# III STRENGTH OF FINANCIAL INSTITUTIONS

## BANKS

### Funding

The funding needs of banks operating in the Estonian market have decreased along with the continued decline in demand for new lending (see Figures 1-2). The parent banks of larger market participants have had sufficient access to wholesale funding, and have been capable of providing funding for the subsidiaries operating in Estonia. Nevertheless, for quite a lengthy period in 2009, Estonia's largest banks were drawn into price competition on the deposit market, wishing to retain customer relations and market shares. As a result, in the second and third quarter of 2009, the average interest rate on Estonian kroon time deposits remained even as much as 4 percentage points higher than the interest rate on time deposits denominated in euros.

The price war proved costly for banks; yet even so, no bank wished to concede customers to competitors. Banks were prepared to forgo cheaper funding from parent banks before forgoing customers. The aggregate balance sheet of banks dropped by nearly 15 billion kroons during the year, with the banks' liabilities to non-resident credit institutions shrinking by more than 21 billion kroons. In the last quarter of the year, the largest banks nevertheless began cutting interest rates on kroon denominated time deposits (see Figure 3), which allowed other market participants to join in. Although some banks with smaller market shares still offer a notably higher-than-average interest rate on deposits, the range of the services they offer presumably does not meet the needs of larger corporations. By the end of the first quarter of 2010, the spread of average interest rates on deposits denominated in kroons and euros had already fallen below one percentage point.

Although the decrease in credit demand has brought along a drop in liabilities to parent

**Figure 1. Quarterly changes in loan and deposit stocks and loan-to-deposit ratio**

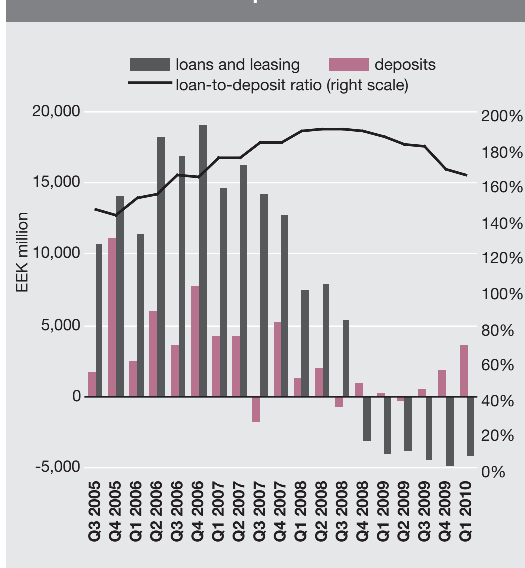
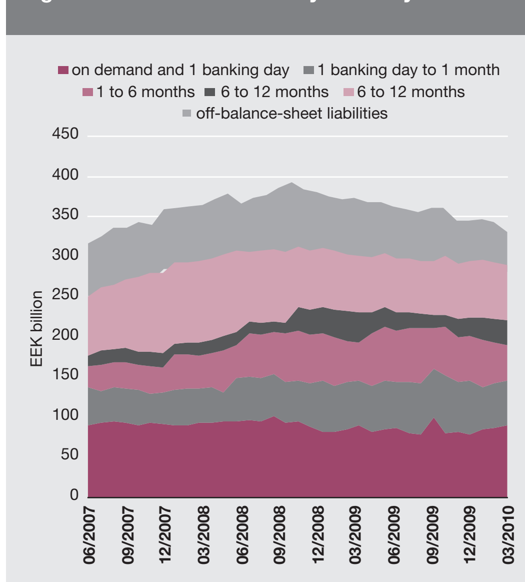
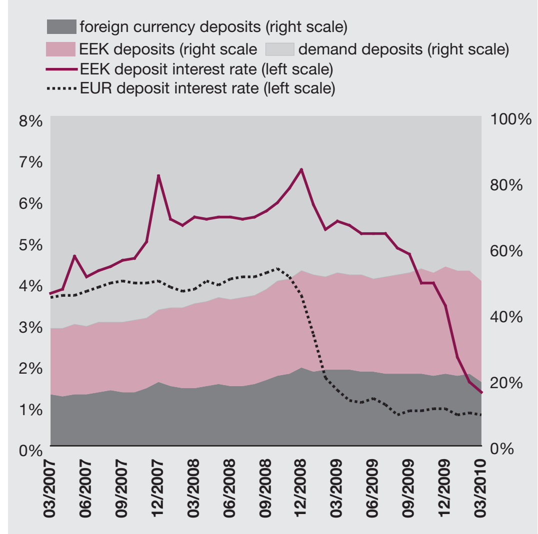



**Figure 2. Banks' liabilities by maturity**



banks, neither the general funding models of the Estonian banking sector nor the nature of liquidity risk have changed significantly (see Figure 3). The long-term sustainability of market participants depends on their ability to raise funds at prices that support profitability, which in turn depends on how fund providers assess the sustainability of their business model and their expected profitability. The financing risks for the largest banks operating in Estonia are diversified by their belonging to international financial groups. However, it should also be kept in mind that market participants view group members' risks increasingly as an integral risk, which is why the ability of the group to raise funds depends on the outlook for the group as a whole.

