reduction in very large debts, which indicates improved payment behaviour among larger companies. However there was an increase in the share of

Figure 2.2.3. The share of companies with tax debtors by sectors



Source: Krediidiinfo

companies with payment difficulties among the small and medium sized companies with 10–50 employees that already made up the largest share of companies with difficulties.[5]

About as many companies went **bankrupt** in the past half year as in the second half of 2012. The number of bankruptcy petitions does not indicate major problems as it is about the same as before the crisis.

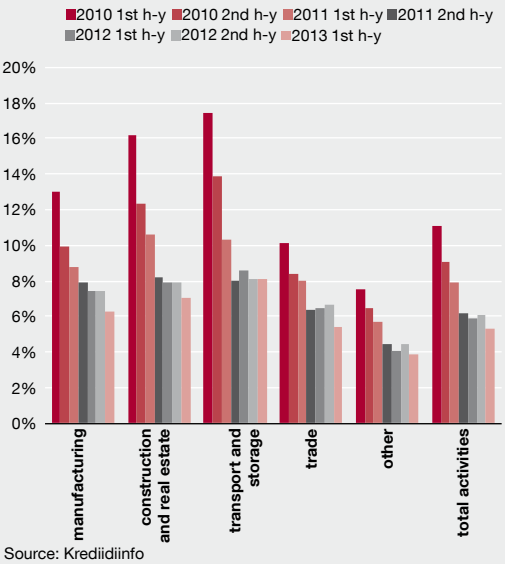
Financial assets and payment capacity of companies

Balance sheet and solvency figures indicate that although capitalisation and solvency are not improving as fast as in the last couple of years, Estonian companies had maintained their relatively good capitalisation and solvency at least at an aggregate level in the first half of 2013.

The volume of **deposits** of Estonian companies in domestic banks has fallen slightly in the past half year. Overnight and demand deposits have remained around where they were at the end of 2012, but term deposits have been falling for more than year. The total amount held in term deposits has declined significantly faster than the number of deposits, suggesting that larger deposits have shrunk more rapidly. The stock of deposits held by the non-financial sector also declined somewhat due to the reclassification of some companies as financial sector companies. While the debt liabilities of companies to domestic banks increased only very little during the past half year, around half of the debt liabilities are still covered by deposits. In contrast to the deposits held in Estonia, the deposits held abroad by Estonian companies have continued to grow. At the end of the first quarter of 2013 almost 1.1 billion euros had been put in deposits abroad, with slightly more than half going to Sweden and Finland (see Figure 2.2.5).

5 Payment behaviour survey by Krediidiinfo.

Figure 2.2.4. The share of companies with payment defaults by sectors



Source: Krediidiinfo

Figure 2.2.5. Volume and growth of corporate deposits

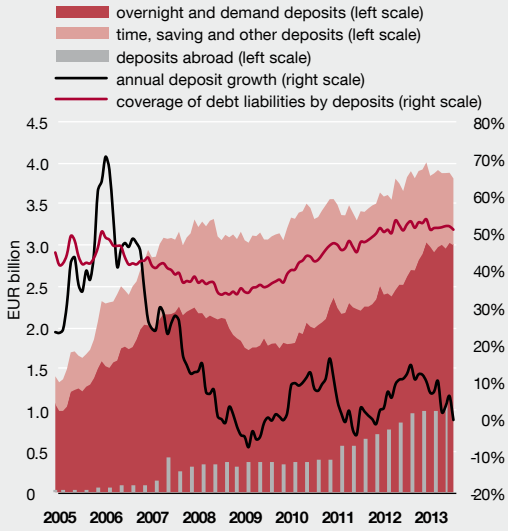
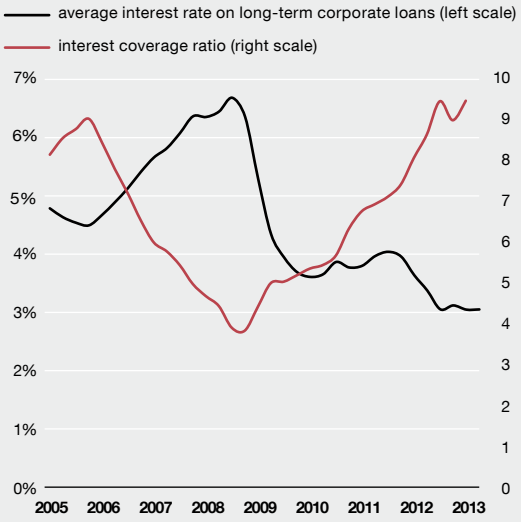


Figure 2.2.6. Indicators of companies' loan repayment ability

Figure 2.2.7. Interest burden



Sources: Statistics Estonia, Eesti Pank

The fall in the debt to equity ratio shows that the **leverage** of Estonian companies has been reduced further. The rise in the **current ratio** of companies, showing the coverage of short term liabilities by liquid financial assets, indicates that the liquidity of companies is continuing to improve (see Figure 2.2.6). The low base interest rate has meant that the **interest burden** for companies remains low (see Figure 2.2.7).

2.3. LOAN REPAYMENT ABILITY OF HOUSEHOLDS

Consumer **confidence** has picked up from a year ago on and is even above its long-term average (see Figure 2.3.1). In recent months this has mainly been boosted by the optimistic expectations of consumers for the national economy, though their assessments of their own ability to save have remained low. The confidence of Estonian consumers has generally been higher than the euro area average since the crisis, though since the start of this year confidence has picked up more in other countries.

Figure 2.3.1. Consumer confidence indicator

Sources: Estonian Institute of Economic Research, European Commission

The slowdown in economic growth has not yet had a notable impact on households as risks to incomes have been eased by the favourable developments in the labour market (see Figure 2.3.2). **Employment** has risen as unemployment has fallen and economic activity has increased, and in the second quarter 63% of the working age population were in employment. The **unemployment** rate, which has now fallen for four years in a row, dropped to 8.1% in the second quarter. The long-term unemployment rate and unemployment among the young fell particularly sharply.

The annual growth in average **gross wages** accelerated in the second quarter to 8.5%, to put the average at 976 euros, while real wages, adjusted for the impact of consumer price changes on purchasing power, rose in quarterly terms for the second year in a row to stand 4.9% higher than a year before. Wage growth was also faster than growth in household savings in the second quarter.

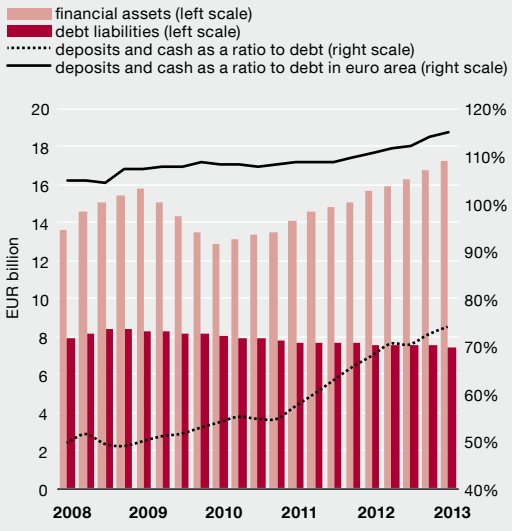
With support from the positive developments in the labour market and in wages, the **financial position** of households improved further in the first quarter allowing buffers to be increased (see Figure 2.3.3). This was underpinned both by growth of 10% over the year in financial assets, and by a reduction of 0.5% in debt liabilities. At the end of the first quarter households had enough cash and deposits to cover 74% of their total debt. This is the highest percentage in historical comparison, and almost 6 percentage points higher than a year ago. However, it remains relatively low when compared to the euro area average.

The financial position of households has also been improved by growth in **deposits**, which has been slowing down for two years now but still remains at 6% in annual terms (see Figure 2.3.4). The main growth in household deposits has come from overnight and demand deposits, which accounted for 60% of all deposits.

Figure 2.3.2. Unemployment rate and average gross wage and deposit growth

Sources: Statistics Estonia, Eesti Pank

Figure 2.3.3. Financial position of households



Sources: Eesti Pank, ECB

As interest rates remain at record low levels, the annual growth in term and savings deposits has been negative and their share of total deposits has fallen steadily since the crisis.

The decline in household loan obligations is stopping, though household **indebtedness** continued to fall as incomes rose (see Figure 2.3.5). Household debt was equivalent to 43% of GDP, or 83% of disposable income. This means that the debt has fallen by 15 or 18 percentage points from its peak three years ago and has returned to its level of 2006.

The **interest burden** of households, which is the ratio between the annual loan interest payments and disposable income, was 2.3% in the second quarter of last year, which is 0.9 percentage points less than a year ago (see Figure 2.3.6). The figure is only one third of what it was in 2008. The forecast published by Eesti Pank in June predicted that the household loan stock will continue to grow modestly in the sec-

Figure 2.3.5. Household indebtedness

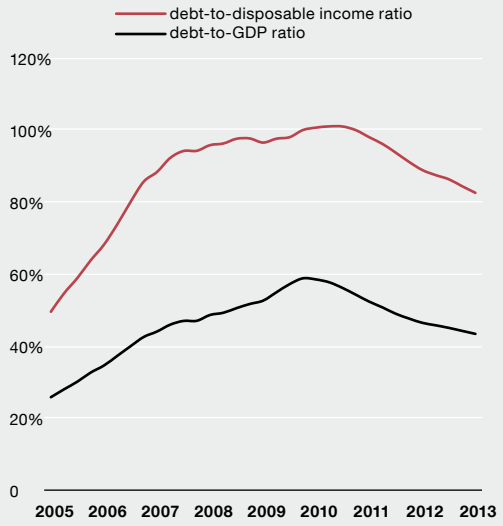


Figure 2.3.4. Household deposits

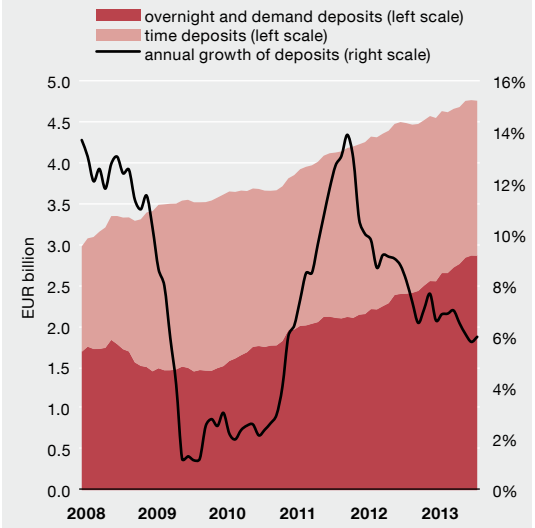
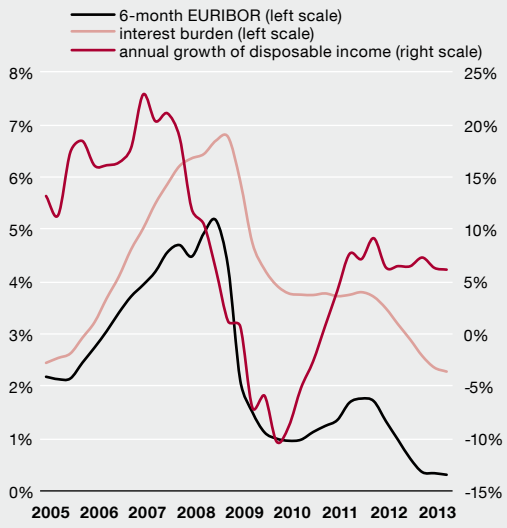


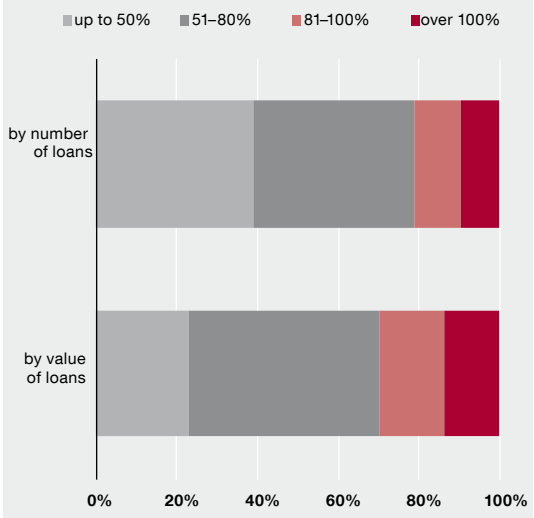
Figure 2.3.6. Household interest burden



ond half of this year and the growth in disposable income will slow down slightly. As markets expect the money market interest rates to remain low for the near future, no significant increase in the household interest burden should be expected, and the risks to loan repayment ability of households will remain low in future.

As housing prices were about one third down from their peak in the boom in 2007, there are still some households whose outstanding loan is larger than the value of the property it was for (see Figure 2.3.7). At the end of August this year, 7% of loan agreements had a **loan-to-value (LTV)** ratio of more than 100%. This is 6 percentage points fewer than at the start of the year. Loans with a high LTV made up 14% of the total value of housing loans, which is 4 percentage points less than at the start of the year.

Figure 2.3.7. Housing loans by loan-to-value ratio (LTV) as of 31.08.2013



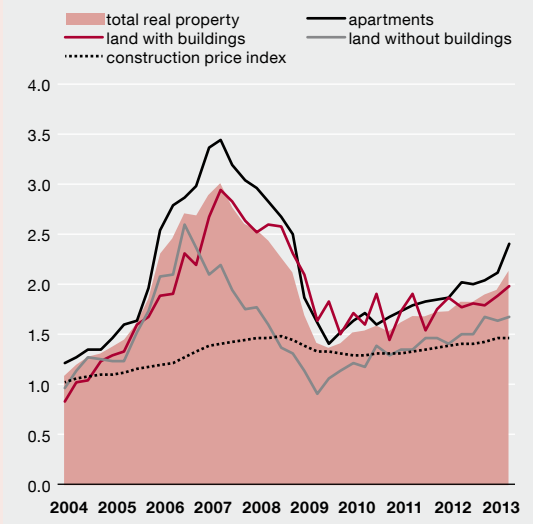
Box 1. The real estate market

The residential property market

The residential real estate market in Estonia has recovered steadily since the crisis, and the risks to the loan repayment ability of households and companies from the real estate market have decreased. The rise in real estate prices has again been driven mostly by apartment prices, though price growth has become more broadly based (see Figure 1B.1).

