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FINANCIAL STABILITY ASSESSMENT

Financial markets

The acceleration of economic growth at the end of 2010 has instilled many European countries with confidence in the financial markets, with the funding situation of banks improving to some degree. This is regardless of the increased tensions in sovereign bond markets and a severe negative feedback on banking sector funding in some euro area countries. The banks in countries suffering from the sovereign debt crisis are still unable to raise capital and to cover their liquidity needs on the financial markets, and are forced to rely on the governments and central banks.

The crisis has paralysed both the state budget and the funding of banks in debt-stricken countries. Along with persistent budget cutting in these countries, measures must be taken to manage the crisis and to restore confidence in their banking sector and avoid the spread of the crisis to other markets. As one of the measures taken, the European Banking Authority (EBA) is about to conduct EU-wide stress tests of banks and to publish the test results. The results will be used for strengthening the balance sheets of banks.

Besides the risks closely interlinked with public finance, the financial markets have, in recent months, been negatively affected by major geopolitical tensions brewing in the neighbourhood of Europe, and the accelerating inflation. Interest rates, which have remained low for quite some time, may accumulate risks on some markets. In the long run, all market participants must take into account the imminent rise in interest rates.

The Nordic parent banks of the banks operating in Estonia have retained a good financial position, with the corresponding risk assessments by market participants showing no deterioration in recent months. Even though the capitalisation of Swedish banks generally exceeds that of many other large European banks, Swedish banks are still highly sensitive to market developments and prevailing trends due to their smaller share of deposits. In this respect, we must also consider the risks stemming from the potential imbalances of the Swedish economy, including risks related to the high indebtedness of households and the past growth in real estate prices. Through the funding of parent banks, the materialisation of these risks, even at a rather low likelihood, would have a highly negative impact on the Estonian financial system.

The risk level of the Estonian stock and bond market remains high owing to the volatility of global markets. The smallness of the Estonian markets poses additional risks to investors. Even though potential price corrections could thus prove steep, the development of these markets will have no significant impact on financial stability.

Real economy and loan quality

The credit risk of banks operating in Estonia has decreased. On the one hand, loan repayment ability is expected to improve, fuelled by an increase in incomes and favourable interest rates. On the other hand, the financial behaviour of Estonian companies and households in the current economic and financial conditions has remained conservative, with new loans taken prudently in the last six months. At the same time, deposits have shown a stable growth. Such behaviour of the non-financial sector after a steep economic decline is well expected. The strong financial position of companies and households will provide a good foundation for the banks to improve credit risk management in the new growth cycle.

The positive effect of the acceleration of growth on loan quality could already be witnessed in the early autumn of 2010 when the volume of overdue loans began to drop. These trends continued in the first months of 2011, with Eesti Pank expecting the share of loans overdue for more than 60 days to fall below 5% of the portfolio by the end of the year. The volume of problem loans is curtailed, above all, by the write-offs of uncollectible loans from banks' balance sheets. In the improving outlook for economic growth, we can also expect some loans to start performing again. The real estate market, which is showing the first modest signs of recovery, could serve to provide a quicker solution to the problem loans.

Both non-performing loans and restructured loans have been covered with sufficient provisions, and do not thus pose a risk of further loan losses for the banks. New risks inherent in the loan repayment ability revolve around the potential deterioration in external demand. The real incomes of borrowers are affected also by the risk of inflation stepping up. Although key interest rates are expected to climb further in 2011, the expected increase in incomes helps to cushion possible negative effects on the loan quality of banks.

The strength of financial institutions

The improvement in loan quality has allowed banks to start scaling down the provisions established for potential loan losses in previous periods. Though banks will still hold loan projects that are unable to generate positive cash flows even in the stage of growth, the estimated negative impact of loan write-downs on operating profit is relatively low. In other words, the volume of new write-downs is smaller than the drop in earlier provisions.

In addition to the decline in loan losses, banks have a better outlook for generating net interest income in 2011. The increase in interest income will be curbed by the continuing contraction of the loan portfolio, but the foreseeable rise in key interest rates and the cutting of the interest expenses in connection with the changes in the liabilities structure will provide a good foundation for a moderate increase in net interest income.

The aggregate capital adequacy ratio of the Estonian banking sector climbed to 16.2% by the end of 2010, prompted by a decrease in credit risk requirements and a growth in own funds. Considering the outlook for economic growth and developments in the financial environment, the capitalisation of banks is expected to progress further in 2011, fuelled, besides the contraction of the loan portfolio, by enhanced profitability.

The capitalisation of the Estonian insurance sector remained strong in the last twelve months, as well. Even though fewer premiums were collected, compared to previous periods, due to low domestic demand and prudent investment behaviour, the risks of the insurance sector are well-managed and profitability is high.

Banks' minimum reserve requirement was lowered in 2010, but this has not added to the liquidity risk of the banks operating in Estonia. A majority of the banks retained their liquidity buffer on the level of 2010. In banks where the share of liquid assets dropped, the risk was hedged by the centralised liquidity management by their parent banks.

Settlement systems

The changeover to the euro in the Eesti Pank's settlement systems was without failures, and settlement in the first months of 2011 was smooth. Upon adoption of the euro, the Estonian Central Securities Depository successfully replaced the securities settlement system, with none of the failures occurring in the system in 2011 jeopardising settlement in securities.

Prompted by the lowering of minimum reserves, the banks' funds held with the central bank dropped to several times below the level required for settlement. As the funds held with the central bank may, in some cases, prove insufficient for effecting payments and banks have little experience in settlement system liquidity management in the euro area, this may cause temporary operational risk. Nevertheless, single operational problems have not added to long-term liquidity risk and have had no negative effect outside the settlement system.

Conclusions

Overall, no major changes have occurred in the risk assessment of the Estonian financial stability since the late autumn of 2010. The recent months have merely explicated the probability of materialisation or scope of the risk with respect to certain risk factors.

The financial environment affecting the European financial sector is still volatile, mostly due to the debt crisis in some of the euro area countries. The risk of further deterioration of the financial environment and deceleration of economic growth remains high. The external conditions having an immediate effect on the Estonian economy and financial system have improved against the backdrop of growth in Europe. The Estonian economy has been also nourished by the strong financial position of parent banks. The risks stemming from international financial markets and the potential imbalance of the rapid economic growth in Sweden are alleviated by the tightening of the monetary policy and prudential regulation by the central bank and supervisory authority of Sweden.

The domestic sources of risk within Estonia have abated with the recovery of growth. Banks' profitability and capitalisation are expected to improve, although loan repayment ability may deteriorate to some degree against a moderate rise in interest rates and a modest growth in real incomes. Given the forthcoming changes in the capital regulation internationally (the adoption of Basel III principles), the enhanced capitalisation of banks in Estonia can be considered a positive development. The upcoming decisions concerning profit allocation or capital management should keep in mind the planned capital requirements both in terms of the volume and the quality of capital.

The liquidity management decisions made by banks in the first months of 2011 serve to mitigate liquidity risks. In order to ensure smooth liquidity risk management in the future, depending on a bank's business model, attention must be paid to either enhancing efficiency of cross-border cooperation or to maintaining the liquidity buffer.

I. FINANCIAL MARKETS

GLOBAL FINANCIAL MARKETS[1]

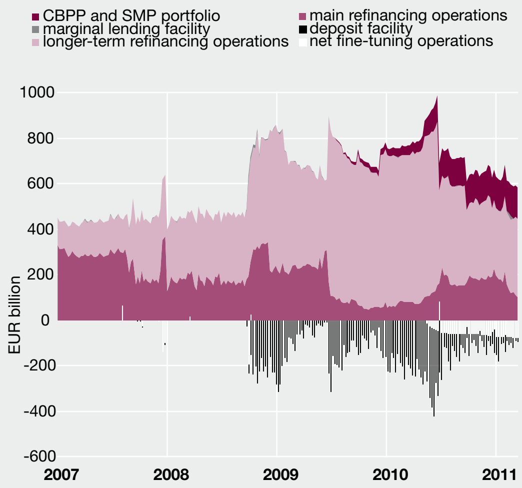
The development of global financial markets was still affected by the expansive monetary environment in the fourth quarter of 2010 and the first quarter of 2011. The risk appetite of market participants was stimulated by the improved economic indicators of the major global economies against the backdrop of lower interest rates. The moderate recovery on the stock and bond market suffered a setback at the end of February 2011, with geopolitical tensions brewing in several countries in the Middle East and North Africa. The natural disaster in Japan in March added to the risks.

The euro area **monetary policy** remained unchanged in the first three months of 2011. The European Central Bank continued offering unlimited liquidity at a 1% interest rate. In early spring, Germany's strong economic indicators and a rise in the inflation level beyond 2% exerted pressure on money market interest rates, convincing the market of an imminent change in the monetary policy. At the beginning of April, the European Central Bank decided to raise the monetary policy rate by 25 basis points. Expectations of a monetary policy tightening have also grown outside the euro area since autumn. The central bank of Sweden, for example, has raised the key interest rate three times since October 2010, by a total of 75 basis points.

The euro area in general saw an improvement in **liquidity conditions** in the first months of 2011, as reflected by the lower reliance on central bank funds (see Figure 1). The interbank money market has remained stable in recent months. Liquidity, however, varies across countries. As the banks of crisis-stricken countries continued having difficulties in engaging funds from the markets, central banks remained the key source of liquidity for them.

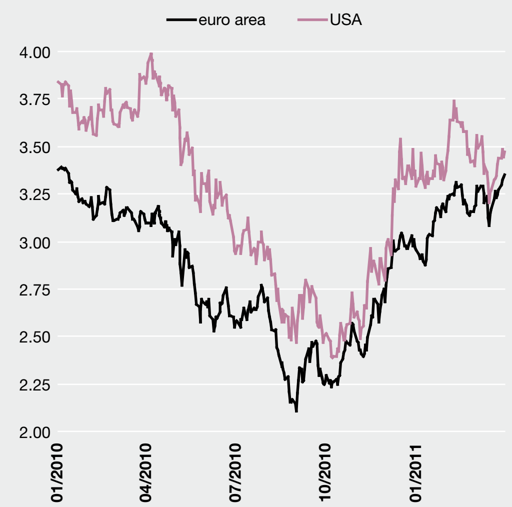
[1] The Review covers the period from 30 September 2010 to 31 March 2011.

Figure 1. Eurosystem's monetary policy operations



Sources: European Central Bank, Eesti Pank

Figure 2. Ten-year interest rates on euro area and US government bonds



Sources: EcoWin, Eesti Pank

The increase in economic activity and the risk of inflation have affected developments in the **government bond market**. Interest rates soared across the yield curve in both the United States and the euro area. The interest rates of ten-year government bonds, which have fallen sharply since the spring of 2010, recovered their previous levels at the end of March 2011 (see Figure 2).

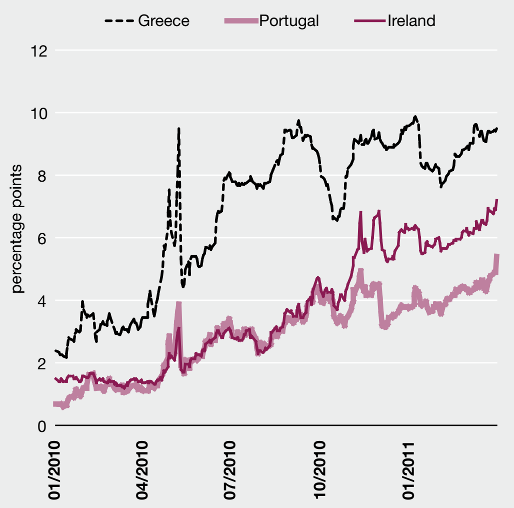
The **debt crisis** affecting some euro area countries showed no signs of receding in the first months of 2011. In addition to Greece, who was forced to request help in the first half of 2010, an 85-billion-euro bailout package was approved for Ireland in November. This stabilised the markets only temporarily. At the end of March, the yield spread between the ten-year government bonds of the three countries with the sovereign debt problems (Greece, Ireland and Portugal) and those of Germany was significantly higher than six months ago[2] (see Figure 3). At the beginning of April, the Government of Portugal asked the European Union for financial assistance to fund the government debt and support banking.

Major **stock markets** experienced a growth from the end of September 2010 to the middle of February 2011. The accumulation of risks at the end of February and in March caused an abrupt and extensive drop in all major stock indices, which recovered to some extent by the end of the first quarter. By the end of March, the stock indices in the euro area, the United States and Japan had fallen by 5%, 1% and 10%, respectively, from their peak in the middle of February (see Figure 4).

The **primary risk to global financial markets** in the near future is a sovereign debt crisis in some countries in the euro area. The overcoming of the debt crisis will depend on numerous

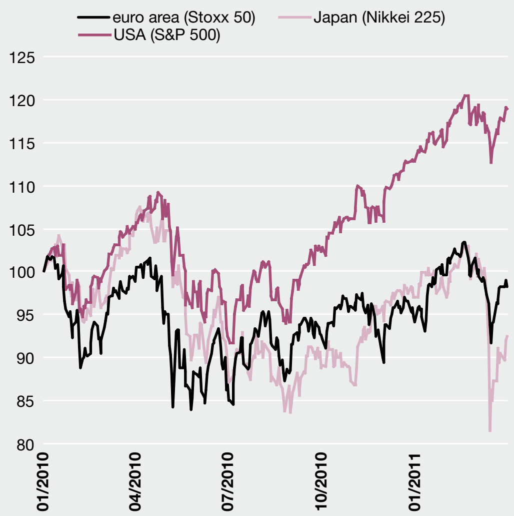
[2] The interest rate spread widened by 119 basis points in Greece, 267 in Ireland and 130 in Portugal.