**Figure 3. Time deposits as % of total deposits and their average interest rate**

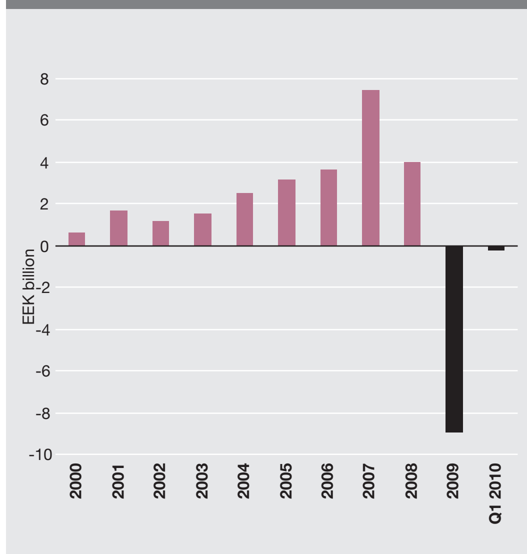



### Profitability

The combined effect of materialised credit risk, conservative provisioning and low interest incomes stemming from unfavourable economic environment resulted in an **operating loss of over 8.9 billion kroons in 2009** of the banks licensed in Estonia and branches of foreign banks operating in Estonia. The **aggregate loss of six consolidated groups totalled 15 billion kroons** (see Figure 4 and Tables 1-2).

In previous periods, domestic banks' profitability was supported also by profits earned on foreign markets. In 2009, unfavourable economic conditions forced banks to write down domestic assets in the amount of around 9 billion kroons, and to reduce the book value of foreign subsidiaries by more than 3.4 billion kroons. The assets of consolidated groups were written down on aggregate by 25 billion kroons in 2009. The majority of the write-downs can be attributed to the revaluation of loan portfolios of non-resident subsidiaries.

**Figure 4. Agrgegate net profits of banks and subsidiaries**




The rather conservative provisioning practices of banks in recent periods and the economic forecast suggest that fewer write-downs will

**Table 1. Profitability of banks**

| | 31/12/2008 | 31/03/2009 | 30/06/2009 | 30/09/2009 | 31/12/2009 | 31/03/2010 |
|---|---|---|---|---|---|---|
| Average return on assets in the past four quarters | 1.2% | 0.8% | -0.2% | -1.2% | -2.7% | -2.7% |
| Return on assets in a quarter (x 4) | 0.3% | -0.5% | -2.3% | -2.3% | -5.8% | -0.3% |
| Average return on equity in the past four quarters | 13.6% | 8.7% | -1.3% | -8.7% | -23.6% | -22.8% |
| Return on equity in a quarter (x 4) | 3.5% | -5.3% | -19.5% | -15.7% | -53.2% | -3.9% |
| Net profit in the past four quarters (EEK bn) | 4.0 | 2.6 | -0.9 | -4.0 | -8.9 | -8.7 |
| Net profit of the quarter (EEK bn) | 0.2 | -0.4 | -1.9 | -1.9 | -4.7 | -0.3 |
| Net asset write-downs in a quarter (EEK bn) | -0.8 | -1.5 | -2.7 | -2.5 | -5.6 | -1.3 |

**Table 2. Profitability of banking groups**

| | 31/12/2008 | 31/03/2009 | 30/06/2009 | 30/09/2009 | 31/12/2009 | 31/03/2010 |
|---|---|---|---|---|---|---|
| Average return on assets in the past four quarters | 1.4% | 0.8% | -1.0% | -2.3% | -3.3% | -3.5% |
| Return on assets in a quarter (x 4) | 0.5% | -1.1% | -5.4% | -3.4% | -3.4% | -1.6% |
| Average return on equity in the past four quarters | 16.8% | 8.8% | -11.3% | -26.1% | -38.0% | -41.0% |
| Return on equity in a quarter (x 4) | 5.6% | -12.2% | -60.3% | -42.3% | -41.7% | -19% |
| Net profit in the past four quarters (EEK bn)* | 7.1 | 3.8 | -4.9 | -10.8 | -15.1 | -15.5 |
| Net profit of the quarter (EEK bn)* | 0.6 | -1.4 | -6.2 | -3.8 | -3.7 | -1.7 |
| Net asset write-downs in a quarter (EEK bn) * | -1.7 | -3.7 | -9.7 | -6.0 | -5.6 | -3.6 |