Data from the Estonian Land Board show growth continuing, with the number of transactions in the apartment market rising by 15% and prices by 16% in annual comparison in the second quarter of this year. Despite this rapid growth however, prices are still comparable to those in the pre-boom period. Real estate prices are one third lower than the peak reached in

Figure 1B.1. Real property price indices, Q2 2003 = 1



Sources: Estonian Land Board, Statistics Estonia, register of construction works

the boom, but they have climbed 50% higher than the lowest point seen during the crisis.

Activity in the real estate market is not even across geographical regions. The rapid price rises have mainly been led by the recovery of the market in large towns. The markets in small towns have mostly not yet recovered from the crisis because of migration away from these towns and their lower levels of infrastructure development. The biggest impact on the market comes from the Tallinn residential market.

As real estate prices have risen, so have rent prices, which are approaching record levels (see Figure 1B.2). However, the rise in rent prices has been slower this year than the growth in sales prices. Given the rising real estate prices and shortage of supply, it is probable that the rise in rent prices will not slow significantly in the near future.

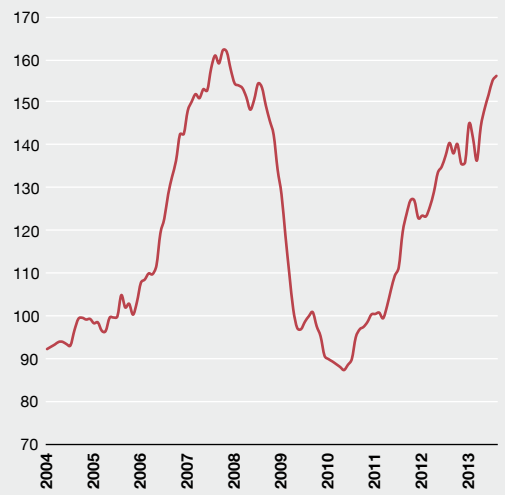
Transactions by non-residents accounted for 8% of all transactions in the first half of this year, which is 3 percentage points fewer than in the first half of last year. Non-residents only bought 3% more real estate by value in Estonia than a year earlier and the number of transactions was 5% lower. The main interest among non-resident buyers came from Russia and the Nordic countries[6].

This is the first time during the recent real estate cycle when there are more non-resident sellers than buyers (see Figure 1B.3). Data from real estate companies show[7] that these sellers are mainly non-residents who moved in to the local real estate market a couple of years ago and now see the chance to take profit out as property prices have risen.

6 Data from Ober-Haus Kinnisvara.

7 Real estate market review for the first quarter of 2013 by Pindi.

Figure 1B.2. Average rental price index, 2005=100



Source: Statistics Estonia

Figure 1B.3. Number of non-residents real estate transactions in Estonia

Source: Estonian Land Board

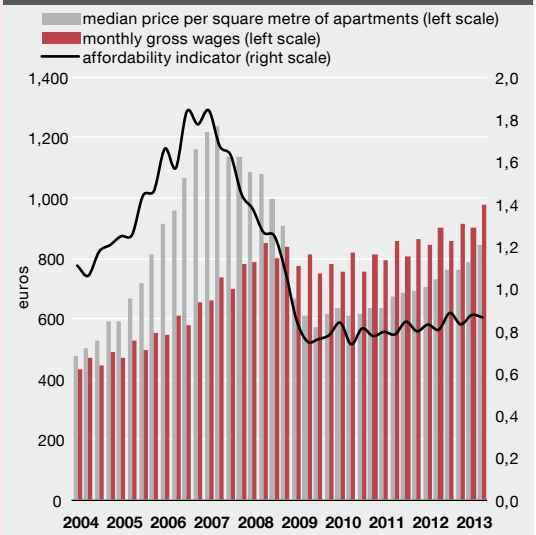
The purchasing power of households in the real estate market has remained relatively good despite the rise in prices (see Figure 1B.4). This is mainly due to support from growth in incomes, but also to the very low interest rates on housing loans. The real estate affordability indicator, which shows the ratio of the median apartment purchase price and average gross wages, has not changed in recent years and has remained below the levels seen before the peak of the boom.

Since the crisis, consumers have been relatively conservative and have used their own funds more for buying property. Equally, the comparatively rapid rise in the value of collateral has not led to an equal rise in volumes of housing loans. The main risk to the real estate market is that expectations of continued growth will be too optimistic as prices rise rapidly and interest rates stay very low.

The number of building and use permits issued provides an estimate of the amount of new residential housing (see Figure 1B.5). In the second quarter of this year building permits for new residential space were granted at a somewhat faster rate. The construction register shows that building permits were granted for 834 residential spaces, which is 13% more than a year ago. Usage permits were granted for 475 new living spaces in the same quarter, which is the same number as a year ago. The number of living spaces that have been completed in the last two years is also the lowest in the last decade. More than half of the living spaces that were built were in single family or two-family buildings or in apartment terraces, and so their average size was larger than usual at 137 m2. Most of the living spaces were built in the districts around Tallinn.

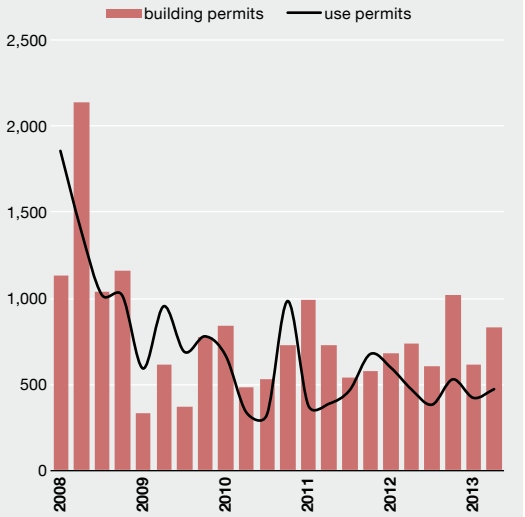
Real estate companies estimate that some developers are preparing projects that it has

Figure 1B.4. Real estate affordability



Sources: Estonian Land Board, Statistics Estonia

Figure 1B.5. Building and use permits issued for residential real estate



Sources: Stiatistics Estonia, register of construction works

been difficult to bring to market earlier because of the high costs of construction. Price limits make it probable that in the coming quarters the supply of residential space will be quite modest, while demand for new, good quality and well-located living spaces will remain relatively strong. In future the Estonian residential property market should see flatter growth as a consequence of seasonal price pressures subsiding and economic growth slowing down, which will restrict further growth in incomes.

The commercial property market

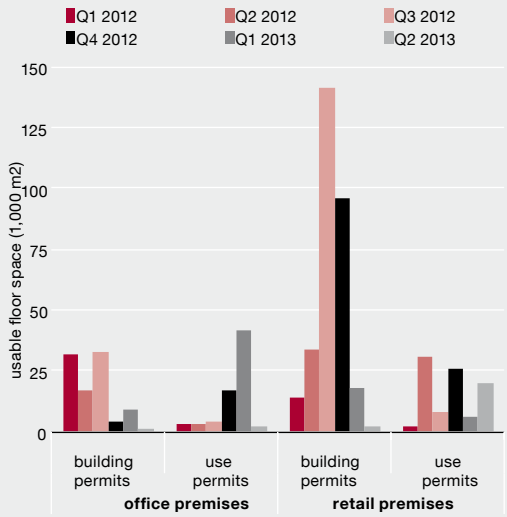
As growth has abated in the economy, construction volumes in the non-residential market also failed to grow much in the second quarter from the previous year (see Figure 1B.6). In the first half of 2013, 9% fewer building permits were issued for non-residential property than a year previously but 60% more non-residential spaces were taken into use. This was due to the low base level and the completion of several large properties, while the number of permits for use for non-residential space fell by 5% in the same period. The numbers of building permits and permits for use remained at a fraction of their levels during the boom.

Several new buildings came to the market for office space in the first quarter, while in the second quarter the number of new permits for use was again minimal and relatively few building permits were issued for new office space. However, several new commercial properties will come onto the market in the near future and this will probably have an impact on the dynamics of demand and supply.

Cutting down on costs is becoming more important for those renting office space and those with large areas are looking more at ways of optimising their use of space and moving into smaller premises in order to reduce office costs. Some are prepared to move within the Baltic area to do this if necessary. Many of the rent contracts for commercial property signed 3-5 years ago are close to expiring, so owners are offering contract extensions to current rent clients at more favourable terms than before[8]. Things are somewhat more complicated for developers of new office space as the amount that rent clients are prepared to pay is not sufficient for them.

The retail space sector is seeing some recovery as several large properties that got their building permits in the past year are coming into use while several food retail chains have announced plans to build new shops and there has also been an increase in interest from other retailers.

Figure 1B.6. Building and use permits issued for commercial real estate



Source: Statistics Estonia

8 Colliers International Estonia: Monthly Market Review 06/2013.

Box 2. Maturities on housing loans

The volume of new housing loans grew strongly in many countries before the recent crisis. The rapid growth in activity in the real estate market and stiff competition between lenders led to a loosening of lending standards. Loans with longer maturities started to be offered to clients and in some countries interest-only loans became more common.

Maturities for housing loans are generally set by the market and there are usually no maximum limits on them. An exception is Canada, where the government has applied limits since 2008 to government-insured mortgages in order to manage lending growth[9]. One of these limits is on the maximum length of loans, which has come down in three five-year steps from 40 years to 25 years. However, it has been difficult to assess the impact of this measure on loan growth as it has been applied together with other measures.

Another exception is Lithuania, where the maximum maturity of a housing loan has been set at 40 years by the responsible lending regulation[10]. As this is a relatively new regulation that was only passed in September 2011 after the sharp fall in real estate prices, its impact on loan demand and supply is hard to assess.

A report by the European Central Bank[11] showed that the maturities on housing loans in the euro area were typically between 20 and 30 years in 2007 (see Figure 2B.1). The maximum maturity offered by banks usually varied between 30 and 40 years. Longer loans were

9 www.cbc.ca/news/business/mortgage-rules-to-be-tightened-further-by-ottawa-1.1151644

10 www.lb.lt/responsible_lending_regulations

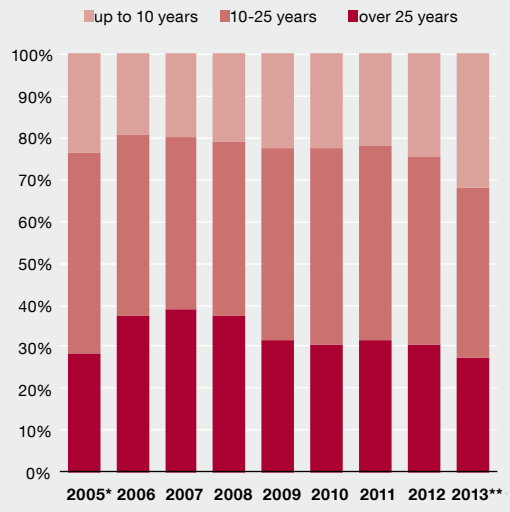
11 ECB Housing Finance in the Euro Area, March 2009.

Figure 2B.1. Typical maturity (years) of loans for house purchase in 2007

Belgium	20
Austria	30
Spain	30
Netherlands	30
Ireland	31–35
Italy	22
Greece	15–20
Cyprus	20–25
Luxembourg	above 20
Malta	30–40
Portugal	30–40
France	19
Germany	25–30
Slovenia	above 20
Finland	20–25

Source: ECB Housing Finance in the Euro Area, March 2009

Figure 2B.2. The maturity structure of new housing loans



*July–December 2005
**January–August 2013

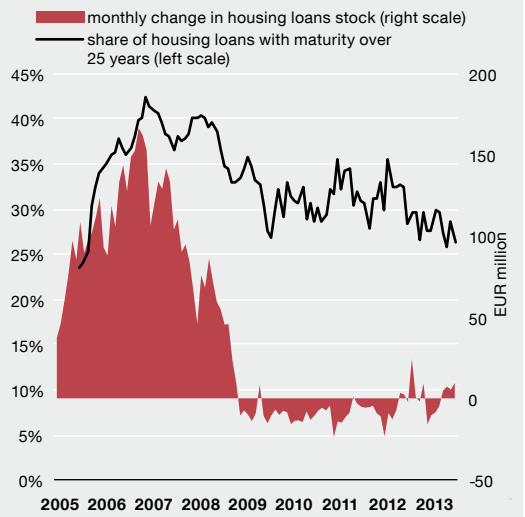
available in countries such as Spain, Portugal and France, which offered up to 50 years, or Finland, which offered up to 60 years, although the market share of such loans in those countries was only marginal. In contrast, almost one quarter of new loans in Sweden in 2011 had a maturity of over 40 years[12].

Although interest-only loans had a small market share of only 7.5% in the euro area as a whole in 2007, they had a much larger share in certain countries. In Ireland, Cyprus and the Netherlands they accounted for more than 15% of the loans issued[13] but in the Nordic countries they were even more popular with borrowers. In 2011, over half of new loans were interest-only in Sweden[14] and Denmark[15] and so were almost a quarter of new loans in Norway[16].

The number of new loans with longer maturities of over 25 years rose significantly in Estonia before the crisis so that at the end of 2007 they accounted for 39% of the loans granted (see Figure 2B.2). After the crisis though, their share fell to 30% by 2010.

Although the share of new loans that are granted for longer than 25 years has been slightly higher in some months since the start of 2010, it has still remained smaller than it was in 2006 (see Figure 2B.3). Whereas loan maturities were lengthening generally before the crisis, in the last two years the share of loans that are for longer than 25 years has only increased for large loans of over 100,000 euros. The share of other loans that are for 25 years or more has instead tended to decline. As fewer than one tenth of new loans issued are large loans, there is no sign at the moment of a reversion to a similar structure of loan maturities to that seen before the crisis.