Figure 3. Spread between 10-year bonds of Greece, Portugal and Ireland with Germany



Sources: EcoWin, Eesti Pank

Figure 4. Stock indices in the euro area, Japan and the USA (1 Jan 2010 = 100)



Sources: EcoWin, Eesti Pank

factors, such as reforms designed to bolster economic growth, cost-cutting in the public sector, enhancement of the scope and efficiency of collective bailouts, and strengthening of the uniform fiscal policy in the euro area. In response to the deepening crisis, leaders of euro area countries resolved to expand the European Financial Stability Facility (EFSF) from 250 billion to 440 billion euros. The leaders also agreed on the European Stability Mechanism's (ESM) lending capacity of a maximum of 500 billion euros from 2013.

The **global economic outlook** is tempered, on the one hand, by the potential effect of suspension of the financial sector support measures and, on the other hand, by macro-economic events such as oil price hikes and the natural disaster in Japan. Oil prices cannot be expected to stabilise until political tensions in oil-producing countries subside, with the economic-political measures against overheating of the economy, taken by developing countries, also playing an important role.

ESTONIA'S FINANCIAL MARKETS

Bond and stock markets

The Estonian **bond market** has been very passive in the conditions of an economic decline in recent years. The volume of new bond issues has fallen several times (see Figure 5). The monthly average volume of issuance for the past six months was 4.2 billion euros – more than four times lower than the average for the last three years. The bond market volume shrank by almost 40% in the last two years, amounting to 4% of GDP at the end of December 2010.

The secondary bond market remained passive in the last six months, with the monthly average turnover amounting to 1.8 million euros; that is, more than eight times lower than the average for the last three years.

Figure 5. Bonds issued and secondary bond market turnover on a quarterly basis

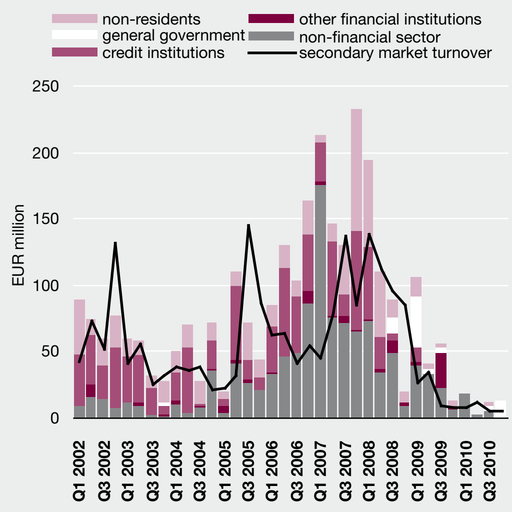
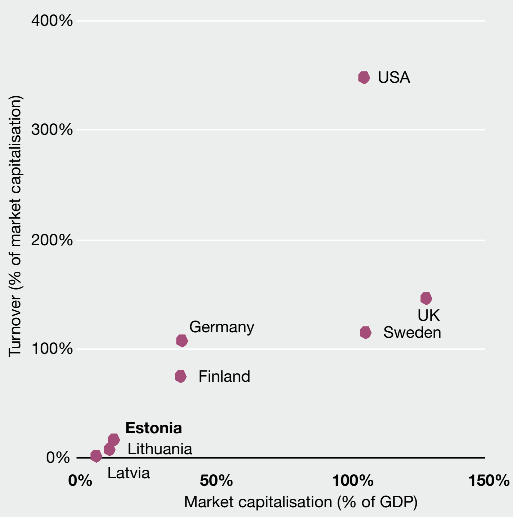


Figure 6. Tallinn Stock Exchange compared to global stock exchanges in 2009



Source: World Bank

The **Estonian stock market** is very small. Both the capitalisation and turnover of the Tallinn Stock Exchange are significantly lower than the stock exchanges of other countries (see Figure 6). So, the Tallinn Stock Exchange only has a minor influence on the Estonian financial system.

The year 2011 began in a positive mood on the Tallinn Stock Exchange. With Estonia joining the euro area, the OMX Tallinn (OMXT) advanced by nearly 10% in the first week of January. Uncertainties pertaining to the earthquake in Japan and the tensions brewing in the Middle East and North Africa at the beginning of March brought down stock prices all over the world. The Tallinn Stock Exchange was no exception. Even though by the end of March the OMXT had retreated from its peak, it had still advanced by 6%, compared to the beginning of the year.

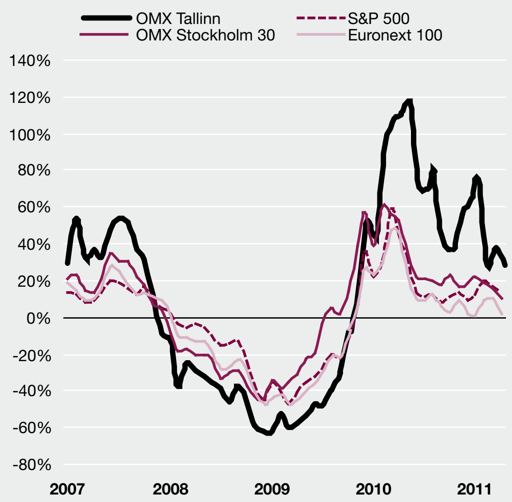
Stock prices have been highly volatile on the Tallinn Stock Exchange in recent years. In the last four years, the OMXT has shown a much more significant 12-month movement than the global stock markets (see Figure 7).

Buoyed by a share price increase, the stock market capitalisation grew by 22% in six months, amounting to 12% of GDP. The listed shares of four of the largest companies contribute over two-thirds of the total capitalisation (see Figure 8).

Liquidity of the Tallinn Stock Exchange has showed no major changes in recent months. Some increase in trading could be seen at the beginning of 2011 along with an increase in stock prices. By the end of March, however, the average daily turnover of the Tallinn Stock Exchange dropped below its 12-month average. The 12-month average daily turnover was 1 million euros at the end of March.

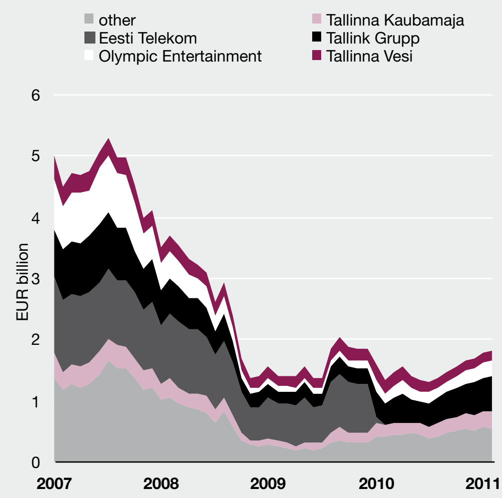
The introduction of the euro did not have much effect on the structure of stock investors.

Figure 7. Average annual yield of OMX Tallinn compared to global indexes



Sources: Bloomberg, Eesti Pank

Figure 8. Market capitalisation of shares listed on the Tallinn Stock Exchange



The share of non-resident investors remained unchanged, compared to the end of 2010. Non-residents held close to 37% of the shares at the end of February 2011.

Investment funds

The **yield** of investment funds continued to grow, albeit at a slower rate. While the prices of investment fund shares have risen, they still fall short of the pre-crisis levels (see Figure 9). In the last 12 months, the prices of interest fund share rose by an average of 8.8% and equity fund shares by an average of 16.8%.

The prices of higher-risk second-pillar pension fund shares have reached the level of the second half of 2008, still one-fourth lower than before the crisis (see Figure 10). The prices of pension fund shares invested in bonds, on the other hand, have surpassed the pre-crisis level. The EPI index reflecting the prices of the second-pillar pension funds advanced by almost 10% in 2010.

The **assets** of investment funds grew by 30 million euros in the last 12 months, totalling 592 million euros. Growth has been affected by a positive yield and changes in net capital inflows. The enhanced risk appetite has had an effect on the structure of contributions to the investment funds. The percentage of monthly capital inflows to equity funds has grown from 47% to 85% in 12 months. Supported by yield growth and capital inflow, the assets of equity funds grew by almost 24%, while capital outflow and liquidation of three interest funds reduced the assets of interest funds by 44%.

Regardless of suspension of state contributions, yield growth boosted the assets of the second-pillar pension funds by around 119 million euros to 1,071 million euros in 2010. Scheduled to enter into force in August 2011, the amendment of the Funded Pensions Act will allow pension

Figure 9. Changes in the average price for investment fund units since early-2007 (1/1/2007=100)

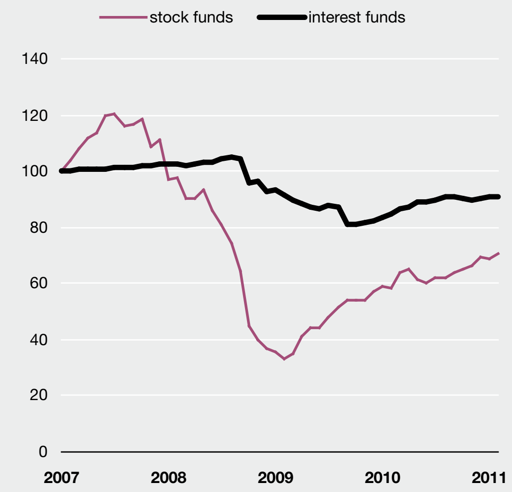
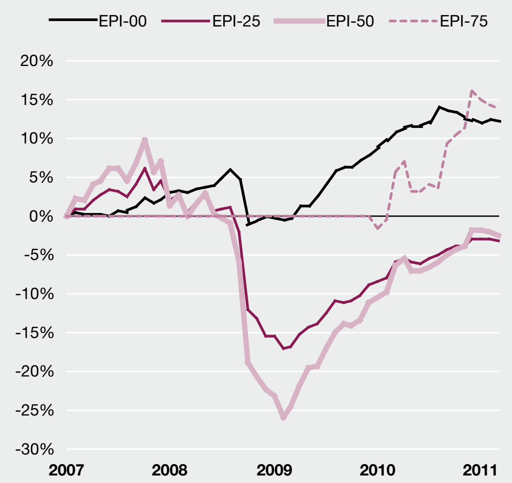


Figure 10. Changes in second-pillar pension fund indexes since early-2007



fund holders to change funds more frequently. The frequency of the change of pension funds may add to the liquidity risk of the pension funds' management companies. With the restoration of state contributions, the assets of pension funds are expected to show a quicker growth in 2011 than in 2010.

As at the end of February, the assets of third-pillar funds amounted to almost 91 million euros. The loss of confidence stemming from the global financial crisis has reduced contributions to third-pillar funds by about 40% in two years.

The share of external assets in the **investment structure** of the investment and pension funds has grown in the past 12 months (see Figure 11). At the end of February 2011, external assets contributed 87%. The share of equities and equity funds in the total assets of the investment and pension funds has grown, compared to the beginning of 2010. At the end of January, they made up nearly a half of the total assets. The volatility of global markets may consequently have a somewhat greater effect on the value of assets invested in funds in the near future.

MARKET-BASED FINANCING OF BANKING GROUPS

Financial strength of the groups of parent banks

With the increase in net interest income, conditioned by a rise in interest rates, the revenue of parent bank groups operating in Estonia has grown in the last two quarters. The positive development of stock markets has boosted the volume of assets under management. This, in turn, has added to the revenue of banking groups from commission fees.

Even though **profitability** and development vary by banking groups (see Figure 12), profitability has improved in the last two quarters, supported

Figure 11. Structure of investment and pension fund assets and the share of foreign assets

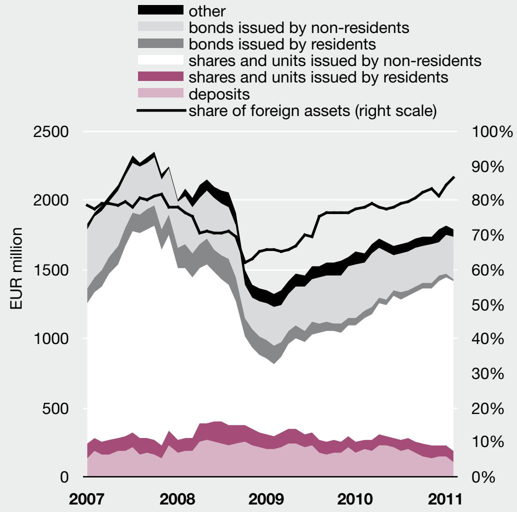
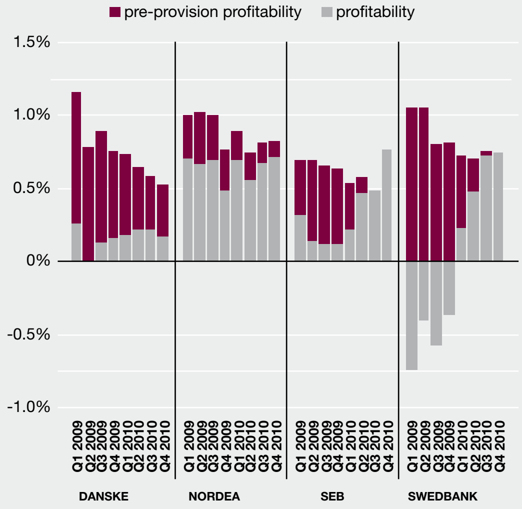


Figure 12. Profitability of banking groups



Sources: public reports of banks, Eesti Pank by the increase in income and decrease in loan provisions.