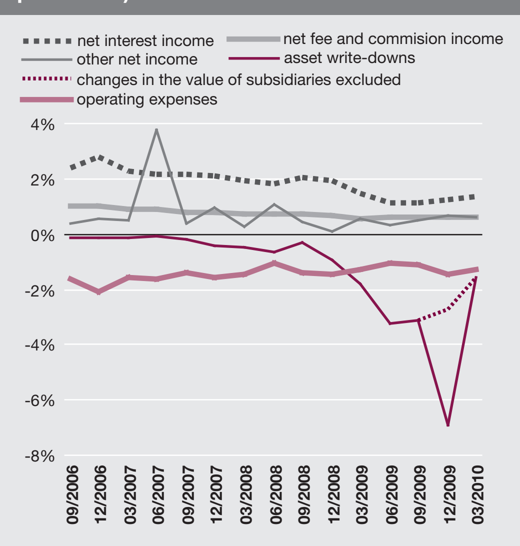
* Excluding data of Danske Group.

be made in 2010 than in 2009. Although loan repayment problems may yet become evident in some sectors, there will also be customers whose loan servicing capabilities will improve.

**The pre-provisions profit of the Estonian banking sector totalled over 3.3 billion kroons**, showing an improvement in the first quarter of 2010. The recovery of growth in **net interest income** has been the biggest contributor to income growth. This is primarily due to the lower cost of capital, which was constrained in 2009 by competition on the deposit market (see Figures 5–7).

Interest income growth is also influenced by the increase in risk premium for loan products. Although new lending remains modest compared to the recent period of rapid growth, banks have started asking higher risk margins also on customer agreements allowing for adjustments in risk premium. Still, first of all a higher risk premium is applied to loans issued to customers that have failed to comply with the terms and conditions of the agreement.

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



Low economic activity continues to restrain payment intermediation, which is the primary source of **fee and commission income**. Nevertheless, in ratio to average assets, fee and commission income has remained relatively stable in recent quarters.

As operating income has decreased, banks have been constantly looking for possibilities of **cutting costs**, for instance by reversing bonus reserves. Yet they have not cut expenses at par with fall in income, potentially expecting a recovery of income growth. In terms of banks and subsidiaries, operating expenses decreased only 3% from 2008 to 2009, and 17% in terms of banking groups.

In the quarters ahead, profitability in the banking sector will continue to be mostly affected by the developments in non-performing loans and funding costs. Growth in key interest rates would initially increase **interest expenses**, but would later entail growth in net interest income. Greater parity between Estonian kroon and euro deposit interest rates is likely to reduce banks' interest expenses, regardless of changes in the key interest rates. Moreover, banks' interest expenses also depend on changes in financing structures and specific risk assessments. The increased percentage of loans issued with adjusted risk margins after competitive pressure eased off should boost **interest income**, but in the near future, income will still be constrained by the cancellation of the calculation of interest accrual on overdue loans.

In addition to interest income growth, the revival of economy is expected to facilitate recovery in demand for payment services, which will increase fee and commission income. It can be concluded, on the basis of the current operating expenses, that banks will be able to keep expenses under control or reduce them even further, if necessary.

