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FINANCIAL STABILITY ASSESSMENT

Financial markets

The sovereign debt problems in some euro area countries have continued to worsen, and consequently, the debt crisis in some euro area countries has remained to be Estonia's main external risk. While coordinated international efforts eased the tension somewhat in the financial markets in the summer and early autumn, the debt and banking crisis in Ireland in November brought a new wave of mistrust. Efforts have been made to solve the debt crisis, but despite this the international financial environment has failed to achieve the level of stability that it needs. Looking ahead, a further deepening or widening of the debt crisis cannot be ruled out, and if this happens, it could damage the economic recovery, and hurt the financial markets in countries that have been untouched by the debt crisis thus far.

Differences in the growth outlook and in the banking sector performance have increased in European countries over the last few months. Financial and political steps at an EU level must thus be designed so that they consider their different impacts in different countries. On the one hand, there is a need to provide sufficient liquidity and capital support to countries facing a debt and financial crisis, so as to avoid a further spread of systemic risk, but on the other hand, there is a risk that low interest rates facilitate excessive risk-taking or the creation of price bubbles.

Securities market yields have remained highly volatile against the backdrop of instability in the international economic and financial environment, affecting directly the value of the financial assets of Estonian financial intermediaries and the non-financial sector. Even though, as a rule, price movements on the Estonian stock market follow global trends, the risk level of the local securities market is raised further by problems stemming from the size of the market.

Due to the better budget positions and strong financial sectors, the Nordic countries are deemed to be less risky by the financial markets. This positive differentiation has gained further momentum in the last six months. The banks' funding situation has improved, encouraging the governments and central banks of the Nordic countries to adopt exit strategies for their stimulus measures. On the other hand, interest rates, which have remained at a low level for quite some time, add to the long-term risks in the region. Sweden, for instance, has witnessed quite a significant price hike in the real estate market and a rise in the debt level of households over the last year. If the prevailing market trends and conditions change, this could trigger a price correction, adding to the refinancing risk for mortgage lending dependent banks.

The real economy and loan quality

Growth in external demand in 2010 laid a good foundation for an increase in economic activity in Estonia, coupled with an improved confidence of Estonian companies and consumers. This is reflected, above all, in increases in corporate revenues and profits, along with a reversal of the drop in retail sales volumes. The recovery of domestic demand may well boost the economy further next year, when, alongside consumption, the demand for investments is expected to show moderate growth. Stable and balanced economic growth is crucial for solving the structural problems caused by a deep recession, including reducing the risks to financial stability.

In the summer of 2010, the euro area money market rates, which serve as the reference for a majority of Estonian loan agreements, began to rise. Since any further rise in key interest rates is expected to be relatively modest, the negative impact on the loan repayment ability of Estonian borrowers will remain fairly small. Unrealised credit risk problems may still arise, above all in the private loan portfolio. The labour market is seeing sluggish recovery, and the real income of paid labour is still decreasing due to consumer price hikes. For the banking sector, a bust real estate market still hides a potential credit risk, affecting the value of collateral and thus setting limits on the financial behaviour of borrowers.

The banks' credit risk may also be affected by the Debt Restructuring and Debt Protection Act, scheduled to enter into force in April 2011, which will give private persons the option of restructuring their debt obligations in court. The new law is not expected to add significantly to the credit risk, as the banks have already been restructuring the loan agreements of private persons and allowing them grace periods in order to prevent major loan losses. At the same time, we cannot rule out the possibility of banks wishing to eliminate any chance of a negative impact from the new law and consequently tightening their loan conditions, including raising the borrower's risk premium or the interest margin.

Most likely, the decline in the quality of the banks' loan portfolios was reversed in the third quarter of 2010. Even though next year will see more overdue loans, we expect more borrowers to be able to restore their loan repayment ability as economic conditions improve. At the same time, more and more uncollectible loans that have previously been written down will be written off by the banks. Eesti Pank expects that the share of loans overdue for more than 60 days will decrease to 5% by the end of 2011, being still considerably higher than would be customary in a stable economic environment.

The strength of financial institutions

Banks have been conservative in their expectation of the realisation of credit risks in previous periods. The level of write-downs has thus remained high, against a backdrop of impending loan losses. With a decrease in the numbers of overdue loans, the banks have started to reduce their provisions, as expected. The improvement in loan quality will also be the key factor in ensuring growth in profitability and capitalisation in the coming year.

In addition to a reduction of provisions, the banks' profitability in the coming year will also be fuelled by the expected increase in net interest income, which will be achieved, above all, as a consequence of a rise in EURIBOR and the decrease of interest expenses as a result of changes in the structure of the resources involved. Fuelled by improved risk assessments, the banks' operating environment, which will change with the adoption of the euro, will have a strong positive effect on the banks' future profitability, covering the minor fall in revenue from payment services, currency exchange and conversion. The banks' revenues will also be curtailed next year by the increase in contributions to the Deposit Guarantee Fund as a consequence of accelerated growth in deposits and a rise in the maximum amount of compensation for guaranteed deposits to 100,000 euros.

The capitalisation of the Estonian banking sector has remained good. A majority of the banks are able to cover the current 10% minimum capital adequacy requirement with their own Tier 1 funds. As Eesti Pank is not expecting a significant increase in the risk assets of banks next year, their profitability, which will improve as there are fewer write-downs, will support the growth in capitalisation. Even in a negative risk scenario, the banks' existing buffers are sufficient to cover the foreseeable risks.

Accession to the euro area will add somewhat to the liquidity and operational risk of the Estonian banking sector. Adapting to the principles of the Eurosystem's monetary policy operational framework will bring major changes in how banks' organise their liquidity management, as up to now the minimum reserve requirement has played a role of a liquidity buffer. The lowering of the minimum reserves will add to the risks of miscalculation in liquidity management. It is therefore crucial that liquidity management in the group level would be as smooth as possible, and would consider the liquidity risks in the Estonian market. Even though changes always involve a degree of uncertainty, participation in the euro area monetary policy framework will significantly enhance liquidity management opportunities in the Estonian banking sector, which, in turn, will reduce the liquidity risk of the entire system.

Settlement systems

Like the risks of the banking sector, the main risks associated with the functioning of the settlement systems are related to the reduction of the minimum reserve requirement. The liquidity buffer will decrease and the assets kept with the central bank may occasionally prove insufficient for conducting payments. This will give rise to short-term operational risks, as active liquidity management with the aim of preventing a settlement deficit is new to the banks participating in the system. Maintaining a sufficient liquidity buffer will remain the banks' principal measure for ensuring smooth settlements, the latter is especially true for small domestic banks with a volatile settlement turnover.

Estonian settlement systems are in compliance with the Eurosystem requirements. In 2010, Eesti Pank worked with the European System of Central Banks to evaluate the securities settlement system administered by the Estonian Central Register of Securities (ECRS), focusing on evaluation of the monetary-policy transactions guaranteed by securities. The ECRS securities settlement system was deemed to be eligible for the Eurosystem for the settlement of receivables and liabilities arising from monetary-policy and intraday credit offer transactions. Despite the positive assessment, the ECRS system cannot be used for Eurosystem credit transactions, as the ECRS has not registered any securities suitable as collateral for the Eurosystem credit transactions. Eesti Pank therefore applied for a derogation from the Eurosystem, offering a solution which uses international CSDs for settlement.

TARGET2-Estonia has been operating as a component of TARGET2 since May 2008 in compliance with international requirements. Several Estonian commercial banks have been members of TARGET2-Estonia ever since its establishment, with the remaining banks joining up by the beginning of 2011.

Summary

Overall, Estonia's financial stability has not deteriorated in the last six months. Nevertheless, the risk factors are changing.

As regards domestic risks, the credit risk associated with Estonian households and companies is gradually diminishing as a result of an improved outlook for economic growth. Loan quality is expected to improve in the coming year, along with the increasing profitability of banks, facilitating capitalisation growth of the banking sector. Full euro area membership increases Estonia's credibility and will have a positive effect on the overall environment of the financial sector. However, the liquidity and operational risks related to the adoption of the Eurosystem's operational framework for monetary policy are somewhat greater during the next six months. Above all, these risks stem from a lack of experience of the new framework. The risks are reduced by the Estonian banks' access to the Eurosystem's monetary-policy operations.

As regards external risks, tensions are still high on the international financial markets. For the Estonian financial sector, these risks have been cushioned, as our major banks belong to Nordic banking groups, which have been less affected by recent events. At the same time, there is a danger of a further deterioration of the external environment, which could weaken the functioning of the financial markets and hit the economic recovery in Europe, including the Nordic countries and Estonia.

I FINANCIAL MARKETS

GLOBAL FINANCIAL MARKETS[1]

The euro area economy will continue its recovery, with expectations that the European Central Bank will adopt exit strategies for the extraordinary measures applied to stimulate the financial markets. The last six months have seen the cancellation of the first extraordinary 12-month liquidity operations, with the market participants' lower interest in new tender operations significantly reducing excess liquidity on the inter-bank market. As a result, the three-month Euribor climbed to 1.06%, surpassing the monetary policy rate of the European Central Bank for the first time in July 2009. The key interest rate remained at a record low level of 1% in the euro area.

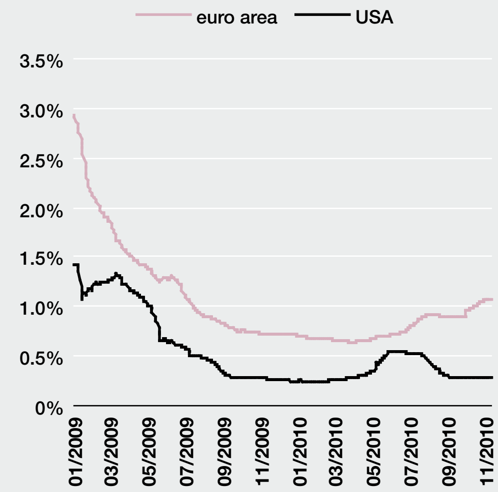
The main developments on the **money markets** revolved around the discrepancies between countries: in the euro area, the outlook for normalisation of the monetary policy brought a rise in interest rates, while in the United States and Japan, interest rates dropped owing to the implementation of the monetary policy of quantitative easing or related expectations (see Figure 1).

Due to a continual deterioration in the outlook for growth, the US Federal Reserve announced the second stage of quantitative easing for a total of 600 billion US dollars at the beginning of November. As a result, the three-month Libor dropped below 0.3%. In the United States, the federal funds rate remained between 0.0 and 0.25%. Somewhat surprisingly, the central bank of Japan returned to its original zero-interest-rate policy, bringing the key policy rate down to 0.0–0.1%. As a consequence of the recuperation of the economies of Sweden, Norway, Canada, Australia and New Zealand and an increase in the inflation outlook, the central banks of these countries have started to tighten their monetary policy.

Government bond markets were characterised in the last six months by a significant drop in long-term interest rates (see Figure 2). The European

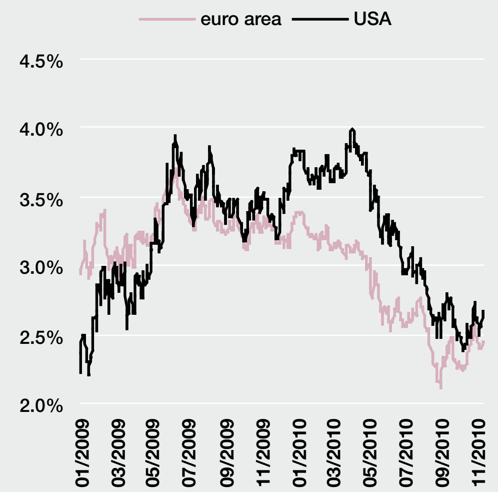
[1] The Review covers the period from 31 May 2010 to 31 October 2010.

Figure 1. Three-month interest rates in the euro area and the USA



Sources: EcoWin, Eesti Pank

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



Sources: EcoWin, Eesti Pank

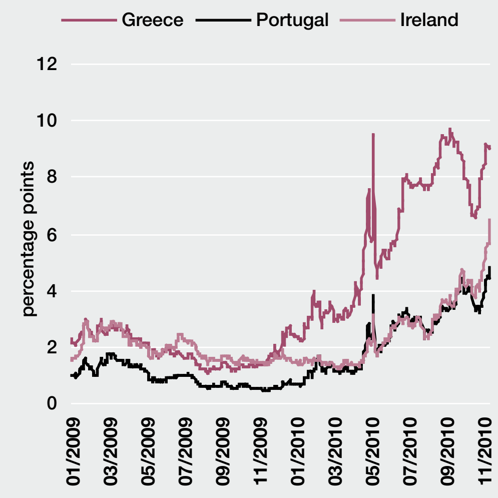
government bond market witnessed fluctuations in the interest rates of German ten-year government bonds until the end of July, as the market redirected its focus from the debt crisis of the euro area countries to the slowdown of the economic recovery in the United States. Revealing the banks' higher-than-expected resistance to the financial crisis, the results of the stress tests of major European banks triggered the sales of low-risk German government bonds on the secondary market, with interest rates rising.

Once again, tensions started brewing in the euro area in August, when uncertainties over the rescue of the Irish banking sector and the difficulties of the minority government of Portugal in cutting budget costs led to a wider-than-ever interest rate spread between the ten-year government bonds of these countries and those of Germany (see Figure 3). The progress made by Greece in consolidating its state budget was positively received by the market. Nevertheless, worries over the possibility of debt restructuring continued.

Once again, reassessment of risks increased the demand for German bonds, with the interest rate of the ten-year government bond consequently dropping to a record low level. A deterioration of the macroeconomic indicators in the United States fuelled expectations that the Federal Reserve would apply extraordinary measures to stimulate the economy, and would buy long-term government bonds. This triggered a drop in interest rates across the yield curve.

Foreign exchange markets witnessed a broad-based depreciation of the dollar in connection with expectations that US monetary policy would ease. Despite the deep debt crisis in certain euro area countries, the euro appreciated against the dollar by over 13% from June to October. The depreciation of the dollar exchange rate could not even be halted by the intervention of several Asian central banks, which purchased the dollar against their national currencies in order to slow down the appreciation

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



Sources: EcoWin, Eesti Pank

of their national currencies caused by huge capital inflows. By and large, tensions on the foreign exchange markets were stoked by the prospect of currency wars, with nations accusing each other of manipulating currency exchange rates via direct intervention, restriction of capital flows or doveish monetary policy. At the G20 summit in October, the countries at the meeting agreed to refrain from competitive devaluations, and to pursue exchange rates determined by the free market.

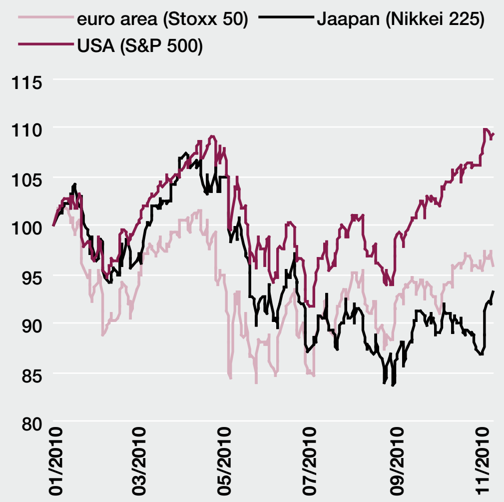
Having begun in the middle of April, the decline in major **stock markets** ceased by the end of September, when investor appetite was stimulated by the extensive measures applied to ease the debt crisis of certain euro area countries (see Figure 4). At the same time, the obscurity of the economic outlook grew, along with the risk of a double-dip recession. Interest in investing in stock markets was thus limited, and the differences in equity prices soared. In the second half-year, the appetite for risk was encouraged by positive economic results and also by a sense of security and transparency that stemmed from the results of the stress tests of European banks and public disclosure of the Basel III capital requirements. In addition, stock markets were buoyed by the record low interest rates, which continued to drop.

For the financial markets, **primary risks** in the near future are related to certain debt crisis-stricken European countries. In the longer perspective, the risks also revolve around the greater threat of price bubbles and inflation, conditioned by the doveish monetary policy of the central banks.

The euro area debt crisis has played an important role in the evaluation of the prospects of the global economy and financial markets. Due to the scale of the crisis, it takes a long time to consolidate the budgets of those countries that are affected. Their ability to reduce their government debt and budget deficit is being closely monitored, and aggressive reduction of the budget deficit will hamper economic growth in these countries. The differences between the recoveries of Member States will thus grow wider, further complicating the situation in the euro area. Germany has experienced a rapid economic recovery, but since its economic growth is mostly fuelled by exports, the recovery is jeopardised by the appreciation of the euro and the deterioration of the outlook of Germany's main trade partners. Economic growth in the euro area is thus likely to remain modest and imbalanced, with the outlook for economic growth still vague.