Figure 2B.3. Share of new housing loans with maturity over 25 years and monthly change in housing loans stock



12 Financial Stability Report 2012:2, Riksbank.

13 ECB Housing Finance in the Euro Area, March 2009.

14 Financial Stability Report 2012:2, Riksbank.

15 Financial stability 2011, Danmarks Nationalbank.

16 Risk Outlook 2012, The Financial Supervisory Authority of Norway, March 2012.

2.4. QUALITY OF ASSETS

The quality of the loan portfolio of the banks also improved in 2013. By the end of August the share of **loans overdue for more than 60 days** had fallen to below 2.7% of the loan portfolio, which was 1.6 percentage points lower than a year earlier (see Figures 2.4.1 and 2.4.2).

The fall was due both to the improved loan servicing ability of borrowers and also largely to write-offs of irrecoverable assets. Around 70% of the fall was due to write-offs in the first half of the year (see Figure 2.4.3).

Loan quality has not improved evenly throughout the portfolio (see Figure 2.4.4). Although overdue

Figure 2.4.1. Share of overdue loans and provisions in the loan stock

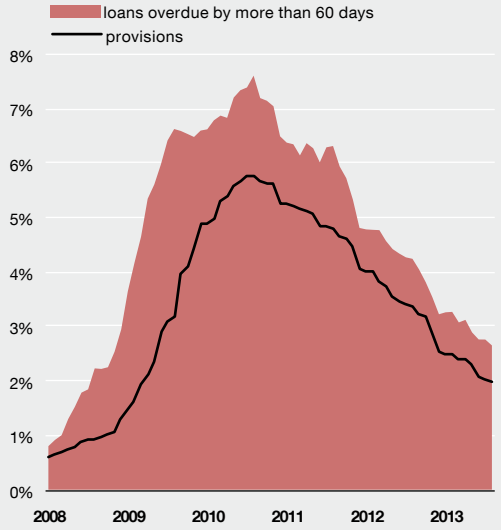
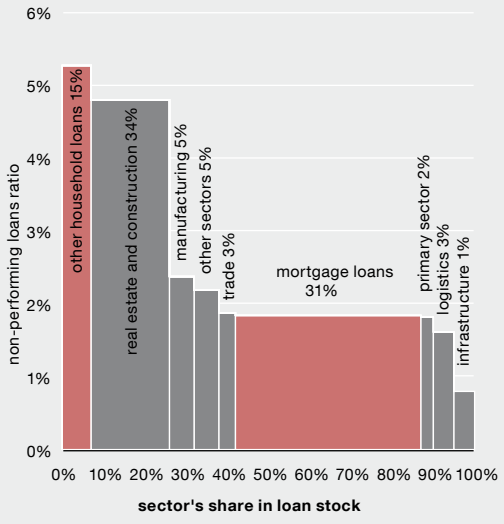


Figure 2.4.2. Structure of the loans overdue by more than 60 days 31/08/2013*



* Area represents sector's share in loans overdue by more than 60 days

Figure 2.4.3. Quarterly change in loans overdue by more than 60 days and write-offs

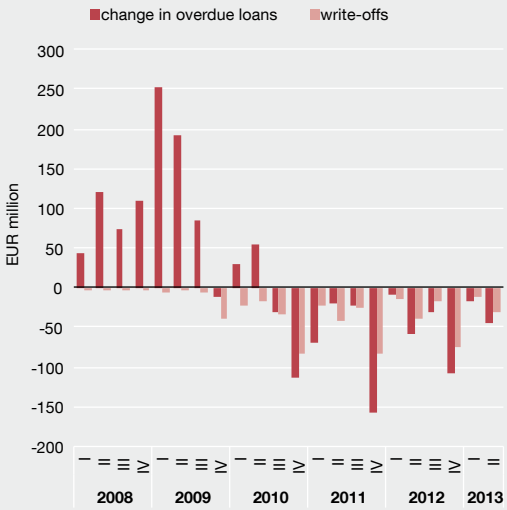
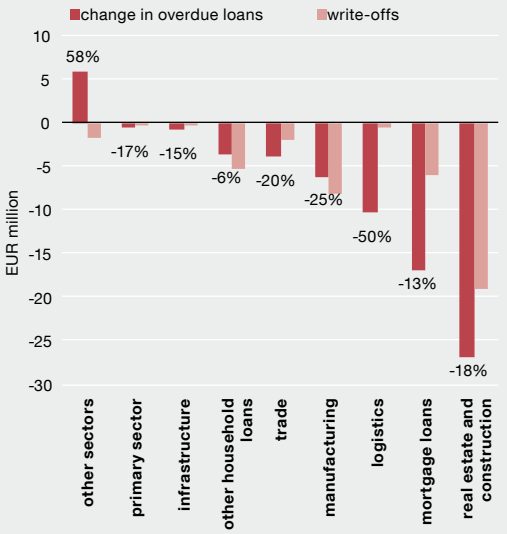


Figure 2.4.4. Change in loans overdue by more than 60 days and write-offs in the first half of 2013



loans decreased in almost all sectors, the decrease was mainly due to write-offs in other household loans, manufacturing and the real estate and construction sector. Loan quality improved in most other sectors as overdue loans started performing again.

The share of **restructured or overdue loans** in the loan portfolio at the end of August was 4.5%, though it varied significantly between banks. The share of problem loans was 0.9 percentage points smaller than at the start of 2012 (see Figure 2.4.5).

Provisions were reduced by around the same amount as overdue loans. At the end of August 2013, written-down loans made up some 2% of the loan portfolio and 74% of loans more than 60 days overdue. Although provisions were 5 percentage points smaller than a year earlier, this is still a comparatively high level.

The **securities portfolios** of the banks operating in Estonia were some 5% higher in value than a year earlier but accounted for just 3.7% of assets at the end of August 2013. The share of government bonds in the portfolio decreased and that of bonds of credit institutions increased, with both ending up at 29%. Securities from Estonia, France, Germany and Luxembourg were most represented in the portfolio, between them accounting for more than three quarters of the total.

Securities from the private and public sectors of the countries most severely affected in the debt crisis made up less than 3% of the securities portfolio of the entire banking sector, and this share was smaller than a year earlier. It is mainly small banks that have invested in the securities of the most affected countries, and such securities accounted for up to 34% of the investment portfolios of those banks at the end of August. The ratio of those securities to the equity

Figure 2.4.5. Share of restructured and overdue loans in loan stock

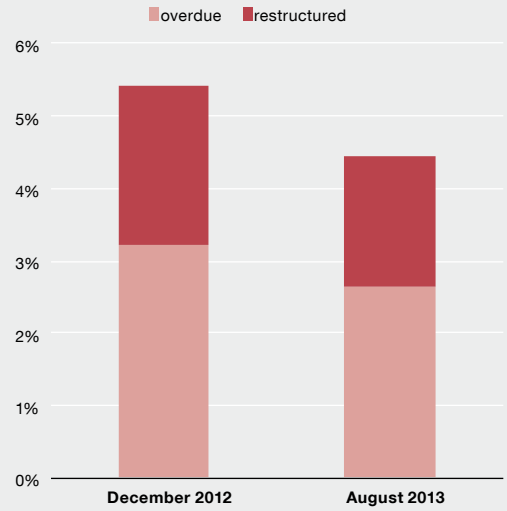
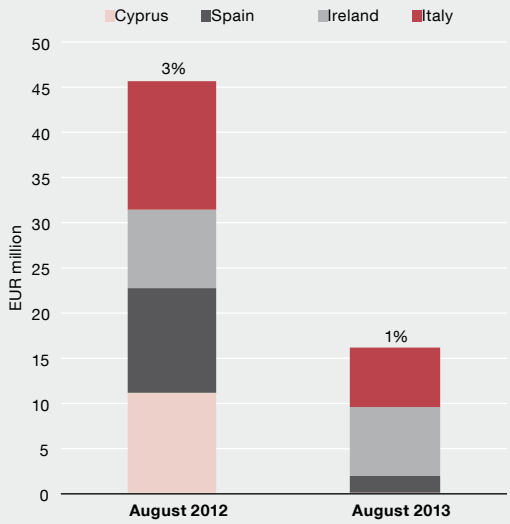


Figure 2.4.6. Banking sector's holdings of securities from distressed countries and share (%) in own funds



of some small banks was quite high, but their share has fallen significantly over the year (see Figure 2.4.6). As a ratio to the equity of the whole banking sector, the securities of the distressed countries have fallen to below 1% and the banking sector as a whole is not endangered by these positions. The exposure of small banks to the risks stemming from the bonds of such countries has largely diminished, but in some cases it remains quite considerable.

3. THE STRENGTH OF FINANCIAL INSTITUTIONS

3.1. BANKS

Liquidity and funding

The liquid assets of banks operating in Estonia have diminished since spring 2013 and stood at 3.8 billion euros by the end of August. The share of liquid assets in the total assets of banks fell to 21%, the lowest level since the middle of 2011, though it is still higher than its historical average (see Figure 3.1.1). The level of liquid assets has fallen for most large banks and also for some small banks, which mainly saw a reduction in the liquidity buffers related to the deposits of non-residents.

The structure of the liquid assets of the banking sector changed following the decision of one large banking group to start holding the liquid assets of the banking group partly at Eesti Pank from the end of 2012. This meant that the claims of banks on Eesti Pank reached 1.1 billion euros at the end of August 2013, which was more than a quarter of the total stock of liquid assets. The claims of banks on other banks have shrunk, although they still continue to make up the largest share of liquid assets, accounting for a little over 60%.

Since July 2012, when the overnight deposit interest rate fell to zero, the banks have not used this facility. There was a significant increase in the term deposits of banks with Eesti Pank at the end of last year, but in 2013 they have shrunk, so that at the end of August they were one third smaller than at the end of last year (see Figure 3.1.2).

The volume of deposits held at banks continues to grow, albeit at a reduced pace, and deposits made up 82% of the liabilities of banks by the end of August (see Figure 3.1.3). As deposits have increased and credit growth has been modest, banks have been able to reduce the amount of funds received from other banks. For the same

Figure 3.1.1. Banks' liquid assets and their share in total assets

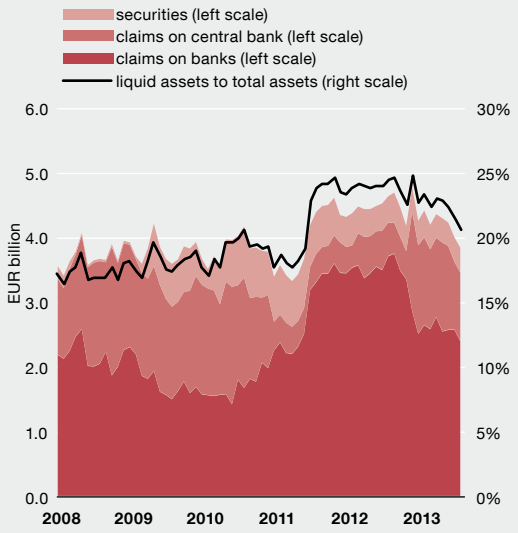


Figure 3.1.2. Banks' assets and liabilities with the central bank

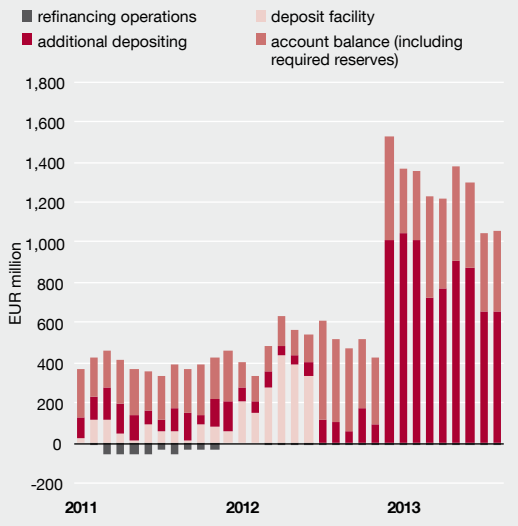


Figure 3.1.3. Structure of banks' liabilities

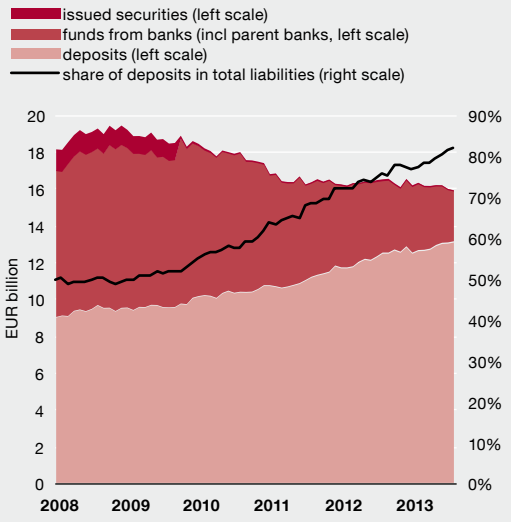
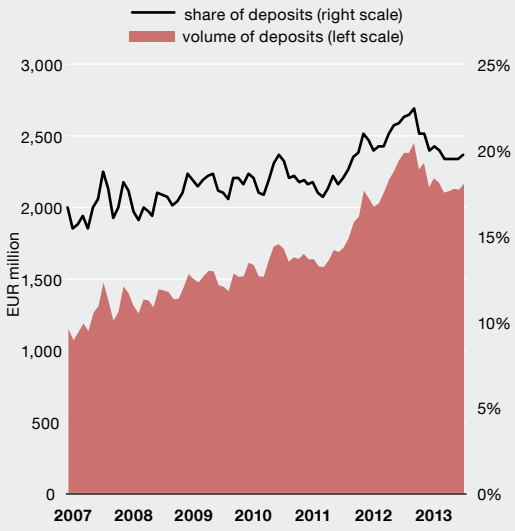


Figure 3.1.4. The volume and share of non-resident deposits in total deposits

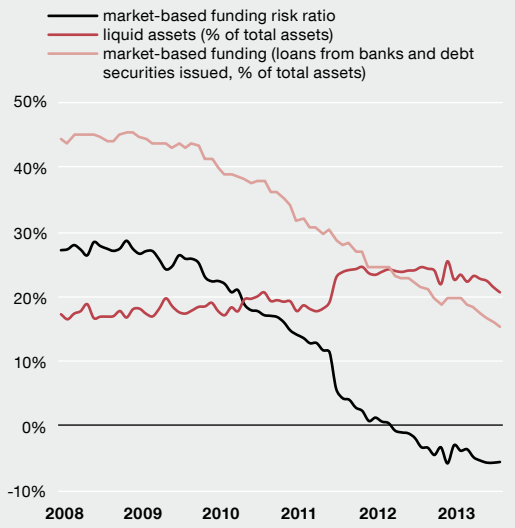


reason, the loans to deposits ratio improved further and reached 109% by the end of August.