**Figure 6. Banking groups' expected annual incomes and expenses by type (% of average assets per quarter x 4)**

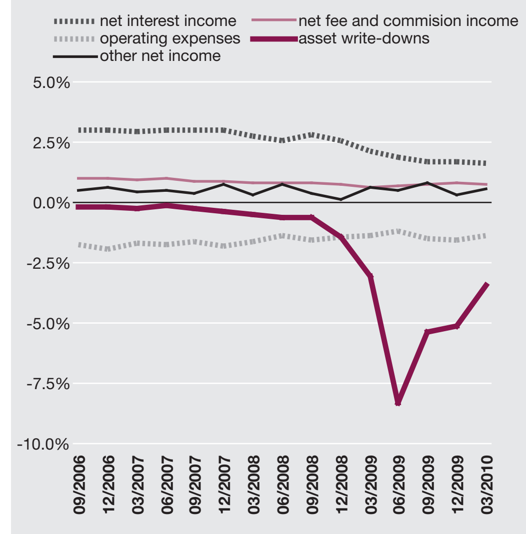
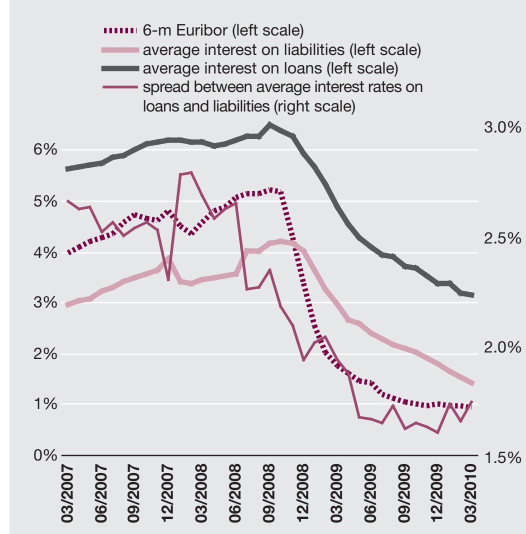


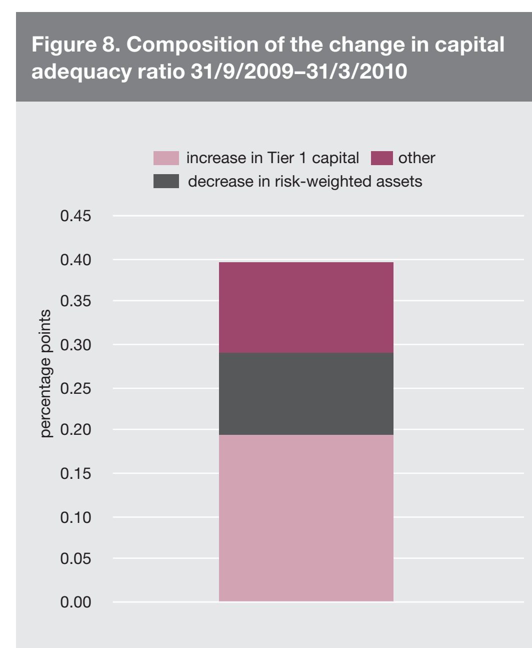

**Figure 7. Average interest on banks' liabilities and receivables at month-end and 6-month Euribor**



## Capital adequacy

In spite of the challenging economic situation and large losses, the aggregate capital adequacy of banking groups rose by 0.4 percentage points to 14.9% during the past six months. Capital requirements have remained stable since October 2009: the decrease in credit risk capital requirements offset the increase in capital requirements needed to cover other risks. Banks' own funds were affected most by provisions for covering major loan losses. As a result, own funds dropped by 5.8 billion kroons in the last six months. To improve capitalisation, 6.3 billion kroons were injected to equity capital in November 2009. This reflected a one-time capital management transaction on the part of one bank, with its impact on the capital adequacy indicator abating already in December.

**Figure 8. Composition of the change in capital adequacy ratio 31/9/2009–31/3/2010**




As in the figures for banking groups, the capital adequacy indicator for banks increased by 1.5 percentage points from October on, reaching 22.3% in April. The increase in capital adequacy was affected most by growth in Tier 1 own funds. Capital requirements for banks remained unchanged over the last six months. Loan portfolios that have shrunk due to low economic activity also reduced the capital requirements needed to cover credit risk. This was offset by a slight increase in capital requirements of the trading portfolios in terms of both banks and banking groups.

Tier 1 own funds grew by 6 billion kroons in November 2009, as a result of which the average capital adequacy indicator for banks rose to 24.6% for one month.

**Table 1. Capital adequacy determinants of banking groups (EEK billion)**

| | 31/03/2009 | 30/06/2009 | 30/09/2009 | 31/12/2009 | 31/03/2010 |
|---|---|---|---|---|---|
| Tier I own funds | 42.6 | 36.8 | 32.6 | 34.9 | 33.2 |
| Tier II own funds | 10.8 | 12.1 | 12.0 | 12.0 | 11.8 |
| Deductions | 4.2 | 0.6 | 0.5 | 0.5 | 0.5 |
| Own funds in capital adequacy calculation | 49.2 | 48.3 | 44.1 | 46.4 | 44.5 |
| Capital requirement for credit risk and counterparty credit risk | 28.8 | 28.0 | 26.5 | 25.4 | 25.4 |
| Other risks | 0.5 | 0.8 | 1.0 | 1.5 | 1.6 |
| Capital requirement for operational risk | 1.8 | 2.0 | 2.0 | 2.0 | 1.9 |
| Minimum amount of own funds in the transition period | 30.2 | 28.9 | 27.9 | 26.8 | 25.5 |
| Capital adequacy requirement | 32.2 | 32.0 | 30.3 | 29.5 | 29.8 |
| Banking sector average capital adequacy | 15.3% | 15.1% | 14.5% | 15.7% | 14.9% |
| Lowest capital adequacy ratio | 14.2% | 13.9% | 13.2% | 13.7% | 13.6% |