Developed industrial countries have applied various measures to bring interest rates to a record low level in order to stimulate the economy. Low yields and a high risk of inflation make bonds unattractive for investors, who are thus forced to search for more profitable investment yields. This search for yields increases capital inflows to developing countries, where the economic policy institutions are forced to apply protectionist measures and carry out currency intervention by buying or selling their national currency against foreign currency in order to control inflation, avoid price bubbles and prevent over-appreciation of the exchange rate. As a result, the money is moved back to the government bond market, exerting further downward pressure on interest rates, and the whole cycle repeats itself. In the end, there is a risk of a simultaneous overheating of both the securities markets of industrial countries and the stock markets of developing countries.

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



Sources: EcoWin, Eesti Pank

ESTONIA'S FINANCIAL MARKETS

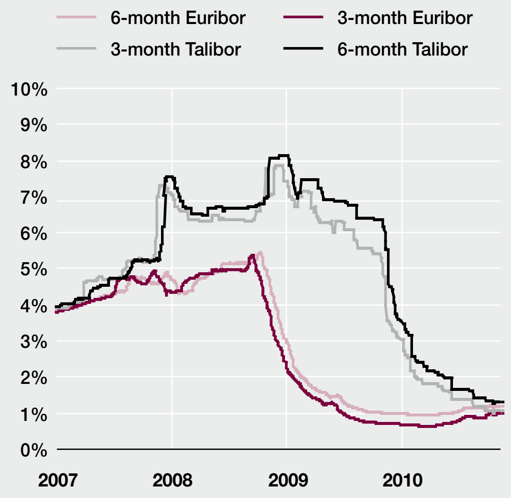
The money market

The Estonian kroon money market has never been very active – it has not been used to manage the liquidity of the kroon in the Estonian financial sector, but rather to hedge the Estonian kroon currency risk by foreign counterparties. As there will be no need for such transactions after Estonia's accession to the euro area, the local money market will diminish in 2011.

The interest rate spread between the money markets of Estonia and the euro area has declined continually in 2010. The interest rate spread between Talibor and Euribor was 8–12 base points at the end of October (see Figure 5). A small interest rate spread on the local market right before accession to the euro area has also been experienced by other countries that have adopted the euro, and is thus not unusual. The turnover of the Estonian interbank money market remains small. The volume of transactions on the Estonian kroon derivatives market has also been decreasing. Only a handful of transactions were made in September and October, as the market has no interest in hedging the kroon risk due to the imminent transition to the euro. The premiums of forward transactions have also dropped for different maturity terms (see Figure 6).

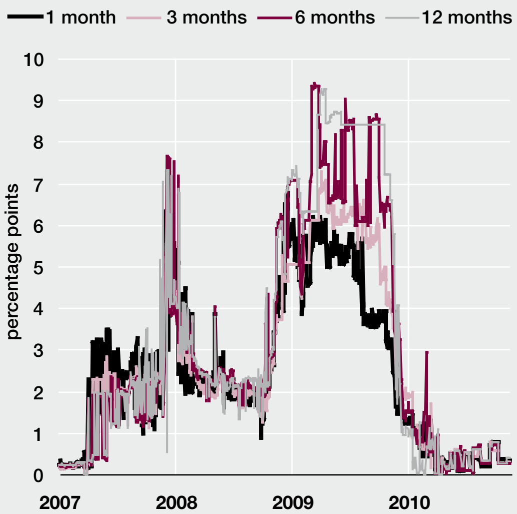
Ireland's problems with the financial sector and its debt burden, which caused anxiety on the European financial markets, have failed to have a notable effect on Estonian risk assessments. The Estonian five-year credit default swap (CDS) has fallen, and remains at a lower level than those of the other Baltic countries (see Figure 7). This reflects

Figure 5. Money market interest rates in Estonia and the euro area



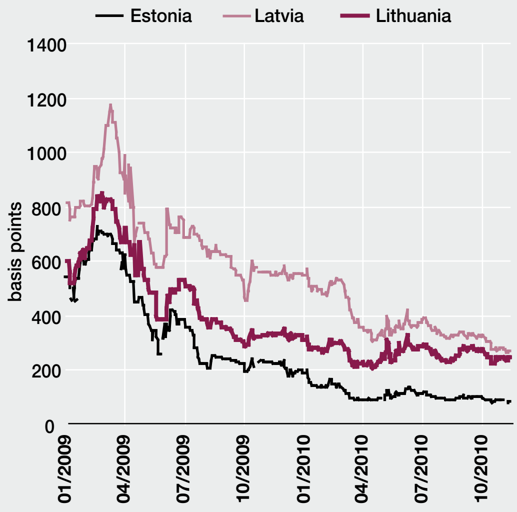
Sources: EcoWin, Eesti Pank

Figure 6. Forward premiums of the Estonian kroon against the euro



Sources: Reuters, Eesti Pank

Figure 7. Credit default swap spreads of the Baltic countries



Sources: Reuters, Eesti Pank

both the imminent accession to the euro area and the good public finances compared to those of many euro area countries.

Bond and stock markets

The banking system, which operates on a strong set of foundations, plays the predominant role in Estonian financial intermediation. The local **bond market** has thus served as an alternative way of raising funds for higher-risk investments. In the economic decline, the bond market contracted to a large degree in the second half of 2008 (see Figure 8). Capitalisation totalled 8.7 billion kroons at the end of October, worth 4% of GDP. Local non-financial sector companies remain the greatest contributor to the total capitalisation of bonds, contributing 75%.

A total of 229 million kroons worth of bonds were issued on the primary market in the last six months, comprising mostly the bonds of non-financial sector companies. The average coupon rate of these bonds exceeds 10%. The secondary market remains passive, with the average daily turnover amounting to a mere two million kroons both in the first half-year and in the last quarters – a fall of nearly half from 2009 and barely 8% of the level in 2008.

The debt crisis which began in the spring of 2010 reduced investors' appetite for risk, with the indices of the world's leading **stock markets** facing downward adjustments. The Tallinn Stock Exchange was no exception. By the beginning of summer, the OMXT had retreated close to 20% from its highs in the spring. The stabilisation of the global markets and improvement in economic indicators reversed the downward trend in the first half of July, and by the beginning of November, the OMXT had advanced by nearly two-thirds from the beginning of the year (see Figure 9).

Compared to the first half of 2010, the second half-year was much less eventful on the Tallinn Stock Exchange. June saw the delisting of the shares of Norma, which contributed 5.8% of the total market

Figure 8. Bonds issued and secondary bond market turnover on a quarterly basis

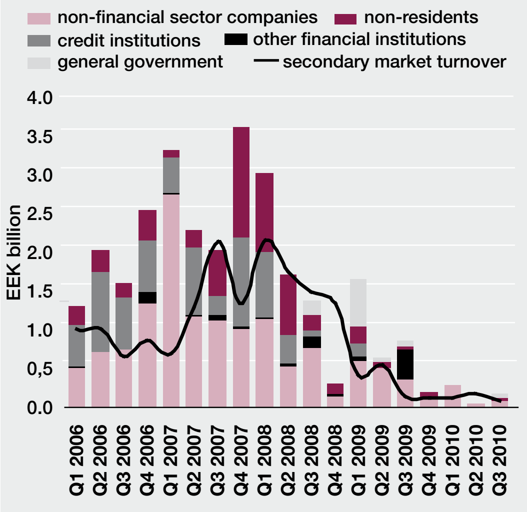
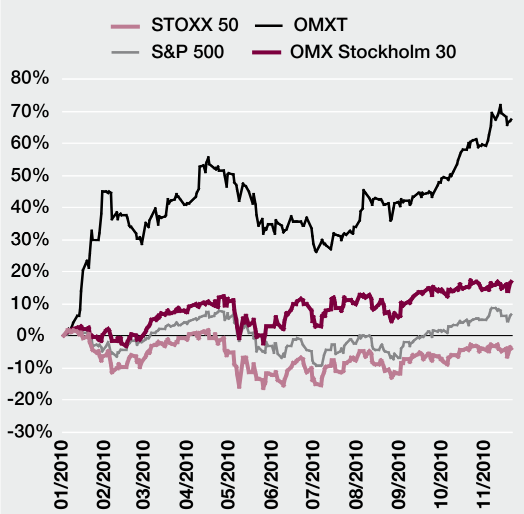


Figure 9. Developments on the Tallinn Stock Exchange compared to global stock exchanges

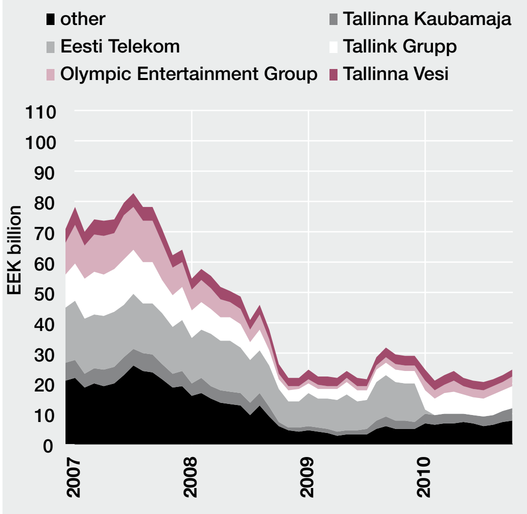


Sources: EcoWin, Eesti Pank

capitalisation. With Norma's departure from the stock exchange and the drop in stock prices in the summer, the total capitalisation of the Tallinn Stock Exchange fell to 21.3 billion kroons by the end of August. As stock prices then increased again, the stock market capitalisation began to grow in September. By the end of October, the capitalisation of the Tallinn Stock Exchange totalled 24.4 billion kroons, worth 11% of the GDP (see Figure 10).

The liquidity level is still low on the stock exchange. The average daily turnover in the past six months was 12.5 million kroons, which was one-third less than in 2009. The shares of Olympic Entertainment Group and Tallink Group had the highest trading volumes in the last two quarters, accounting for 31% and 19% of the total turnover respectively.

Figure 10. Market capitalisation of shares listed on the Tallinn Stock Exchange



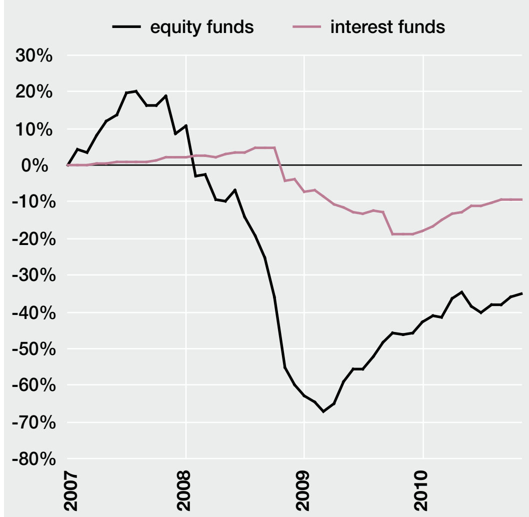
Investment funds

As a result of the drop in stock prices following the debt crisis, the yield of Estonian equity funds shrank for a few months. Thereafter, the yield growth trend continued, and at the end of October, the average yields of equity and interest funds from the beginning of 2010 were 14% and 10% respectively (see Figure 11). However, neither equity funds nor interest funds have succeeded in producing a positive yield in the medium-term. Starting in early 2007, the average annual yield of equity and interest funds has amounted to –11.1% and –2.6% respectively.

By the end of October, the value of the lowest-risk second-pillar pension fund shares had increased by an average of 5.4% and the value of high-risk fund shares by an average of 7.1% from the beginning of the year. The average annual yield of the pension funds has remained 2.9–4.8% since they were first established.

The capital outflow from the investment funds, experienced in 2009, has been replaced by capital inflow in 2010 (see Figure 12). The net contributions to investment funds in the last two quarters amounted to 154 million kroons. Fund yield

Figure 11. Changes in the average price for investment fund units since 2007



included, the assets of the investment funds totalled 9.7 billion kroons by the end of October.

At the end of October, the **assets** of the second-pillar pension funds were a record-breaking 16.3 billion kroons (see Figure 13). The assets of the high-risk second-pillar pension fund showed the biggest growth from the beginning of the year, increasing by 968 million kroons to 12.4 billion kroons. The total assets of the third-pillar pension funds and insurance contracts amounted to 3.8 billion kroons at the end of October, of which 34% or 1.3 billion kroons comprised assets invested in the funds.

The beginning of 2010 saw a change in the structure of the second-pillar pension funds, with a significant portion of the new contributions directed to a fund managed by another management company. At the same time, the proportion of management companies in the total asset structure of the second-pillar pension funds has not changed significantly.

The share of external assets in the **investment structure** of the investment and pension funds has grown somewhat in the past six months (see Figure 14), and reached 82% at

Figure 12. Monthly net inflow and outflow of investment funds

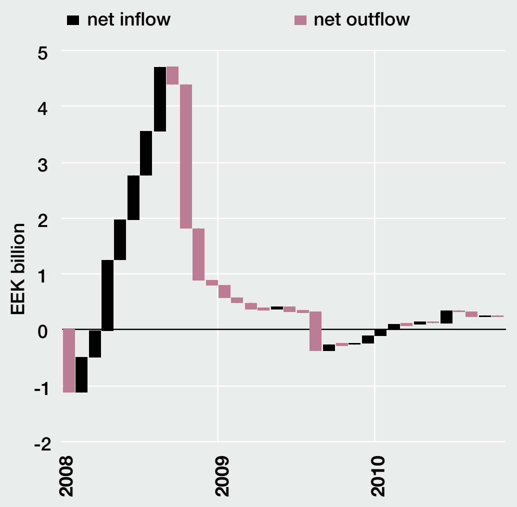


Figure 13. Value of pension fund assets at end-period

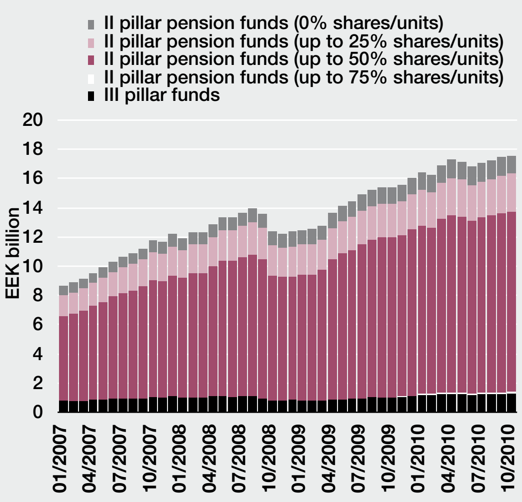
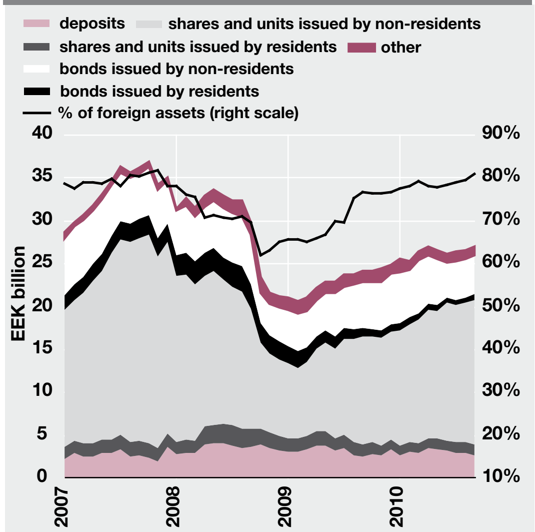


Figure 14. Structure of investment and pension fund assets and the share of foreign assets



the end of October. As regards asset categories, a trend towards higher-risk assets is evident, as the proportion of equities and shares has grown by 8 percentage points in the last two quarters, reaching 67%, while the share of bonds and deposits has shrunk by 8 percentage points to 29%. The value of the assets invested in the funds may thus become more volatile in the future.

No significant changes are evident in the geographical distribution of the investments, compared to the spring. At the end of October, a majority (66%) of the funds' assets had been invested in securities registered in Europe excluding Estonia, followed by Asia (11%) and North America (3%). In Europe, the assets invested in securities registered in Western Europe grew by 8 percentage points to 45%, while the share in other regions of Europe decreased. Even though the share invested in the securities of those euro area countries that are suffering public finance problems is relatively small, a deepening or widening of the debt crisis may affect the overall situation in the financial markets, thus negatively affecting the value of the assets invested in funds registered in Estonia.

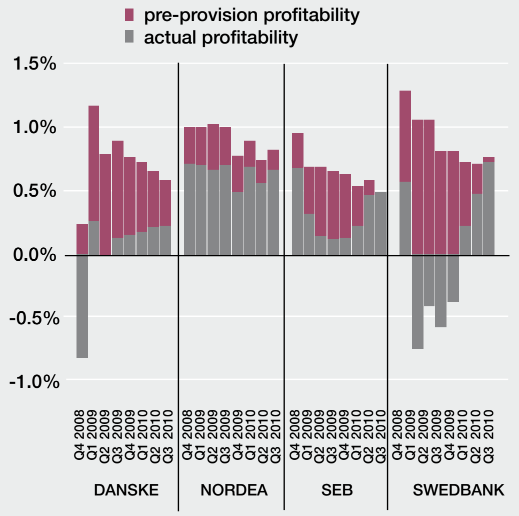
MARKET-BASED FINANCING OF BANKING GROUPS

Financial strength of the groups of parent banks

The revenue of parent bank groups operating in Estonia was smaller in 2010 than in the previous period. The drop in revenue was mainly caused by a decrease in the volume of new loans and an increase in the cost of financing, which curbed the net interest income.

