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SUMMARY

The credit and liquidity tensions and changes in the risk estimates of market participants that appeared in **international financial markets** in the second half of 2007 have also affected the Estonian financial sector. The changes in investors' attitudes have passed through to the Estonian market primarily via changes in financial asset prices, and caution on the interbank money markets worldwide is reflected in higher risk premiums. Meanwhile, the acceleration of inflation has complicated the implementation of monetary policy stimuli; that is, decreasing interest rates in the euro area.

As expected, the **slowdown in Estonia's economic growth** has been mainly caused by the weakening domestic economy. After a few years of robust investment and consumption growth, real economic growth has declined to considerably more modest levels. At the same time, exports have sustained growth momentum for the time being. Inflation, which rose to a double-digit level at the beginning of 2008, is putting a pressure on corporate as well as household budgets and may also affect investment and consumption decisions in the short term. According to the base scenario of Eesti Pank's spring forecast, real GDP growth will reach 2% this year, 3% in 2009 and 5% in 2010. The inflation rate is expected to reach 9.8%, 4.5% and 3.0% in 2008–2010.

Financial behaviour of companies and households and their risks

Growth in aggregate **corporate profits** decelerated abruptly in the second half of 2007. The main reason was that in the conditions of slowing growth in sales turnover the increase in expenditures has not been managed efficiently enough so as to maintain profitability. The increase in labour costs has played an essential role in the growth of total costs. As labour costs are more inert than other costs, profitability might decrease further in the coming periods. This will entail pressure on companies' debt servicing ability and possibly a decline in loan quality.

Corporate indebtedness continued to decelerate along with slowing investment growth and weakened confidence growth. Although such a trend occurred in almost all fields of business activity, real estate companies have suffered the sharpest decline. The debt of the manufacturing sector grew at a faster pace at the beginning of 2008. Competition between banks in the corporate loan market has remained tight, which has kept the average interest margins from rising. However, as the cost of funding is increasing, banks will probably have to raise interest margins in the future.

Household confidence has been weakening since the middle of 2007, increasingly affecting also loan demand. As growth in housing loans has been moderating, household demand for consumer credit started to ease in the second half of 2007. The moderation in wage growth and the decreasing employment along with a high inflation rate are putting a strain on households' loan servicing capabilities. The slowing growth of deposits and other financial assets has decreased the buffers for loan servicing, although household indebtedness has been growing at a more modest pace compared to the previous years.

The activity in the **housing market** was low also in spring 2008, and average prices were dropping. As the number of dwellings up for sale is constantly growing while the number of transactions keeps decreasing, sales periods are longer now and downward price pressures persist. This means that real estate companies might face difficulties also in the coming periods. A record number of new **office spaces** are about to be completed in the near future. However, it will be more complicated to rent them out owing to the increased insecurity of market participants. On the other hand, office spaces are mainly being built by experienced real estate developers and the total volume of such loans is relatively small compared to the real estate loans related to housing development.

Banking sector

The worsening economic environment and deceleration in credit growth has caused an increase in the volume and share of **overdue loans** in loan portfolios in the past six months. The share of loans overdue for more than 60 days in the loan portfolio climbed from 0.35% a year ago to 0.99% in March 2008. According to Eesti Pank's spring forecast, the share of overdue loans may increase to 1.5–2.6% by end-2008 and to 2.2–3.1% in 2009.

At the end of March, the stock of **provisions** for loan losses amounted to 1.6 billion kroons and accounted for 70% of the loans overdue for more than 60 days. The ratio of provisions to overdue loans has decreased over the last six months.

At the beginning of 2008, the new framework for calculating **capital adequacy** became mandatory for all credit institutions operating in Estonia. The first months of the new framework have confirmed the validity of the quantitative impact analyses conducted earlier: the credit risk weighted assets decreased by 12.5%. The average capital adequacy ratio of the banking sector stood at 17% at the end of March; banking groups' average capital adequacy was 11.6%. A stress test conducted by the central bank showed that the banking sector will be able to meet the capital adequacy requirement, both considering the assumptions used in the base forecast scenario and those of risk scenarios.