The groups' **capitalisation** has remained stable in recent quarters. As at the end of 2010, the capital adequacy ratio of all major parent bank groups exceeded 11%.

Considering the events of recent months, the banks' profitability can be expected to grow in the near future, with the loan provisions further reduced and the increase in net interest income supported by higher interest rates. Exiting the state guarantee programme will help the banks to cut costs further.

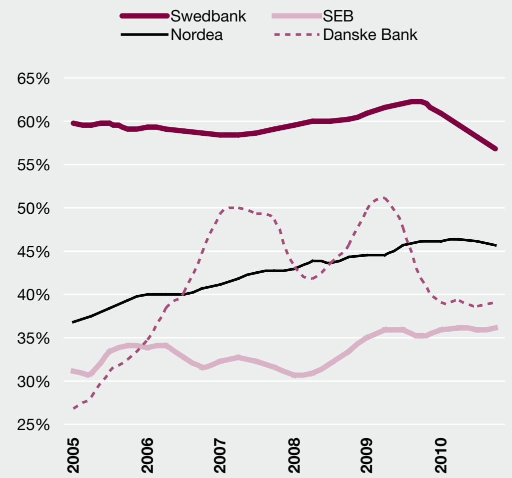
As the total assets of the four largest banks in Sweden exceed the GDP about four times, the Swedish Financial Supervisory Authority has decided to establish higher capital requirements for major banks in order to mitigate potential risks. The capital adequacy of banks is expected to reach 15–16% in the upcoming years, of which 10–12% should consist of Core Tier 1 capital. This scenario foresees a much quicker change in capital requirements than prescribed by the new Basel framework. However, considering the relatively high capitalisation of Swedish banks, the banks are already quite close to fulfilling the new requirements.

Funding of parent banks

The funding of Nordic banking groups continues to depend largely on market-based financing (see Figure 13). At the same time, the deposit volumes of some banking groups have grown in recent quarters. The **need for financing** has been reduced by the quicker depreciation of previously issued loans against new loans.

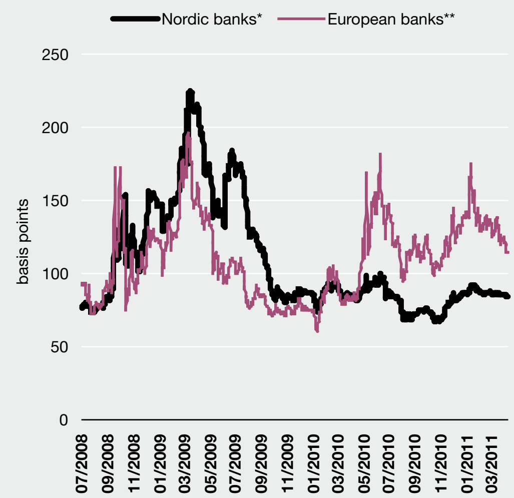
Investors' risk assessments of Nordic banks have not changed in recent months. Nordic banks are still deemed less risky than other European banks. The credit default swap (CDS) spreads of

Figure 13. Banking groups' share of wholesale funding in total loans (4-quarter moving average)



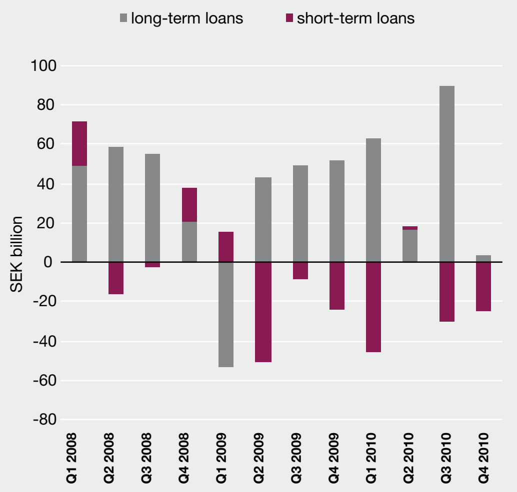
Sources: public reports of banks, Eesti Pank

Figure 14. CDS premiums of Nordic and European banks



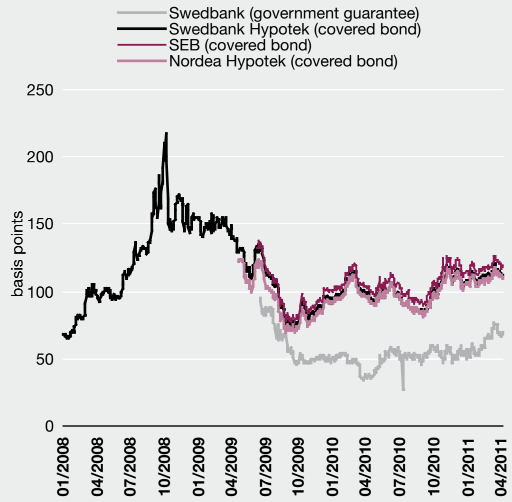
Sources: Bloomberg, Eesti Pank
* Nordic banks: Swedbank, SEB, Nordea, Handelsbanken, Danske Bank; arithmetic average.
** European banks: UBS, Société Générale, HSBC, Deutsche Bank, ING, Barclays, BNP Paribas; arithmetic average.

Figure 15. Net borrowing of Swedish banking groups in SEK instruments



Sources: Statistics Sweden, Eesti Pank

Figure 16. Banks' 4-year bond spreads against Swedish government bond



Sources: Bloomberg, Eesti Pank

Nordic banks have been nearly 40 basis points lower than those of other European banks (see Figure 14).

Favourable market conditions allowed Nordic banks to **lengthen the maturities of liabilities** in 2010. Most of the refinancing and new bond issues took place in the first and third quarter of 2010 (see Figure 15). Due to previously engaged funds and a certain growth in deposit volumes, fewer resources were engaged from the market in the fourth quarter of 2010.

The **bond risk premiums** of banks remained more or less unchanged in the fourth quarter of 2010 (see Figure 16), reflecting the market participants' willingness to serve the banks' need for financing. At the same time, a sudden deterioration of the debt crisis in other parts of Europe or materialisation of the risks involved in the Swedish real estate market may exacerbate the financing options.

The end of the year 2010 reflected the banks' waning interest in loan auctions organised by the central bank of Sweden. The banks have started to prefer market-based financing over the loans offered by the central bank at a relatively higher interest rate.

The financing structure of parent banks is not expected to change significantly in the near future. Nordic groups will continue to depend on market-based financing. Thus, high volatility and uncertainty of the financial markets may have a negative effect on the financing of banks. At the same time, the continued growth foreseen in deposit volumes will allow banks to scale down the uncertainty arising from the market risk.

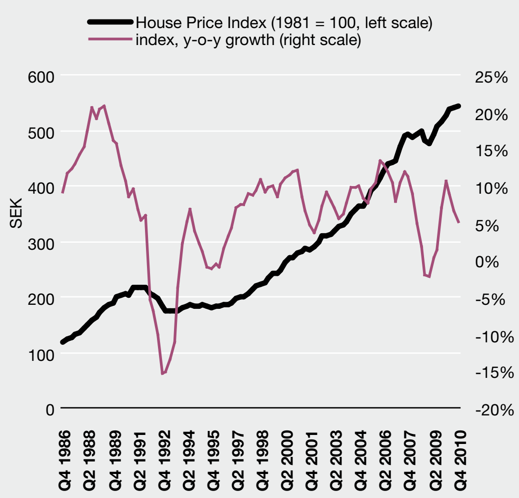
Developments in the Swedish real estate market

Sweden is among the few EU Member States where the global financial crisis did not have a significant negative impact on the real estate market. Indeed, the small adjustment in **real estate prices** was of a short-term nature, with the upward trend resuming soon (see Figure 17). This, however, has fuelled fears of overpricing in the market. In addition to the increase in income and limited supply, the real estate price increase was stimulated by low interest rates and a growth in loan burden, which has exceeded income growth.

The monetary policy rates now show an upward trend. By the middle of April 2011, Riksbank had raised the interest rates six times, with the key policy rate standing at 1.75%. This is still a low level in historical comparison, with the rise in interest rates expected to continue in 2011 and the subsequent periods. Considering the rapid recovery of the economy and the risks involved in the real estate sector, the increase in interest rates could be more rapid than expected.[3] The Swedish Financial Supervisory Authority has also established a 85% maximum limit for the loan-to-value ratio. The price increase has slowed since the beginning of 2010, even though in the first quarter of 2011 the annual increase still stood at around 3%.[4]

The real estate price movements also have an effect on the **financing of Swedish banks**. The banks use bond issues to cover a bulk of their funding needs. Approximately 50% of the bonds issued are covered bonds, secured by the housing loans issued. With

Figure 17. House price developments in Sweden



Sources: Riksbank, Statistics Sweden

the rise in real estate prices, the value of the collateral to these bonds increases, rendering the financing option more attractive for both banks and investors. At the end of 2010, the total volume of covered bonds amounted to approximately 1.6 billion Swedish kronor, of which one-third was held by foreign investors.[5]

The risk premiums of covered bonds increased after termination of the provision of liquidity loans by Riksbank in the autumn of 2010, stabilising thereafter. According to the assessment of the market participants[6] the risk of a real estate price bubble has abated somewhat, compared to the end of the year, mainly due to the continuing tightening of interest policy by the central bank.

[3] Sources: Riksbank, Bloomberg.

[4] Source: Statistics Sweden.

[5] Source: Riksbank "The Riksbank's inquiry into risks on the Swedish housing market", 2011.

[6] Source: Handelsbanken "Market participant survey", 10 March 2011.

Potential risks

Possible reversal of the real estate price increase would affect the risks faced by the banks in two ways. Firstly, the drop in real estate prices would amplify the credit risk of the loan portfolio. Secondly, the drop in the value of the collateral of covered bonds may condition a rise in risk premium required by the investors.

The continuous price increase has kept the banks' loan losses from the Swedish housing market on a relatively low level. The losses from housing loans have remained modest also during the previous crises. Although the banks' capitalisation is sufficient, a major drop in housing prices may still cause tensions. The capitalisation of Swedish banks is assessed by the stress test of EU banks, in which the risk scenario foresees, among other things, a 4.5% and a 7% drop in housing prices in Sweden in 2011 and 2012, respectively.[7]

The drop in real estate prices may reduce investors' risk appetite and reduce the collateral buffer of covered bonds. Regardless of the fact that only high-quality loans are included among the collateral and that the value of the collateral exceeds the required level, the reduction of the buffer and deterioration in the quality of assets would send a negative signal to investors. Financing may thus become less available and more expensive for the banks, even if the value of the collateral to the bonds does not drop below the required level. In the autumn 2010 financial stability assessment, Riksbank drew attention to the liquidity risk of Swedish banks arising from the financing of long-term assets, that is mainly real estate loans, through short-term bonds on the global market.[8] In addition, the growing share of bonds issued in foreign currency has also magnified the related risks, as these assets are mainly used for financing loans in Swedish kronor.

To sum up, even though the credit risks of parent banks arising from the potential drop in housing prices may not be extensive, the risks to the financing of banks may prove more significant. Should the financing conditions of parent banks deteriorate, it would increase also the liquidity risks of Estonian banks.

[7] Source: European Banking Authority "Macro-economic scenarios for 2011 EU-wide stress test".

[8] Source: Riksbank "Financial Stability Report", 2/2010.

II. REAL ECONOMY AND LOAN QUALITY

CREDIT PORTFOLIO OF BANKS[1]

At the end of February 2011, the credit portfolio of banks totalled 16.3 billion euros. Loans make up over 90% of the credit portfolio, with leases and factoring contributing less than 10%. The credit portfolio has decreased by 10% from its peak in November 2008, showing a 3% decline from August 2010 to February 2011.

As new loan turnover has remained quite modest since the third quarter of 2010, the structure of the portfolio has been changed the most by the different amortisation rates of the loan segments. Owing to the slow amortisation of long-term housing loans, the share of these loans has grown by 2 percentage points year-on-year, amounting to almost 40% of the aggregate portfolio (see Figures 1-2). At the same time, the corporate loan stock has shrunk on account of the short term of these loans. Trade and agriculture constitute an exception, with the loan activity growing since the third quarter of 2010. The drop in the loan stock of these sectors has thus been smaller, and their share in the aggregate portfolio has grown to some extent.

In addition to natural amortisation, the loan portfolio has been affected by increased write-offs of bad debts, with the portfolio thus shrinking 0.5% in the fourth quarter of 2010.

The credit portfolio of banks contains an increasing amount of loans issued to real estate-related sectors. At the end of February 2011, over 57% of the loan stock was attributable to these sectors (see Figure 3). This is mainly conditioned by the long term of real estate-related loans.

Ultimately, the credit portfolio of banks is further bound to real estate through loans secured by mortgage. At the end of February, over 78% of the loans issued had been secured by real

[1] Includes loans, leases and factoring.