The banks' **profitability**, on the other hand, has improved remarkably, compared to the previous period (see Figure 15). This was mainly caused by the reduction of loan provisions and fewer write-downs due to a smaller increase in problem loans. The profitability levels and the changes differ between banking groups. Because

Figure 15. Profitability of banking groups and pre-provision profitability



Sources: public reports of banks, Eesti Pank

of fewer write-downs, profitability showed a more significant improvement in groups that had previously done more provisioning.

The groups' **capitalisation** has remained stable in recent quarters. Capitalisation is higher than in the beginning of 2008. The capital adequacy ratio has advanced by more than 2 percentage points and the Tier 1 ratio by 4 percentage points. The Tier 1 ratio of the parent bank groups of the four largest banks operating in Estonia exceeded 10% in the third quarter of 2010.

Given the developments in the last few months, the bank's profitability is likely to show further improvement, fuelled, above all, by the reduction of loan provisions.

Funding of parent banks

The funding of Nordic banking groups depends largely on market-based financing. The need for such funding varies, depending on the bank's business model. Swedbank stands out as the bank most dependent on **market-based financing**.

The bank has reduced its need for market-based financing in the last three quarters by cutting loan volumes and boosting deposits, but still shows the biggest need for financing among the banking groups (see Figure 16). The share of market-based financing for other groups has shown no significant change in the last quarters, with at least 35% of the loans issued to customers requiring financing from other sources, leaving the banks quite vulnerable to developments on the financial markets.

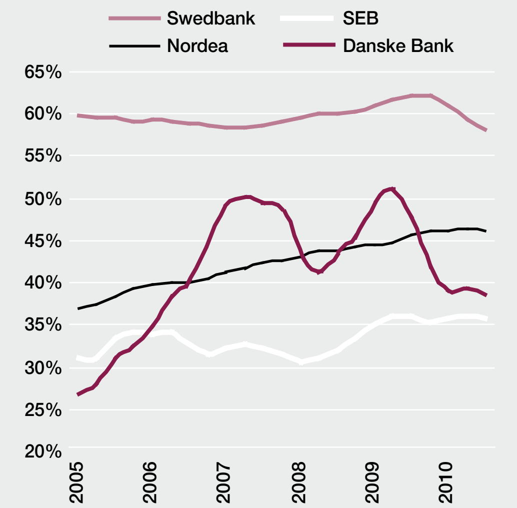
The Nordic countries have avoided[2] the worst effects of the debt crisis that shook European financial markets, with investors considering the region safer than others. Moreover, uncertainties over the possibility of huge loan losses accumulating in the Baltic States have started to wane. The better situation of the Nordic banking groups is also reflected in **credit default swap** (CDS) spreads, which have been significantly – nearly 40 basis points – lower than those of other European banks since the spring of 2010 (see Figure 17).

Unlike the banks operating in Southern Europe, the major Scandinavian banks have had no permanent trouble in raising funds on the financial markets. Quite the contrary, Nordic banks have succeeded in raising more and more **long-term funds**[3], thus making their funding base more stable (see Figure 18).

The vulnerabilities exposed by the financial crisis have compelled banks to pursue a more stable and long-term structure for liabilities with the aim of reducing sensitivity to abrupt changes in the external environment. The banks have also started to raise longer-term funds due to changes expected in the legal framework regulating the banking sector.

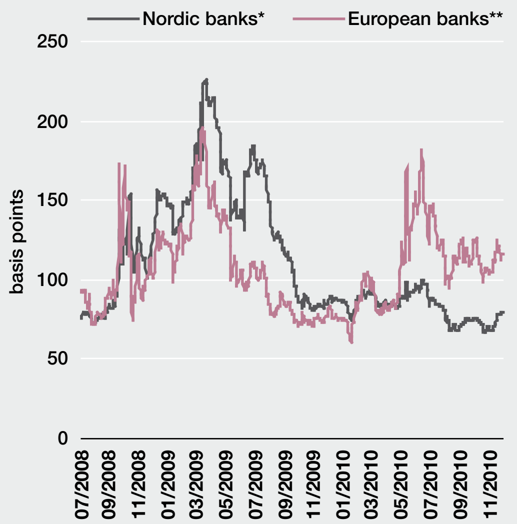
Until the end of the third quarter, the banks' financing conditions improved as there was a

Figure 16. Banking groups' share of wholesale funding in total loans (4-quarter moving average)



Sources: public reports of banks, Eesti Pank

Figure 17. 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.

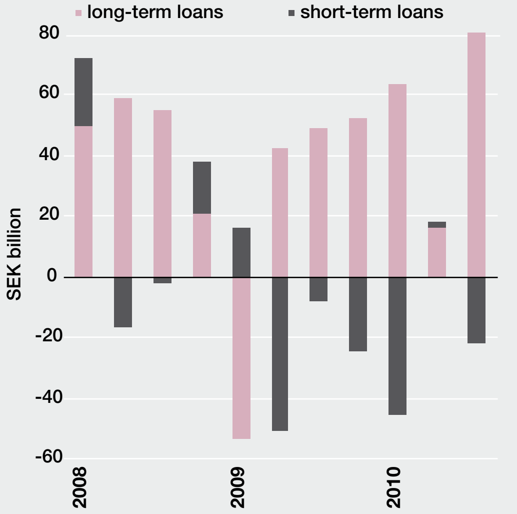
[2] Even though they faced problems at the height of the crisis in May and June 2010.
[3] With a maturity of over 12 months.

decline in the **risk premium** (see Figure 19). The spread between the long-term bonds of banking groups and government bonds even showed a downward trend until the middle of September. Even so, the volume of new issues attested to the banks' relatively strong demand for debt financing.

As the economy was showing positive development, the public sector continued to cut back its extraordinary support measures. Even though the Swedish government extended its guarantee programme for the fourth time this summer (until the end of 2010), this constitutes a merely theoretical measure, unused by any major bank in the past six months. The Swedish central bank Riksbank already stopped issuing long-term three- and six-month loans to market participants in the spring of 2010, replacing them with shorter 28-day loans. In July 2010, Riksbank set limitations on the use of this measure, raising the margin from 0.3 percentage points to 0.5 percentage points above the key policy rate, thus pushing the banks to opt for market-based financing instead.

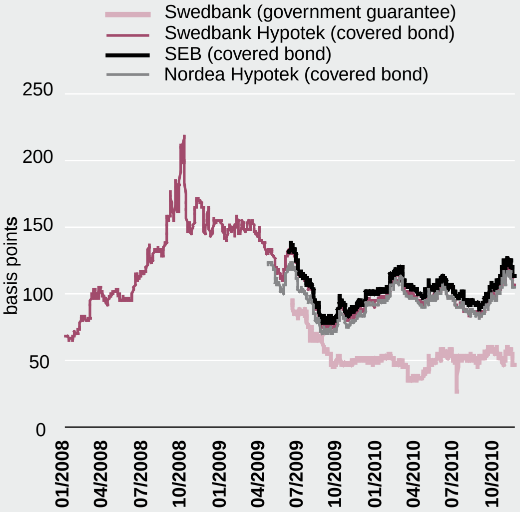
By the middle of September, it looked as if the gradual cutback on the support measures had had no ill effects on the banks, and as if, with the recovery of the credit markets, the transition to market-based financing had been smooth. Riksbank thus resolved to stop issuing extraordinary long-term 28-day loans to market participants. As soon as the decision was made public in the middle of September, the Swedish covered bonds market witnessed quite an abrupt change of sentiment. The cost of financing jumped. By November, the spread of long-term covered bonds of banking groups had risen by approximately 20–30 basis points compared to September. One of the apparent reasons was the reduced demand for the bonds, as major buyers – the banks – no longer had access to favourable financing through the central bank.

Figure 18. Net borrowing of Swedish banking groups in SEK instruments



Sources: Statistics Sweden, Eesti Pank

Figure 19. Banks' 4-year bond spreads against Swedish government bond



Sources: Bloomberg, Eesti Pank

Even though the trends in Sweden suggest the conclusion that confidence has returned and that financial markets are functioning, abrupt changes in the financial environment may quickly undermine such confidence and exert strong negative pressure on the financial markets. The financing risks faced by Nordic banks in connection with the European debt crisis have somewhat decreased, given the recovering economy and sound public finances of the Nordic countries and the better distinction between countries. However, a widening of the debt crisis followed by a wide-scale panic could render the financing situation for the Nordic banks also problematic. A new threat lies in market disturbances following cancellation of the extraordinary monetary policy measures by central banks. In addition, Sweden is facing domestic risks related to the local real estate market, which is seeing price rises and increasing household indebtedness (see background information *Developments in the Swedish real estate market*).

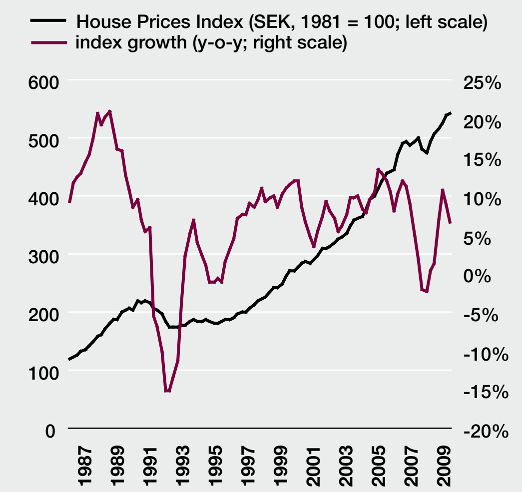
Developments in the Swedish real estate market

Although several countries witnessed a decline in the prices and activity of their real estate markets as they collapsed after the global financial crisis, this is not the case in Sweden. Real estate prices fell there slightly, by 2%, but they have been on the rise again since the second quarter of 2009 and have currently reached a higher level than where they were before the crisis. In the third quarter of 2010, the real estate index that reflects the movements in real estate prices was 6.7% higher than it was a year ago (see Figure 20).

Household debt has acted similarly. In October 2010 the stock of housing loans, which comprises 80% of the loan stock of households, had grown by 9.1% from a year earlier. The ratio of the debt of Swedish households to their disposable income has been high for 30 years by now, but in 2010 it reached a record level of 175%. Although the risks to the loan repayment ability of households have increased along with the rise of the debt burden, the loan repayment ability of Swedish households is still considered strong. This is supported by low interest rates (the average interest rate on new loans was 3% in October 2010), a high savings rate and increasing disposable incomes.

The gradual rise in real estate prices and the debt burden has, however, increased domestic financial stability risks for Swedish banking groups. The Swedish central bank (Sveriges Riksbank) and Financial Supervision Authority have acknowledged the risk that if real estate prices fall in the context of excess loan burden, it may cause a sudden deterioration in banks' ability to refinance mortgages in international capital markets. The risks are most likely to materialise through mortgage-backed bonds, should foreign investors lose confidence in these securities.

Figure 20. House prices developments in Sweden



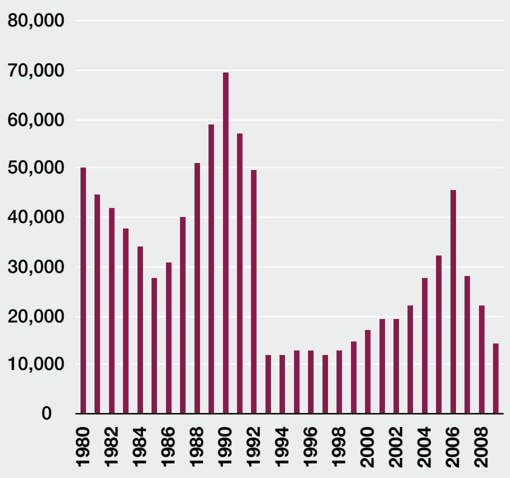
Sources: Riksbank, Statistics Sweden, Eesti Pank

The drop in confidence could spread to the entire financial system and also affect other markets. In consequence, on 1 October 2010 the Swedish Financial Supervision Authority established a rule that the loan to value (LTV) ratio may not exceed 85%.

Although the present situation in Sweden is very similar to that in the 1990s, a significant drop in real estate prices is quite unlikely, as there is little active development of new housing projects in Sweden. The investments that are currently being made in housing construction are relatively modest and fewer new residential spaces are being built than in 2006–2008 (see Figure 21). After the recession in the 1990s, real estate prices contracted by almost 30% and housing investment recovered slowly. However, having suffered another setback in the last global crisis, investment has recently begun to increase again and the construction of new residential premises is expected to pick up. The Swedish central bank states that the relatively stable housing market is one of the reasons why structural problems in the Swedish economy have been avoided[4]. Although housing investment in Sweden continues to be modest in both international and historical terms, its considerable growth may create risks for the Swedish economy. Accordingly, the Swedish real estate market is seeing some imbalances, the risks to financial stability are nonetheless smaller than those of the over-investment which happened in Estonia and also in Sweden at the end of 1980s and at the beginning of 1990s.

[4] Riksbank, "Why higher growth in Sweden than in the eurozone and the United States?" (October 2010).

Figure 21. Number of housing starts in Sweden



Sources: Statistics Sweden, Eesti Pank

II REAL ECONOMY AND LOAN QUALITY

CREDIT PORTFOLIO OF BANKS

At the end of September 2010, the financing portfolio of banks totalled 252 billion kroons, which was 6.6% less than a year previously. The stock of loans and leases granted to companies and households has decreased by 9% and 4% respectively.

The structure of the loan portfolio has changed considerably because the different loan segments have different amortisation rates. The share of housing loans has grown by 1.7 percentage points from a year ago, mainly as a consequence of the high percentage of long-term loan contracts (see Figure 1).

Changes in the structure of corporate loans differ by sector, both in loan contracts and in the demand for credit. Viewed by sector, corporate lending has shrunk most in the real estate and construction sectors, while in manufacturing and trade the demand for credit is picking up. As with housing loans, the corporate credit portfolio has a high percentage of real estate loans because of the larger share of long-term loan contracts.

The autumn 2010 forecast by Eesti Pank is more pessimistic about loan growth than the forecast was in spring 2010. The role of domestic loan money in stimulating economic growth has been weaker than expected, and credit growth is likely to remain modest in the coming years too. The forecast presumes that domestic demand will recover later than export revenues, and that this will affect the growth and structure of banks' financing portfolios over the next few years (see Figure 2).

In the near future the loan stock will be boosted mainly by external-demand oriented business areas, but banks' risk positions will nevertheless include a large share of loans issued to real-estate related sectors as well.

Figure 1. Structure of banks' credit portfolio as at 30/9/2010 and change y-o-y

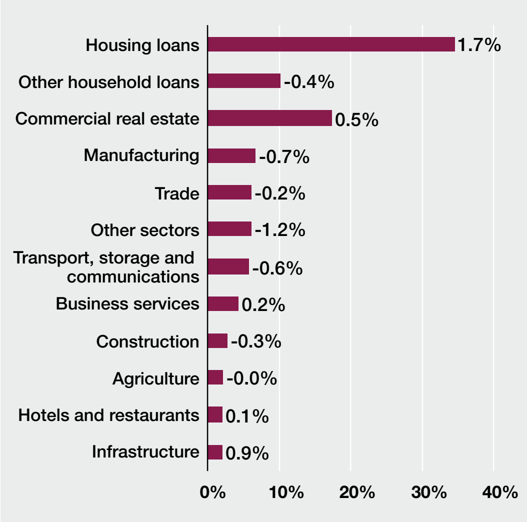
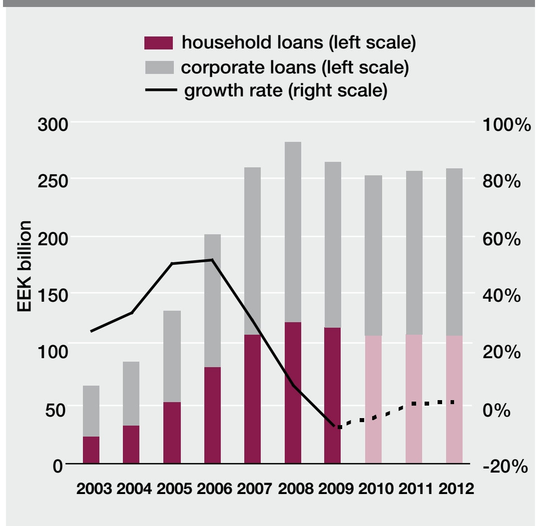


Figure 2. Value and growth rate of banks' credit portfolio and expected growth in 2010–2012



LOAN REPAYMENT ABILITY OF COMPANIES

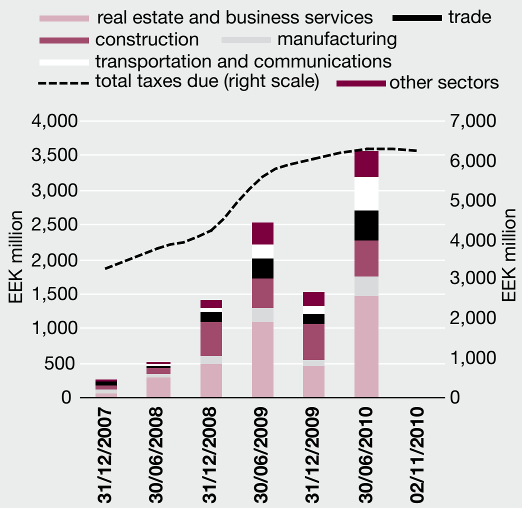
Although the economy is recovering, the solvency problems of companies still increased in the first half of 2010, as was indicated by the growing number of payment defaults and bankruptcies, and by the quality of banks' credit portfolio. The payment default register shows that the number of reported payment defaults in the business sector had grown in all major sectors in the first half of 2010 from a year previously (see Figure 3). The situation started to improve slightly at the beginning of summer, and by the end of September the number of payment defaults[1], tax arrears and bankruptcy petitions had shrunk, which implies a moderate easing in payment difficulties.