The reserve requirement for banks, raised to 15% of banks' liabilities as of September 1, 2006, has helped to preserve the share of liquid assets in total assets. But even with the obligatory reserve requirement it is very important that market participants maintain sufficient liquidity buffers in a difficult market situation.

Meanwhile, the systemically important credit institutions operating in Estonia increasingly depend on **parent banks' liquidity management**. On

the one hand, it may be presumed that the funding risk of a group operating in different markets is more diversified – funds can be reallocated among different parts of the group as needed. On the other hand, a group's ability to obtain additional funds and the cost of such funds depends on risk estimates regarding the entire group. So far, parent banks have been able to provide necessary funds to the local banking sector.

The **profitability** of banks has been influenced by an increase in funding costs, an increase in write-downs of claims accompanying the change in the current phase of the economic cycle, and developments on financial markets. As parent banks have not significantly changed the margins asked from local banks, the increase in funding costs stems mostly from general economic developments and changes in the structure of banks' liabilities. However, banks have not been able to pass the total increase in funding costs on to clients, which has diminished banks' net interest income. Profitability has been also curbed by an increase in loan write-downs, which will probably continue considering the rising share of overdue loans. The future profitability of banks depends, among other things, on their ability to respond to the decline in income by cutting down on expenses.

Securities market and other financial intermediaries

The Estonian **bond market** was very active in the fourth quarter of 2007 and the first quarter of 2008, and capitalisation grew faster too. This was primarily supported by three-fold growth in non-residents' bond issues. **Stock markets**, however, experienced a reverse development. At the end of April, the Tallinn Stock Exchange index OMXT was nearly 40% down from the summer's peak, causing a sudden decline in stock market capitalisation. The structure of investors of listed companies has not changed: at the end of the first quarter of 2008 foreign investors comprised 49% of total investors.

The Estonian stock market witnessed the merger of OMX AB, the majority shareholder of the Tallinn Stock Exchange, with NASDAQ Stock Market, Inc., a US stock market company. This strategic event will provide better access for the Estonian securities market stakeholders to global securities markets.

The yield of **investment funds** was shaped by the key interest rates moving in opposite directions as well as uncertainty in global financial markets. As a result, the total assets of investment funds started to decrease at the beginning of 2008. Nearly a third of the decrease stemmed from the declining yield. The decrease was somewhat offset by the emergence of new market entrants: two stock funds, the first hedge fund and the first real estate fund. **Growth in pension fund assets** slowed considerably. A large share of the assets of pension funds registered in Estonia has been invested in other funds to hedge risks better.

Although the **life insurance market** witnessed strong growth at the beginning of 2007, the total annual profit of insurance companies decreased noticeably. This arose from a robust increase in costs and a decrease in investment profitability. The **non-life insurance market** is supported by the continuing, though somewhat eased credit growth. Meanwhile, the profitability of insurance companies has declined, mainly because of tight competition.

Payment and settlement systems

There were no such incidents in the operation of the Estonian payment and settlement systems that would have threatened the stability of these systems or Estonia's financial sector. The number and turnover of payments settled through the payment and settlement systems managed by Eesti Pank increased. The activity of the RTGS system was boosted by the growing number of payments initiated by bank customers; the number, turnover and average value of payments settled through the ESTA increased too.

Since May 19, Eesti Pank is managing three inter-bank payment and settlement systems instead of two: the Settlement System of Ordinary Payments (ESTA), the Real-Time Gross Settlement System (EP RTGS) and the new **cross-border settlement system TARGET2-Eesti**. The latter is a subsystem of TARGET2 operating on a single shared platform. All major Estonian credit institutions have joined the new payment and settlement system. This means that most bank customers now have an alternative to settle express payments in euro. Moreover, TARGET2 allows credit institutions to lower the charges for cross-border express euro payments.