Figure 1. Structure of banks' credit portfolio as at 28/02/2011 and change y-o-y

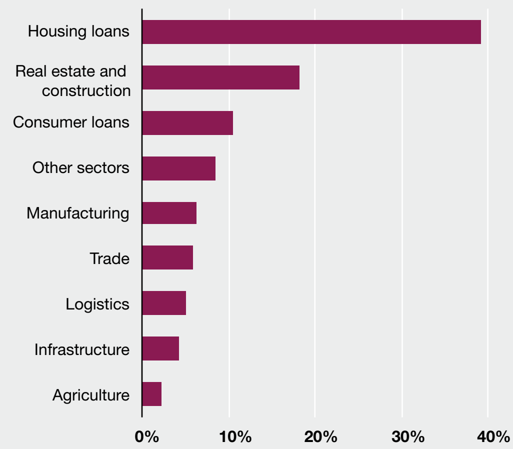


Figure 2. Year-on-year change in the credit portfolio structure as at 28/02/2011

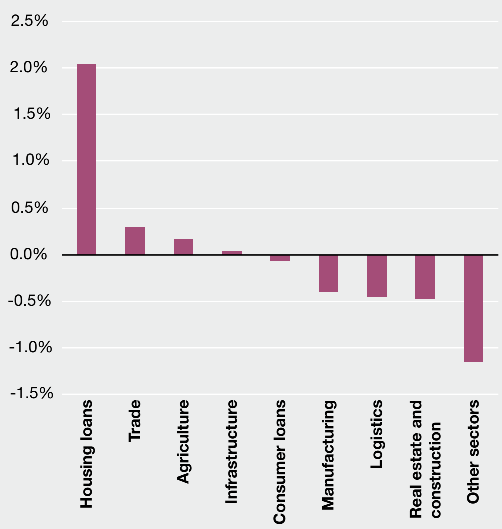


Figure 3. Real estate loans and other loans

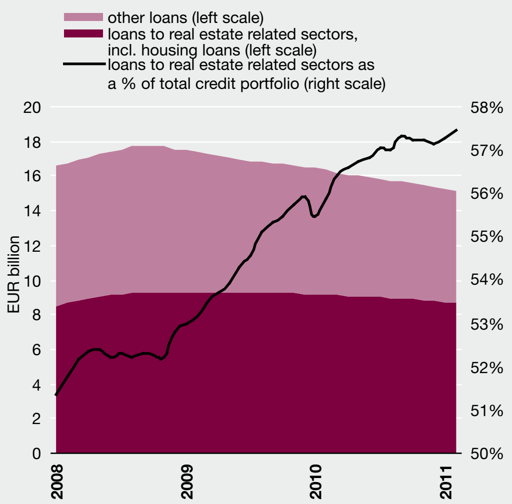
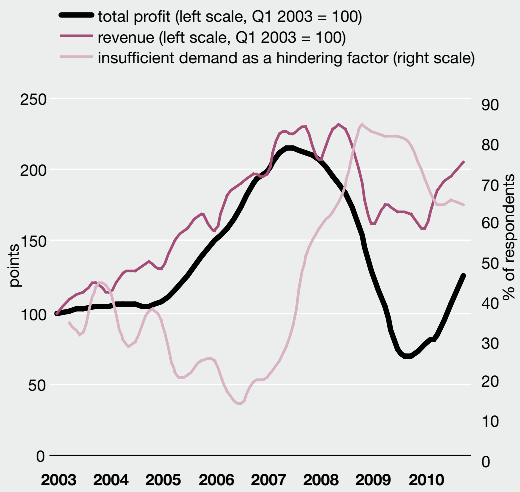


Figure 4. Corporate sector's economic results and demand for products and services



Sources: Statistics Estonia, Estonian Institute of Economic Research, Eesti Pank

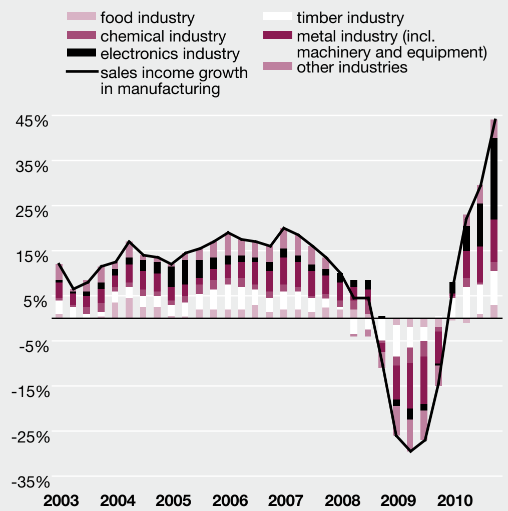
estate. The risks faced by the banking sector are thus closely related to the development of the domestic real estate market.

LOAN REPAYMENT ABILITY OF COMPANIES

Along with the growth in GDP, the loan repayment ability of companies has improved ever since the second quarter of 2010 along with the gradual recovery of GDP growth. The economic recovery has been stimulated, above all, by strong external demand, which has further expedited growth in corporate sales revenues since the second quarter of 2010 (see Figure 4).

Sales have grown in both the trade sector built around domestic demand and other branches of the service sector. The manufacturing sector was an especially remarkable contributor to sales revenues (see Figure 5). In December, **industrial production** grew by 39% from last year, with quite a few branches of industry exceeding their pre-crisis production volumes by

Figure 5. Determinants of sales income growth in the manufacturing sector



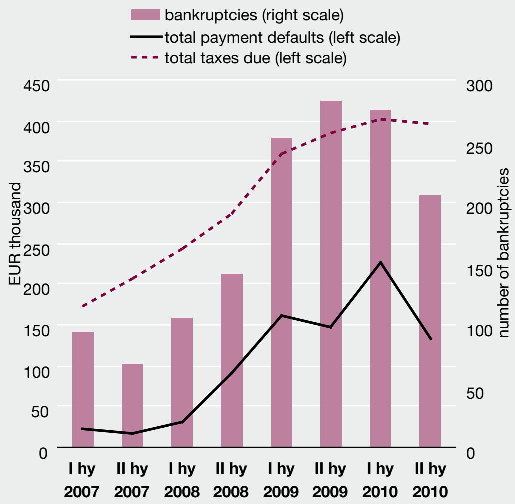
Sources: Statistics Estonia, Eesti Pank

the end of the year. Production of capital goods showed an especially rapid growth – supported by fine electronic products, the volume of capital goods exceeded the pre-crisis peak by half. The total output of the manufacturing industry still fell short of the pre-crisis level. In all major sectors, companies have positive expectations of a growth in demand in the next three months. Nonetheless, the speed of growth in cash flows is expected to decelerate in the long run.

Even though corporate expenses increased in the second half of 2010, the **total profit** posted by the business sector more than doubled from the same period last year. Nonetheless, the total profit of the sector is still at the level of 2005-2006. Both large and small enterprises have improved their operating results in most fields of activity, while manufacturing still contributed a third of the profit of the business sector. The greatest contributors to the profit of the manufacturing sector in the fourth quarter of 2010 included the production of electronic equipment, machinery and equipment, and food commodities.

The loan repayment ability of companies is supported by a gradual improvement in economic results and the current business environment. While the **number of bankruptcies** remained high in the fourth quarter of 2010, the indicators for the last months of 2010 and the first months of 2011 fell below the average level for the last two years. According to the statistics of the payment default register, the number of companies with payment defaults in the second half of 2010 is on par with the second half of 2009. At the same time, the volume of **payment defaults and tax arrears** has shrunk (see Figure 6). Furthermore, the amount of overdue loans of credit institutions has fallen in the last few months. The volume of problem loans is not expected to grow substantially in the upcoming periods, as evidenced by further economic recovery and a drop in corporate loan expenses.

Figure 6. Companies' payment defaults, taxes due and bankruptcies



Sources: Krediidiinfo, Estonian Tax and Customs Board, Eesti Pank

Figure 7. Indicators of companies' loan repayment ability

The drop in corporate loan expenses can be associated with the fall in interest-bearing liabilities, which have lessened the financial risks. The **debt burden**, too, has decreased in comparison with the last four years. The lower the debt-to-equity ratio and the higher the current ratio, the easier for the companies to serve the increasing loan expenses in the future. Both of the above indicators are showing a positive trend (see Figure 7).

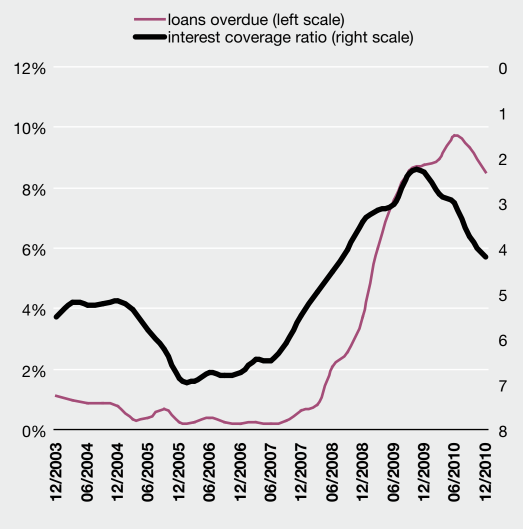
The improvement in loan repayment ability is confirmed also by the continual rise in **interest coverage ratio**, which shows that the companies' ability to cover loan liabilities from current cash flows has improved (see Figure 8). Even though the interest rates on the loan stock have risen to some extent over the past six months as a result of the Euribor rising by around 0.25 percentage points, these interest rates are still low, keeping the loan service expenses down.

The risks to the loan repayment ability of companies have decreased. With the recovery of economic activity, the loan repayment ability will improve further. Nonetheless, external risks will persist. Should these risks be realised, external demand may fall, causing cash flow problems for companies. The loan repayment ability may be also hampered by a faster-than-expected rise in interest rates.

LOAN REPAYMENT ABILITY OF HOUSEHOLDS

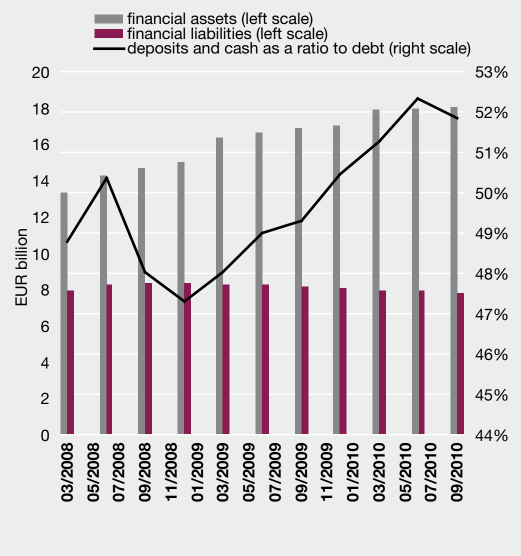
Households' confidence and expectations of the future have improved alongside the economic recovery. For the first time since August 2007, the consumer confidence indicator was positive at the beginning of 2011. Confidence in the upturn is fuelled by macroeconomic indicators. The risks related to household incomes are lower, as the labour market situation has improved. Unemployment dropped to 13.6% in the fourth quarter of 2010, with employment rising by 2.5% year-on-year. Furthermore, annual growth in average wages was positive for the third quarter in a row. However, with consumer prices rising rapidly in the period, the real incomes of households continued to shrink.

Figure 8. Loans overdue for more than 60 days and interest coverage ratio



Sources: Statistics Estonia, Eesti Pank

Figure 9. Financial position of households



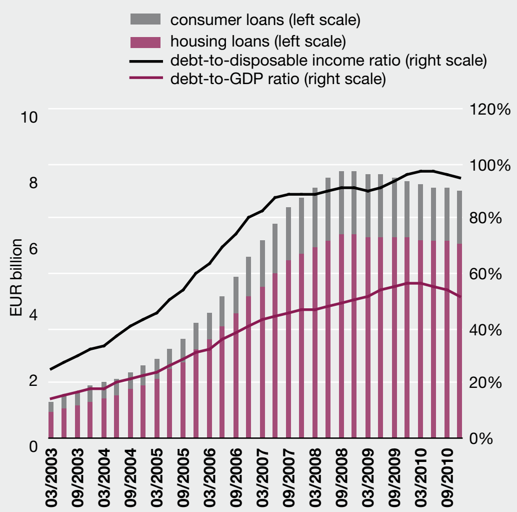
Regardless of the drop in real incomes, households are confident in the continual improvement of their economic position, and are increasingly positive about their ability to save. Larger capital buffers of households are reflected in the **financial position** indicators (see Figure 9). Financial account data shows that financial assets have grown by almost 7% from last year. Private deposits with credit institutions have increased on a similar scale. In the third quarter of 2010, cash and deposits of households covered 52% of their total debt. With the decrease in debt liabilities, the asset buffer of households has grown, while their debt as a ratio to GDP and disposable income remains relatively high. At the end of 2010, the household debt burden amounted to 52% of GDP and 94% of disposable income (see Figure 10).

The recovery of the residential housing market has alleviated the risks related to household loan collateral. The real estate market is slowly but persistently becoming more liquid. Real estate prices have risen, as well. As the prices have only reached the level of 2005, the loan-to-value ratio of approximately a third of the borrowers remains higher than 100%. This does not pose a credit risk as long as borrowers are able to cover their monthly loan liabilities from income. Forced sales more than doubled from 2009, with bailiffs selling over 700 real estate objects to cover outstanding problem loans.