The loan repayment ability of companies is stimulated by their economic performance, which has started to improve after a long period of recession. Sales revenues have not dropped any further since the end of 2009 and companies have kept their expenses under tight control, and this has resulted in rising profits (see Figure 4). The **total profit** of the business sector had been falling for nine consecutive quarters and reached its lowest level in the fourth quarter of 2009.[2] In the first two quarters of 2010, however, profits picked up.

The level of total profit remains low, even in current prices, standing below the pre-boom level of 2003. This means that companies still have relatively few free funds and that they are seeking urgently to restore their profits in one way or another. Weak demand is easing as the main factor hindering business activity, which means that profits will grow in the coming quarters, as it usually takes three or four quarters for profitability to respond to changes in demand. Nevertheless, companies perceived a slight slowdown in the recovery of demand in the

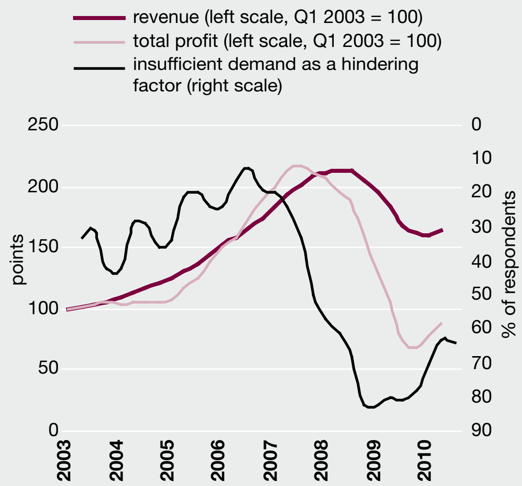
[1] Krediidiinfo states that the percentage of companies with low credit assessment in the total number of operating companies contracted from 30.7% at the beginning of 2010 to 28.0% in September.
[2] Four consecutive quarters.

Figure 3. Payment defaults by sectors and taxes due



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

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



Sources: Statistics Estonia, Estonian Institute of Economic Research, Eesti Pank third quarter of 2010, and so growth in cash flows will slow slightly in the long run.

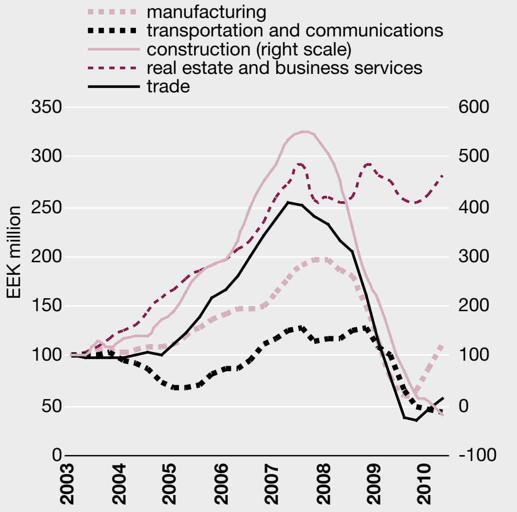
The situation varies between sectors, and several sectors, such as construction and transport and communications, still suffered declining profits at the end of the second quarter (see Figure 5). Somewhat surprisingly, trade and real estate and business services[3] have managed to increase their cash flows even with weak demand. The manufacturing sector had also increased its cash flows by the end of the second quarter, as expected, and profits for four consecutive quarters have risen to the levels of 2005. The profitability of the manufacturing sector is expected to grow more rapidly in the next few quarters as a result of substantial rises in industrial production and exports.

In the long run, however, growth will slow, as the current developments are really a recovery from the recent recession. In other, mainly domestic demand oriented, sectors the propensity to save is higher than in the pre-crisis years: growth is slower than in other sectors. As sales recover gradually, companies are trying to increase their profits, for instance by raising their margins. They may well succeed in doing so, given that competition is not tough in an economy as small as Estonia's. So in the coming quarters the profitability of domestic demand oriented sectors may recover more rapidly than could be expected on the basis of the macroeconomic conditions.

Profits have rocketed mainly in larger manufacturing companies with one hundred or more employees (see Figure 6). Larger companies, which are probably more export-oriented, have benefited more from the improved external environment. On the other hand, small manufacturers, which constitute 80% of the total sector, have not gained much from current positive developments. A number of companies, in particular those small and domestic demand oriented

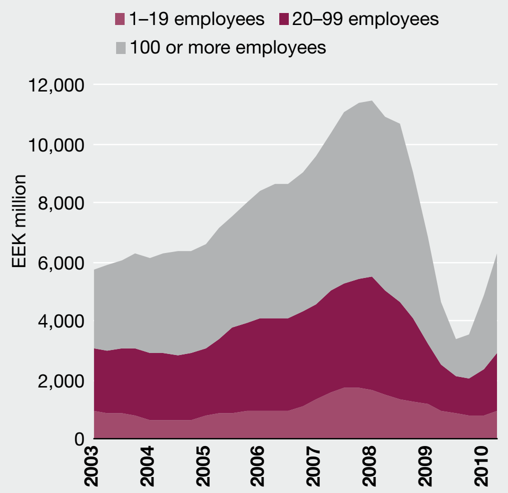
[3] Includes holding corporations.

Figure 5. Corporate sector's total profit for four consecutive quarters by sectors (Q1 2003 = 100)



Sources: Statistics Estonia, Eesti Pank

Figure 6. Total profit for four consequtive quarters of manufacturing companies by their size



Sources: Statistics Estonia, Eesti Pank

businesses which have just been coping through the downturn and waiting for the recession to end, may find that they will not survive after all. Consequently, solvency problems may still emerge in the next quarters, though they are probably not that major.

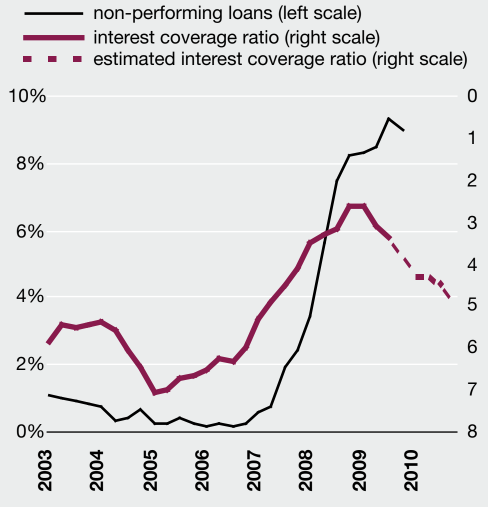
The estimated **interest expenses**[4] of companies dropped to the lowest levels of recent years in the first quarter of 2010 as a result of falls in loan liabilities and in the key interest rates. However, the interest rate on the loan stock is rising and is expected to rise further in the coming quarters. As the level of corporate debt will no longer shrink significantly, interest expenses will start to grow again after declining for five quarters. The expected growth in expenses will be much more modest than it was in the previous years, because the loan stock and key interest rates will increase only slowly.

In the first half of 2010, companies made adjustments to their balance sheets to lower their financial leverage. With lower financial leverage, a company is more likely to earn sufficient cash flows for its loan repayments after an economic shock, and is thus less vulnerable to a deteriorating economic environment.

Although interest expenses will increase, the profitability of companies will grow faster than the expected recovery of the economy, and companies' loan repayment ability will improve over the next quarters. The interest coverage ratio reached its lowest point in the fourth quarter of 2009 and has gone up since then. In the coming quarters, the solvency of the corporate sector may improve as a result of soaring profits (see Figure 7). Thus the volume of banks' new non-performing loans will probably remain low.

[4] The estimate includes the total loan liabilities of companies on the basis of the financial account, while presuming that the interest rate for the loan liabilities is equal to that for the domestic bank loans.

Figure 7. Loans overdue for more than 60 days and estimated interest coverage ratio



Sources: Statistics Estonia, Eesti Pank

LOAN REPAYMENT ABILITY OF HOUSEHOLDS

The dynamics of household incomes, which are strongly correlated with labour market movements, are a key determinant of the loan repayment ability of households. The fall in wages turned into growth in the second quarter of 2010, but the real income of households is still negative because of the rapid increase in prices. Incomes have stopped declining, but the rate of recovery will remain slow in the near future. The labour market is witnessing positive developments with the unemployment rate dropping to 15.5% and employment growing to 55.9% in the third quarter. Nevertheless, consumer sentiment about developments in the labour market over the next 12 months has deteriorated. Households perceive improvements in the labour market to be slowing, although the overall situation is better than it was a year ago.

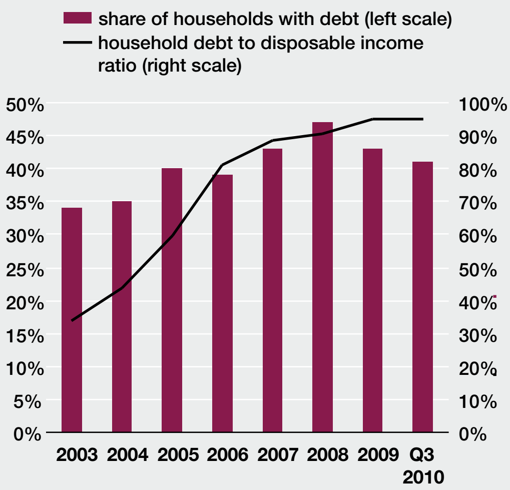
The total of loans issued to households was 4% lower in the third quarter of 2010 than it was a year previously. In addition, TNS Emor's survey on the financial behaviour of households states that the families with loan liabilities as a share of total households has decreased to 41% in the past two years. But at present there are still more families who have taken a loan than there were in 2006, and the indebtedness of households remains fairly high (see Figure 8).

TNS Emor's survey from September 2010 revealed that households believe that their economic situation will recover. Their confidence has returned, which is confirmed by a slight increase in domestic demand, as the fall in retail sales reversed in September. At the same time, households' expectations about their ability to save have improved too.

The survey also indicated that households with loans manage to save more and have recovered more rapidly from the recession. Among households with loans, there are fewer families who have no money left after their loan repayment and primary expenditure. In 2010 households with loans spent 26% of their net incomes on monthly loan repayments on average, which is more or less as much as in 2009. The percentage of families with loans whose loan liabilities constituted over 30% of their net incomes has declined from its level of a few years ago (see Figure 9).

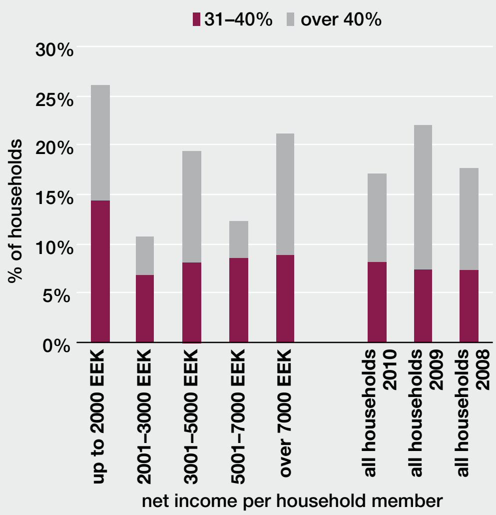
Given that 90% of household loans have floating interest rates, the drop in key interest rates has had a positive impact on many households with loans. The average interest rate on the stock of loans issued to households has fallen from 4.4% to 3.7% in a year, as a result of the Euribor dropping. Along with a drop in credit demand, the annual level of household interest payments diminished by over half a billion kroons in the past six months to 4.5 billion kroons in the third quarter of 2010, which is comparable to the level in the first half of 2007. The household interest burden or the ratio of interest expenditure to disposable income has fallen further to 3.7% in the third quarter. Based on the autumn forecast by Eesti Pank and also as a result of the small upward trend in the key interest rate, the interest

Figure 8. Household debt burden



Sources: TNS Emor, Eesti Pank

Figure 9. Households with loan liabilities higher than 30% of their total net incomes

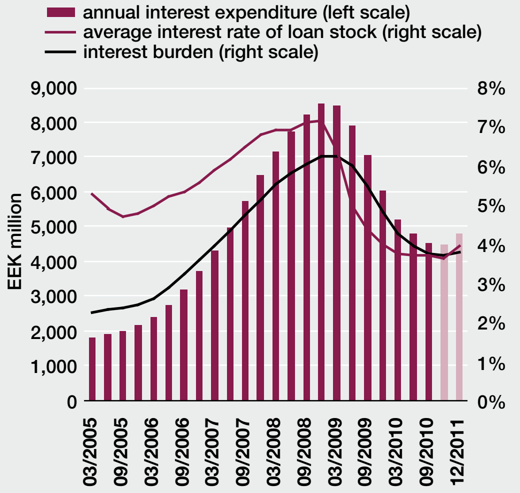


Sources: TNS Emor, Eesti Pank

burden is expected to increase slightly to around 3.8% in 2011 (see Figure 10). If the key interest rate rises more rapidly than anticipated, the interest burden will grow faster, which will have an adverse impact on loan repayment costs.

Despite the first positive signs in the macro-economy suggesting that the loan repayment ability of households is improving, the related risks are still there. A survey of the financial behaviour of households revealed that 24% of respondents admitted having temporary difficulties in repaying their loans. Although the earnings of households have increased somewhat, the risks caused by the tense labour market situation and rising interest rates still persist.

Figure 10. Annual interest expenditure and interest burden of households



Real estate market

The real estate and construction market in Estonia is recovering along with our improving macroeconomic growth outlook. The housing market is slowly picking up again and confidence in the market is on the rise, as is shown by the fact that households are again purchasing apartments in houses that are still under construction. The commercial real estate market has also witnessed various transactions in the past months, but in general the market is stabilising.

Housing market

The recovery of consumer confidence and banks' increasing interest in financing have together improved activity on the sales market. The sales periods of real estate, which extended considerably after the recession, are contracting again. A year ago, the average sales period of an apartment in Tallinn was 100 days, while in October 2010 apartments were sold in about 60 days. Although the current level of activity is similar to what it was at the beginning of 2004, in the third quarter of 2010 the number of apartment transactions in Tallinn was 7% higher than it had been a year previously. The number of building permits issued for housing construction has tripled during this time, indicating that sales activity is likely to increase further in the near future.

Real estate supply has increased as a consequence of the revival in the housing market, thus inhibiting a surge in prices. The median price for apartment transactions in Tallinn has risen by 20% from a year ago owing to a low comparison base, but the general price level has remained close to 13,000 EEK/m^2 for quite a while (see Figure 11). The average transaction value has remained close to 800,000 EEK, which is comparable to the situation five years ago. International experience suggests that after a 36% fall caused by the economic decline, real estate prices will recover fully in about five years.

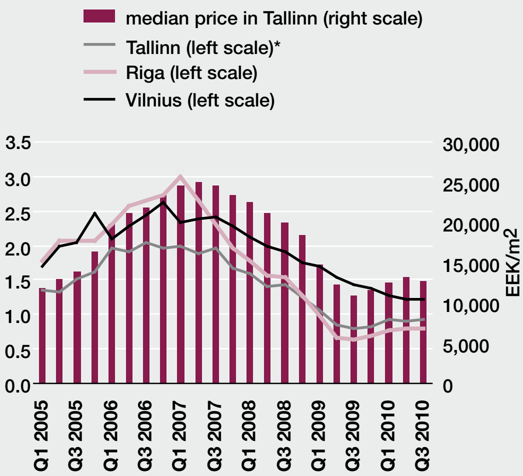
As tight competition in the real estate market has kept prices low, the purchasing power of households with sufficient incomes continues to be good. The square metre price for apartments in Tallinn has been below the average gross monthly wage for over a year by now. In the third quarter of 2010, the affordability indicator for real estate stood at 0.94. Comparison of the three Baltic states shows that real estate is most affordable in Riga, because prices there have shrunk much more than elsewhere. In the third quarter, the average price for a square metre of an apartment in Riga was 581 euros. The price was the highest in Vilnius at 821 euros, which makes the real estate purchasing power of Lithuanian households the weakest in the Baltic states.