**Table 2. Capital adequacy determinants of banks (EEK billion)**

| | 31/10/2009 | 30/11/2009 | 31/12/2009 | 31/01/2010 | 28/02/2010 | 31/03/2010 | 30/04/2010 |
|---|---|---|---|---|---|---|---|
| Tier I own funds | 25.3 | 31.3 | 27.9 | 27.8 | 27.8 | 27.3 | 26.7 |
| Tier II own funds | 11.0 | 11.1 | 11.0 | 11.0 | 11.0 | 11.1 | 10.9 |
| Deductions | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.18 |
| Own funds in capital adequacy calculation | 36.0 | 42.2 | 38.7 | 38.5 | 38.6 | 38.2 | 37.47 |
| Capital requirement for credit risk and counterparty credit risk | 14.4 | 14.2 | 14.2 | 14.3 | 14.2 | 14.1 | 13.6 |
| Other risks | 1.1 | 1.2 | 1.5 | 1.5 | 1.5 | 1.6 | 1.5 |
| Capital requirement for operational risk | 0.8 | 0.8 | 0.8 | 0.7 | 0.8 | 0.7 | 0.7 |
| Minimum amount of own funds in the transition period | 16.3 | 16.0 | 16.0 | 16.0 | 15.9 | 15.8 | 15.7 |
| Capital adequacy requirement | 17.3 | 17.2 | 17.3 | 17.6 | 17.6 | 17.3 | 16.8 |
| Banking sector average capital adequacy | 20.8% | 24.6% | 22.3% | 22.0% | 21.9% | 22.1% | 22.3% |
| Lowest capital adequacy ratio | 13.9% | 14.4% | 13.8% | 14.9% | 15.0% | 14.9% | 14.6% |

## Stress test of the banking sector

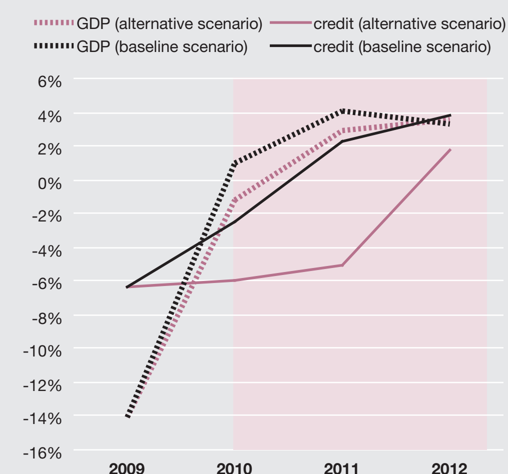
### *Scenarios of the stress test*

The overdue loans forecast is based on the baseline scenario and negative risk scenario of Eesti Pank's spring forecast. The baseline scenario expects economic activity to remain at a low level in the near future, followed by a gradual increase supported by external demand. Domestic demand will begin to contribute to economic growth only in the subsequent years. In 2010, GDP will grow by 1%, and in 2011 and 2012, by 4.0% and 3.3% respectively (see Figure 9).

One of the most important determinants of long-term growth is unemployment, which will likely remain high even at the end of the forecast horizon, regardless of economic recovery.

According to the spring forecast, the credit market will remain subdued in the months ahead. Market participants have focused primarily on managing their existing loan portfolio; issuing new loans or increasing market share are not considered priorities. The baseline forecast scenario expects the loan portfolio to decline 2.4% by the end of 2010 and increase 2.3% in 2011.

**Figure 9. GDP and credit growth based on different forecast scenarios**




The negative risk scenario of the 2010 spring forecast is based on the negative side effects of deleveraging, as a consequence of which there is a possibility of continued recession in 2010 as well.