Conclusion and financial stability risks

Estonia's financial stability is primarily affected by credit risk, which arises from Estonia's macroeconomic environment, and liquidity risk, which depends on the risk appetite and strategy of international markets. Compared to the end of last year, liquidity risk has remained generally unchanged, whereas the likelihood of the materialisation of credit risk has grown. Nonetheless, **risks to the financial system as a whole may still be considered low**, as the capital and liquidity buffers of the banking sector are sufficient to alleviate possible setbacks.

Estonia's further macroeconomic development has become slightly clearer over the last six months. Although the first signs of an adjustment of strong economic growth appeared already last summer, this spring clearly showed that domestic demand has eased more than expected. The beginning of a new growth cycle may be delayed because of weaker global growth outlook. This means that credit risk is more likely to materialise in the coming years, compared to the estimates given in the last Financial Stability Review.

The shrinking demand, easing wage pressures and increased costs are some of the factors that put a strain on corporate budgets. Moreover, potential problems will also affect households. Therefore,

given the tensions in the labour market, it is crucial to maintain sufficient loan servicing buffers. Household deposits have grown slightly faster this year compared to earlier periods but to preserve the solvency of borrowers, saving should continue to increase at a sufficient rate.

Although the volume of new loans issued has so far been nearly 40% smaller than last year, the low growth rate does not really arise from possible supply-side restrictions to finance new projects. Banks have been willing to finance good projects and competition among banks in the corporate loan market has remained strong. Avoiding a “grinding halt” in the credit market, however, is essential to support a new upward cycle of the economy. Recent developments confirm the stabilisation of loan growth at 10% this year, which can be considered sustainable for our economic environment.

The real estate sector which has been enjoying high profit margins in the last few years is today facing the downside of over-investment. Banks have become considerably more cautious in financing housing development projects and more conservative in assessing the risk level of ongoing projects. Namely, in the current economic cycle, the majority of loan losses are incurred by the real estate sector.

The confidence crisis that is spreading in global financial markets has not abated notably in the past six months. Changes in the external environment pass through to the Estonian banking sector via parent banks, mainly through an increase in the cost of funding. Local banks have been able to maintain their liquidity buffers. Nevertheless, as regards **liquidity risk**, it is still important that parent banks are able to obtain and provide funds to local subsidiaries and branches.

Weaker macroeconomic environment may bring along increasing loan losses and higher cost of funding may curb banks’ net interest income. All in all, this causes a decrease in profitability but the extent of the decrease depends on the banking sector’s ability and willingness to adjust their costs according to the economic cycle. The capitalisation of banks is still good and, according to stress tests, they are strong enough to cope, should the more negative scenarios of Eesti Pank’s economic forecast materialise. The banking sector has maintained a high level of capitalisation by including earlier profits in own funds. As loan losses might increase further, it is crucial that banks retain sufficient capital buffers to maintain solvency also in the future.

I FINANCIAL BEHAVIOUR OF COMPANIES AND HOUSEHOLDS AND THEIR RISKS

COMPANIES

Corporate business situation

Confidence

The **economic confidence indicator** calculated by the Estonian Institute of Economic Research pointed to a deteriorating outlook already in the second half of 2007. In the initial months of 2008 the outlook worsened even more. The rapidly decreasing optimism of companies and households was in line with slowing economic growth. Confidence has suffered the most in the construction sector, but also in manufacturing and trade (see Figure 1).

The optimism of **manufacturing companies** regarding the future has been replaced with a moderate pessimism (see Figure 2). This estimate refers to a further decrease in the growth rate rather than to a drop in output volume. Growth is primarily hindered by the relatively sudden decline in demand, while estimates concerning domestic demand are even more pessimistic than those regarding demand in export markets. The exploitation level of production capacity has remained relatively high (72%

at the beginning of the second quarter of 2008), although compared to last year's indicator it has decreased slightly. However, the investment needs of manufacturing companies are not expected to grow in the near future.

New companies and bankruptcies

Compared to 2006, less **new companies** have been registered since the second half of 2007, which is quite characteristic of economic adjustment. The end of 2007 witnessed a substantial surge in the number of **bankruptcies**, but so far it does not exceed previous year's indicator (see Figure 3). However, moderating economic growth will probably entail a further rise in the number of bankruptcies.