Deposits by non-residents, which had grown rapidly since the second quarter of 2011, started to decline last autumn, though they have remained at 2.1-2.2 billion euros since March 2013 (see Figure 3.1.4). This means that the deposits of non-residents have fallen as a share of total deposits by 2 percentage points compared to the same period of the previous year to 20%.

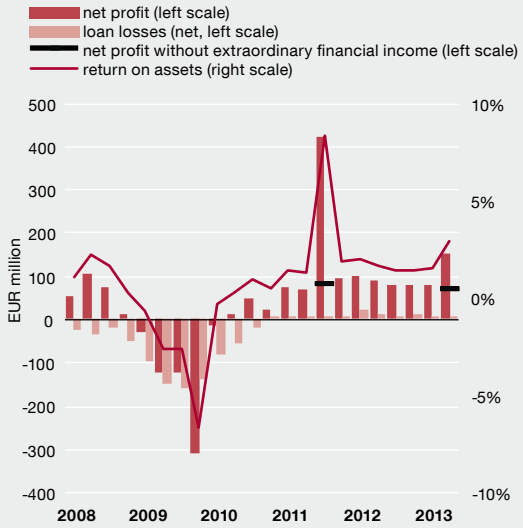
The share of funds payable on demand has increased in the liability structure of the banks in the last 18 months due to the increase in deposits, while the volume and share of liabilities with a residual maturity of up to one year have decreased at the same time. However, the share of long-term liabilities, or liabilities with a residual maturity of over one year has not fallen, and has remained at 8-9% since the start of 2012.

Figure 3.1.5. Market-based funding risk ratio and its components



The market-based funding risk ratio for the banking sector[17] stood at –5% at the end of August (see Figure 3.1.5). This shows that the volume of liquid assets in the banking sector is larger than the volume of funding from financial markets and parent banks. The indicator has not changed much since the end of last year, which means that the reduction in the liquid assets has not increased the exposure of the banking sector to the risks stemming from market-based financing as the volume of market-based funding has also declined.

Figure 3.1.6. Banks' net profit and net loan losses

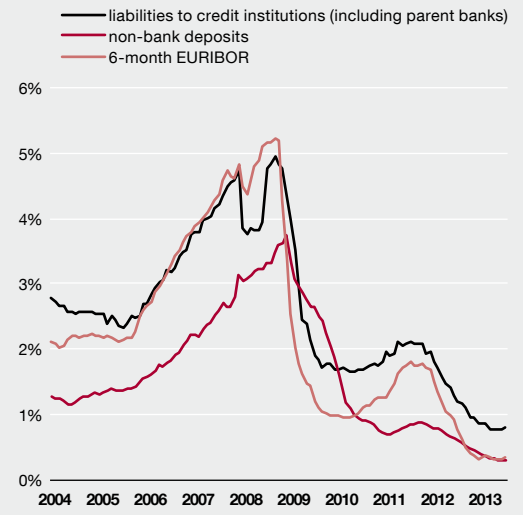


Profitability

The **profitability** of banks operating in Estonia has been affected by low base interest rates, though the negative impact on interest income has been somewhat offset by the increased deposits of residents. There has been a decline in the impact of the reversals of previously made provisions.

The profit of the banks reached 161 million euros if the one-off income received as dividends by one market participant from a subsidiary in the first half of the year is excluded, and 143 million euros if the impact from loan loss reversals is also excluded. This means that the profit before provisioning reversals was around 9% smaller than it was in the first half of last year, but still 2% larger than in the second half of 2012 (see Figure 3.1.6).

Figure 3.1.7. The price of funding for banks and 6-month EURIBOR



The **interest income** of banks continues to be affected by low base interest rates and the slow credit growth. The net interest income earned in the first half of 2013 was around 4% down on the previous half year and 14% lower than in the first half of 2012. While the EURIBOR fell, the earnings from interest income fell with a lag, and at the same time the increase of deposits in funding reduced funding costs (see Figures 3.1.7

17 Market funding risk ratio = (market-based funding - liquid assets) / total assets. Market-based funding means funds from other banks, including parent banks, and bonds that have been issued.

and 3.1.8). In the near future the interest income of the banks will continue to be affected by the wider interest rate environment and by the confidence of funding providers. The investment decisions of clients depend on expectations for developments in the economy, while the price of funding available for banks depends on how attractive alternative investment opportunities seem to possible funding providers, whether parent banks or depositors.

The majority of fee income in Estonia is earned from payment services. Net income increased by 1.8% from the second half of 2012. Although the banks may be able to increase their fee income somewhat as the numbers and volumes of transactions grow, their ability to increase fee income will still largely depend on their choice of business model.

Administrative and staff expenses have increased somewhat. Aggregate employee-related costs were 8% higher in the first half of 2013 than in the second half of 2012 and more than 4% higher than in the first half of 2012. Administrative expenses have remained more stable than employee costs, and aggregate administrative expenses rose by 2% from the first half of 2012.

The recognition of earlier write-downs as profit, which has contributed to the income of banks for more than two years now (see Figure 3.1.9), is gradually losing its importance in overall profitability. In 2012 the reversals contributed to net profit by 53 million euros, or 15% of pre-tax profit for the period, while in the first half of 2013 they contributed only 18 million euros.

In the near term the profitability of banks will continue to be affected by low base interest rates and moderate demand for loans. The state of competition has allowed for a slight increase in loan margins, but given the generally modest growth in portfolios, the long maturities of cur-

Figure 3.1.8. Average interest on banks' liabilities and receivables (end-month) and 6-month EURIBOR

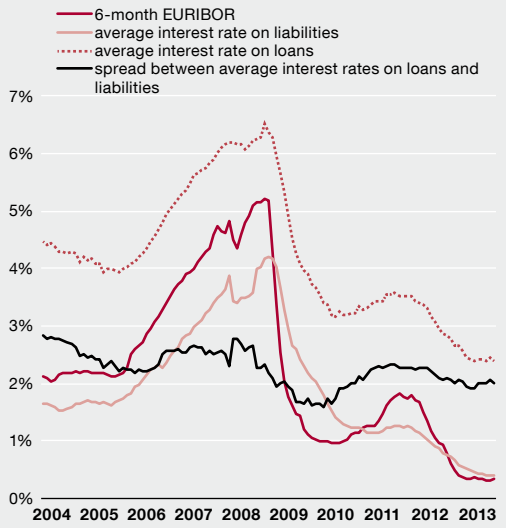
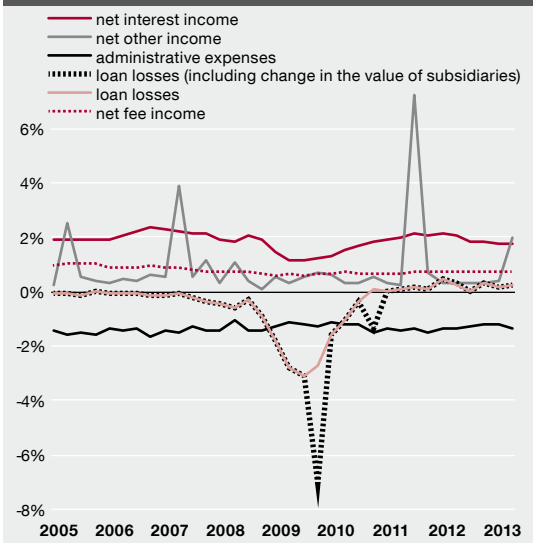


Figure 3.1.9. Banks' income and expence items (% of average assests in a quarter * 4)



rently outstanding loans such as housing loans mean that in the near future the overall impact of higher margins will only be moderate. Although the growth in deposits reduced the need for more expensive funding, the price of future financing will remain dependent on risk assessments and the attractiveness of alternative investment options.

As the options for recognising earlier provisions as profit and for significant cost-cutting appear limited, the profitability of the banking sector will remain dependent on the general state of the economy. It is important though, that banks do not underestimate the potential risks when searching for yield.

Capitalisation

The aggregate total assets of the banking groups[18] were 1% lower at the end of the second half of 2013 than at the start of the year. Changes in **the structure of the aggregate balance sheet** were caused by two main factors: a rise in lending activity, which increased the share of loans on the asset side by 2 percentage points, and the continued growth of deposits from the non-financial sector, which boosted the share of deposits from clients and allowed the banks to return funds to their parent banks. The share of equity has remained unchanged since the start of the year (see Figure 3.1.10).

In international comparison, the Estonian banking sector remains very well capitalised and easily passes the 10% minimum capital requirement. The **capital adequacy level** of the banking sector increased in the second quarter of 2013 to 24.7%, which was 0.7 percentage points more than a year earlier (see Figure 3.1.11). Capitalisation mainly increased due to growth in equity, which increased by 224 million euros

18 For this chapter, the figures for the banks have been consolidated, covering Swedbank, SEB, DNB, Bigbank, Eesti Krediidipank, LHV, Tallinna Äripank and Versobank.

Figure 3.1.10. Aggragate balance sheet of the banking sector

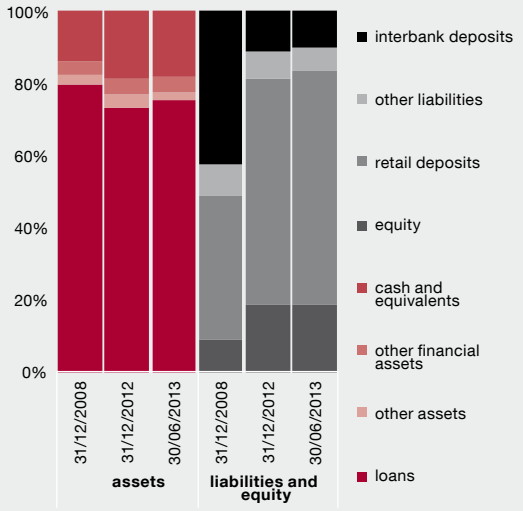
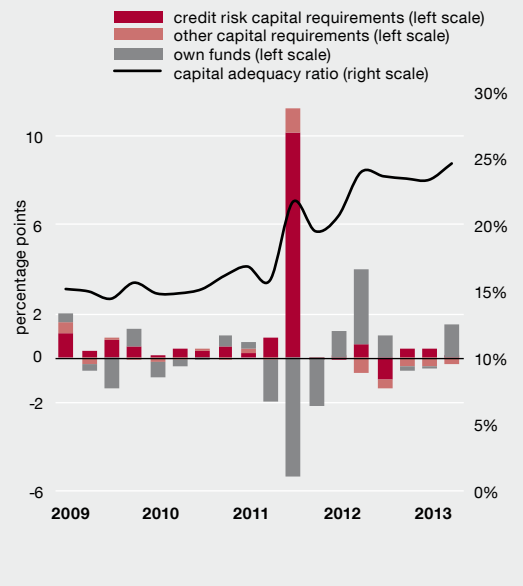


Figure 3.1.11. Quarterly change in capital adequacy ratio by components



because of an increase in retained profits. In the second quarter of 2013 retained profits made up 82% of the equity used in calculating capital adequacy. Despite some growth in the loan portfolio, the credit risk requirements did not increase significantly and at the end of the half year they made up 73% of capital requirements.

The share of **tier one own funds** in all own funds has remained stable at 99% since the second quarter of 2012. The reason banks chose to keep such high levels of own funds in Estonia lies in the favourable income tax system, as it makes no difference to the group where the capital is located.

The **financial leverage**[19] of most of the bank groups continued to improve in the first half of the year. This was largely due to the growth in own funds from increased retained profits. At the end of the second quarter of 2013 the financial leverage ratio was 17%, which was 1.4 percentage points higher than a year earlier. The simultaneous rise in the financial leverage ratio and the capital adequacy level shows that the improvement in capitalisation has not come just from the optimisation of risk assets, and it confirms that the Estonian banking sector is well capitalised.

19 Tier one own funds as a ratio to assets.

Box 3. Forecast and stress test of overdue loans in the banking sector

Macroeconomic assumptions

The forecast for overdue loans is based on the baseline scenario of the Eesti Pank forecast published in June 2013. This expects economic growth to slow down to 2% in 2013 due to weak external demand and to accelerate to 4.2% in 2014 as export markets recover. In the baseline scenario the favourable interest rate environment and the acceleration in economic growth will lead the loan stock to grow by 3.7% in 2013 and 5% in 2014. This will come from growth in both the corporate and household loan portfolios.

Three negative risk scenarios were modelled alongside the baseline scenario to give negative shocks to economic growth of 15, 10 and 5 percentage points in one quarter in comparison to the baseline scenario. As economic indicators are interdependent, a fall in economic growth will inevitably have an effect on things like the unemployment rate, wages, and future loan growth and economic growth. In consequence, an additional macroeconomic model is used to create consistent risk scenarios from the initial shocks, which takes account of the interconnectedness of the economic indicators. The worst of the three scenarios is a cumulative fall in the economy comparable to that seen in the economic crisis of 2008. The resulting macro scenarios are then fed into the credit risk models to gauge the effects that they could have on the Estonian banking sector. As the banking sector reacts differently to shocks of different sizes, the use of similar risk scenarios with shocks of differing strengths makes it possible to diversify the stress test.