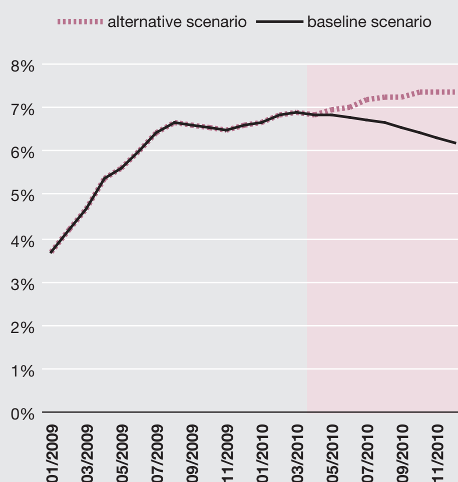
### *Overdue loans forecast*

As in the banking sector stress test conducted in the autumn of 2009, we presume that the financial behaviour in the non-financial sector has changed, compared to the pre-recession period. The problems faced by borrowers in financial distress are long-term; it will take more time for overdue loans to perform again. The negative risk scenario anticipates further worsening of the loan repayment ability of the non-financial sector and a longer time period for the recovery of the sector's financial behaviour to pre-crisis levels.

According to the baseline scenario, the stock of overdue loans peaked in the second quarter of 2010 and then started to decrease (see Figure 10). This is, however, a very time-consuming process. By the end of 2010, the share of overdue loans in the portfolio will have dropped by 0.6 percentage points from the peak level to 6.2%. The negative risk scenario sets out slight growth in overdue loans in 2011, with a drop in the share of overdue loans expected from the second quarter of 2011.

Loan restructuring gained momentum in 2009, which has somewhat weakened the link between loan loss provisions and loans overdue. More provisions have been made than could be expected based on the analysis of loans overdue. In April 2010, the stock of provisions for potential loan losses comprised 5.3% of the portfolio (80% of loans overdue for more than 60 days were covered by provisions).[1] According to the forecast, the economic situation will improve in the second half of the year; some of the non-performing loans are expected to recover. Drawing on the principle of conservatism, the banking sector stress test nevertheless presumes that banks will make additional provisions in 2010 for new non-performing loans. The main reason is the marked uncertainty about future risks, in particular as regards the recovery of overdue loans.

**Figure 10. Non-performing loans based on different forecast scenarios**




The baseline scenario sets out 2.2 billion kroons of additional provisions in 2010, which is comparable to the 2008 level. By the end of 2010, the share of provisions in the banks' loan portfolio will increase to 5.8%. Based on the negative risk scenario, 2.9 billion kroons of additional provisions will be made in 2010, and the share of provisions will increase to 6.4% by year's end. In both scenarios, around 85% of loans overdue for more than 60 days will be covered by provisions by year's end.

[1] This is comparable to the level of provisions made in Sweden and Norway during the economic crisis in the Nordic countries in the early 1990s.

***Profitability forecast***

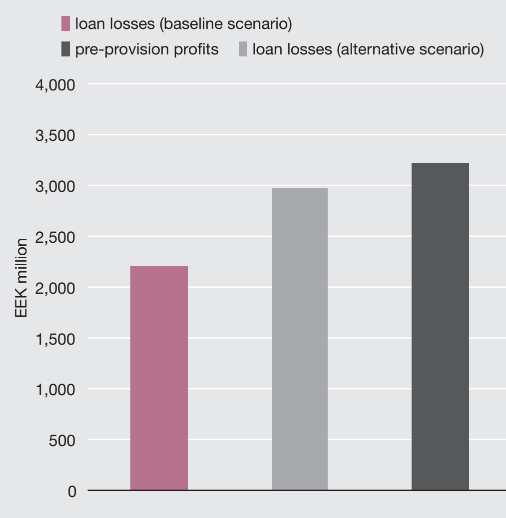
In the quarters ahead, profitability in the banking sector will be most significantly affected by non-performing loans and cost of capital.

The baseline scenario of Eesti Pank's spring forecast does not anticipate a major change in the key interest rates in near future. Low key interest rates will curtail banks' income from the price difference in demand deposits and loans tied to the key interest rate. Presumably, the decrease in the spread between Estonian kroon and euro deposit interest rates will soon reduce banks' funding costs. But if market participants' confidence is undermined further, interest expenses may grow as a result of increased broader based risk assessments that would translate into higher funding costs.

The cost of funding raised by groups depends increasingly on the risk assessments of the entire group. Thus, there are currently conflicting signals regarding the further development of funding costs. Interest income will be supported by the increased percentage of loans issued with adjusted risk margins after competitive pressures have eased off. At the same time, in the near term income growth will also be constrained by the cancellation of the calculation of interest accrual on overdue loans. The absolute volume of interest incomes and expenses is also affected by a further decline in the loan portfolios (i.e. the income base) in 2010, –2.4% according to the baseline scenario.