Corporate economic indicators

According to the business statistics of Statistics Estonia, **total profit growth** decelerated abruptly in the second half of 2007, slowing down from 27.8% in the first half-year to 1.2%. This was mainly caused by the declining profits of real estate, transport and trading companies.



Figure 1. Confidence indicators of Estonian companies

Source: Estonian Institute of Economic Research

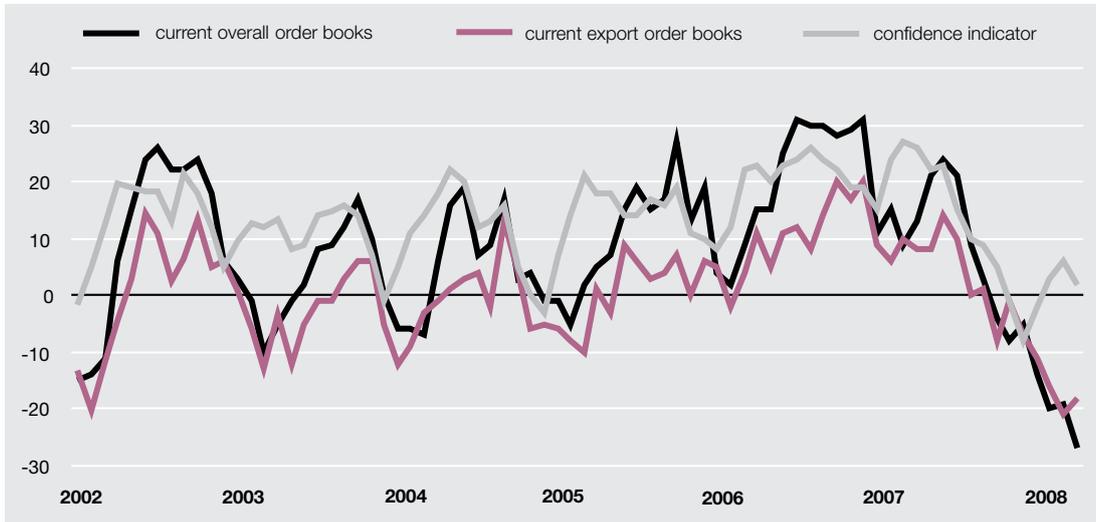


Figure 2. Demand for the production of manufacturing companies and the confidence indicator

Source: Estonian Institute of Economic Research



Figure 3. New enterprises entered in the commercial register within a month and bankrupt enterprises (6-month moving average)

Source: Estonian Enterprises Register

Although in manufacturing total profit growth slowed (from 31.8% in the first half-year to 21.5% in the second half), it nevertheless remained high. The decline in profit growth was characteristic of the turning point of the economic cycle, when softening demand caused a slowdown in **sales income** growth. Growth in total costs decelerated somewhat less. The high inertia of **total costs** is primarily related to labour costs that grew by 24.3% in the second half-year compared to the same period in the previous year. In the second half of 2007, labour cost growth was still too strong compared to nominal GDP growth, and it was mostly covered at the expense of a relative decrease in profits.

Corporate profit as a ratio to GDP has been dropping since the second half of 2006: in the fourth quarter of 2007 it decreased by over 3 percentage points as an annual average, compared to the year-ago figure (see Figure 4). From 2002 to 2006

the share of labour costs in GDP did not increase considerably, whereas in 2007 it rose rapidly and returned to the level of 1999.

Investment

Corporate fixed investment totalled over 22.5 billion kroons in the second half of 2007, which is nearly 1.8 billion kroons more than at the same time last year (see Figure 5). Investment was mainly channelled to the construction and renovation of buildings and facilities and to machinery and equipment. The final quarters witnessed a weakening of investment growth, primarily in construction and areas related to real estate. In the second half of 2006 investment increased by 25% year-on-year, whereas in the second half of 2007 growth reached only 9%. In the future, investment in real estate will probably decline further, which is indicated also by the considerably stronger growth of stocks this year.¹