Even though fixed interest lending increased during the recession, over 90% of the household loan agreements have a floating interest rate. So, the greatest risk to the loan repayment ability of households is the rise in key interest rates which increase the loan service expenses. For loans with a floating interest rate, the effect of the change in the 6-month Euribor is reflected in the household loan interest after a time lag of approximately six months. The household **interest burden**[2] stood at 3.7% at the end

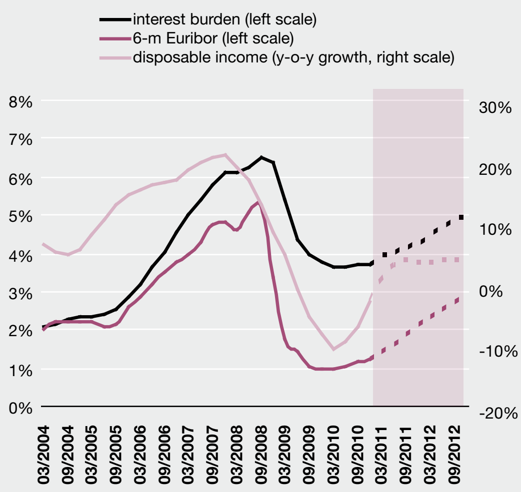
[2] Interest burden is the annual ratio of interest expenditure to disposable income.

Figure 10. Household debt burden



Sources: Statistics Estonia, Eesti Pank

Figure 11. Household interest burden and disposable income



Sources: European Central Bank, Eesti Pank, Statistics Estonia of 2010. As the autumn forecast of Eesti Pank expects a further drop in loan stock and an increase in disposable incomes in 2011, the annual interest burden of households will not increase significantly in the coming quarters. Considering the higher key interest rate and the smaller loan volume, the annual interest expenses of households are estimated to be about 32 million euros higher at the end of 2011, with the interest burden amounting to 4.3% (see Figure 11).

Estonia's real estate market

Housing market

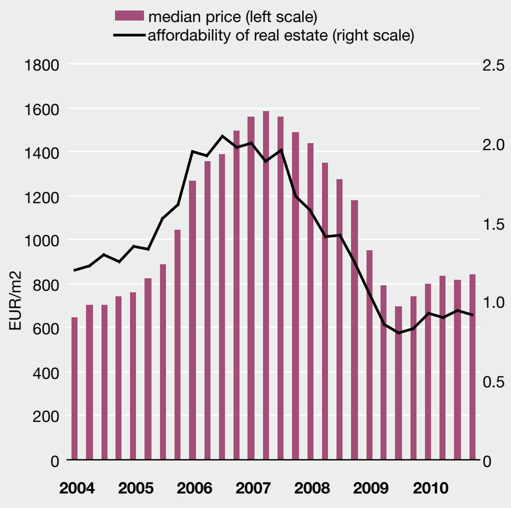
The real estate market in Estonia is recovering against the background of economic revival. Even though the volume and prices of apartment transactions remained volatile throughout 2010, the housing market in Tallinn grew in both transaction numbers and total value. 22% more transactions were concluded in 2010 than in 2009, with the total value of transactions rising by 24%. The recovery of the housing market is also evident in the increase in real estate offers in the first months of the year 2011, and the modest growth in the credit demand of households. The current indicators are still several times lower than five years ago.

This has fostered launch of new development projects. The development projects started at the end of 2009 have, for the most part, been realised, with the gradually increasing number of building permits for new dwellings suggesting upcoming projects on the market.

While in the European Union residential prices rose by an average of 3% in 2010, the annual increase in the median price of real estate transactions in Tallinn stood at 7%. Even though the price per area unit dropped in the first months of 2011, it is still slowly rising year-on-year. Nonetheless, the price per area unit is almost two times lower than the pre-boom level. The median price per square metre was 820 euros in February 2011.

For two years, low real estate prices have kept the real estate purchasing power of Tallinners earning average wages at a good level. The affordability of real estate was also supported by the quicker increase in gross monthly wages in the fourth quarter of 2010. The affordability indicator for real estate stood at 0.92 in the fourth quarter of 2010 (see Figure 12).

Figure 12. Affordability of real estate with average wages and median price in Tallinn



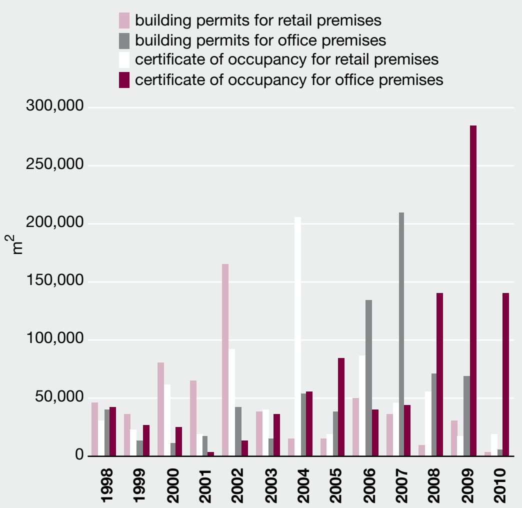
Sources: Land Board, Statistics Estonia, Eesti Pank

Office and commercial premises market

There is a time lag between changes in the residential premises market and commercial premises market. The operating environment is the key factor affecting the demand for office and commercial premises. The commercial premises market stabilised at market bottom in 2010 with respect to both rental prices and vacancies. The market demand is served predominantly by higher-quality commercial premises in front of lower-quality rental space. With the supply not expected to increase in the near future (see Figure 13) and the economic recovery enhancing the demand, the vacancy rate of higher-quality premises is predicted to drop further. According to market participants, the vacancy rate stood at 13% at the end of 2010.[3]

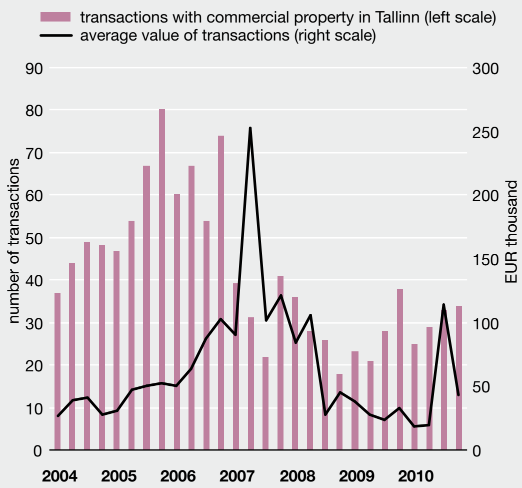
The decrease in vacancies has an effect on the rental prices. But as the overall vacancy rate on the market is still high and the demand remains modest, no price increase can be expected. The offered rental prices have risen to some extent since the beginning of 2011 but remain significantly lower than in the boom-time years. Even though the situation has somewhat improved for real estate owners, rental income remains low (see Figure 14). Some assurance could be found in the increasing interest of foreign investors in the Estonian real estate market against the backdrop of economic recovery in Estonia.

Figure 13. Retail and office buildings with building and use permits in Tallinn



Sources: register of construction works, Eesti Pank

Figure 14. Transactions with commercial property in Tallinn



Sources: Land Board, Eesti Pank

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[3] Source: Newsec.

QUALITY OF ASSETS

The quality of the loan portfolio[4], measured in loans overdue for more than 60 days, has improved further, as expected. From September 2010 to February 2011, the volume of these loans shrank by a total of almost 144 million euros. Their share in the loan portfolio dropped by 0.8 percentage points to 6.4%, a level comparable with July 2009 (see Figure 15).

The loan quality of real estate related sectors was lower than in other sectors at the beginning of the economic decline. By the end of February 2011, the situation was quite the opposite. Loans overdue for more than 60 days in the real estate-related sectors made up 60% of the total of non-performing loans at the end of February, while the aggregate loans of these sectors amounted to 63% of total loans issued (see Figure 16).

In the last five months, the biggest decrease in the loans overdue for more than 60 days – over 80 million euros – could be seen in the real estate and construction sector (see Figure 17). Most of the other sectors also witnessed a drop in overdue loans from September to February, improving the quality of assets, even though the loan stock has decreased too. Trade and logistics constitute an exception, with the volume of overdue loans growing to some extent.

With the economy recovering, the quality of banks' assets has been improved by the restored loan repayment ability of some loan customers. Writing off uncollectible receivables has had an even greater effect on the quality of the loan portfolio in the last five months. In the fourth quarter of 2010, banks wrote off a total of 84 million euros worth of loans – over a half of the decrease in overdue loans in the period (see Figure 18). The write-offs of uncollectible receivables will remain the key to improving loan

[4] This chapter only considers bank loans without leases and factoring, which make up over 90% of the aggregate portfolio.

Figure 15. Loans overdue for more than 60 days

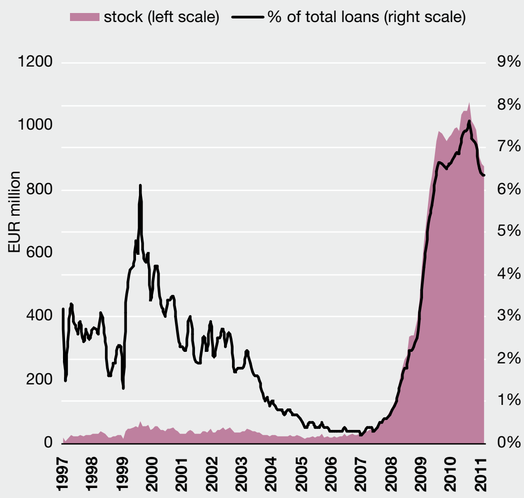


Figure 16. Loans overdue for more than 60 days and their share in respective portfolio as at 28/02/2011

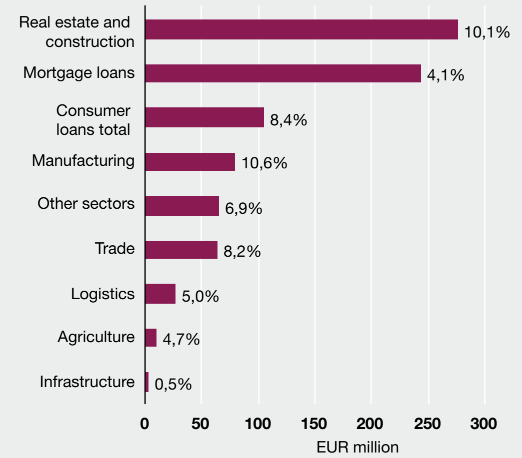


Figure 17. Change in loans overdue for more than 60 days (Sept 2010–Feb 2011)

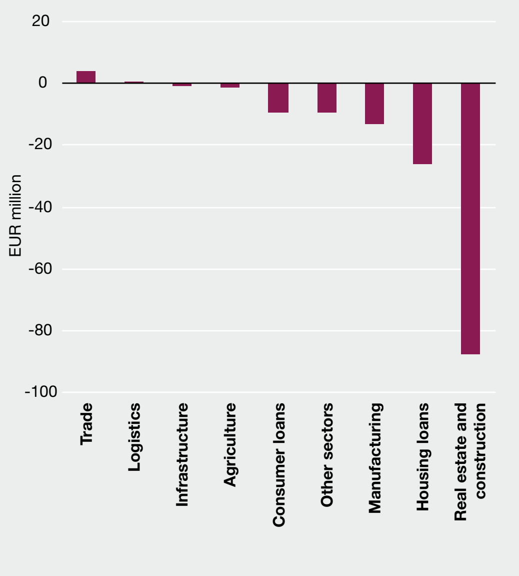
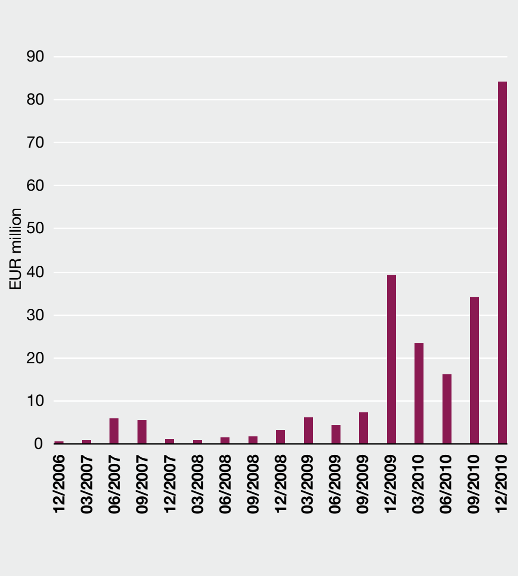


Figure 18. Banking sector gross write-offs



quality in the next quarters, with a portion of overdue loans starting to perform once again.

Stemming from the write-offs and the regained performance of a portion of the loans, the total provisions of the banking sector shrank by 85 million euros in the last five months. The ratio of provisions to overdue loans did not fall. At the end of February 2011, banks had recorded under losses 82% of the loans overdue for more than 60 days; that is 5.2% of total loans issued.

Restructuring of private mortgage loans[5]

Ever since the second half of 2009, banks have actively sought to restructure loans in order to prevent and solve the consequences of the realisation of the credit risk. By and large, restructuring can be divided into ordinary restructuring and restructuring of problem loans. Ordinary restructuring mostly involves short-term payment leaves and minor changes in the payment schedule. In the other case, the restructuring is initiated because the customer is already experiencing or is about to experience (long-term) difficulties in making the scheduled payments.