Besides net interest income, banks' profitability is shaped by income from services, the majority of which originates from payments intermediation. Further developments in income from service charges depend on general economic activity, but the spring forecast does not anticipate rapid growth in the near future. Based on current operating expenses, banks will be able to keep expenses under control, or reduce them even further. At the same time, banks are hoping for the economic situation to improve and are not planning considerable cuts in expenses in 2010.

**Figure 11. Loan losses and pre-provision profits in 2010 based on different forecast scenarios**




According to Eesti Pank's spring forecast and the presumptions made in the banking sector stress test, the four major banks operating in Estonia will earn 3.1 billion kroons of pre-provision profits in 2010. The total pre-provision profits of the banking sector may extend to 3.2 billion kroons (see Figure 11).

***Conclusion***

The banking sector stress test presumes that banks' capital requirements will decrease in 2010 as loan portfolios are shrinking. In addition, banks' own funds are expected to increase in the amount of the profit posted in 2010. Therefore, banks' profitability plays an important role in the assessment of capital adequacy.

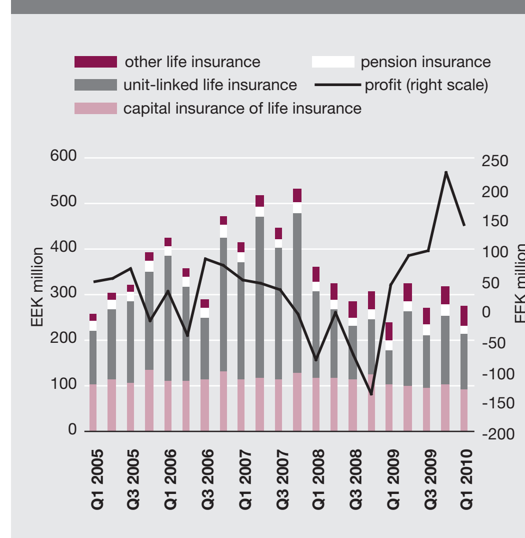
The aggregate pre-provision profits of banks will exceed the additional loan losses according to both scenarios, and thus also banks' capital adequacy ratios will increase further. Aggregate market capitalisation is sufficient, and banks will be able to fulfil capital adequacy requirements in 2010 even in the event of losses.

The capital buffer of banks will total 10.3 billion kroons at the end of 2010, as set out in the baseline scenario. The risk scenario projects a figure of 9.5 billion kroons. If banks wrote down just as many overdue loans as they have thus far, the share of overdue loans that would exhaust the capital buffer would be 12.6% of total loans issued in the banking sector. In the case of the risk scenario, the corresponding indicator is 12.1%. In this case, the provisions would be 21.4 and 20.6 billion kroons respectively, covering about 9.6% of loans.

## INSURANCE COMPANIES

In the light of general developments, the decline in the Estonian insurance market in 2009 was to be expected. With the year, the total value of collected insurance premiums decreased by 11%. Despite this, the high contract termination rate and the continuing strong competitive pressures, the profitability of the insurance market increased by the year-end. This was largely owing to a recovery in the investment markets but also the improved cost-effectiveness of insurance companies. As macroeconomic risks did not change much in the past six months, the risk absorption capacity of the insurance sector also remained the same compared to half a year ago. In the next six months, the main risks in the insurance sector will still be related to interest rate developments and the return on investment.

**Figure 12. Profits of life insurance companies and premiums from residents**




### Life insurance

Declining incomes usually entail an increase in the termination of life insurance contracts. In 2008, the contract termination rates of Estonian life insurance companies were among the highest in Europe, which also caused a steep fall in insurance premiums. However, as the outlook for global financial markets and Estonia's economic growth improve, a moderate increase in insurance premiums may be expected already in 2010. In the first quarter of 2010, 273 million kroons of insurance premiums were collected from Estonian residents, which is 15% more than a year ago. Unit-linked life insurance, which suffered the most in the crisis, still prevails with 44.5% of the portfolio of insurance premiums (see Figure 12). Meanwhile, insurance companies have perceived a slight growth trend in term life insurance contracts, which indicates that customers are increasingly valuing the hedging of financial risks.

The life insurance sector was able to increase its net profit in 2009. Profitability was also retained in the first quarter of 2010 with a net profit of 140 million kroons, which was over three times more than a year before. Profitability has been boosted by higher incomes on taking insurance risks and a remarkable improvement in the return on investment portfolios. The aggregate financial indicators of insurance companies are also affected by the new European company Swedbank Life Insurance SE, which was established at the end of the year and which is located in Estonia with branches in Latvia and Lithuania.