Forecast for overdue loans

Under the baseline scenario, overdue loans will continue to decrease for both companies and households. The main driver of the reduction in the share of overdue corporate loans will be accelerating economic growth, which will make loan servicing easier in the favourable interest rate environment. For households, the key factor will be an acceleration in wage growth and a fall in unemployment, which will

boost incomes and improve the ability to pay. In the baseline scenario the share of loans overdue by more than 60 days falls to 2.7% in the last quarter of 2013 and to 2.5% in the last quarter of 2014 (see Figure 3B.1). Depending on write-offs of loans by banks, the actual share of overdue loans may not be the same as the forecast share.

The risk scenario looks at a strongly negative development in the real economy where the average share of overdue loans rises over six quarters to between 3.2% and 5.2% depending on the shock. The reaction is somewhat less pronounced for the four largest banks, and the share of overdue loans is between 0.6 and 2.2 percentage points larger than in the baseline scenario. The quality of the loan portfolios of the smaller banks is more sensitive to shocks and the risk scenarios raise their levels of overdue loans by between 2 and 8.2 percentage points. In the most negative scenario, the effect would be close to the peaks seen in the last recession. The shocks to economic growth progressed in 5-percentage point steps, but the reaction of the share of overdue loans is not proportional and is stronger in larger shocks.

Although the cumulative effect in the risk scenario with the 15-point shock is similar to that in the 2008 economic fall, the reaction of overdue loans is more modest (see Figure 3B.2). This indicates that in the current economic climate, loan clients and the banking sector are somewhat less sensitive to shocks.

Effect on capitalisation

In the baseline scenario with conservative assumptions, the banking sector will earn 114 million euros in profit in the second half of 2013 and capitalisation will increase slightly at the end of 2013.

Figure 3B.1. Loans with more than 60 days overdue as a ratio of the loan portfolio

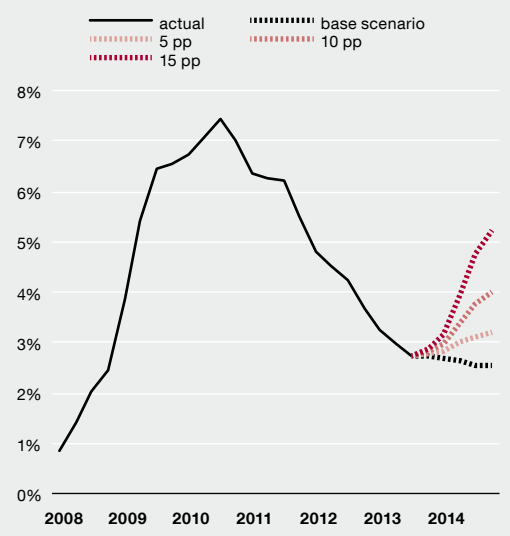
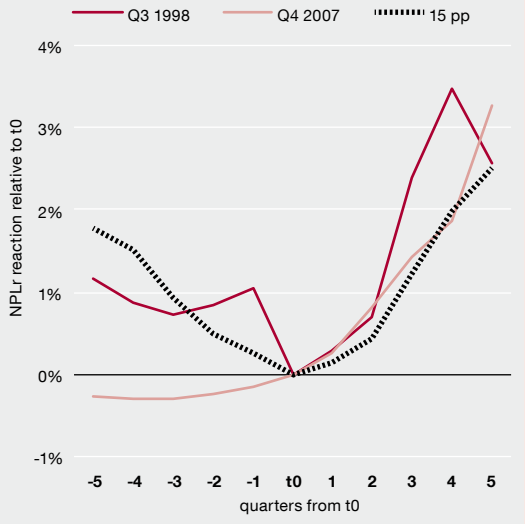


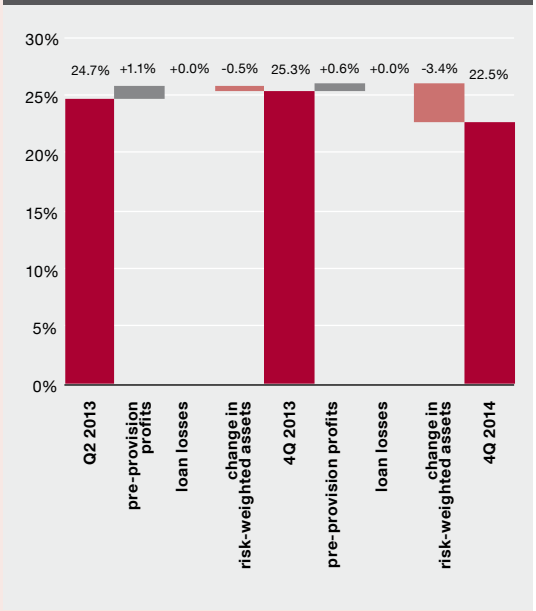
Figure 3B.2. Non-performing loans ratio comparison for stress scenario and previous economic downturns



Loan growth will pick up in 2014, meaning that risk weighted assets will increase faster than equity and capitalisation will decrease somewhat while remaining at a high level in the sector as a whole, as previously (see Figure 3B.3).

In the risk scenario the profitability of banks will decline and additional provisions will need to be made to cover possible loan losses. At the same time the loan portfolio will decrease and in consequence so will risk assets, which will partly balance out the negative influence from profits on the capital adequacy rate. Even in the worst case scenario, the negative impact on the capitalisation of the biggest bank groups in Estonia will only be small compared to that in the baseline scenario.

Figure 3B.3. Projected change in capital adequacy ratio by components



3.2. INSURANCE COMPANIES

The insurance companies operating in Estonia had several times the required equity levels in 2012[20]. The capital position of the European insurance sector is also relatively strong, though the general economic situation makes the outlook for the insurance sector negative. The main risks to the insurance sector are the continuation of low interest rates; credit risk from the large investments in sovereign bonds and bonds of financial institutions; macroeconomic weakness; and a lack of certainty about regulation[21].

Life insurance

The Estonian life insurance market, which constitutes only 0.4% of the national economy, has been growing since the middle of 2012. In the first half of this year, 35 million euros of **insurance premiums** were collected, which was 13% more than in the same period a year earlier, but monthly volumes have remained more than one third below their levels before the crisis (see Figure 3.2.1). Over 40% of sales turnover again came from unit-linked life insurance. The sale of new contracts for pension insurance products has also grown quite strongly from a year earlier. The total paid out for insurance claims was 3% more in the first half of this year than a year before with the largest payouts being for the termination or interruption of unit-linked life insurance contracts.

Although sales turnover from insurance increased, the technical result of insurance operations was down 78% on a year earlier due to higher operating costs and significantly smaller investment income. In consequence the **half year profit** of insurance companies was only 4 million euros, which is only one third of the

20 Solvency I methodology.

21 European Supervisory Authorities Joint report on risks and vulnerabilities in the EU financial system, August 2013.

amount earned in the first half of the previous year. Net income from investments was negative in the second quarter as the reassessment of financial investments led to a fall in value and interest income fell by around half as interest rates remained low. The average yield of the investment portfolio fell in full year comparison to 3.6% by the end of the second quarter of 2013 from 5% in 2012 (see Figure 3.2.2). The average guaranteed rate of return for policyholders was 3.3% (see Figure 3.2.3).

The **asset** stock of insurance companies decreased in the second quarter of 2013 by 9%, mainly as a consequence of one company paying out a part of its equity as dividends. The assets of the companies exceed their contractual liabilities by enough that the liquidity risk is not high. The decline in term deposits meant that the financial investment portfolios of the insurance companies also declined. The volume of relatively low yielding bonds and other fixed income securities also shrank so that they made

Figure 3.2.2. Yield of the investment portfolio and net investment income

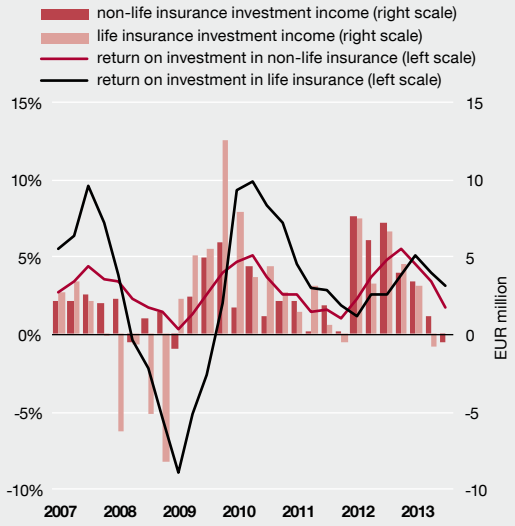
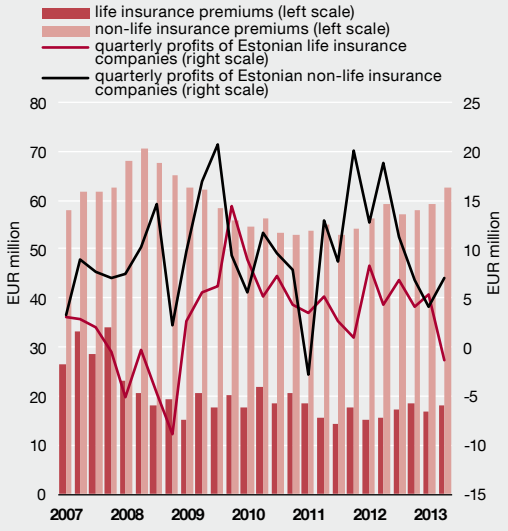


Figure 3.2.1. Profit of insurance companies and premiums from residents



Source: Statistics Estonia, Eesti Pank

Figure 3.2.3. Distribution of guaranteed rate contracts by interest rates

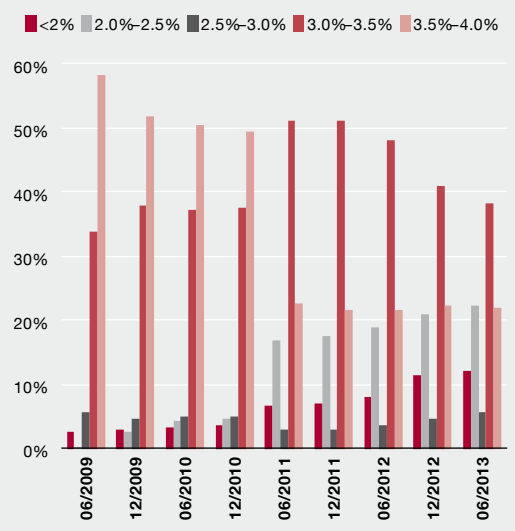


Figure 3.2.4. Investment of insurance companies

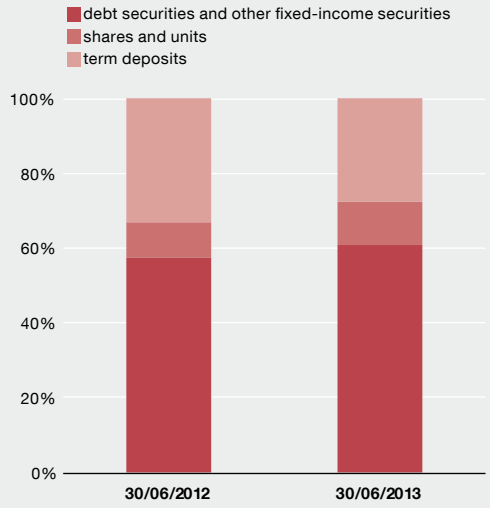
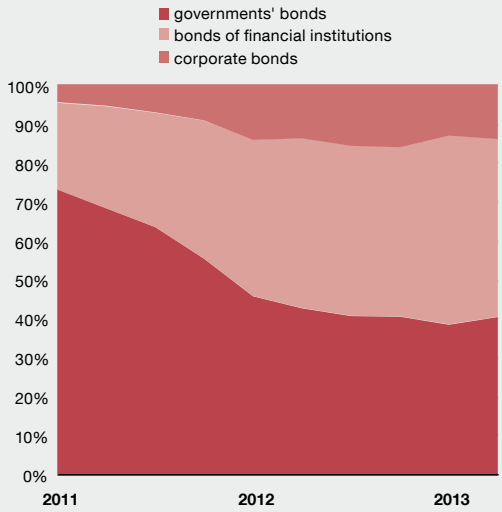


Figure 3.2.5. Debt security investment of insurance companies by issuer



up slightly more than half of all financial investment at the end of the second quarter. The average for European life insurance companies of such investments is 60%[22]. Around three quarters of the bond portfolio is central government bonds and the investments are relatively well balanced between different countries. The volume of shares and units in financial investments increased because of the rise in stock markets, so that they made up 20% of the total portfolio (see Figures 3.2.4 and 3.2.5).

Non-life insurance

The non-life insurance market, which is equivalent to 1.3% of Estonian GDP, has developed at a faster rate than the economy as a whole, though evidence of the slowdown in economic growth is visible in insurance as well. Annual growth in the insurance market slowed to 5% in the first half of this year. Market growth has mainly been supported by the branches of foreign non-life insurers operating in Estonia, whose share of the Estonian market has grown from 20% last year to 22%. A total of 122 million euros of **insurance premiums** were collected in Estonia in the first half of the year, with vehicle insurance accounting for the largest share at 61%.

Non-life insurance companies registered in Estonia earned a total of 11.1 million euros in profit in the first half of the year, which was only around one third of the amount of a year earlier, as it was for life insurance companies. The income for companies from insurance activities in the first and second quarters of 2013 was 12 million euros higher than costs, though this was 40% less than in the same period of the previous year. The technical result for the half year was negatively impacted by increases in payouts for claims and in operating expenses. Expenses were also pushed up by sales of new contracts. The net claims ratio[23] remained at a satisfactory 60% at the end of the second quarter (see Figure 3.2.6).