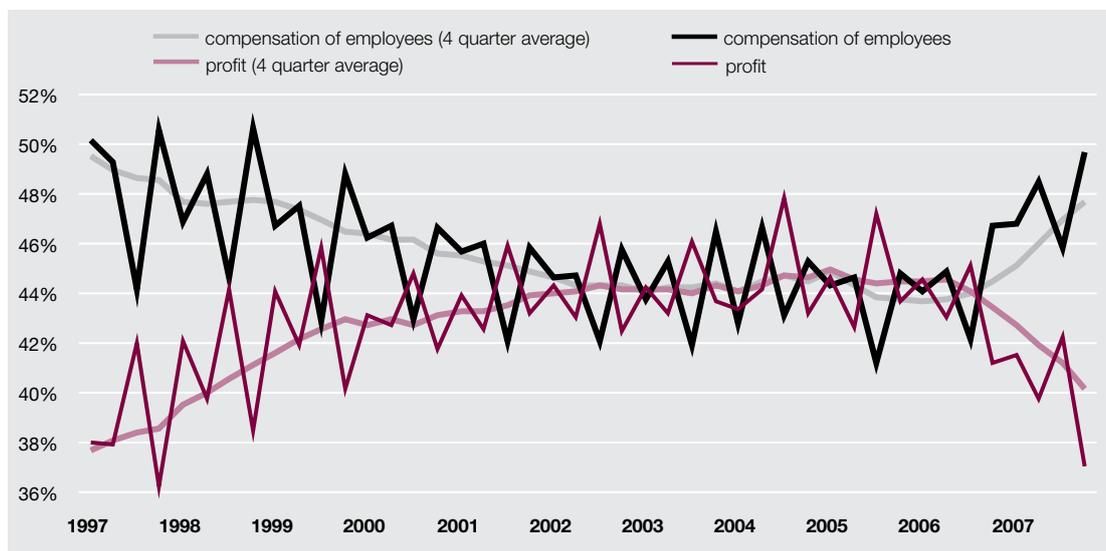


Figure 4. Compensation of employees and profit as a ratio of GDP

¹ Market participants estimate that the “clearance sale” will take at least two years at the current pace of new sales (one year based on autumn 2007 estimates).