Office and commercial premises market

Developments in commercial real estate are following the changes in the business cycle, which is why the future of the commercial real estate market depends largely on the country's economic activity. The outlook for the Estonian economy has improved from a year ago, but uncertainty has not entirely vanished. The incomes of real estate owners and investors have shrunk drastically due to the 50% drop in rental prices and the large number of vacant office premises (see Figure 12). Nevertheless, the positive economic outlook slightly softens the looming risks. Real estate prices and supply have stabilised, but in the future prices will remain below their peak and there will still be plenty of vacancies. No building permits were issued for the construction of large-scale commercial premises in the first nine months of 2010, and so no new development projects are expected to enter the market in the near future (see Figure 13).

The improved confidence of companies has boosted business activity, which is reflected in the lower number of vacant commercial premises in modern office buildings in desirable areas. Market analysts state that the vacancy of class A office

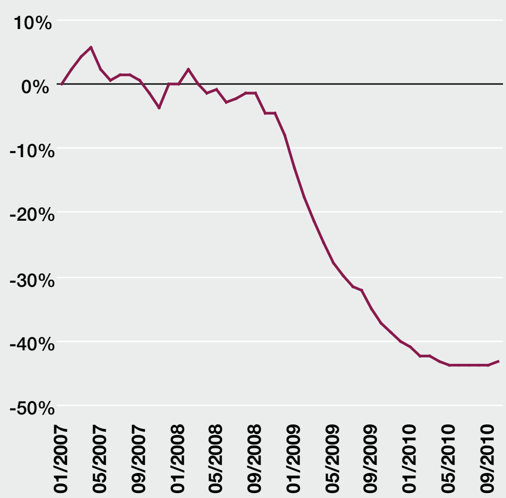
Figure 11. Affordability of real estate with average wages in Tallinn, Riga and Vilnius, and median price for an apartment in Tallinn



Sources: Estonian Land Board, Statistics Estonia, Latvian central bank and statistical office, Lithuanian central bank and statistical office, Eesti Pank

* The ratio of median square metre price for an apartment in Tallinn to average gross wages.

Figure 12. Changes in rental prices for office premises in Tallinn (index = January 2007)

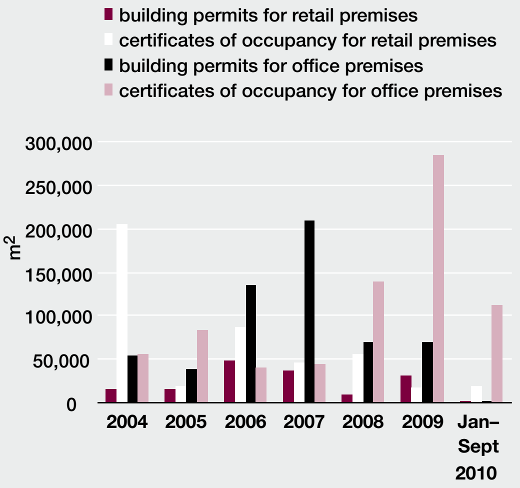


Sources: spot.city24.ee, Eesti Pank

premises has dropped below 15%, but difficult times continue for lower quality office premises, where the number of vacancies is not expected to fall notably in the near future. In 2010, the average rental price for office premises was 78 EEK/m², which is 24% cheaper than it was a year previously. Given that the number of vacancies has diminished, in 2011 the rental prices for high-quality premises are expected to climb slightly.

The increase in retail sales since July is a positive sign for the commercial premises market. The rental prices for commercial retail premises did not change significantly in the third quarter and there are almost no vacancies. Although the economy is slowly recovering, retail traders remain extremely cautious about their expansion plans. During the first nine months of 2010 only eight building permits were issued in Tallinn for small commercial premises. Real estate development is probably also inhibited by the fact that the retail trade area per 1,000 people in Estonia is already 300 square metres, which exceeds the average for Europe by almost 40%.

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



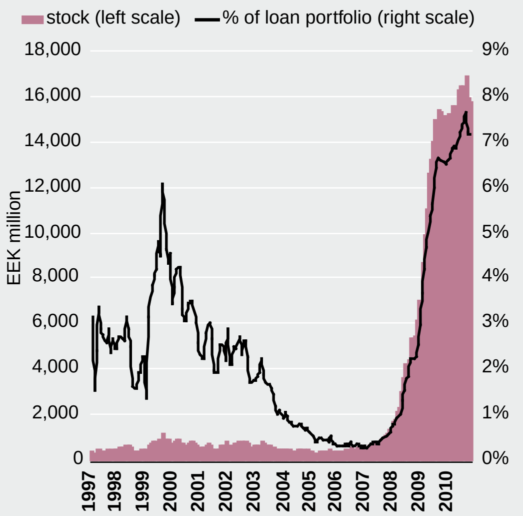
Sources: register of construction works, Eesti Pank

QUALITY OF ASSETS

Although the economy was recovering, the **quality of the loan portfolio** did not show any signs of improvement in the first quarter of 2010 because of a natural lag. The percentage of loans overdue for more than 60 days continued to grow and constituted more than 7.4% of the loan portfolio at the end of August 2010 (see Figure 14). This happened for two reasons. First, the level of loans overdue did not start to decline in the second half of the year, but rather it rose even further. Second, the loan portfolio shrank by more than expected[5]. The deterioration of the loan quality, as measured by the level of loans overdue for more than 60 days, shows that when a borrower encounters payment difficulties, the

[5] The contraction of the loan portfolio only contributed less than 10% of the rise in the NPL ratio.

Figure 14. Loans overdue more than 60 days



problem may persist for a while and the recovery of loan repayment ability is unlikely or takes a long time. Since spring 2010 the loan quality has mainly deteriorated in tradable sectors such as manufacturing and transport and communications, where the stock of loans overdue by more than 60 days grew by 680 and 260 million kroons respectively in the past six months (see Figure 15). This development may seem somewhat surprising, considering that the structure of the marcoeconomic revival has facilitated export-oriented companies, particularly manufacturing companies. However, it should be noted that manufacturing and other sectors are not homogeneous in structure, and may also contain non-performing companies (see *Loan repayment ability of companies*).

The labour market has been recovering very sluggishly, and as a result the household loan portfolio has deteriorated: at the end of September housing loans overdue for more than 60 days accounted for 4.6% and other loans 11.4% of the portfolio (see Figure 16).

The loan portfolio of the commercial real estate sector has improved in the past six months, as the value of non-performing loans had shrunk by more than 700 million kroons by the end of September. About half of the rise in the loan portfolio quality stems from the write-off of 368 million kroons of non-performing loans from banks' balance sheets during the past nine months. The other half can be explained by the improving situation for real estate companies, as Estonia's real estate market has stabilised (see *Real estate market*) and a number of non-performing loans have probably become performing again.

As relatively few new non-performing loans have emerged in the past six months, banks have made considerably fewer **loan provisions**. From March to September 2010 only 0.5 billion kroons of provisions were made in total, while around 80% of loans overdue for more than 60 days had been

Figure 15. Change in loans overdue for more than 60 days over last 6 months (31/3/2010–30/9/2010)

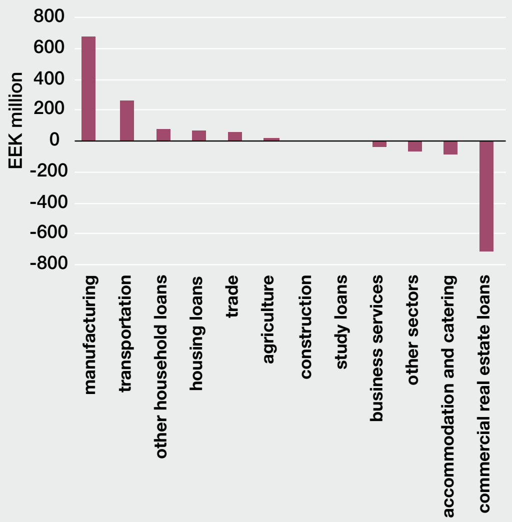
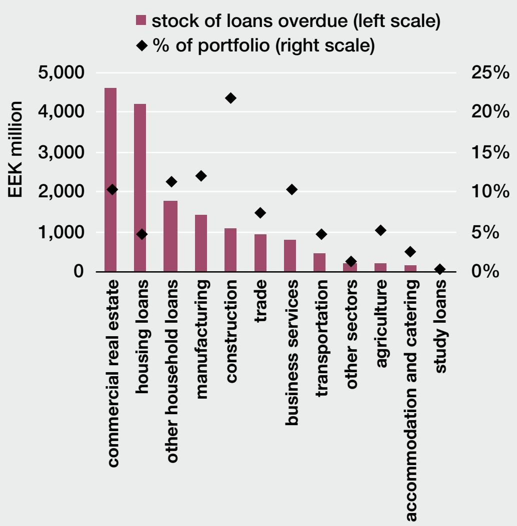


Figure 16. Loans overdue for more than 60 days by sectors



recorded under losses by the end of September (see Figure 17).

Banks made practically no general provisions in the past six months, though this was common practice at the start of the crisis, and provisions were made only on the basis of individual loans. Moreover, some banks also started to lower their specific provisions in the last couple of months. This may stem either from the restored loan repayment ability of loan customers or from smaller risks related to collateral due to improved economic environment. The drop in specific provisions is still small and banks are not lowering the general provisions on their portfolios.

The provisions to cover loan losses are gradually falling, but the cycle of actual loan losses incurred responds with a longer lag and is showing an upward trend. Balance sheet write-offs have jumped to more than 1.7 billion kroons in total in the last four quarters (see Figure 18), although the claims written off had already been recorded under losses as provisions. Presumably, the amount of claims written off in the next couple of quarters will remain high, because the final insolvency of borrowers occurs with a long lag.

Figure 17. Banking sector loan-loss provisions

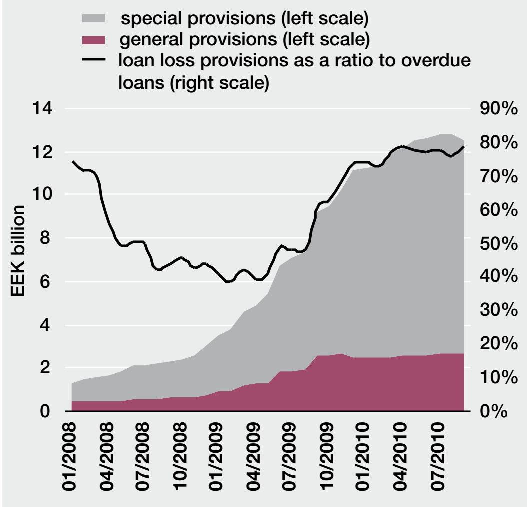
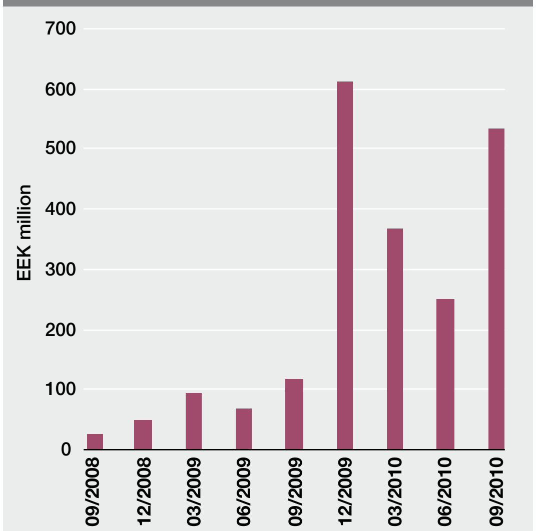


Figure 18. Banking sector gross write-offs



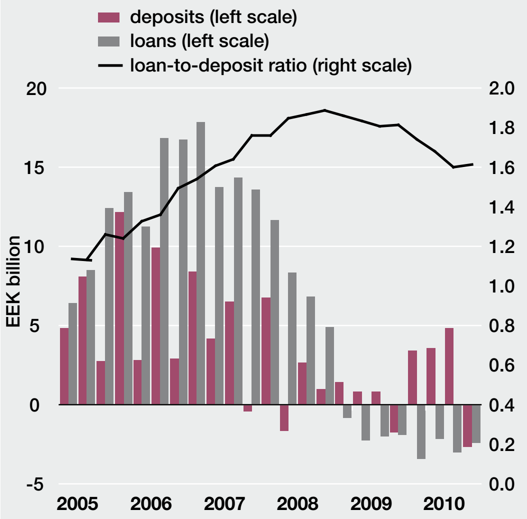
III STRENGTH OF FINANCIAL INSTITUTIONS

BANKS

Funding

Households and companies have been reducing their financial leverage and increasing their savings throughout 2010. Foreign trade volumes started growing in the second half of the year, with non-resident deposits in Estonian banks consequently showing an increase. The deposits of both domestic and foreign customers have thus increased during the year and customer deposits as a share of financing sources have reached their highest level of the last four years. The loan-to-deposit ratio has also gradually improved (see Figure 1).

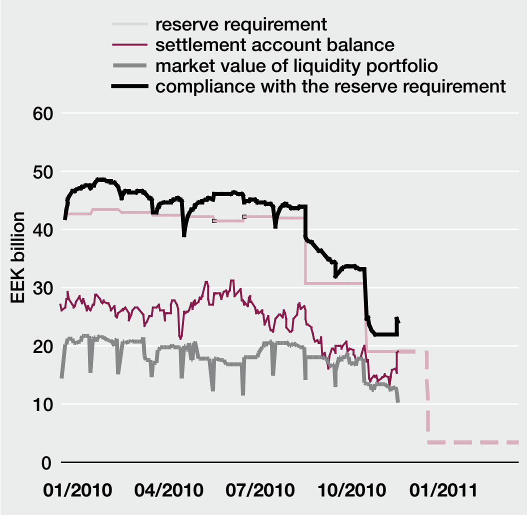
Figure 1. Quarterly growth in loans and deposits and loan-to-deposit ratio



Since loan demand is low, the banks have used the growth in customer deposits to refinance their liabilities to foreign banks and parent banks, with the banks' dependence on debt financing thus moving lower. In the financing structure, funds received from parent banks still make up a bulk of the banks' institutional foreign borrowing.

In the next few months, the financing structure will be affected most by a cut in the minimum reserves. Given the low loan demand in the non-financial sector, the liquid assets released from the reserve requirement may be directed to other liquidity buffers, or external liabilities may be further reduced. Other determinants affecting the banks' financing structure are not likely to change in the next few months. In the long run, we expect loan demand in the non-financial sector to gain momentum, which could slow down the decline of the loan-to-deposit ratio in 2011.

Figure 2. Compliance with the reserve requirement



Liquid assets and liquidity risk

The banks' minimum reserve requirement was lowered from 15% to 11% in September and to 7% in November. From 1 January 2011, the minimum reserve requirement in Estonia will be 2%, as it is in other euro area countries (see Figure 2). The lowering of the reserve requirement will release a substantial amount of liquid assets in the banks. So far, the banks have not been very active in restructuring their liquid assets, maintaining a significant volume of excess reserves at Eesti Pank in September, October and November.

Excess reserves have been kept by many banks in the euro area countries during the recession. Despite the lowering of the reserve requirement, the share of liquid assets in the aggregate balance sheet of Estonian banks has remained stable, and has even grown from its level in the boom years. However, different banks have responded differently to the lowering of the minimum reserve requirement: some have restrained the volume of their liquid assets while others have increased it. The excess reserves kept at the central bank are likely to shrink in 2011, as will the banks' liquidity buffers. The liquidity management risks inherent in the process will be reduced by Estonia's participation in the Eurosystem monetary policy operational framework, which gives the banks the possibility of taking monetary policy loans from the central bank, should the need arise.

Another determinant affecting the liquidity risks of banks is the continued growth in customer deposits, above all demand deposits. Low interest rates have facilitated a growth in time deposits, especially deposits with short-term maturities. As a result, the share of short-term liabilities has been growing in the banks' balance sheets since the beginning of the year. At the same time, this is a natural phenomenon that accompanies deposit-based funding. In addition, the banks' liquidity behaviour was more cautious during the economic decline, with the share of short-term liabilities dropping to record lows in the banks' balance sheets in the period.