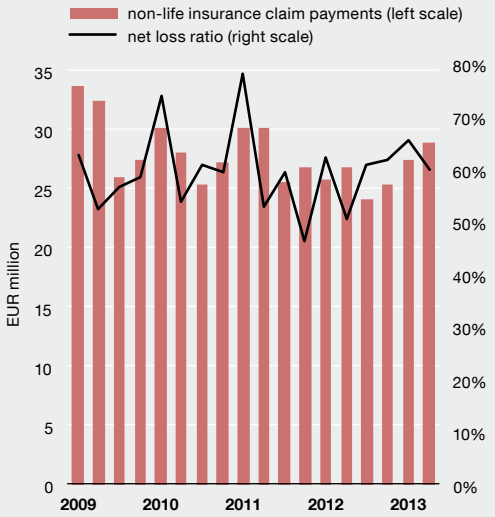
22 Ibid.

23 Claims submitted net of reinsurance / premiums earned net of reinsurance.

Net income from investment activity only accounted for less than one million euros of the profit for the half year and investment income was negative in the second quarter even though investments increased. The losses from investment activity were mostly due to changes in the valuations of assets. The yield of the investment portfolio fell in full year comparison to below 2% in the second quarter of 2013.

The **investments** of non-life insurance companies have been focused on bonds and other fixed-income securities, which make up two thirds of the portfolio. Since the last quarter of 2011 the majority of these have been bonds of financial institutions, mainly banks, while central government bonds make up around 20%. The counter-party credit risk is small for non-life insurers as most of the bonds they hold are issued by residents of the Nordic countries or large European countries with high credit ratings, with 80% having A or better. The share of term deposits in the total investment portfolio fell during the half year and at the end of the second quarter it stood at just under 30%. The rise in stock markets meant that the presence of shares has increased somewhat, but remained a marginal share of the total portfolio at around 5%. As the growth to 489 million euros in the financial assets of non-life insurance companies is more than the growth in their insurance contract liabilities net of reinsurance, the liquid assets of the companies have increased.

Figure 3.2.6. Claims and net loss ratio in non-life insurance



Source: Statistics Estonia, Eesti Pank

4. SYSTEMICALLY IMPORTANT PAYMENT AND SETTLEMENT SYSTEMS

4.1 PAYMENT SYSTEMS OF EESTI PANK

Eesti Pank manages two inter-bank payment systems: ESTA, the system for domestic retail payments, and TARGET2-Eesti, which is part of TARGET2, the Trans-European Automated Real-time Gross Settlement Express Transfer System.

From 1 February 2014 Eesti Pank will stop running ESTA. ESTA in its current setup does not meet the requirements of the SEPA, the Single Euro Payments Area. The major market participants rejected Eesti Pank's proposal to improve the current retail payment system so that it would meet the SEPA requirements and decided to start settling their retail payments in the pan-European retail payment system instead.

In the first half of 2013, 99.6% of interbank payments were made through ESTA, while 89% of the value was in payments initiated in TARGET2-Eesti (see Figure 4.1.1).

An average of over 105,000 payments per day were made through **ESTA** in the first half of 2013, with a total value of 137 million euros. The average size of payments made through ESTA in the first half of the year was 1302 euros, which is 17 euros more than in the first half of 2012. Since the economic crisis the annual growth in the number and value of payments settled in ESTA has been significantly smaller than before the crisis. The value of the payments made has grown by 11% per year on average over the last three years, but the number of payments has grown at a quarter of this speed at 3% per year (see Figure 4.1.2). The speed of growth in the value of payments settled in ESTA, however, has been similar to the rate of economic growth and reached an all-time peak in the first half of 2013.

An average of 396 payments per day were made through **TARGET2-Eesti** in the first half of 2013, with a total value of 1.1 billion euros. This means

Figure 4.1.1. Payments made in the payment systems of Eesti Pank (daily average)

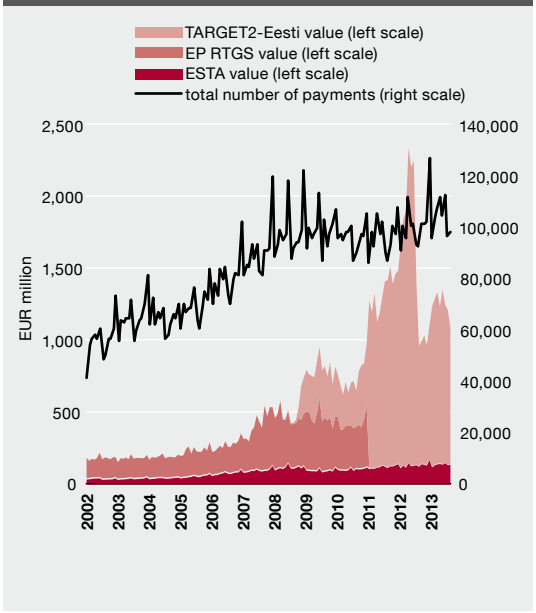
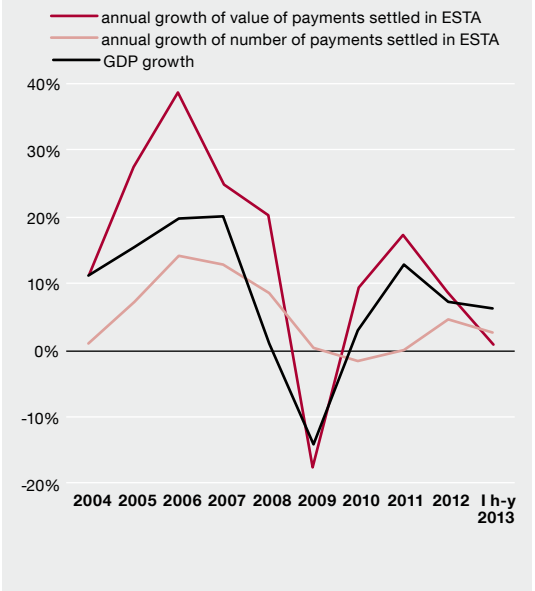


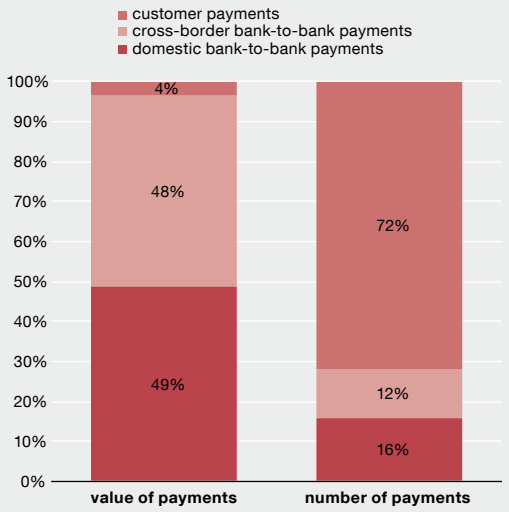
Figure 4.1.2. Growth of the number and value of payments settled in ESTA and GDP growth



that 22 more payments were made per day than in the first half of the previous year, but the total value was 40% smaller. The main factors affecting the volatility in the value in TARGET2-Eesti are payments stemming from the Eurosystem monetary policy operations. At the start of 2013 the total value of TARGET2-Eesti increased, principally because some individual banks participated in the weekly deposit tenders of the European Central Bank. A year earlier, the value of TARGET2-Eesti was increased by payments stemming from banks' overnight deposits, but no more such payments have been made since July 2012.

In the first half of 2013 almost half of the total value of TARGET2-Eesti was made up of cross-border inter-bank payments, with domestic interbank payments accounting for the other half (see Figure 4.1.3). One third of these domestic interbank payments were collateral transfers to ESTA, while customer payments accounted for only 4% of the total value of payments.

Figure 4.1.3. Structure of TARGET2-Eesti payments in the first half of 2013

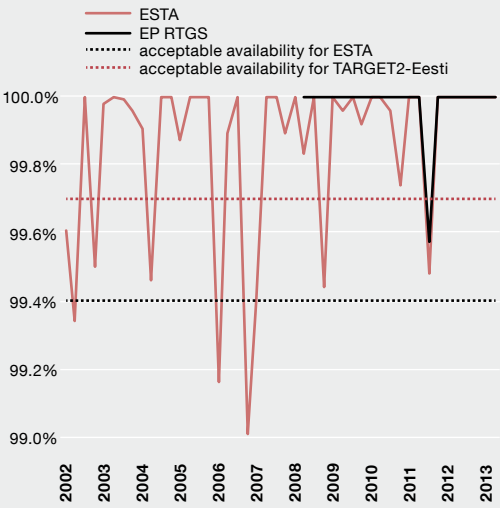


4.2 RISKS TO THE PAYMENT AND SETTLEMENT SYSTEMS AND THE OVERSIGHT ASSESSMENT

The payment systems of Eesti Pank operated without any significant incidents[24] in the first half of 2013, and both TARGET2-Eesti and ESTA had **availability rates** of 100% (see Figure 4.2.1).

There were no disruptions to the work of **TARGET2-Eesti** and the few incidents that occurred in the information systems of some system participants were resolved quickly, without affecting bank customers. In one case, emergency procedures were applied until a solution was found to an internal problem of one member bank of TARGET2-Eesti and Eesti Pank initiated the collateral transfers to ESTA for that bank from

Figure 4.2.1. Availability of interbank payment systems



24 An incident is significant if it has some impact on several settlement system users or if it leads to measures being put in place to ensure continuity or to a loss of availability.

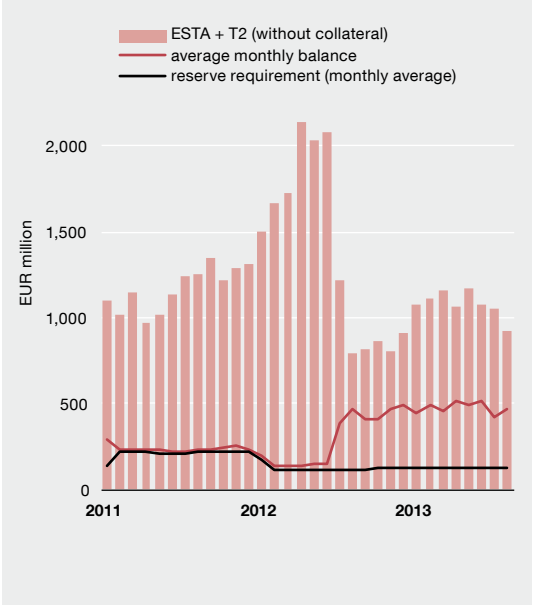
6 to 12 March 2013 so that the bank could operate in ESTA and settle the retail payments of its customers.

The start of the **ESTA** settlement day was delayed for some system participants during the first half of 2013 on five occasions. In all cases the cause was internal operational problems at the banks concerned and by 11.00 at the latest all the system participants were ready to work with ESTA.

The liquidity buffers of the banks continue to be sufficient for the settlement of interbank payments and the liquidity risks are minimal. The banks are depositing noticeably more funds with Eesti Pank than required, and the average balance in the first half of 2013 was 513 million euros (see Figure 4.2.2). They have also taken very little intra-day credit from the central bank as no credit has been taken against earmarked collateral while the credit line opened against a collateral pool has been used to a minimal extent and the collateral pooling system[25] is used only by few banks. Nor did the banks require overnight credit.

The main focus at **the securities settlement and registry system managed by the Estonian Central Securities Depository (ECSD)** has been on the development of the pan-Baltic settlement platform X-stream by the depositories of Estonia, Latvia and Lithuania. Given the current status of the project, Eesti Pank is of the view that reorganising the activities of small depositories is often inevitable if they want to remain competitive and that in the longer-term the use of one common pan-Baltic settlement platform instead of three will benefit custodians too. The system operator must focus on efficiency and involve all the interest groups that will be affected, and must find a balance between a secure and efficient technical solution and the costs required to maintain it. As scheduled, the Latvian and Lithuanian depositories are planning to introduce the platform in 2015, while the Estonian Central Securities Depository will do so in February 2017 at the same time that it joins TARGET2 Securities, the pan-European platform for securities settlement.

Figure 4.2.2. Value of interbank payments, reserve requirements, and balances held at the central bank



On 3 June 2013 the Governing Council of the European Central Bank adopted the new international CPSS-IOSCO[26] Principles for Financial Market Infrastructures as Eurosystem oversight standards[27]. The Principles contain the minimum requirements for

25 The pooling system takes in sufficient underlying assets from a party in a monetary policy transaction and gives them to the central bank to use to cover the credit from the central bank, which means that individual assets are not related to individual credit operations. In the earmarking system by contrast, each credit operation is connected to a specific identifiable asset.

26 The Bank for International Settlements and the International Organisation of Securities Commissions (CPSS-IOSCO).

27 CPSS-IOSCO Principles for Financial Market Infrastructures.

infrastructures[28] operating in the financial markets and are in several ways stricter than the requirements which were in force until now. Eesti Pank applies the oversight standards adopted by the Eurosystem and when new standards are adopted it assesses important and systemically important payment and settlement systems against these oversight standards. Eesti Pank has started an assessment of the securities settlement system against the new CPSS-IOSCO requirements.

Oversight assessment of the closing down of ESTA

ESTA, which is the system for interbank retail payments, will be closed down on 31 January 2014, following which the banks will need to change their domestic retail payments to a system that meets the SEPA requirements. As far as Eesti Pank is aware, the banks will start to use the cross-border STEP2 system for their retail payments.

STEP2 is a pan-European automated clearing house (PE-ACH) for settling retail payments in euros that is fully accessible in all the SEPA countries[29]. The system is managed and operated by EBA Clearing, a private company which was established in 1998 and is today managed by 63 European and international shareholder banks. STEP2 provides accessibility to 4,700 banks and 14 interoperable clearing and settlement mechanisms (CSMs) all over Europe. The principle of how the system works is that a STEP2 direct member enters into bilateral contracts with other accessible banks and sends the payment orders of the accessible members to the system. The only bank operating in Estonia that is a direct member of STEP2 is SEB AS, and the other banks settle their payments through their parent or partner banks.

STEP2 provides credit transfer and direct debit solutions that meet the SEPA requirements and the settlement of payments is made in the TARGET2 real-time gross settlement system managed by the Eurosystem. STEP2 has five daytime and two night-time settlement cycles for processing credit transfers.