As a rule, the payment difficulties of private retail customers can be associated with the labour market situation, for instance sudden unemployment or a decrease in (real) wages, and are of temporary nature. A common solution is the payment leave which usually involves (temporary) suspension of the contractual fine for delay calculation. The volume of private mortgage loans that have been restructured is estimated to be twice the volume of loans overdue for more than 90 days.

[5] The assessment is based on the analysis of the Financial Supervision Authority.

At the same time, restructuring cannot simply be treated as concealment of overdue loans. Rather, restructuring allows to select customers with temporary payment difficulties and better payment behaviour from among customers whose loan has been deemed uncollectible. For example, 25% of the customers whose contracts had been restructured due to payment difficulties as at 30 June 2010 but whose payments were not yet overdue, had delayed scheduled payment by one day and 5% by over 60 days six months later. We must, however, keep in mind that the reference period is six months – a possible duration of an average payment leave with suspension of the fine for delay calculation. A bulk of the overdue loans can still be considered uncollectible. At the end of 2010, contracts had been terminated, pending final solution, on almost a half of the loans overdue for more than 90 days.

In restructuring problem loans secured by mortgage, the common practice among banks in the last six months has been not to significantly extend the term of the loan agreement. The changes in the interest margin fall between –0.25% and 1.5% (including 0%). The raising of the interest margins in the above limits should be interpreted as adjustment of the risk, which was inadequately assessed during the boom times, to a normal level, rather than as punishment to the customer.

It must be noted in credit risk assessment that, in making provisions, banks have treated problem loans which have been restructured under the same principles as non-performing loans. Provisions cover approximately 30% of the loans deemed default on the basis of the banks' internal criteria. The banks have made provisions on quite conservative basis – in cases where the collateral has been realised, the average loss rate has been lower than 10%. The realisation of the collateral is a relatively lengthy process and it is used in exceptional circumstances. For example, only 5% of the collateral of loan customers deemed permanently insolvent in 2008 have been realised so far. The potential damage will be further reduced by the expected recovery of the real estate market.

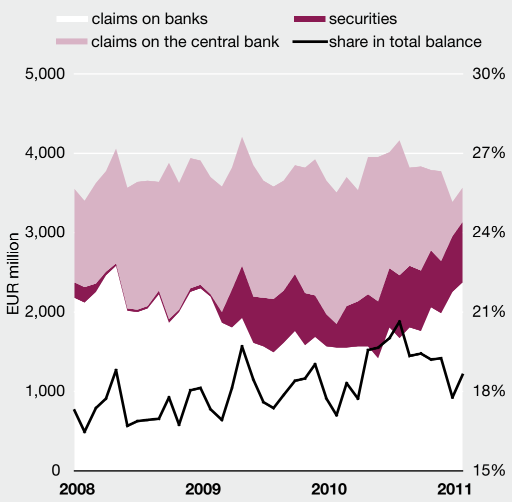
III. THE STRENGTH OF FINANCIAL INSTITUTIONS

BANKS

Liquid assets and liquidity risk

The adoption of the euro had a relatively small effect on banks' liquidity management, with a majority of the banks operating in Estonia serving as branches or subsidiary banks. The change-over mainly affected banks with independent liquidity management, that is smaller banks. In the currency board system the minimum reserve requirement was 15% and it had the function of a liquidity buffer. The Eurosystem, on the other hand, uses credit and deposit facilities provided by the central bank for liquidity management (see Figure 1).

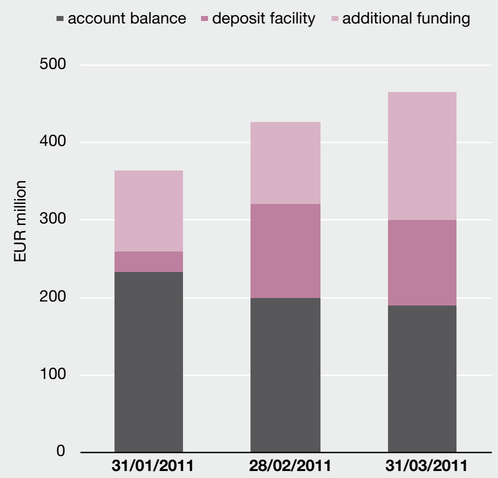
Figure 1. Banks' liquid assets and their share in total balance



As a result of the lowering of the reserve requirement, one third of the Estonian banking sector reduced its **liquid assets**. In the second half of 2010, liquid assets of banks contracted by a total of 600 million euros, that is 3% of the total balance sheet. At the same time, other market participants exchanged their assets with the central bank for claims against commercial banks. Smaller market participants added to their liquid assets by engaging a large volume of deposits against the shrinking of the loan portfolio.

From the viewpoint of financial stability, the **liquidity risks** of the banking sector are rather to the downside, as the growth in the level of deposits does not follow the growth in loan stock. These trends are not expected to change in the next six months. The easing of risks is reflected in the market participants' preference of the deposit facilities provided by the central bank (see Figure 2).

Figure 2. Banks' assets with Eesti Pank



As regards general liquidity management, the operational risks inherent in the adoption of the euro have not jeopardised financial stability. Therefore, any operational failure of the deposit transaction means loss of interest income for the bank. At the same time, cross-border cooperation must be pursued in liquidity supervision of those market participants whose liquidity is managed centrally by their parent banks. The Financial Supervision Authority has already taken steps in this respect.

Funding

The changeover to the euro had a minor effect on banks' liabilities, with some banks using the released funds in repayment of the loan taken from the parent bank. Repayment was also boosted by the growth in deposits and the contraction of the loan portfolio. By the first quarter of 2011, liabilities to parent banks decreased by 1.5 billion euros from the second quarter of 2010, with the share of non-deposit related liabilities dropping from 42% to 36% (see Figure 3). The direct effect of the lowering of the reserve requirement is estimated to be 40%.

Amounting to 9 billion euros before the financial crisis, banks' liabilities to parent banks stood at 6 billion euros at the beginning of 2011 (see Figure 4). The liabilities are expected to drop further, albeit on a smaller scale.

As regards financial stability, the risk of resources obtained by means other than deposits mostly involved the parent banks' ability to raise funds from the market. This does not concern small banks owned by Estonian residents, making up less than 2% of the market. Furthermore, the share of deposits has grown in the last twelve months, with the banks' risks related to market borrowing thus abating.

Profitability

The Estonian banking sector ended the year 2010 with a positive result, posting a **net profit** of 70.5 million euros. Standing at 0.4%, the return on assets (ROA) was still more than three times lower than the average for the last ten years.

Figure 3. Structure of banks' liabilities

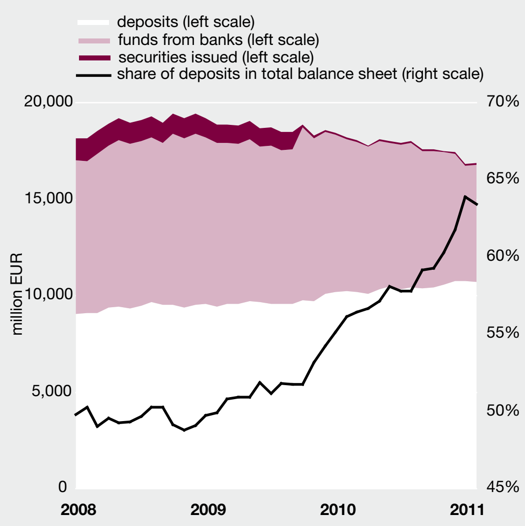
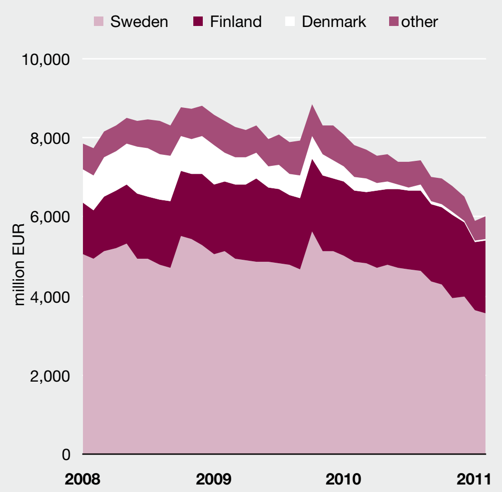


Figure 4. Foreign borrowing by banks



After three quarters of net profit, it is evident that, although the deterioration in the macro-economic conditions significantly affected banks' financial results, especially in 2009, the net profit[1] posted in the years of strong growth was almost twice as high as the negative profit generated in the five subsequent quarters (see Figure 5). With banks not paying dividends in the years of high profitability and capitalising the profit earned, the buffer helped to cover excessive risks taken at the loan market later on.

In 2010, banks' profitability was fuelled primarily by the **decline in loan losses**. On the one hand, this was conditioned by a lower need for loan write-downs against the regained loan repayment ability. On the other hand, the banks started to slim down the provisions made in the previous periods. Considering the size of the provisions, an improvement in loan quality can be expected to further boost profitability.

As in 2009, the net result of the banking sector was significantly affected by the year-end revaluation of equity investments in subsidiaries in 2010. The net profit would have been twice as big without the revaluation.

The **profit before loan losses** of the Estonian banking sector amounted to 285 million euros in 2010. Exceeding the result for 2009 by more than 50%, the profit before loan losses, as a ratio of assets, was still nearly one-third lower than the average for the last ten years.

Due to the widening of the spread between interest rates on loans and funding, **net interest income**, which contributes around 60% of the total income, increased by around 20%. Both interest income and interest expenses dropped, with the decrease in interest expenses being 20% higher (see Figure 6). The funding cost of banks declined, curbed mainly by the use of the

Figure 5. Net profit of the banking sector

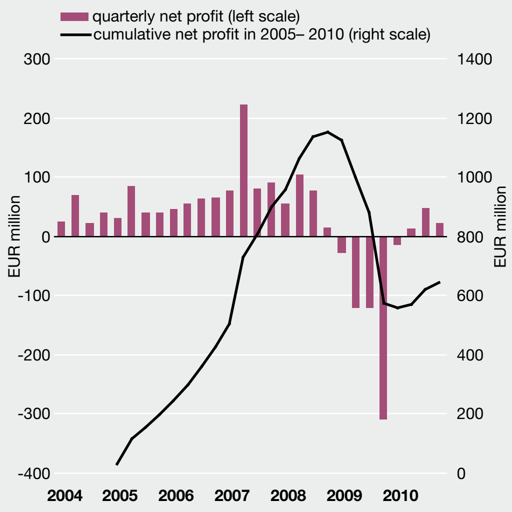
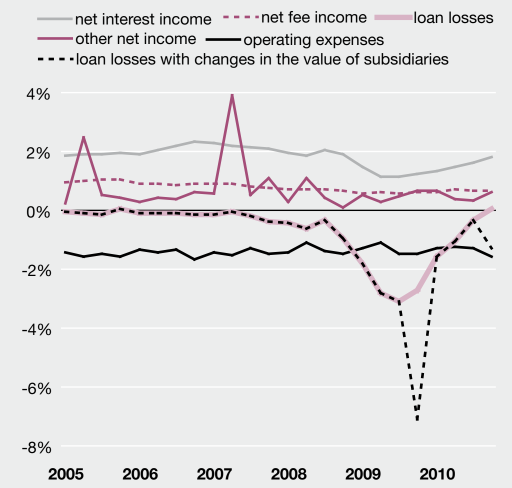


Figure 6. Banks' incomes and expenses by type (% of average assets per quarter x 4)



[1] Accumulated total of nearly 1.2 billion euros in 2005–2008.

growing volume of term deposits instead of the relatively more expensive market-based funding mediated by the parent banks (see Figure 7). These trends may be reversed if the competition on the deposit market tightens. As long as the credit demand remains moderate and the new global financing tensions are kept under control, interest expenses are not expected to gain momentum.

The increase in interest income in recent quarters was prompted, above all, by the rise in interest rates (see Figure 8). In addition to the rise in the key interest rate, the value of banks' assets was affected by the rise in new loan interest margins, as represented by the relatively quicker progression of the average interest rate for the banks' total assets, compared to the Euribor. The drop in problem loans also contributed to the increase in interest income in 2010.[2] The interest rates are expected to rise in 2011 alongside regained customer solvency, which will continue to fuel the increase in interest income. Growth will be hampered, however, by a decline in the loan portfolio.

Prompted by the rise in economic activity, **net fee and commission income** grew by 7% in 2010. The biggest increase could be seen in the revenue generated from asset management and payment processing, while the fee and commission income from loan agreements and other services continued to drop. Generating an average of 50–60% of the fee and commission income, payment intermediation will remain a stable source of income for the banks, even though the standardisation of domestic and cross-border euro payments can be expected to curb income to some extent.

As expected, banks' **administrative expenses** increased significantly in connection with the preparation for the adoption of the euro in the

[2] Uncollected interest on loans overdue made up an estimated 6% of the total interest income in 2010.