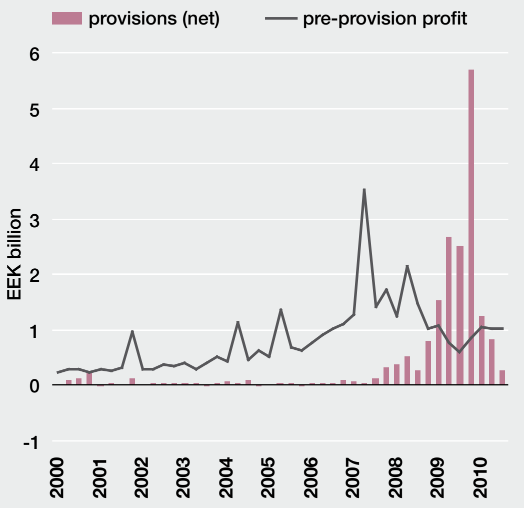
These trends will also affect the banks' liquidity risks in the coming months, as deposit volumes are expected to grow faster than loan demand for quite some time. Moreover, the banks need to acclimatise to a significantly lower minimum reserve requirement, as well as to the Eurosystem monetary policy operational framework.

Profitability

Fuelled by an increase in net interest income and a decline in provisions to cover loan losses, the profitability of European banks started to grow in 2010, even though the sovereign debt crisis in the euro area added to the tensions of banking groups in some countries and drove down trading revenues across Europe.

After five straight quarters of negative profits, the profitability of the banks operating in Estonia turned positive in the second quarter of 2010, with the banking sector posting an aggregate **net profit** of 736 million kroons in nine months (see Figure 3). A quarter later, positive quarterly results could also be seen in consolidated figures, which add in the activities of subsidiaries including the subsidiary banks in Latvia and Lithuania, with a total aggregate loss for nine months of 711 million kroons.

Figure 3. Provisions and pre-provision profits of banks



The banks' **return on assets** (ROA) continued to improve through the year, reaching 1% in the third quarter, and although it was only half the level achieved before the crisis, the regression of loan losses suggests a further improvement in the near future (see Figure 4). The banks' ROE climbed to 9.6% in the third quarter (see Table 1), and consolidated ROE rose to 13.8%.

The banks' profitability has been raised primarily by the decline in the provisions established to cover loan losses. The previously established provisions were even charged to profit by some banks in the third quarter. Given the banks' strict conservatism in evaluating loan quality, the decline in provisions met expectations, and is likely to continue in the coming quarters.

The **pre-provisions profit** remained relatively stable during the first nine months of 2010, hovering around 1 billion kroons in each quarter. As a ratio of assets, the pre-provisions profit was approximately 50 basis points lower than the annual average before the boom. The pre-provisions profit has been affected primarily by a change in the revenue structure at the end of 2008, when the share of net interest income shrank after the Euribor was lowered.

After the sudden drop, the ratio of the banks' **net interest income** to assets has shown moderate but stable growth (see Figure 5). This growth has been nourished by the **decline in interest expenses**, which gained momentum in the autumn of 2009 with the banks lowering the interest rates for kroon deposits. As a result, the anomalies

Figure 4. Banks' return on assets (% of average assets per quarter x 4)

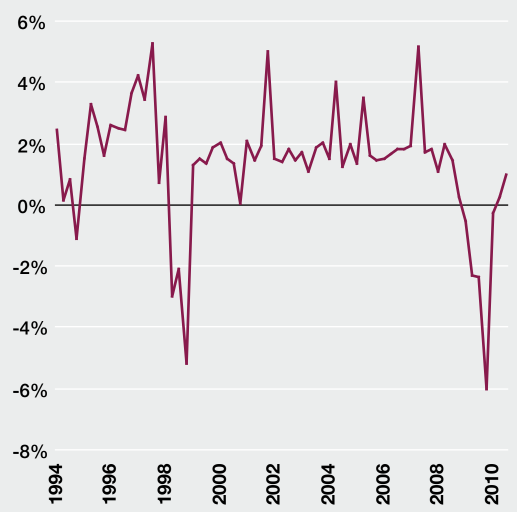


Table 1. Profitability of banks

	30/06/2009	30/09/2009	31/12/2009	31/03/2010	30/06/2010	30/09/2010
Average return on assets in the past four quarters	-0.3%	-1.2%	-2.8%	-2.7%	-2.1%	-1.3%
Return on assets in a quarter (x 4)	-2.3%	-2.4%	-6.0%	-0.3%	0.3%	1.0%
Average return on equity in the past four quarters	-1.3%	-8.8%	-24.5%	-24.1%	-18.9%	-12.4%
Return on equity in a quarter (x 4)	-19.7%	-15.8%	-59.0%	-3.3%	1.2%	9.6%
Net profit in the past four quarters (EEK bn)	-0.9	-4.0	-9.1	-8.9	-6.7	-4.1
Net profit of the quarter (EEK bn)	-1.9	-1.9	-4.8	-0.2	0.2	0.8
Net asset write-downs in a quarter (EEK bn)	2.7	2.5	5.7	1.3	0.8	0.3

witnessed throughout 2009 receded, with the resources received from the parent and other banks being cheaper than those engaged from the local deposit market. On the whole, the banks' cost of capital dropped to the level of the key interest rate of the loan portfolio – the six-month Euribor – by the end of the third quarter (see Figure 6).

As the drop in deposit interest rates, fuelled by the diminishing kroon risk, has ceased, the cost of capital will from now on be governed primarily by the global market conditions, provided that the competition on the local deposit market does not tighten significantly. The need for longer-term financing that emerged in the aftermath of the crisis is expected to keep the cost of capital engaged through the parent banks at a relatively high level in the next few quarters. That said, if the share of deposits in the banks' financing structure grows further, external factors will have a smaller effect on the cost of capital.

After an 18-month drop, **interest income** showed the first signs of recovery in the third quarter of 2010. This was driven, above all, by the rise in key interest rates (the six-month Euribor) in the middle of the year. However, against the backdrop of a continued contraction of the loan portfolio, the increase in income remained sluggish. As loan activity rises, the growth in interest income will be fuelled by the slowly expanding income base, along with the relatively higher risk premium on new loans, compared to the lower margins that currently apply on most of the loan balance. Even though the loan repayment ability of companies and households will improve, overdue loans will remain at a relatively high level. Interest calculation on these loans has been suspended, and so the banks will collect no interest income on these loans. In addition, the banks' interest income will be affected by the lowering of the minimum reserve requirement in 2011. The scope of the impact will depend on the banks' asset structure after all the changes.

Figure 5. Banks' incomes and expenses by type (% of average assets per quarter x 4)

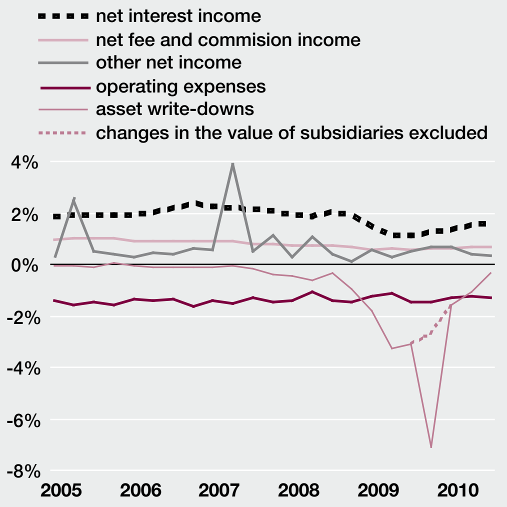
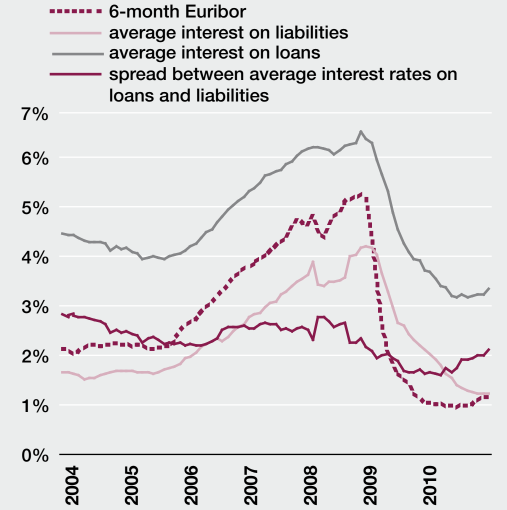


Figure 6. Average interest on banks' liabilities and receivables at end-month and 6-month Euribor



In 2011, the banks' revenue will also be affected by a rise in the quarterly contribution to the Deposit Guarantee Sectoral Fund by 0.022 percentage points to 0.047% (see background information *National guarantee schemes for securing the stability of the banking sector*). Prompted by the growth in deposits and raising of the rate of compensation, this rise may reduce revenues in the banking sector by a total of more than 100 million kroons.

As a ratio of assets, the banks' **fee and commission income** has remained comparatively stable. This stability has been sustained by the relatively large share of revenue collected from payment services (over 60%). The gradual standardisation of domestic and cross-border euro payments is expected to reduce the revenue from payment services in the next few years, even though the number of payments is likely to increase with a rise in economic activity. Apart from payment services, any change in other types of fees and commissions, such as for processing loan agreements, would require a significant revival in the operating activities of the banks.

The adoption of the euro at the beginning of 2011 will have a direct effect on the banks' **financial income**, with the banks losing revenue from currency exchange and from conversion in transactions involving Estonian kroons and euros. Transactions with the euro made up an average of 90% of the banks' currency purchase and sale transactions in the first nine months of 2010, with the banks generating an annual aggregate total of approximately 26 million kroons from the euro bid and ask quote differences in spot and future transactions concluded with customers and other banks. In addition to the revenue generated from currency exchange transactions, the banks will lose a portion of their conversion revenue, for example the revenue from the conversion of repayments of loans denominated in euros and EUR card payments made in foreign countries. This may reduce financial income by a very large fraction.

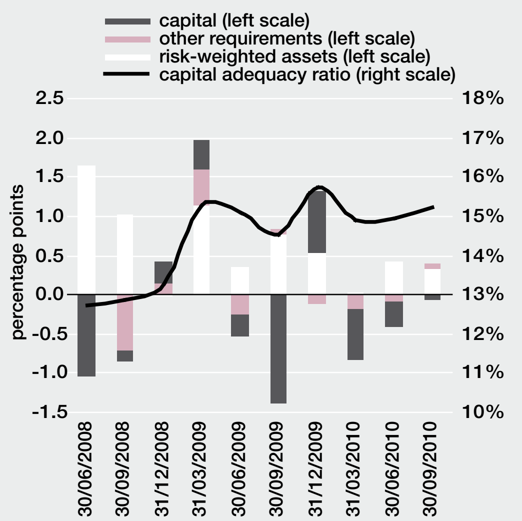
After the major cost-cutting of 2009, which saw wages down 7% and other costs down 15%, the banks' **administrative expenses** have remained stable in 2010 and have, for the most part, followed the changes in the balance sheet volume. The investments made for the adoption of the euro will add to the banks' expenditure in 2010 and 2011, largely through spending on IT capacity and human resources.

Capital adequacy

The credit risk requirements of banks[1] have continually decreased due to the contraction of the loan portfolio. This led to a drop in the banks' capital requirements in the first nine months of 2010, but at a much slower rate than in the same period last year (see Figure 7).

The credit risk requirements dropped by 1.5 billion kroons in the first three quarters; compared to the 5.1 billion-kroon drop in the same period last year.

Figure 7. Change in capital adequacy ratio from previous quarter by components



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

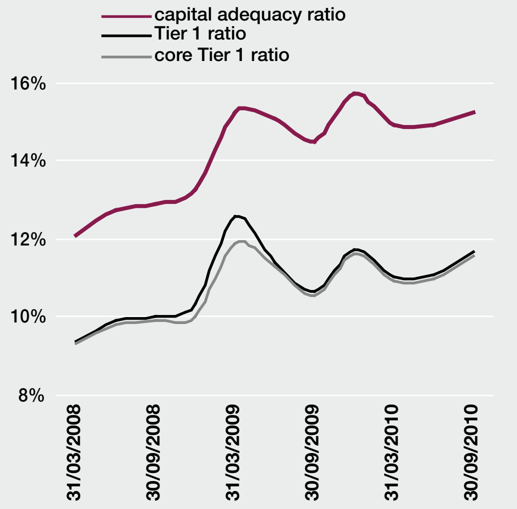
Operational risk requirements have decreased to some extent, compared to the end of 2009, as a consequence of the implementation of the Internal Ratings Based Approach, but the impact of this has been minor. Other capital requirements, on the other hand, have grown due to the increases in foreign currency and interest risk requirements. Once again, the impact of this has been minor.

At the same time, the banks' capital requirements are affected by the minimum requirements related to the transition to the Internal Ratings Based Approach. The capital requirement is 3% higher and the capital adequacy ratio 0.6 percentage points lower than they would be without the transition limits.

The auditing requirement for profits earned by the end of the third quarter meant that banks' own funds, of which their Tier 1 own funds make up 75%, showed no increase. From the end of 2009 to the end of the third quarter of 2010, Tier 1 own funds fell by over a billion kroons, as the consolidated figures were still showing a loss. The banks' lower-quality Tier 2 own funds had fallen by a similar proportion by the end of the third quarter, following repayment of a sizeable amount of subordinated liabilities.

Even though own funds have decreased, the banks' capital adequacy has risen for two straight quarters. This has been caused by an even greater fall in risk-weighted assets. The consolidated capital adequacy ratio reached the high level of 15% at the end of September, significantly exceeding the 10% minimum requirement (see Figure 8). The local banking groups' own funds mainly comprise conventional capital, and so even the most conservative Tier 1 capital ratio, which only recognises share capital, reserves and retained earnings as the instruments best able to bear potential losses, amounted to a relatively high level of 11.6% at the end of the third quarter.

Figure 8. Aggregated capital ratios of the banking sector



Forecast for and stress test of the banking sector

Macroeconomic assumptions

According to Eesti Pank's forecast for 2011-2012, real economic growth will remain lower than the average of the last decade, reaching 3.9%. Loan demand will also remain at a relatively low level, with the loan portfolio showing modest growth of 0.9% in 2011 and 1.5% in 2012. As regards external factors, Estonian loan demand in the forecast period will be affected by the progression of external demand, and the expected modest rise in the six-month Euribor, the key interest rate for a majority of loans. Domestic factors that are liable to affect loan activity and loan repayment ability include problems with the labour market recovery.

Overdue loans and loan losses

In case of expected macroeconomic developments, the volume of loans overdue for more than 60 days will not grow in the forecast period. As the economic situation improves, some loan customers who are suffering from payment difficulties will regain their loan repayment ability, and banks will continue making write-offs from their balance sheets, with the stock of overdue loans thus shrinking. The peak for overdue loans was achieved in August 2010, with overdue loans making up 7.4% of the loan portfolio. The volume of overdue loans is expected to drop to 5% by the end of 2011 and to 4% by the end of 2012 (see Figure 9). Although the levels are different, a similar drop in overdue loans was experienced in Finland after the crisis at the beginning of the 1990s, when the level of overdue loans dropped by nearly 2 percentage points 12 months after reaching a record high (see Figure 10).

Figure 9. Loans overdue for more than 60 days

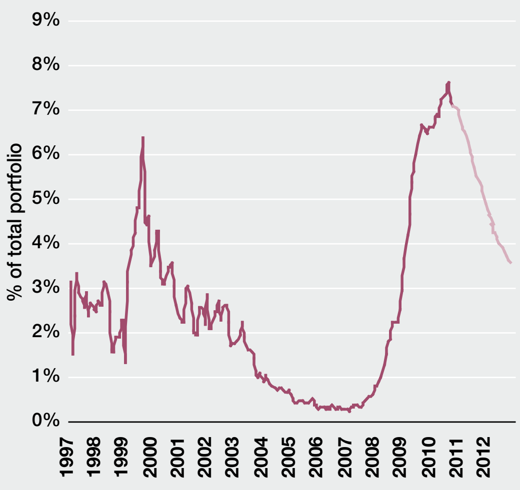
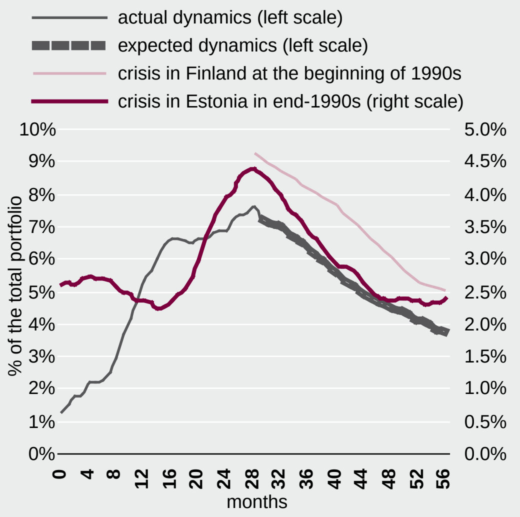


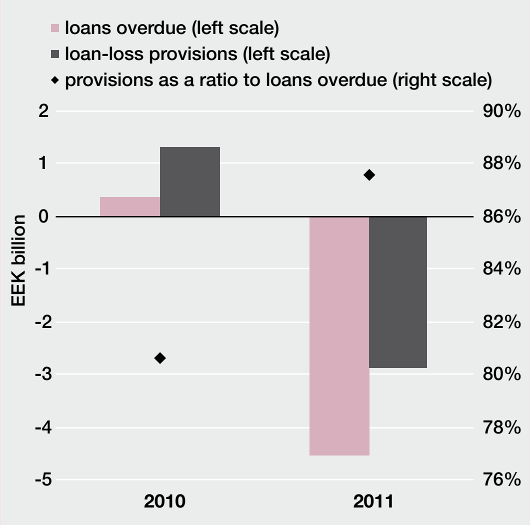
Figure 10. Dynamics of loans overdue and comparison with previous crisis episodes



Sources: Suomen Pankki, Eesti Pank

As the stock of overdue loans shrinks, the banks will reduce the hefty provisions established to cover loan losses (see Figure 11). Nonetheless, the decrease in provisions will be slower than that in overdue loans, and thus the coverage of loans overdue for more than 60 days with provisions is expected to rise from 78% in October 2010 to 88% by the end of 2011.