The cut-off times of the daytime settlement cycles for credit transfers for the direct members of STEP2 are shown below in Estonian local time (see Table 4.1).

Table 4.1. Daily settlement cycles for payment orders in STEP2 (EET timezone)

	Payment orders from clients	Payment orders from STEP2 direct participant	Settlement in TARGET2	Time of receipt of incoming payments by payees' bank (STEP2 direct participant)	Time of receipt of incoming payments to clients
1.	information from bank	3:00	8:30	10:00	information from bank
2.	information from bank	10:00	10:45	12:15	information from bank
3.	information from bank	12:30	13:15	14:45	information from bank
4.	information from bank	15:00	15:45	17:15	information from bank
5.	information from bank	17:00	17:30	17:45	information from bank

The overseer considers the banks' decision to start using the STEP2 system for settling both cross-border and domestic retail payments to be economically efficient. STEP2 handles many more payments than ESTA, which is why it was not possible for ESTA to offer prices for settling retail payments in Estonia that were comparable to those offered by larger systems. The transfer of the man-

28 Systemically important payment systems, securities settlement systems, securities depositories, central counterparties (CCP) and trade repositories (TR).

29 EU member states and Switzerland, Iceland, Liechtenstein, Norway, and Monaco.

agement of retail payment systems from central banks to private companies has been a prevailing tendency in Europe over the last decade.

The closing down of ESTA and the settlement of retail payments in STEP2 will result in slower inter-bank payments, as there will be five daytime settlement cycles in STEP2 instead of the current ten in ESTA. It will be up to the banks to inform their customers of the new settlement times. In addition, Eesti Pank will have no control over the prices of the services, and as the pricing of STEP2 favours large banks, it will be more difficult for small banks to remain competitive.

STEP2 is a systemically important payment system, which is subject to rigorous international requirements. The system is overseen by the ECB and national central banks and so **Eesti Pank has no reason to doubt the efficiency of the STEP2 system or that the system's risks are appropriately covered**.

Box 4. Current status of the migration to SEPA

By February next year, all the countries of the euro area will start using the payment schemes of the Single Euro Payments Area, SEPA, which will simplify and harmonise payments made in euros. **New rules will come in on how banks can accept payments from their clients and how they should settle client payments between themselves.**

The introduction of the SEPA requirements is a massive IT development project for the commercial banks in Estonia. New file formats will be needed and the systems for receiving and transferring payments will have to be replaced or updated. **In September 2013 all the banks were on schedule with their development work.** Testing is about to start and there are no immediately apparent problems stemming from the changeover that would threaten the functioning of payments within Estonia. The banks are already capable of processing payments under the SEPA requirements, but the full migration will happen at the same time that the ESTA retail payment system currently in use in Estonia closes down.

From 31 January 2014 at the latest, banks will stop providing the domestic direct debit service and replace it with a new e-invoice standing order service using e-invoices and credit transfers. The banks have been ready to offer this new service since 1 July but the actual changeover started in September. **As it is highly probable that the changeover will happen at the end of this year or the start of the next, there is a danger that the mass migration to the SEPA credit transfers and e-invoice standing orders will increase the chance of operational risks arising for banks and companies.**

The migration to the SEPA is not a project that only affects banks, as it will also require companies to make a lot of important changes. Private individuals will also have to adapt to the new conditions. So that the migration will be as smooth as possible for bank clients, the banks may help them in making the changes by offering a BBAN to IBAN conversion service for private clients and a legacy format to ISO 20022 XML conversion service for companies until 1 February 2015.

Some banks have committed to providing the new SEPA direct debit service meant only for cross-border use, from next year. However, the necessary development work will probably only be ready after February 2014.

APPENDIX 1. THE IMPLEMENTATION OF THE NEW CAPITAL ADEQUACY FRAMEWORK FOR BANKS IN THE EUROPEAN UNION AND ESTONIA

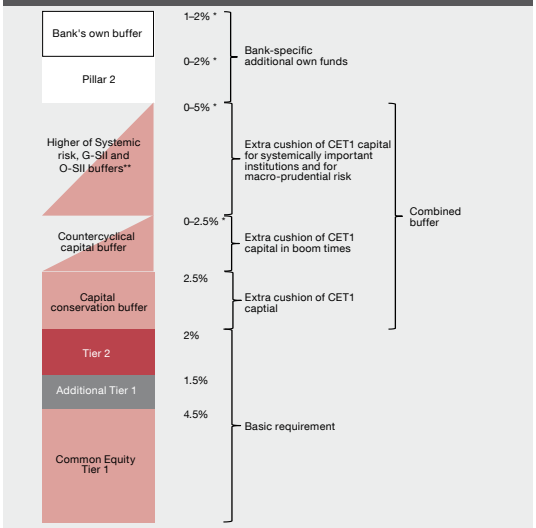
At the start of 2014 the new CRD IV/CRR regulatory framework on prudential requirements for banks and investment firms in the European Union will come into force, largely in compliance with the Basel III framework agreed by the Basel Committee on Banking Supervision[30]. The new regulations aim to strengthen the resilience of the banking sector to economic shocks and in this way to ensure sufficient and sustainable financing for the economy. The essential change is that the new regulations require banks to hold more and higher quality capital than before, while the uniform framework for setting liquidity buffers has also been put together. The new capital requirements directive also sets out macro-prudential measures that member states can use to curb the pro-cyclical behaviour of banks and to alleviate risks stemming from the structure of markets.

The new requirements will be fully in effect by the start of 2019, but there will be a gradual transition period, meaning that a large part of the requirements will need to be taken into account from the start of 2014. Member states are also able to set stricter prudential requirements earlier than scheduled.

Capital requirements in EU legislation

Under a directly applicable regulation, all banks and investment firms operating in Europe must hold Common Equity Tier 1 (CET 1) funds[31] worth 4.5% of their risk weighted assets. The total capital requirement, which covers Common Equity Tier 1 capital, Additional Tier 1 capital and Tier 2 capital[32], will remain at its current level of 8% (see Figure A1.1).

Figure A1.1. Requirements to own funds and capital buffers to banking sector according to the capital regulation of the EU (CRR/CRD)



Source: European Commission
*Assumed upper bounds (values can be higher)
** In certain cases can be the sum of SII and systemic risk buffer

The definition of capital and the minimum level for it are set uniformly across the European Union and are based on the Basel III principles. Under the new legal framework the member states themselves have limited options in determining capital requirements, but they still have some flexibility in imposing more stringent requirements to achieve the scope of macro-prudential supervision. This gives member states the right to set additional requirements if necessary, on own funds for example, and to apply higher risk weights for real estate exposure.

As well as the main requirements drawn from the harmonised rules, the directive defines the principles for setting capital buffers.

30 BCBS – Basel Committee on Banking Supervision.

31 The common equity tier 1 is made up of share capital, retained earnings and reserves.

32 Tier 2 capital is debt instruments that have the characteristics of equity instruments and that meet the conditions set out in the directive.

- **The capital conservation buffer** is an additional common equity capital requirement set for banks at 2.5% of risk weighted assets. Any bank that does not maintain the buffer will face restrictions on payouts of dividends, share buybacks and bonuses.

- **The countercyclical capital buffer** is applied to increase the resilience of the banking sector and to reduce the impact of the economic cycle on the lending behaviour of banks. This macro-prudential tool is designed to mitigate the systemic risks that arise from excessive lending and leverage growth and can therefore contribute to ensuring that financial services are provided more smoothly across the economic cycle. The countercyclical capital buffer requires banks to accumulate capital at times when credit growth is strong so that the buffer can be released when the economic cycle turns. The countercyclical capital buffer up to 2.5% must be taken into account in the own funds requirements by banks licensed in other member states that have credit exposures in a state setting a countercyclical capital buffer. The application of a higher buffer requirement is decided by the designated authority in the other member state.

- **The systemic risk buffer** can be set by a member state for all or part of the financial sector. This buffer is intended to avoid or reduce long-term non-cyclical risks that could have a serious negative impact on the financial system or the real economy of a member state. Before the systemic risk buffer can be introduced, a coordination process needs to be run with the appropriate EU institutions, depending on the desired level for the buffer and whether the buffer will affect the risk exposures taken towards other member states. The systemic risk buffer can be up to 3% of risk weighted assets, or up to 5% from 2015, but it may be higher if there are well-grounded reasons.

- **The systemically important institution buffer** appears in the directive in two forms. The buffer on global systemically important institutions (G-SII) is compulsory for all G-SIIs that fulfil the internationally agreed criteria[33]. The need for a buffer on other systemically important institutions (O-SII) that are important at domestic or EU level, and its level of up to 2%, is set by member states. This buffer can be applied from 2016, but member states may use a systemic risk buffer instead of it until then.

In addition to these buffers, the supervisory authority may require banks individually to hold more capital under Pillar 2 capital requirements, in order to mitigate other risks. Banks themselves may also decide to hold more capital.

Introduction of the new capital requirements in Estonia

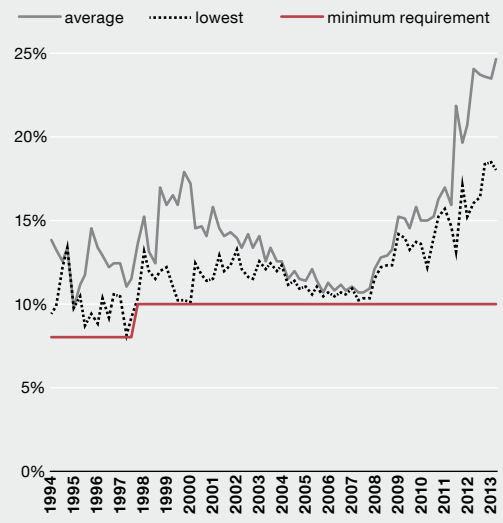
The directly applicable capital requirements of 4.5% of common equity tier 1 capital and 8% of total capital will come into force automatically for all domestic banks and subsidiaries of foreign banks in Estonia at the start of 2014. The founding act for the application of additional buffers will be the credit institutions act, which will be amended to allow the provisions of the CRDIV directive to pass into Estonian law.

Assessment of the need for structural capital requirements

The minimum capital adequacy requirement for banks in Estonia has been 10% since October 1997 (see Figure A1.2). The minimum requirement was set higher than the internationally

33 The list drawn up in November 2012 by the Financial Stability Board (FSB) operating in Basel contains 28 globally systemically important banks (G-SIB), 14 of which are domiciled in the EU. Among the banks operating in Estonia, Nordea appears on the list.

Figure A1.2. Banking sector capital adequacy ratio



standard 8% because of the high volatility of the Estonian economy and the underlying factors that make the local banking sector vulnerable to unexpected external shocks.

The main cause of economic volatility is the high degree of openness in the Estonian economy, including its openness to the economic growth of Estonia's main trading partners, which has likewise been notably more volatile than the EU average. Secondly, the continued convergence with EU countries and the consequent relatively large need for investment could cause rapid changes in financial flows in Estonia and could lead to changes in asset prices. Thirdly, the labour market in Estonia is relatively sensitive to changes in GDP, which increases the vulnerability of the financial sector even further, given that household financial savings are lower than the EU average.

The earlier experience of the Estonian financial sector in recessionary periods shows that macroeconomic or external environment shocks can very quickly lead to major loan repayment problems in the non-financial sector or weaken the financial standing of the banks through other channels. **To preserve the resilience of the Estonian banking sector, it is important that the capitalisation of the banks remain sufficient and not be reduced because of the changes in the legal framework.** One option provided in the directive for mitigating structural systemic risks is the systemic risk buffer. It would be appropriate to set this at 2% from the start of 2014 in order to ensure the capitalisation of the Estonian banking sector (see Table A1.1).

Assessment of the need for a countercyclical capital requirement

In assessing the need for countercyclical capital buffers, the stage of the credit cycle first has to be identified. This should be done once a quarter and the ratio of non-financial sector credit to GDP and its deviation from its long-term trend is taken as the starting point. The additional own funds requirement can be increased or reduced in response to changes in the systemic risks stemming from the credit cycle. The directive allows the macro-prudential authorities of the member states a certain flexibility in setting buffers, allowing them to consider other relevant indicators that indicate a build up of risk over the financial cycle.

The loan and lease portfolio of the Estonian non-financial sector has been growing gradually for over a year. Although the monthly figures for credit growth have been quite significant, the growth has arisen from a very low base and the lending market has not shown any sign of major imbalances.

Calculations of the credit-GDP gap using data from the banking statistics show that the gap is firmly negative and the current debt level is below its long-term trend (see Figure A1.3). **These calculations, taken together with a complex analysis and risk assessment of the real economy and the financial sector, show that it is not necessary to set any countercyclical capital buffer on banks in the first quarter of 2014.**

Other capital buffers

Since October 1997 the minimum capital requirement in Estonia has been 10%, which the banks have generally fulfilled with sufficient excess. To ensure that the requirement is met, the habit in financial supervision has on occasion been to set a somewhat higher threshold for banks to strengthen capital and retain profits. The **capital conservation buffer** set in the directive at 2.5% from 2014 will not make any substantial change to the practice used until now for ensuring capital stock, but rather the regulation will set more specific and transparent limits for this requirement.