Figure 7. Interest rate on banks' funds and 6-month Euribor

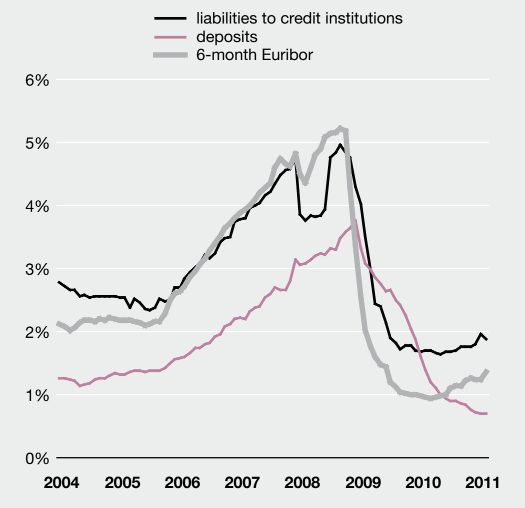


Figure 8. Quarterly growth in interest income since 2005 and the contributions of growth determinants

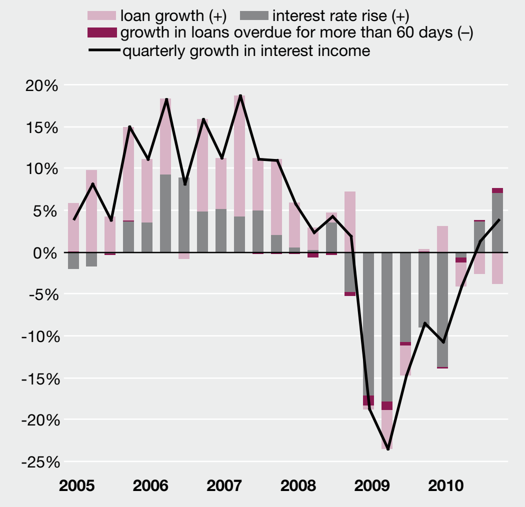


Figure 9. Contributions of wage costs and other expenses in the growth of operating expenses and operating expenses as a ratio to total assets

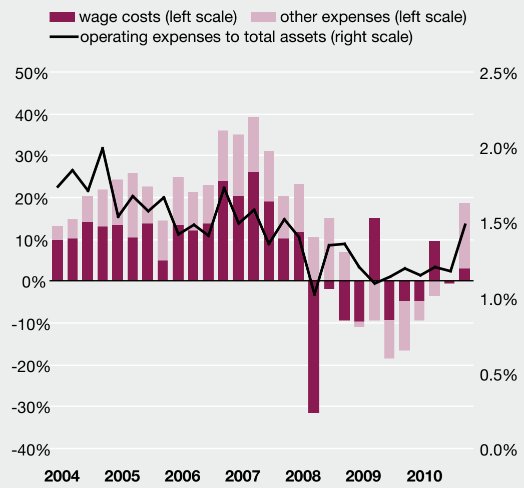


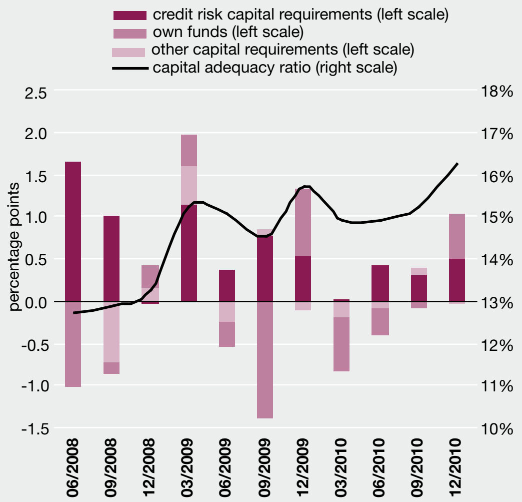
Figure 10. Aggregate consolidated balance sheet of the banking sector

fourth quarter of 2010. Administrative expenses grew by as much as 19%, with the costs, as a ratio of assets, being at the highest level for the last three years (see Figure 9). Even though this cost increase is not expected to reoccur, the pursuit of profitability by banks may urge them to restore the bonus pay reserve. This, in turn, may exacerbate the banking sector's economic efficiency which has been the highest in the last decades after the recent crisis.

Capital adequacy

The **aggregated balance sheet** of banks[3] strengthened significantly in 2010. The financial leverage of the non-financial sector decreased, scaling down the banks' balance sheet and significantly changing the balance structure (see Figure 10). The risks related to the balance sheet abated due to contraction of the loan portfolio and a growth in the share of liquid assets, indicating a drop in risk-weighted assets. With

Figure 11. Change in capital adequacy ratio from previous quarter by components



[3] For this chapter, the figures for the banks have been consolidated.

a growth in retail deposits and a 9.7% increase in the share of equity, the structure of liabilities became much more conventional.

Due to a decrease in the credit risk, the **capital requirements** of the banking sector were further reduced in the fourth quarter of 2010. The credit risk requirements decreased by a total of around 153 million euros in 2010, while other capital requirements increased by 28 million euro, fuelled mainly by the currency risk requirements.

The **own funds** kept by the banks to cover their risks dropped by about 103 million euros in 2010. This was conditioned, above all, by repayment of subordinated liabilities to parent banks in the total amount of nearly 120 million euros. The drop was compensated, to some extent, by a 16-million-euro growth in Tier 1 own funds as a result of the share capital increase. The quality of own funds was enhanced, with the share of Tier 1 own funds rising to 78% within the year.

Even though own funds decreased in 2010, the **capital adequacy ratio** rose. The decrease in credit risk capital requirements exceeded the decrease in own funds, with the capital adequacy ratio consequently climbing by 0.5 percentage points to 16.2%, significantly exceeding the minimum requirement of 10% (see Figure 11). In the fourth quarter of 2010, both the decrease in capital requirements and the increase in own funds contributed to the capitalisation of the banking sector.

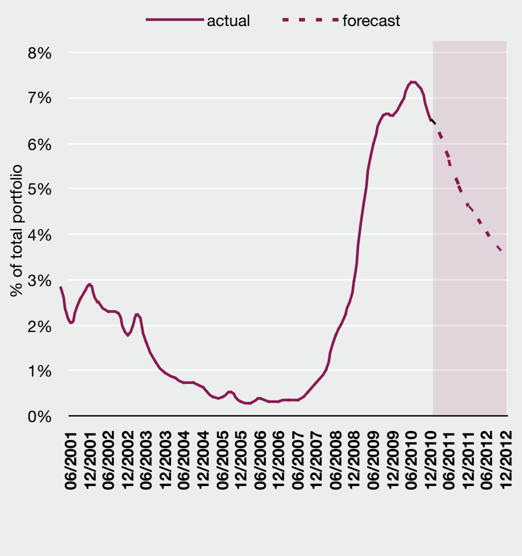
Forecast for and stress test of the banking sector

Forecast

The drop in loans overdue for more than 60 days is expected to continue in the near future, for two reasons. Firstly, prompted by the improvement in the economic environment, loan customers who have had payment difficulties will become solvent again. Secondly, the banks are writing off uncollectible receivables from the balance sheet. The latter has a greater effect on the drop in overdue loans. **The proportion of overdue loans in the loan portfolio may drop below 5% by the end of 2011 and to 3.5% by the end of 2012** (see Figure 12). The forecast for overdue loans has seen a downward adjustment, compared to the autumn of 2010, with one bank currently under liquidation excluded from the aggregated portfolio.[4]

[4] This lowered the volume of overdue loans by 0.3 percentage points in December 2010.

Figure 12. Loans overdue for more than 60 days



The decrease in problem loans will condition a drop in the established provisions. The provisions are expected to show a similar decline with the loans overdue for more than

60 days. At the same time, the coverage of loans overdue for more than 60 days is expected to remain at the high level of 80% (see Figure 13).

The continual rise in the Euribor will fuel further growth in net interest income. The growth in operating profit could be hampered in 2011 by the potential decrease in fee and commission income, and the decline in currency exchange and conversion revenue, conditioned by the adoption of the euro. In total, the banks operating in Estonia are expected to post a **pre-provisions profit** of an estimated 320 billion kroons, that is almost 12% more than in 2010.

A continual improvement in the capitalisation of the banking sector is expected for 2011. The main contributors to the increase in capitalisation include the posted pre-provisions profit, along with other factors, such as decline in loan loss provisions and a continual regression of risk-weighted assets. A two-percentage-point rise is expected in the consolidated capital adequacy ratio of the banking sector by the end of 2011, to 18%[5] (see Figure 14). The Tier 1 capital adequacy ratio is expected to surpass 14%.

Stress test

The stress test is used for ascertaining the banking sector's ability to withstand poorer-than-expected developments. The hypothetical macro-scenario used in the analysis is based on the external environment assumptions of the pan-European stress test of the European Banking Authority. Should the negative assumptions of the scenario be materialised, the GDP growth will be 1.4 percentage points lower and unemploy-

[5] Provided that the Tier 2 own funds (including subordinated loans) will not change in 2011.

Figure 13. Loans overdue, loan-loss provisions and provisions as a ratio to loans overdue

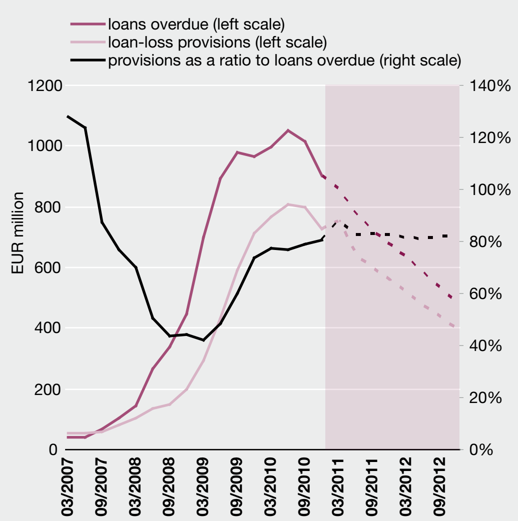


Figure 14. Change in capital adequacy ratio by components

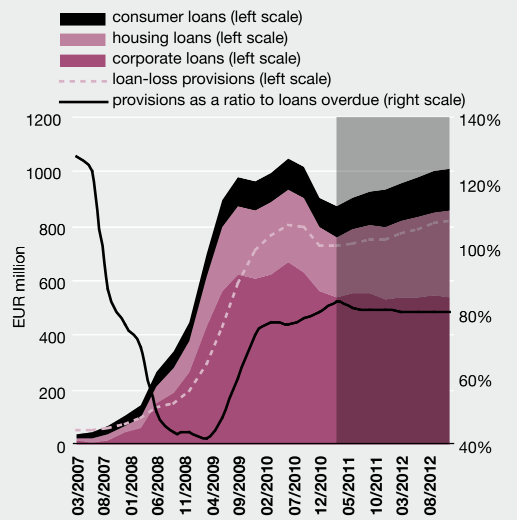
ment 2 percentage points higher in 2011. The three-month Euribor will rise to 2.8% by the end of the year, introducing a significant change from the viewpoint of loan repayment ability.

In the above scenario, the stock of overdue loans will start growing again. Compared to the previous cycle of overdue loans, this growth will still remain relatively modest. The stock of loans overdue for more than 60 days will grow by nearly 30 million euros in 2011 (see Figure 15), while the loan quality will be exacerbated by household loans that are more sensitive to changes in the key interest rate.

However, this scenario will have no major negative effect on the banks' profitability. Even though the income base will be lowered to some extent, the banks' interest income will increase, fuelled by the rise in key interest rates. Income will be curbed by the drop in fee and commission income stemming from low economic activity, and the loss of interest income from overdue loans.

Presuming that the banks' wish to keep the provisions in relation to overdue loans on the current level of 80%, they must make additional write-downs of nearly 27 million euros in 2011. This will only constitute 10% of the estimated pre-provisions profit of banks. The materialisation of the scenario used for the stress test will thus have no major effect on the capitalisation of the banking sector.

Figure 15. Loans overdue, loan-loss provisions and provisions as a ratio to loans overdue (stress-test scenario)

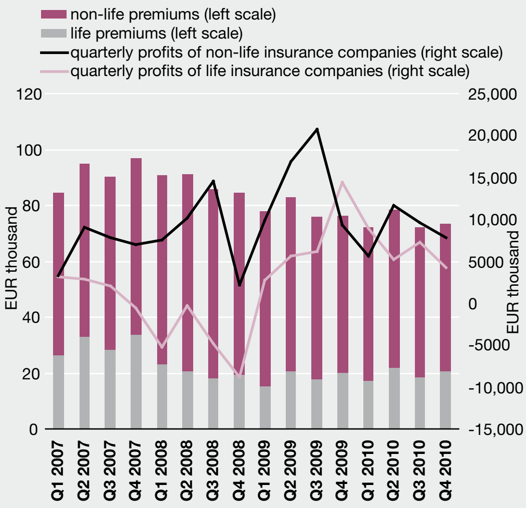


INSURANCE COMPANIES

The insurance market constitutes 1.3% of the total assets of the Estonian financial system. The size of the insurance market poses no danger to the stability of the financial system. Still, the relative concentration of the market and the ownership relations may transfer problems faced by insurance companies to the banking sector, thus stoking tensions in the entire financial sector. Even though the insurance market has been contracting for three straight years, and investment income decreased somewhat in 2010, insurance companies have remained risk-sensitive and have steadfastly fulfilled all capital requirements. Moreover, the sector has remained profitable (see Figure 16).