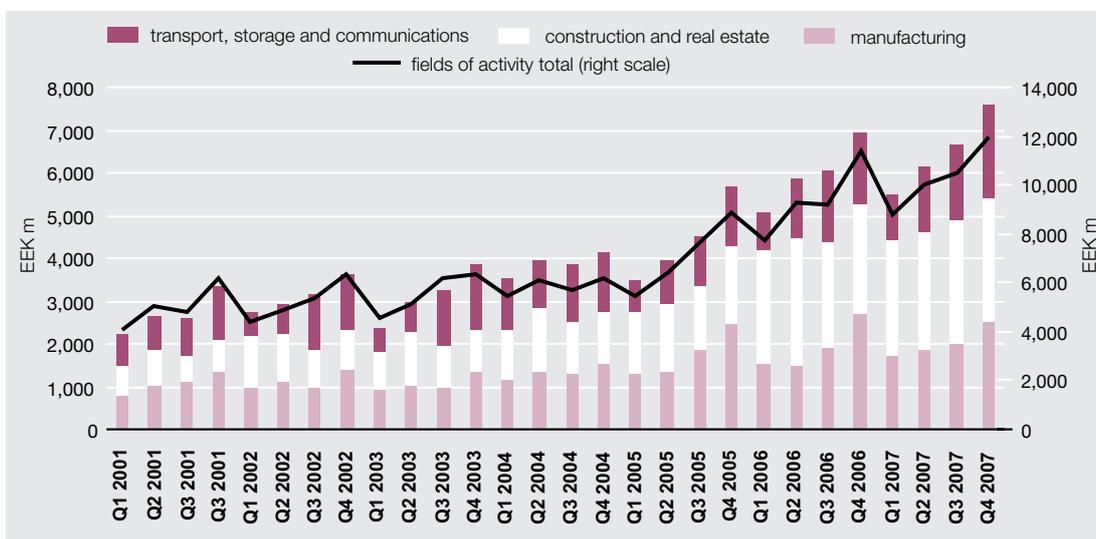


Figure 5. Corporate fixed investment

Source: Statistics Estonia

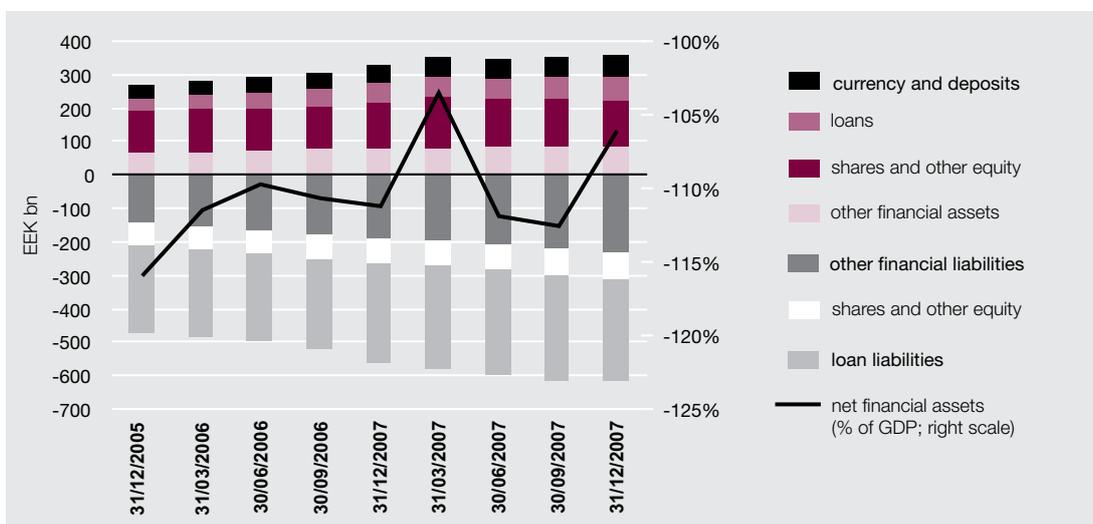


Figure 6. Corporate financial assets and liabilities and net financial assets

Corporate financial position and saving

The negative **net financial position** of companies improved in the second half of 2007 and decreased to 106% of GDP towards the end of the year. This was mainly caused by a more moderate growth in

financial liabilities, as the market value of shares and other equity has decreased, as has the growth rate of debt liabilities (see Figure 6).

Growth in corporate financial assets also slowed in the second half of 2007, as deposit growth

eased and the market value of shares and other equity decreased. Although **corporate deposits in domestic banks** increased considerably in the final quarter of 2007, in the first quarter of 2008 their volume decreased. Annual growth slowed to 7.5% in March 2008. As time deposit growth outpaced demand deposit growth, the share of time deposits in total deposits rose by 6% in six months to 34% by the end of March 2008 (see Figure 7).

The **coverage of debt liabilities by deposits** has been decreasing since the second quarter of 2007, arising from slower deposit growth. The coverage of debt liabilities by liquid assets² did not decrease in the second half of 2007 owing to rapid growth in loans and bonds probably related to the intra-sectoral positions. Loans issued by domestic banks in the first quarter of 2008 and domestic deposits of companies indicate that though the negative financial position of companies will probably not change significantly, the coverage of debt by deposits will continue to decrease.

Corporate debt

Corporate debt growth has decelerated further in the second half of 2007 due to slower corporate investment growth and weaker confidence (see Figure 8). By the end of 2007, the annual growth rate had fallen to 21%. Thus, the **indebtedness** of Estonian companies has not increased compared to mid-2007, standing at 76% of GDP also at the end of 2007. The share of foreign debt liabilities in total debt eased further and reached 22% at the end of the year.

In the second half of 2007, corporate debt grew almost as much as in the first half of 2007 in nominal terms. As regards economic sectors, real estate companies still obtained the most debt, although less than in the first half of 2007. Growth in the debt liabilities of manufacturing and trading companies was also lower in the second half of 2007, compared to the first half (see Figure 9).