In the first quarter of 2010, the annual yield of investment of life insurance companies operating in Estonia posted over 9%. Based on conservative investment policies, the majority (58%) of the financial assets of Estonian insurance companies consists of bonds of European governments and highly rated financial institutions, and other fixed-income securities. The second preference is time deposits in credit institutions (31%). Lately, however, the risk level of government bonds has increased and deposit interest rates have dropped, which may affect investment and compel investors to reconsider their choices.

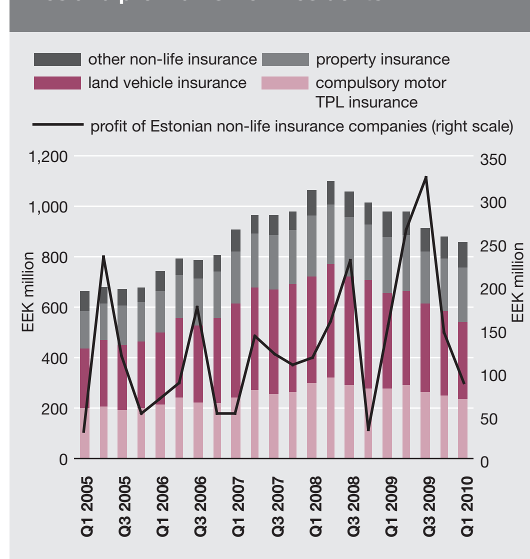
High profitability has helped companies maintain strong capitalisation. The own funds of companies doubled with the year, reaching 1.4 billion kroons at the end of 2009. Given that the required solvency margin, as set out in the Insurance Activities Act, was 385 million kroons, the life insurance sector exceeded the margin by 3.7 times. At the end of the first quarter, net financial assets exceeded the liabilities without reinsurance by 2.1 billion kroons, thus ensuring sufficient liquidity buffers for the companies.

## Non-life insurance

The insurance premiums of the non-life insurance market have been experiencing a slight downward trend since the third quarter of 2008. In the first quarter of 2010, the insurance premiums collected by non-life insurance companies registered in Estonia and branches of foreign companies operating in Estonia were 12.8% smaller than a year before. The drop in premiums is related to shrinking car sales and insurance rates. Vehicle insurance has suffered the most, but so has the insurance of transported goods and legal entities' property insurance. Although the market is expected to recover slightly in the second half of 2010 along with improving domestic demand, no growth is to be expected yet.

At the end of 2009, the non-life insurance companies registered in Estonia (including their branches in Latvia and Lithuania) recorded record high profits at 890 million kroons, while in the first quarter of 2010 they earned a profit of 88 million kroons, nearly 50% less than a year before (see Figure 13). Companies' total investment grew to 5.7 billion kroons (year-on-year growth 16%), over half of which consisted of debt securities and around 34% were time deposits in credit institutions. As a result of a recovery in the stock markets, the percentage of shares and units in fund portfolios has slightly

**Figure 13. Profit of non-life insurance companies and premiums from residents**



increased again. Within the first three months of the year, income on investment totalled 73 million kroons, most of it being interest income (48%). The return on investment grew 4.8%, year-on-year.

Last year's profitability was also boosted by outstanding technical results (689 million kroons), which stemmed from low loss rates. Claims were settled in the total amount of 2.3 billion kroons and the net loss ratio[2] posted the lowest result since 2004 at 57%. The insurance risk of non-life insurance companies remained relatively low owing to the positive impact of lower traffic load and weather conditions. However, owing to difficult winter weather, the first-quarter claims exceeded the year-end figures, and the loss ratio is expected to increase as a result of price pressures and higher loss rates.

The capitalisation of insurance companies has also improved as a result of growth in profitability at the end of 2009. Financial investments exceed the liabilities arising from the insurance contracts by 2.4 billion kroons, ensuring sufficient liquidity buffers for companies. At the end of 2009, insurance companies carried out liability adequacy tests, which indicated that the insurance technical reserves are sufficient for the estimated cash flows that arise from insurance contracts. The own funds grew by 3.6% in 2009. The insurance sector does not have problems with meeting the required solvency margins, as they are nearly four times bigger than required. Until the adoption of the new capital adequacy directive for insurance companies, Solvency II, it is unlikely that the regular operations of any non-life insurance company would jeopardise the requirement for available solvency margin.

[2] Net loss ratio = (the occurred net claims from reinsurance + changes in other technical provisions from reinsurance) / (earned net premiums from reinsurance + other technical net incomes on reinsurance).