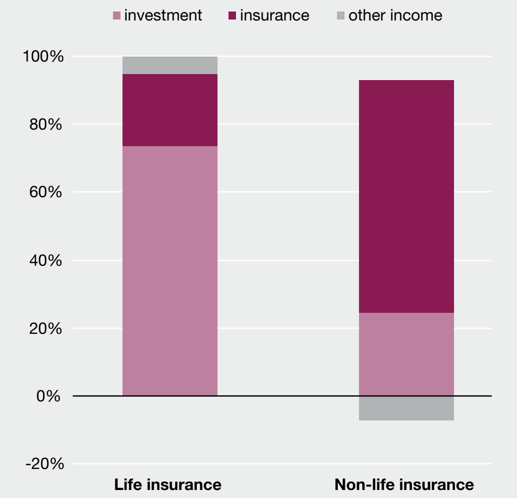
The risks to the insurance sector can be divided into two: insurance risks and financial risks related to investing activities. In non-life insurance, adequate assessment of the risks of the insurance portfolio and generation of sufficient cash flows from main activities is most important. In life insurance, the main source of income is the generation of sufficient revenue from the investment portfolio (see Figure 17).

Figure 16. Profit of insurance companies and premiums from residents



Sources: Statistics Estonia, Eesti Pank

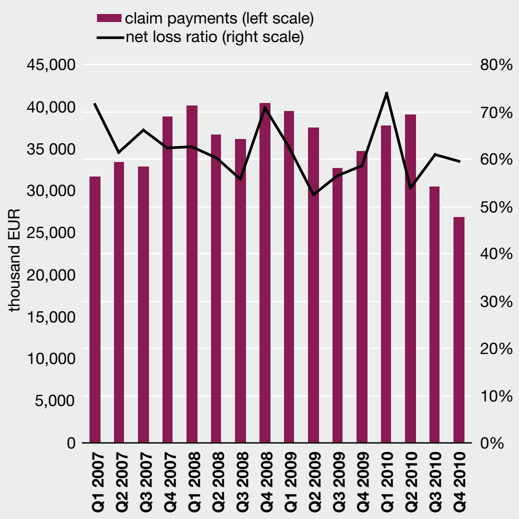
Figure 17. Structure of profits of insurance companies as at 31/12/2010



Estonian insurance companies have been quite successful in hedging their insurance risks. In life insurance, the risks of the insurance portfolio are largely borne by the policy holder, with unit-linked life insurance contributing 50% of the operating volume. In the conditions of a stabilising economy, life insurance premiums have shown positive annual growth throughout the year 2010. As domestic demand needs more time to recover, non-life **insurance premiums** dropped by 9% in the year. The drop ceased by the end of the year. In the fourth quarter of 2010, the total volume of life and non-life insurance premiums collected was still two times bigger than the total disbursement of indemnities. In non-life insurance, the risk management ability and efficiency is reflected in the **net loss ratio** which fell below 60% at the end of the year (see Figure 18). This ratio should be less than 60–70% in standard conditions.

Interest risk is the biggest financial risk for both life and non-life insurance companies. Low interest rates curbed investment income by 6% in 2010. The volume of **financial investments**

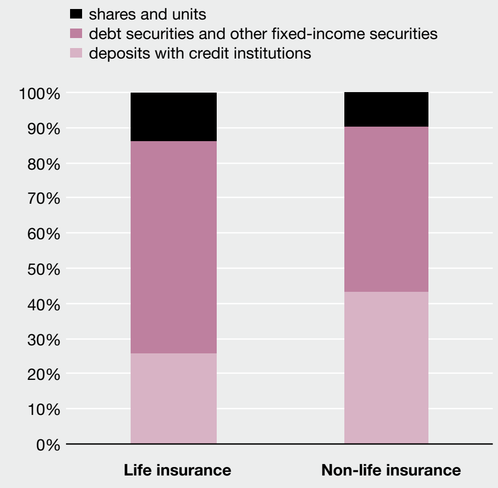
Figure 18. Claims and net loss ratio in non-life insurance



of life and non-life insurance companies grew by 10% and 20%, respectively. Still, the annual yield of investments was lower than in the previous four quarters. In both sectors, a majority of the investments have been made in bonds, shares of bond funds and other fixed-income securities (see Figure 19). The proportion of the shares of equity funds and the instruments of credit institutions and other financial institutions[6] in the investment portfolio of insurance companies has grown. The investment portfolio of Estonian insurance companies is not affected by the credit risk of the issuers of securities and its impact on the quality of assets.

The decrease in investment income and lower non-life insurance sales volumes reduced the **profitability** of insurance companies in 2010. The insurance market still remained profitable in 2010. A 25.6-million-euro profit was posted by the life insurance sector, and a 34.7-million-euro profit by the non-life insurance sector. Due to stable profitability, the liquidity reserve of both life and non-life insurance companies has reached 154 and 211 million euros respectively (year-on-year growth of 20%), ensuring persistent stability.

Figure 19. Structure of financial investments of insurance companies as at 31/12/2010



[6] Except for insurers and pension funds.

IV. SYSTEMICALLY IMPORTANT PAYMENT AND SETTLEMENT SYSTEMS

PAYMENT AND SETTLEMENT SYSTEMS OF EESTI PANK

In the fourth quarter of 2010, around 99,965 payments a day were settled on average in the interbank payment and settlement systems managed by Eesti Pank at a total value of 13.8 billion kroons (880 million euros). With the adoption of the euro on 1 January 2011, Eesti Pank closed the real-time gross settlement system EP RTGS. Since then, Eesti Pank manages two interbank payment and settlement systems – the ESTA and **TARGET2-Eesti**. In the first quarter of 2011, about 92,000 payments a day were settled in these systems at the total value of 1,268 million euros.

The data for the first quarter of 2011 reveals that after the euro changeover the value of the daily payments settled in the payment and settlement systems of Eesti Pank has increased by about 390 million euros. The reason for this is the rise in the value of TARGET2-Eesti (see Figure 1). The value of TARGET2-Eesti grew primarily for three reasons: the majority of payments settled so far in the EP RTGS are now settled in TARGET2-Eesti as of 2011; banks use TARGET2-Eesti for the settlement of cross-border payments, and they actively use the monetary policy instruments of the Eurosystem. So far, the deposit facility has been the most popular monetary policy instrument used by Estonian banks. Overnight and long-term deposits have been made on 302 occasions at the total value of 6.12 billion euros (about 97.1 million euros a day).

The majority of interbank payments are still settled in the Settlement System of Ordinary Payments, the **ESTA**. In the fourth quarter of 2010, the number of payments settled in the ESTA was 5% and the value was 8% higher than in the preceding six months. The beginning of 2011 did not entail the usual seasonal downturn in the value and number of payments settled in the ESTA. The average size of payments settled

Figure 1. Use of Eesti Pank's payment and settlement systems (average daily value)

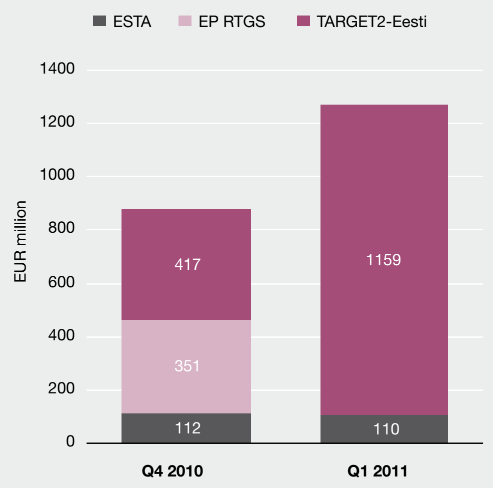


Figure 2. Average number and value of payments processed in ESTA per day

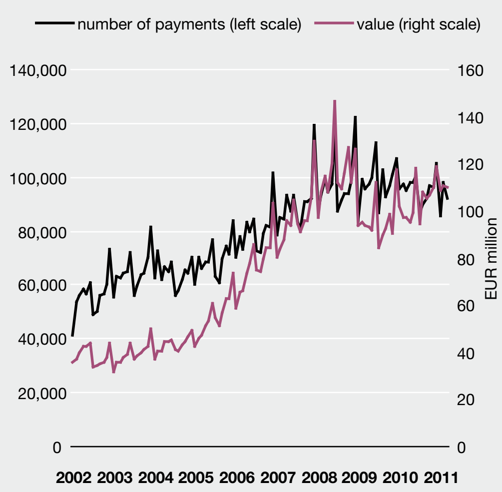


Figure 3. Average size of ESTA payments

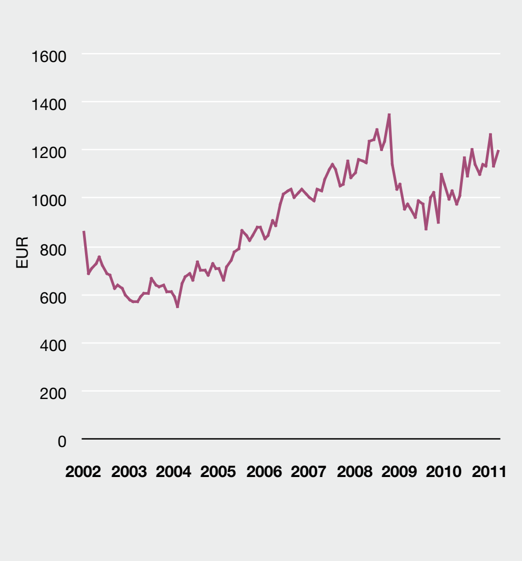
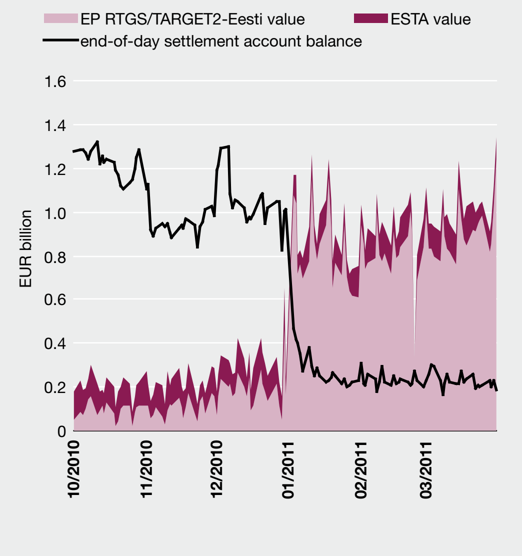


Figure 4. Daily value of ESTA and EP RTGS/TARGET2-Eesti compared to the end-of-day settlement account balances



in the ESTA has been on the rise since the second half of 2009 and reached 17,586 kroons (1,124 euros) in the fourth quarter of 2010 (see Figures 2–3).

RISKS IN THE PAYMENT AND SETTLEMENT SYSTEMS AND THE OVERSIGHT ASSESSMENT

There were no such incidents in the operation of the Estonian payment and settlement systems in the fourth quarter of 2010 or the first months of 2011 that would have threatened financial stability or significantly hindered the performance of settlements. On a few occasions, the performance of the payment and settlement systems of Eesti Pank has been hampered because of the materialisation of operational risks stemming from framework changes, but this has not caused the system to experience an extended liquidity risk that would have had an impact outside the payment and settlement system.

Owing to the reduction of the reserve requirement, banks no longer have a liquidity buffer for making payments in Eesti Pank's payment and settlement systems. The reduction of the reserve requirement to 7% as of 1 November 2010 meant that in November and December 2010, banks had about 15.7 billion kroons on their Estonian kroon accounts in Eesti Pank on a daily basis. In the first months of 2011, the banks' account balance in Eesti Pank amounted to approximately 252 million euros (3.9 billion kroons). The turnover of Eesti Pank's payment and settlement systems, the ESTA and TARGET2-Eesti, was considerably higher than the banks' account balance in the first months of 2011 (see Figure 4).[1] Despite the decrease in the liquidity

[1] Until the end of 2010, Figure 4 reflected banks' Estonian kroon account balances at Eesti Pank and the value of the ESTA and EP RTGS, while foreign exchange transactions and collateral transactions of the ESTA were excluded from the value of the EP RTGS. Since 2011, this figure reflects banks' euro account balance and the value of the ESTA and TARGET2-Eesti (only the collateral transactions of the ESTA have been excluded from the value of TARGET2-Eesti). The data regarding TARGET2-Eesti (the balance of euro accounts and the value of TARGET2-Eesti) were not included in the data for 2010.

deposited in Eesti Pank, the banks operating in Estonia have so far only once opted for intraday liquidity provided by Eesti Pank in the TARGET2-Eesti. However, it has occurred a few times that a bank has not monitored the fulfilment of its reserve requirement at the end of the reserve maintenance period or that a bank has had insufficient funds on its account to make a collateral transfer to the ESTA in order to start its settlement day in the ESTA. Generally, these momentary liquidity shortages have stemmed from operational problems and banks' little experience in liquidity management, and these situations have ended up positively.

In the fourth quarter of 2010, minor failures occurred in the operation of both the EP RTGS and the ESTA, and as a result, in the fourth quarter the availability of the EP RTGS stood at 99.86% and that of the ESTA at 99.74%. The availability of TARGET2-Eesti remained at 100%.

In the first quarter of 2011, the ESTA and TARGET2-Eesti operated smoothly with 100% availability. Due to the closure of the EP RTGS as of 2011, its availability is no longer monitored (see Figure 5).

The euro changeover in the Estonian Central Securities Depository was successful, including the simultaneous introduction of the new securities settlement system Depend.

Figure 5. Availability of interbank settlement systems