Figure 11. Change in loans overdue, loan-loss provisions and provisions as a ratio to loans overdue



Profitability

The outlook for pre-provisions profit for 2010 has slightly improved since the spring. Whereas in the spring we forecasted an aggregate pre-provisions profit of 3.5 billion kroons, the current forecast for the banking sector is a profit of over 4 billion kroons. The reason these results have exceeded expectations can be explained by the rise in key interest rates that started in the middle of 2010, and also by a quicker-than-estimated drop in interest expenses due to the combined effect of changes in the structure and cost of capital raised by banks.

The continual rise in the Euribor will fuel further growth in net interest income. The growth in operating profit will be hampered in 2011 by a possible fall in fees and commissions, and by the decline in currency exchange and conversion revenue following the adoption of the euro. Further increases in the banks' expenses can be attributed to the raising of the contribution to the Deposit Guarantee Fund, and the extraordinary expenses related to the adoption of the euro. In total, the banks operating in Estonia are expected to post a pre-provisions operating profit of 5 billion kroons, or nearly 19% more than in 2010.

Capitalisation

As the recuperation of the economy is likely to boost the banks' profits and reduce the volume of overdue loans, the banking sector's capitalisation will show a remarkable increase in the coming year. The main contributors to the increase in capitalisation will include relatively large profits[2], and the transformation of some loan loss provisions into profit. The level of capitalisation will be somewhat lowered by the increase in risk-weighted assets. In total, the capitalisation of the banking sector is expected to increase to over 18%[3] by the end of 2011 (see Figure 12).

Stress test (negative risk scenario)

The purpose of the stress test is to ascertain the banking sector's ability to withstand poorer-than-expected developments. The negative external environment risk entails a rise in money market interest rates stemming from confidence problems on the financial markets or unexpected liquidity

[2] Includes, in addition to the profit forecast for 2011, the unaudited profit for 2010.
[3] Only the capital allocated to cover Estonian risks has been included in the banks' capital.

changes. Given that a majority of the loans issued by banks operating in Estonia are denominated in euros and have a floating interest rate, any increase in the key interest rate would have a considerable negative effect on borrowers' loan repayment ability. The negative risk scenario expects the six-month Euribor to rise to 2.5% by the end of 2011.

The scenario also includes domestic risks, with the loan interest margins expected to remain at a high level in Estonia for the next couple of years. Due to the low levels of loan demand and loan supply, new lending will remain very small, with the loan portfolio showing negative growth in the next two years: –6.4% in 2011 and –3.5% in 2012. In addition, the stress test includes the assumption that, despite enhanced economic activity, the improvement in the loan repayment ability of companies and private individuals will be sluggish.

In the negative risk scenario, the rise in the key interest rate will have a negative effect on borrowers. However, this will be insufficient for the volume of overdue loans to start rising. But the share of overdue loans in the loan portfolio will keep growing until the spring of 2012, reaching 8.3%, as the loan portfolio will continue shrinking in the upcoming years (see Figures 13-14). However, at the end of the forecast horizon, the positive economic environment is expected to fuel the improvement in loan quality, with the volume of overdue loans thus showing a fall in the second half of 2012.

The banks' pre-provisions profit in the negative risk scenario is somewhat smaller than in the baseline scenario. Smaller revenues are caused, above all, by the relatively quick contraction of the loan portfolio. Net interest income will be negatively affected by the continual insolvency of some borrowers as a result of the increase in the key interest rate. In this scenario, the banks

Figure 12. Change in capital adequacy ratio by components

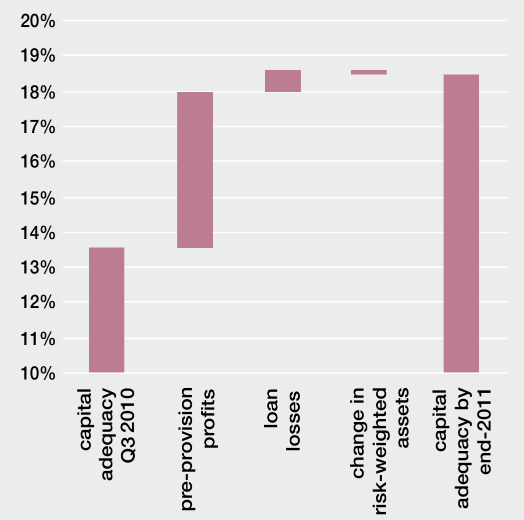
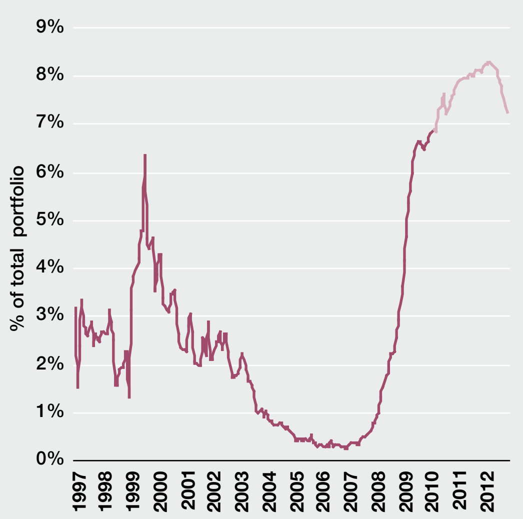


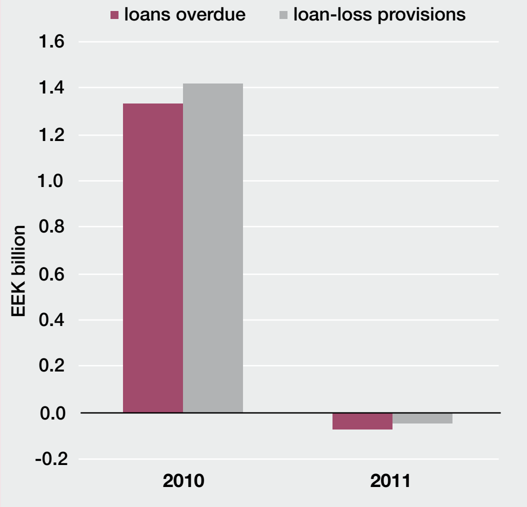
Figure 13. Loans overdue for more than 60 days in the negative scenario



operating in Estonia will post a pre-provisions operating profit of an estimated 4.3 billion kroons in 2011. This result is more or less on par with the result for 2010.

As the economy grows, the volume of loan provisions will decrease a little. The banks' risk-weighted assets will also decrease due to the continual contraction of the loan portfolio. The growth in profits will be the biggest contributor to the increase in capitalisation. Overall, the scenario expects a relatively high level of capitalisation at 18% by the end of 2011.

Figure 14. Change in loans overdue and loan-loss provisions



National guarantee schemes for securing the stability of the banking sector

The deposit guarantee scheme forms a part of the safety network of the financial sector, charged with protecting the depositors and ensuring financial stability and the reliability of the banking system. Adopted on 30 May 1994, Directive 94/19/EC established the deposit guarantee requirement in all Member States, securing at least 90% of the deposits for up to 20,000 euros per depositor. To alleviate the impact of the financial crisis, the coverage level of the guarantee was raised to 50,000 euros in the European Union in October 2008, and the option of a 10% co-insurance requirement for depositors was discontinued. In 2009, depositor protection was further enhanced by an amendment to the directive. The amendments stated that the deposits of bank customers are subject to compensation of 100,000 euros, with the payouts being made within 20 working days. The amendments will enter into force in EU Member States on 1 January 2011.

Estonia

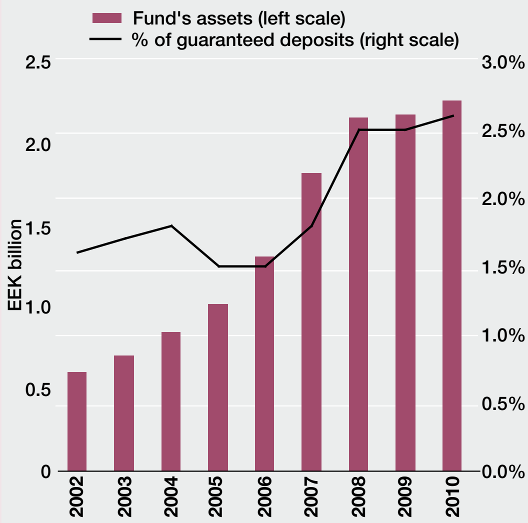
In Estonia, the Guarantee Fund was launched on 1 July 2002. The purpose of the fund is to guarantee protection of the financial resources invested by depositors as customers of credit institutions, investors as customers of investment institutions, shareholders of the mandatory pension fund and policyholders who have concluded pension agreements with insurers. The assets of the Deposit Guarantee Sectoral Fund will be used for to compensate fully the deposits of any depositor in a credit institution within the set limit. In addition to deposits, the interest accumulated until the day the deposits became unavailable will be compensated.

The Guarantee Fund is financed through the contributions of the market participants. On 30 June 2010, the Deposit Guarantee Sectoral Fund covered 2.5% of the guaranteed deposits. At the end of 2009, the fund held 2.18 billion kroons, and it is estimated that by the end of 2010 it will hold

2.26 billion kroons (see Figure 15). Should the assets of the Guarantee Fund prove insufficient to serve the obligations it has assumed and to disburse the compensation, the fund may, under the Guarantee Fund Act, take a loan from credit institutions or other persons, including the state.

So far, the target volume of the Deposit Guarantee Sectoral Fund has been 3% of the guaranteed deposits. Since the base of contributions to the fund was expanded in connection with the implementation of the requirement to secure the deposits of large companies within the set limit from the beginning of 2011, the Guarantee Fund has established a new target volume of 2.5% of the guaranteed deposits. By 2014, the sectoral fund would thus hold an estimated 3.33 billion kroons. Given the need to meet the target volume of the Deposit Guarantee Sectoral Fund even with the rise of the deposit guarantee limit to 100,000 euros from the beginning of 2011, the supervisory board raised the quarterly contribution to the Deposit Guarantee Sectoral Fund from 0.025% to 0.047%.

Figure 15. Deposit Guarantee Sectoral Fund



Nordic countries

The Guarantee Fund compensates deposits in credit institutions registered in Estonia. As a rule, the deposits in Estonian branches of foreign credit institutions are guaranteed by and subject to compensation within the framework of the deposit guarantee scheme of the home country of the credit institution. The banks operating on the Estonian banking market are predominantly from the Nordic countries, so the safety network of the Nordic banks plays an important role in maintaining the sense of security of the depositors and the reliability of the banking sector.

The total deposit guarantee volume of the Nordic countries is significantly higher than that of Estonia, but even so, the ratio between the guaranteed deposits and the funds collected in Sweden is similar to that in Estonia. At the end of 2009, the total volume of deposit guarantee funds amounted to 630 million euros or 1.09% of the guaranteed deposits in Finland, 21 billion Swedish kronor or 2.37% of the guaranteed deposits at the end of 2008 in Sweden, and 3.9 billion Danish krone in Denmark.

As in Estonia, the deposit guarantee scheme in the Nordic countries is financed by regular contributions paid by the credit institutions, while the level of these contributions is linked to the volume of the deposits to be guaranteed. In Sweden, for instance, the total annual contributions of banks amount to 0.1% of the guaranteed deposits, while the contribution of a single bank may vary between 0.06–0.14%, depending on the capital adequacy of banks. In Finland, the contributions are linked to the banks' own funds and the volume of guaranteed deposits. In 2009, total contributions to the deposit guarantee funds were 886 million Swedish kronor in Sweden and 58.4 million euros in Finland. As the volume of the Danish deposit guarantee fund exceeded its target, no additional contributions were collected in 2009.

In addition to the deposit guarantee scheme, Sweden and Denmark have set up special guarantee funds charged with financing the support of the banking system in the event of a crisis, thus reducing the cost of the crisis. Denmark has set up a separate company for the resolution of banks facing difficulties. Sweden has launched a stability fund with a target volume of 2.5% of GDP. The target volume is scheduled to be achieved by 2023 and additional measures are financed by contributions from the banks. The banks thus contribute to covering the expenditure cost of the crisis, and of ensuring financial stability.

In Sweden, banks are obliged to contribute regularly to the stability fund 0.036% of the liabilities which serve as the basis of the calculation of the contribution, although in 2009 and 2010, the contribution was temporarily reduced by 50%. At the end of 2009, the fund held a total of 31.6 billion Swedish kronor. Together with the deposit guarantee fund, which held approximately 21 billion kroons, the Swedish banking system has a very significant buffer. Sweden is currently deliberating over the possibility of uniting the deposit guarantee fund and the stability fund in the future.

The European Union

The European Union in general is moving towards enhancing the efficiency of the deposit guarantee schemes and harmonising the deposit guarantee principles. The general framework for solving financial crises is being reinforced in order to minimise the harmful effect of crises. As in the Swedish model, the planned changes include the establishment of stability funds in EU Member States.

INSURANCE COMPANIES

Developments in the insurance sector are still characterised by a subdued interest in insurance products. Given the market's link to economic activity, however, the situation is expected to improve. The results for the third quarter of 2010 indicated that the insurance sector as a whole is still in considerable profit, but the risks accompanying low interest rates and the volatility of securities markets have not disappeared.

In the second quarter of 2010, the state-owned KredEx Credit Insurance entered the non-life insurance market, insuring against export-related credit risks. It started concluding contracts in the third quarter, and by the end of September the total value of the credit insurance contracts concluded was 63 million kroons.

Life insurance

As the outlook for markets and the macroeconomic situation have improved, the insurance premiums collected by life insurance companies in Estonia in the second and third quarters of 2010 increased by 6% from a year earlier. Despite a slight rise in premiums, difficulties in concluding new contracts and keeping the existing ones remain an issue for the entire life insurance market. Although the rate of contract termination has not risen, it remains high. In the second and third quarters, 402 million kroons were paid for claims, which is 25% more than a year earlier.

As the European life insurance market generally provides traditional life insurance products[4], low interest rates are considered the highest risk to the sector. They curb the insurance companies' income from their investments and complicate the servicing of insurance contracts with guaranteed interest rates. However, in Estonia nearly half of the premiums are collected from unit-linked

[4] Nearly two-thirds of insurance premiums are collected from capital insurance and other life insurance products with guaranteed income (source: CEA, European Insurance – Key Facts, September 2010).

life insurance, where the investment risk is fully incurred by the policy holder, meaning that low interest rates have mainly affected the incomes of policy holders. Although in the last six months the investment yields of companies were more modest than expected, with year-on-year growth of –23%, their average annual yield still reached over 7% in the third quarter. All Estonian insurance companies have earned higher incomes from their investments than would be secured with the interest rates guaranteed by the insurance contracts.

At the end of the third quarter of 2010 the balance sheet of life insurance companies totalled 12.9 billion kroons, 45% of which consisted of the investments of unit-linked life insurance contracts. Other financial investments by the companies comprised half of the total assets. In a climate of lower deposit interest rates, companies have started to seek alternative investments, and since the end of the first quarter of 2010 this has boosted the volume of share holdings by 23%. Nevertheless, at the end of September shares comprised only 12% of total investment (see Figure 16). The majority of investments, 55%, are still invested in highly rated bonds and other fixed-income securities, which reduces the market risk for the companies.

As the risks are smaller, Estonian companies have enjoyed larger profits than companies in various other European Union countries[5]. In the third quarter, life insurance companies earned a net profit of 113 million kroons, which is 18% more than a year ago. The profit stemmed from the positive technical results of all companies. The coverage of net liabilities from reinsurance arising from insurance contracts by financial assets remains at 150%, which means that the liquidity risk is not currently very significant.