Figure A1.3. Non-financial sector debt-to-GDP ratio and estimated countercyclical capital buffer rate based on banking sector statistics

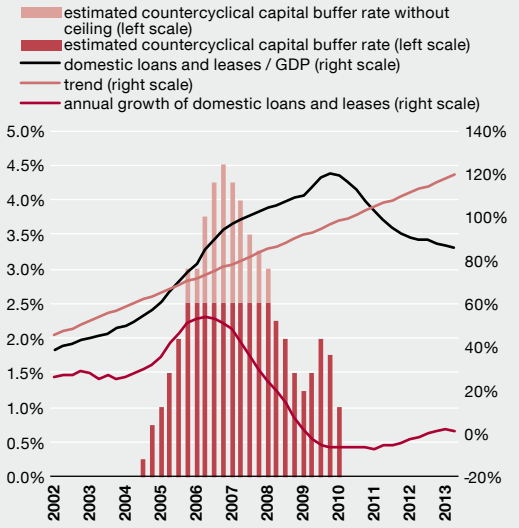


Table A1.1 Planned changes in capital requirements in Estonia

		unitil 31.12.2013	from 2014
Own funds requirements	common equity Tier 1 capital ratio	-	4.5%
	total capital ratio	10%	8%
Capital buffers	systemic risk buffer	-	2%*
	countercyclical capital buffer	-	0%*
	capital conservation buffer	-	2.5%
Capital requirements with required capital buffers		**10%**	**12.5%***

* intention for application in Estonia

APPENDIX 2. HOUSING MARKET DEVELOPMENTS AND RISKS IN THE NORDIC COUNTRIES

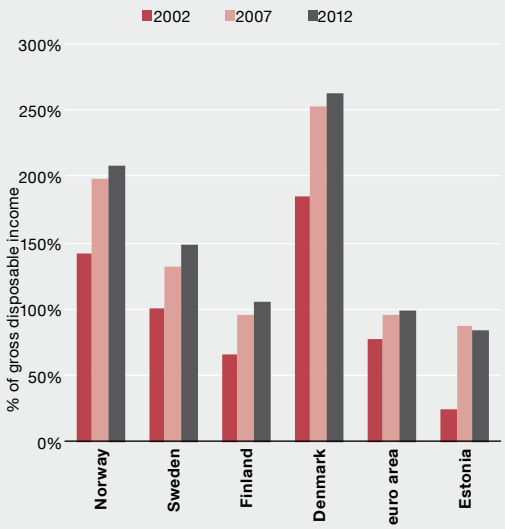
The Nordic countries – Sweden, Finland, Norway and Denmark – already stood out in international comparison for their high household debt levels and the long rise in housing prices before the global financial crisis broke (see Figure A2.1). When the crisis hit, real estate prices in the whole region were pushed back with house prices in Denmark falling by one fifth from their pre-crisis peak to a level from which they have not yet recovered. The correction in Finland, Sweden and Norway was significantly smaller and prices have continued to rise (see Figure A2.2). Given the modest outlook for economic growth in the euro area and the Nordic countries, the combination of high debt levels for households and continuing growth in housing prices has attracted ever more international attention.

The price indexes for the **Swedish real estate market**, which is important for the Estonian banking sector, almost tripled in nominal terms from 1996 to 2013 (see Figure A2.3). In addition to the correction that began in 2007 housing prices grew more slowly in 2011 and 2012, but since January this year the speed of growth of average house prices has accelerated again. The index covering the whole of Sweden rose by 9% in eight months and the indexes for flats and houses in Stockholm were up by 11% and 7% respectively.

Factors driving growth in housing prices

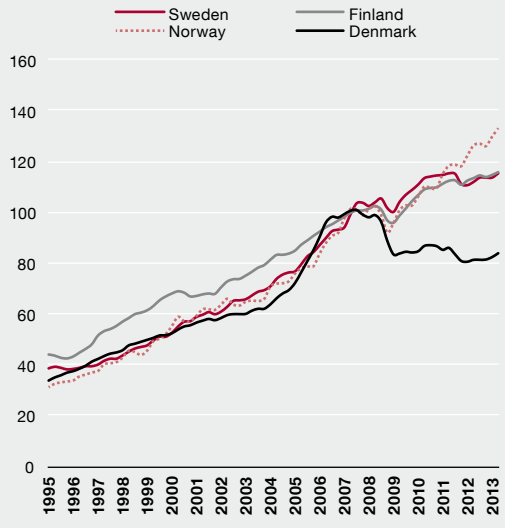
Rising housing prices in the Nordic countries have been driven by both demand and supply factors and institutional factors. Demand has supported prices through both **increased household income** and **a larger working-age population**, which is mainly a result of immigra-

Figure A2.1. Household debt



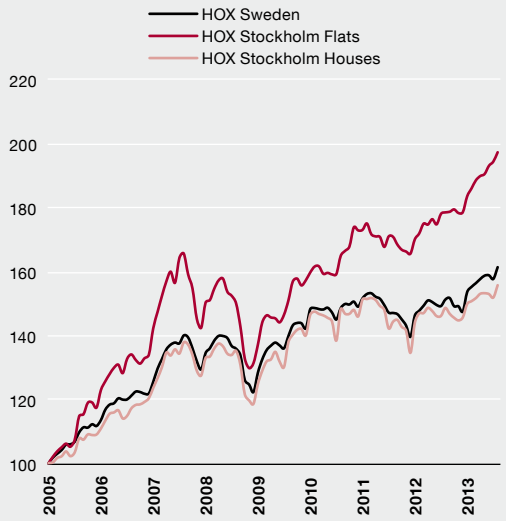
Sources: ECB, Statistics Norway, Eesti Pank

Figure A2.2. Indexes of house prices (2007=100)



Sources: ECB, Statistics Norway

Figure A2.3. Indexes of housing prices in Sweden (2005=100)



Source: Valueguard

tion, though the IMF finds that these factors only partially explain the growth in prices.[34]

Another factor that has had a major impact on real estate prices in the Nordic countries is the significant **restriction of supply**. Nordic real estate markets are known for their thorough and resource-intensive detailed planning and construction licensing procedures, which do not encourage the development of new residential space even when prices are rising. The IMF finds that the elasticity of real estate supply is particularly restricted in Sweden and Norway, which saw the highest price growth in the region[35]. **Housing supply** does not currently match the increased demand and the shortfalls are most evident in the housing markets of large towns.

On top of the detailed planning and construction licensing restrictions, **regulation of the rental market** also holds supply back from expanding to meet demand. Rent prices are controlled in Sweden in order to maintain parity between rent prices for privately owned properties and social housing. This prevents rental prices from adapting to market demand, meaning that rental incomes remain low and the profitability of the rental market is limited. In consequence the share of rental property in the structure of the housing stock has shrunk and the share of owner-occupied property has increased. This has then had an impact on the debt levels of households.

The growth in housing prices has also been supported by the improved availability of housing loans. One cause of this has been the low **monetary policy interest rates** following the global financial and debt crisis, which have pushed real interest rates in Sweden below zero. A second cause is the increased flexibility in **lending conditions**. Both variable interest rate loans and interest-only loans have become more common in the Nordic countries and the average maturity of loans has lengthened. In some countries **tax changes** have favoured purchases of property.[36]

IMF calculations using data from the end of 2012 show that housing prices are **over-valued** by 40% in Norway, 22% in Sweden, 12% in Finland and 10% in Denmark.[37]

Possible impact of falling real estate prices

Rapid rises in real estate prices are often followed by sharp price corrections, and any such correction could affect the economy through various channels.

34 IMF 2013. Nordic Regional Report – Selected Issues, IMF Country Report No. 13/275, p10.

35 IMF 2013. Nordic Regional Report – Selected Issues, IMF Country Report No. 13/275, p11.

36 Sweden has lowered the tax on the value of real estate, and in 2007 it abolished the tax on net assets, meaning the combined effect of these taxes fell from 1-2.25% of the market value of assets in 1991 to 0.5% (Englund, P. (2011). Swedish House Prices in an International Perspective. The Riksbank's Inquiry into the Risks in the Swedish Housing Market, p 41).

37 IMF 2013. Nordic Regional Report – Selected Issues, IMF Country Report No. 13/275, p12.

- **Private consumption.** A fall in the value of real estate would reduce the net assets of households, which could lead to a reduction in private consumption and to a fall in GDP and a slowdown in inflation. High household debt levels would put further pressure on the balance sheets of households.

- **Investments.** A fall in the value of real estate collateral would reduce access to credit, meaning that investment in real estate would decline.

- **Bank lending.** Falls in private consumption, investment and the value of collateral following a drop in real estate prices could lead to an increase in loan losses for banks. This would then reduce investor confidence towards banks, which would complicate access to funding even more and increase the funding costs of banks.

Calculations by the IMF show that a correction of 10% in real estate prices in Sweden would lead to falls of 1.2% in GDP, 1.7% in private consumption, and 28.3% in investment in housing, while a fall of 20% to an estimated equilibrium level would lead to a fall of 2.6% in real GDP[38]. The sensitivity of economic indicators may be much higher than estimated as the model does not account for several conditions that could increase risk.

Another factor that should be added to the list of risks for the Nordic countries is **integration with neighbouring economies**, which leads investors to treat the region as a single whole so that problems in one country could lead to a change in risk assessments for all the Nordic countries.

Stress tests of the balance sheets of the Swedish banks have shown that the banks have sufficient capital buffers to withstand loan losses caused by lower property prices. The Riksbank, the central bank of Sweden, has emphasised however, that potential funding problems caused by a fall in real estate prices could cause much greater difficulties for banks than the direct loan losses would[39].

This is firstly because Swedish banks raise around a quarter of their funding through **covered bonds mainly backed by mortgages**. As these covered bonds have much shorter maturities than the mortgages that back them, the banks need to refinance them continually. Any fall in confidence in these covered bonds following a fall in real estate prices would make it harder for the banks to access funding or could raise the price of funds.

A second possible cause of difficulties is that a large share of the **liquid assets** of Swedish banks is made up of covered bonds issued by other banks. In March 2013 the total value of covered bonds reached 400 million Swedish kronor, which is equal to 20% of the liquid assets of the four biggest banks. If a need arises for liquidity, the secondary market in covered bonds has to function, as otherwise a large proportion of the liquid assets of the banks could become illiquid. If there is a lack of confidence in the covered bonds of the Swedish banks, the secondary bond market may not function properly.

A third potential difficulty is that the largest Swedish banks are connected to the covered bonds by their role as **market maker**[40]. If a large

38 IMF 2013. Nordic Regional Report – Selected Issues, IMF Country Report No. 13/275, p15.

39 Janzén, H., Jönsson, K., Nordberg, A. (2011). A Fall in House Prices – Consequences for Financial Stability. The Riksbank's Inquiry into the Risks in the Swedish Housing Market, p 172.

40 Data from the Riksbank show that covered bonds in Swedish kroner are issued in the market by six parties: Handelsbanken, Nordea, SEB, Swedbank, Danske Bank and Nykredit (Sandström, M., Forsman, D., Rosen, J. S., Wettergren, J. F. (2013). The Swedish Covered Bond Market and Links to Financial Stability. Sveriges Riksbank Economic

number of investors want to sell their covered bonds because of a fall in confidence following a drop in real estate prices, a large proportion of the bonds will end up on the balance sheets of the banks that act as market makers. In this case, other capital markets, including markets for short-term financing, would probably be affected and the banks would find it very difficult to fund their growing portfolio of bonds.[41]

A fall in real estate prices could also lead the loan-to-value ratio of **the loans in the cover pool** to rise beyond its permitted limit, in which case the banks would have to replace the ineligible assets. The Riksbank has found that the banks have several options for ensuring that the cover pool meets the requirements if there is an increase in loan-to-value ratios of collateral assets, especially given that the total value of the collateral is significantly higher than the value of the bonds[42]. The higher the loan-to-value ratio climbs however, the more complicated it becomes for the banks.

Factors mitigating risks

It is often argued in reference to the high debt levels of Nordic households that **household assets** are large and exceed household liabilities, though a large proportion of the assets are illiquid or open to revaluation. Without real estate, shares in pension funds and insurance technical reserves, total household **financial assets** in Norway and Denmark remain smaller than liabilities, while in Finland and Sweden they only exceed financial liabilities by a small amount (see Figure A2.4). Furthermore, the net assets of households are not evenly distributed and some households, such as young families, are shown by surveys to be more exposed to risks than others.

Figure A2.4. Households' financial assets excluding pension and insurance assets and financial liabilities as at end-2012

Sources: ECB, statistical offices

However, the characteristically generous **social insurance systems** in the Nordic countries would help defend households against shocks. It has been noted in Sweden for example, that the impact on the servicing of housing loans of a significant rise in unemployment and interest rates is relatively limited[43].

The Nordic countries have applied various **regulatory measures** to their banks to mitigate the risks accompanying high debt levels and rising real estate prices. An upper limit of 85% was set for the loan-to-value ratio for Swedish banks in October 2010, and in May 2013 higher

Review 2013:2, p 6).

41 Events followed the same course in the Lehman Brothers crisis of 2008, when the bond portfolios grew beyond their internally permitted risk limit and the Riksgälden (the state treasury) and the Riksbank provided credit to the banks collateralised by their covered bonds (Sandström, M., Forsman, D., Rosen, J. S., Wettergren, J. F. (2013). The Swedish Covered Bond Market and Links to Financial Stability. Sveriges Riksbank Economic Review 2013:2, p 22).

42 On average the nominal value of the collateral assets exceeds the nominal value of the covered bonds issued by Swedish banks by 45% (Jansén, H., Jönsson, K., Nordberg, A., (2011). A Fall in House Prices – Consequences for Financial Stability. The Riksbank's Inquiry into the Risks in the Swedish Housing Market, p 159).

43 Finansinspektionen (2013). The Swedish Mortgage Market 2013, p 17.

risk weights were applied to the use of mortgage loans in calculations of capital adequacy. The same upper limit of 85% was set for the loan-to-value ratio for Norwegian banks in December 2011 and it is planned to apply higher risk weights on mortgage loans in the calculation of capital adequacy there too (see also Financial strength of the groups of parent banks).

In summary it may be said that any fall in Nordic real estate prices would affect Estonian banks principally through the funding and liquidity risks of their Swedish parent banks.

A fall in real estate prices may diminish the confidence of investors in the covered bonds issued by the Swedish banks and make it harder and more expensive for banks to access funding. Funding problems for Swedish parent banks would probably cause similar problems for Estonian affiliates too. However, market-based funding has fallen significantly in importance for the Estonian banking sector since 2009 and it made up 15% of total liabilities at the end of August 2013.

If there is any major disruption to financial markets, the liquidity positions of the parent banks could come under pressure as covered bonds form a large share of their liquid assets. In this case the portfolios of covered bonds of those banks would probably increase further because of their role as market makers. Higher tension in the liquidity position of parent banks could lead to a reduction of the liquid assets of the largest Estonian banks too.