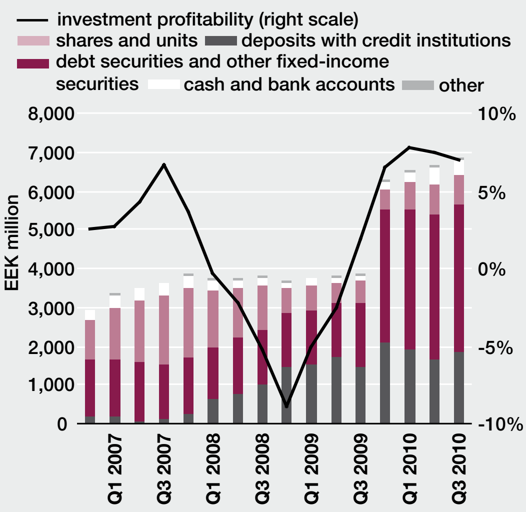
[5] In 2009–2010, 14 insurance companies in nine Member States (Spain, the Netherlands, Ireland, Iceland, Italy, Greece, Sweden, Romania and Slovenia) have become insolvent (source: CEIOPS, "Spring Financial Stability Report 2010: First half-yearly report").

Non-life insurance

The Estonian non-life insurance market fell back 8.5% in the third quarter of 2010, compared to the same period a year earlier. Non-life insurance companies collected 837 million kroons of insurance premiums from residents. Although the number of premiums collected continues to decrease, the drop in the level of premiums has halted (see Figure 17). The motor third party liability insurance and casco insurance of land vehicles, which accounts for the majority, 65%, of the non-life insurance market, has shrunk the most, by 11%, but the situation is looking up, judging by the slight improvement in car sales.

Although sales have fallen, insurance companies earned 149 million kroons of net profit in the third quarter of 2010, with technical results producing 126 million kroons of that. The positive technical results are related to cuts in operation costs and smaller insurance claim payments. The net loss ratio[6], having grown at the beginning of the year

Figure 16. Structure and profitability of life insurance companies' investment



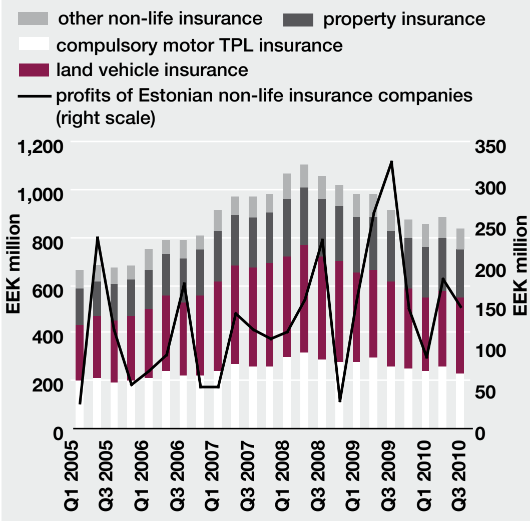
[6] Net loss ratio = claims incurred, net of reinsurance / earned premiums, net of reinsurance.

due to extraordinary weather conditions, receded back to its average level of 61% (see Figure 18). In international terms, the loss ratio is regarded as ordinary, within the range of 40–60%. At that level, companies collect enough insurance payments to cover the claim payments and operation costs, and also to earn profits.

Net income on investment in the third quarter was around 33 million kroons, which is 65% less than it was a year ago. Income on interest, which has so far been a steady source of income, has decreased as year-on-year growth amounted to –31%, and in the third quarter the annual yield of investments shrank to 2.4%. By the end of the quarter, companies' total investment rose to 6.1 billion kroons, with year-on-year growth of 19%, comprising 85% of total assets. The structure of investment did not change considerably. In the past six months, the share of deposits has increased by 6 percentage points to 40% on account of securities investments, but bonds still comprise nearly half of the investment portfolio.

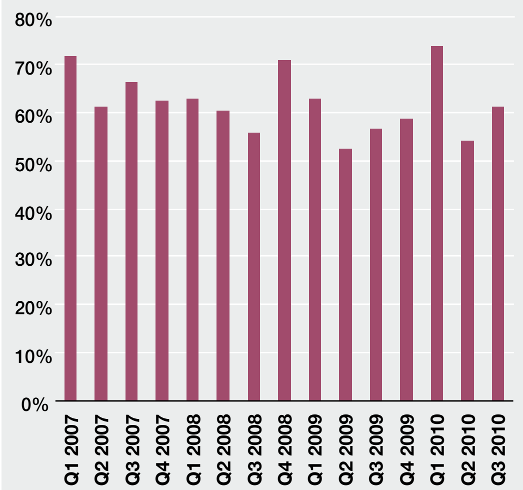
At the end of the third quarter, financial investment exceeded technical provisions by 2.9 billion kroons, which provides better coverage than was the case at the end of last year and guarantees even greater liquidity for the companies. In addition, 18% of the technical provisions were covered by reinsurance contracts. Owing to profitability primarily larger insurance companies have enjoyed an improvement in capitalisation during the past six months.

Figure 17. Profit of non-life insurance companies and premiums from residents



Sources: Statistics Estonia, Eesti Pank

Figure 18. Non-life net loss ratio



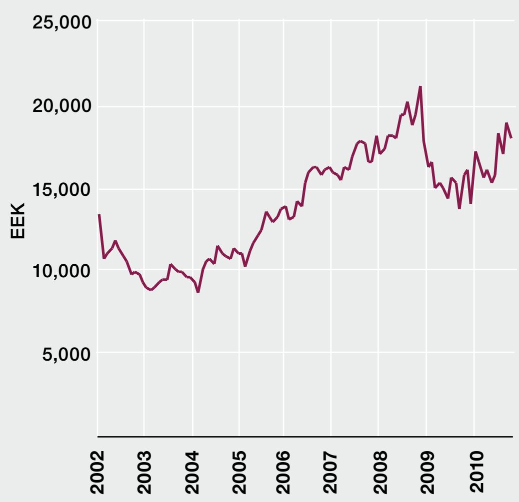
IV SYSTEMICALLY IMPORTANT PAYMENT AND SETTLEMENT SYSTEMS

PAYMENT AND SETTLEMENT SYSTEMS OF EESTI PANK

From April to September 2010, 94,669 payments a day were settled on average in the interbank payment and settlement systems managed by Eesti Pank, with a total value of 10.9 billion kroons (see Table 1).

The majority of payments are processed through the ESTA, the Settlement System of Ordinary Payments. The number of **ESTA** payments declined 4% from a year ago, while their total value increased 10%. The average ESTA payment has grown since the second half of 2009, reaching 17,200 kroons in the last six months, but it is still below its level at the end of 2008, when it was over 20,000 kroons in some months (see Figure 1).

Figure 1. Average size of ESTA payments



The number of payments settled through the **EP RTGS**, the Real-Time Gross Settlement System, increased 13% from a year earlier, while the value of payments shrank 22% (see Figures 2-3).

Changes in interbank payment and settlement systems after the adoption of the euro

The introduction of the euro in Estonia will change the structure of the interbank payment and settlement systems managed by Eesti Pank. On 1 January 2011, the central bank will close the EP RTGS and will be managing two interbank systems from then on:

1) the Settlement System of Ordinary Payments (ESTA), with the euro as the settlement currency as of 1 January 2011, and
2) TARGET2-Eesti, a component system of the *Trans-European Automated Real-Time Gross Settlement Express Transfer system*.

The transactions that have so far been processed in the EP RTGS will be transferred to the TARGET2-Eesti. As in the ESTA the transactions are settled relatively rapidly and it has no limits on the value of payments, the client and interbank payments that have been processed in the EP RTGS may be directed to the ESTA, instead of the TARGET2-Eesti. The TARGET2-Eesti will be processing the collateral transactions of the ESTA, cash transactions with Eesti Pank and transactions of monetary policy operations.

The **liquidity reserve** of the payment and settlement systems of Eesti Pank will decrease because of the gradual reduction of the reserve requirement ratio from 15% to 11% on 1 September 2010 and from 11% to 7% on 1 November 2010. As a

Table 1. The use of the payment and settlement systems of Eesti Pank (April–Sept 2010)

System	Turnover (EEK bn)	% in total payment turnover	Number of payments	% in total number of payments
ESTA	1.6	14.8	94,323	99.6
EP RTGS	4.7	42.6	216	0.2
TARGET2-Eesti	4.7	42.6	130	0.1
Total	**10.9**		**94,669**	

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

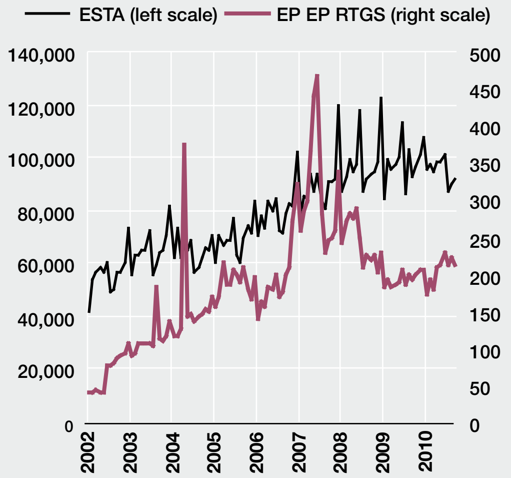
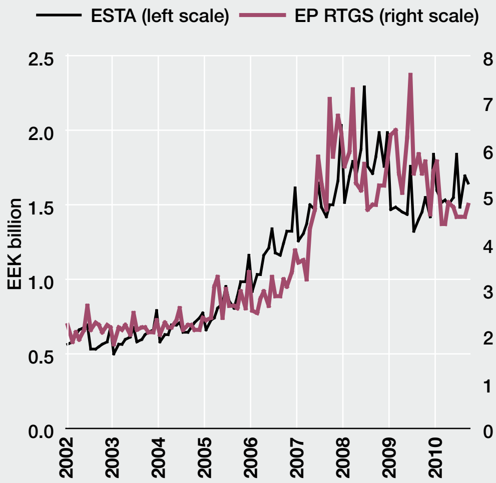


Figure 3. Average value of payments processed in ESTA and EP RTGS per day

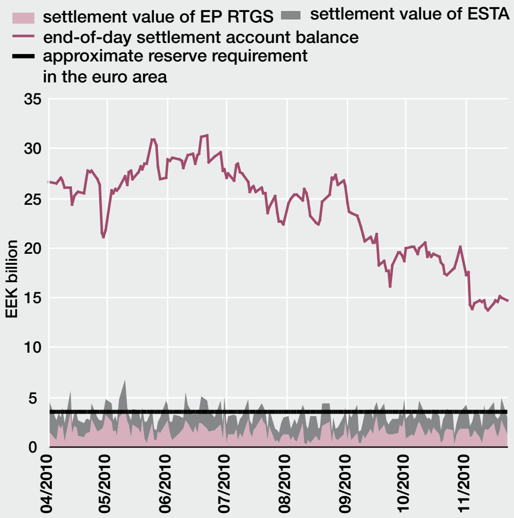


result of these two reductions, the balance of the kroon accounts held with Eesti Pank by commercial banks dropped from 26 billion kroons to 20 billion and then to 15 billion kroons respectively. In the euro area, the reserve requirement ratio is 2%, which means that the required reserve will decline to approximately 3.5 billion kroons. Data for the last six months indicate that the turnover of the ESTA and the EP RTGS[1] will exceed that amount on around seven days a month (see Figure 4). This means that **banks will have to pay more attention to liquidity management in the euro area resulting from the lower reserve requirement**.

Availability and failures of payment and settlement systems

There were no incidents in the operation of the Estonian payment and settlement systems in the past six months that threatened the stability of Estonia's financial sector or jeopardised significantly the settlement of funds.

Figure 4. Daily value of ESTA and EP RTGS (excluding FX transactions and ESTA collateral transactions) compared to the end-of-day settlement account balances of banks' EEK accounts



[1] Excluding currency exchange transactions and the transactions for the ESTA collateral.

In the second quarter of 2010, the **availability** of all three systems was 100%. In the third quarter, the availability of the EP RTGS and the TARGET2-Eesti remained 100%, while that of the ESTA was 99.9% (see Figure 5). The fall in ESTA's availability was caused by a fault on 16 July, when one bank had to resend its payment orders.

The acceptable availability is 99.7% for the TARGET2-Eesti and 99.4% for the ESTA and the EP RTGS. The acceptable availability is determined by the system operator and it shows the operation time of a system that is vital for the smooth operation of important business processes.

OVERSIGHT ASSESSMENT OF PAYMENT AND SETTLEMENT SYSTEMS

In 2010 the compliance of Estonia's payment and settlement systems with the requirements of the Eurosystem was assessed, as the introduction of the euro in an EU country requires that all systemically important payment and settlement systems of that country be assessed.

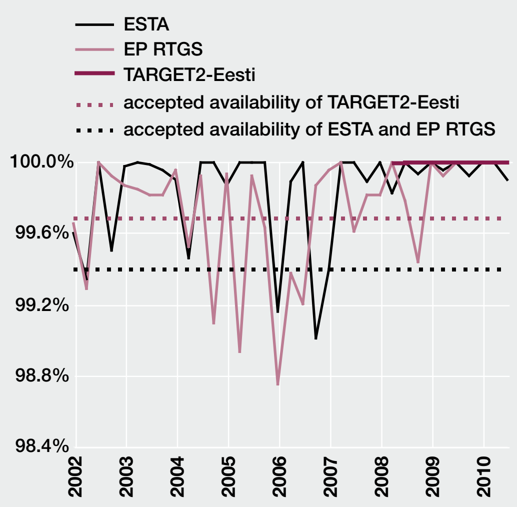
The systemically important **payment systems** in the euro area include

- all real-time gross settlement systems, including the TARGET2 along with its national component systems and other systems that settle time-critical transactions
- retail payment systems designated by central banks as systemically important for the euro area or a country that is part of it.

As domestic RTGS has to be closed once Estonia has joined the euro area and has to be replaced by the TARGET2-Eesti, there was no longer any need for Eesti Pank to assess its EP RTGS. The TARGET2-Eesti has been operating since May 2008, it has been assessed according to the framework of the European System of Central Banks (ESCB), and it complies with international standards[2].

[2] See *Financial Stability Review* No 1/2008, pp 66-67, http://www.eestipank.info/pub/en/dokumendid/publikatsioonid/seeriad/finantsvahendus/_2008_1/_6_108.pdf.

Figure 5. Availability of interbank settlement systems



The changeover to the euro means that the ESTA, which used to be a systemically important retail payment system (SIRPS), will be classified as a prominently important retail payment system (PIRPS). For this reason it was not necessary to assess the ESTA before the forthcoming changeover. Eesti Pank will assess the ESTA as a retail payment system operating with the euro after the changeover, probably in 2011.

There is one systemically important **securities settlement system** in Estonia, the one managed by the Estonian Central Securities Depository (ECSD).

Eesti Pank assessed this system in 2010 to define its readiness for the use in Eurosystem credit operations, specifically monetary policy and intraday credit operations between the central bank and credit institutions, using securities as collateral. The securities settlement system managed by the ESCD was assessed against international standards and the assessment was carried out jointly with the ESCB.

Eesti Pank recommends that the ECSD bring the opening hours of its system into compliance with those of the TARGET2, and that it establish a remote backup facility in order to ensure sufficient operational reliability and availability. Earlier assessments have suggested changes in the ECSD's risk management procedures, which the ECSD has also carried out, including the introduction of real-time settlement facility on the principle of delivery versus payment and the expansion of the range of transactions that, if necessary, are covered by the assets of the guarantee fund. As a result of these changes, the ECSD has implemented two recommendations from earlier assessment reports. **The ESCB found the securities settlement system of the ECSD to be generally eligible for the Eurosystem operations**, meaning for settling the claims and liabilities arising from monetary policy and intraday credit transactions.

Despite this positive assessment the ECSD's settlement system cannot be used in the ESCB credit operations, because there are no eligible securities issued/settled in ESCD at the moment and the links that the ESCD has do not provide the transfer of assets which are eligible for Eurosystem credit operations. In case the eligible assets will be held or issued in the ESCD before 2013, Eesti Pank will have to conduct the light assessment of the ECSD's settlement system to check its compliance with the recommendations outlined in the 2010 assessment and to evaluate the changes made.

Eesti Pank applied for special authorisation from the Eurosystem to use remote access arrangements with international depositories[3] in the ESCB credit operations. There were two reasons for this. First, the securities settlement system of the ECSD cannot be used in ESCB credit operations. Second, the existing Correspondent Central Banking Model (CCBM) that is used in the ESCB for the transmission of foreign collateral is not available for Eesti Pank and Estonia's credit institutions during the whole settlement day, as the working hours of the CCBM are from 10AM to 5PM. The request of Eesti Pank was satisfied in October 2010, but its use was limited by a number of conditions. Eesti Pank has developed a procedure for using the remote access arrangements in the euro area. The compliance of these arrangements with international standards was assessed, and the Governing Council of the European Central Bank approved of the procedure at the end of 2010.

[3] Clearstream Banking Luxembourg and Clearstream Bank (Belgium).