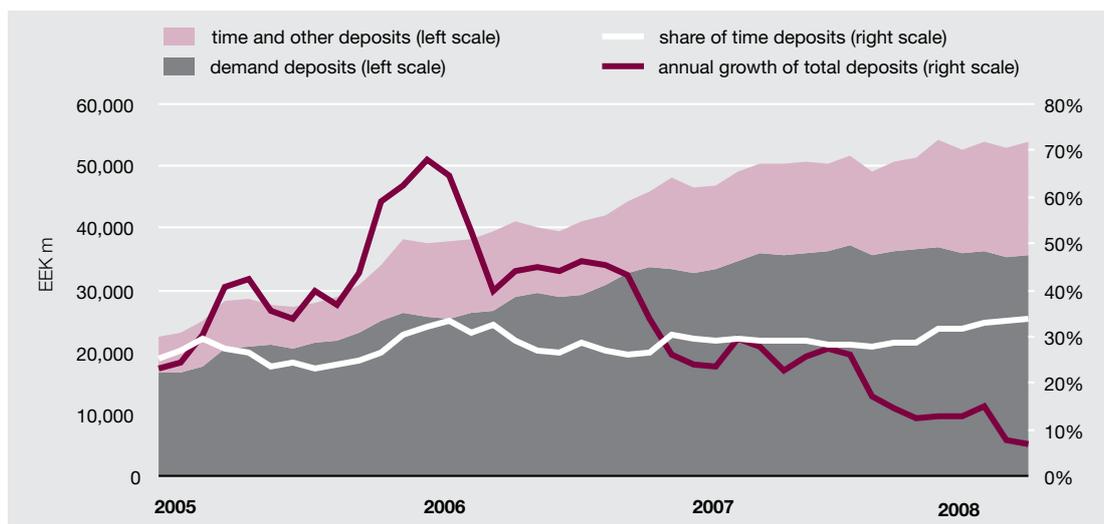


Figure 7. Volume and growth of corporate deposits and share of time deposits

² Liquid financial assets are currency and deposits, securities other than shares, loans and mutual funds shares.

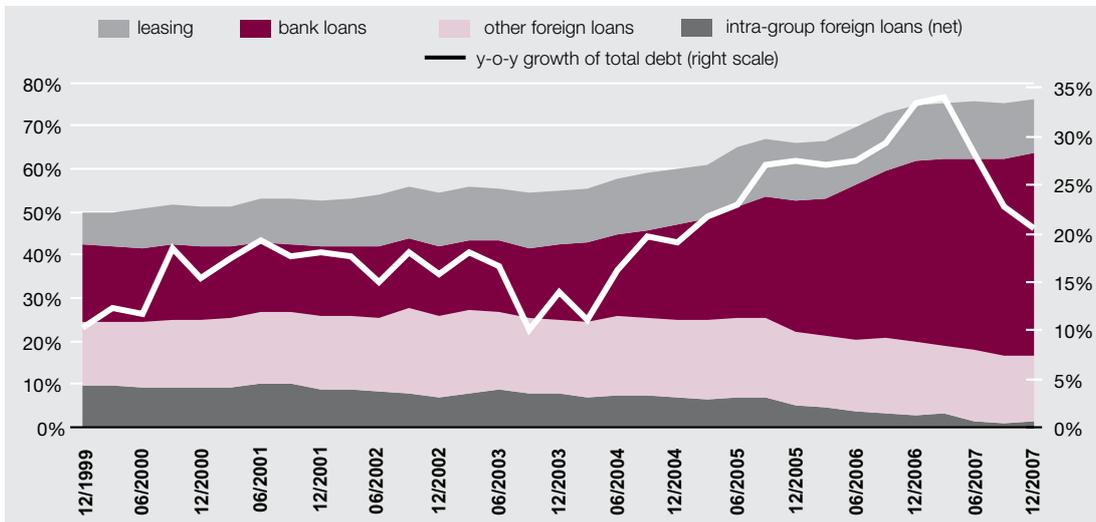


Figure 8. Corporate debt (% of GDP)

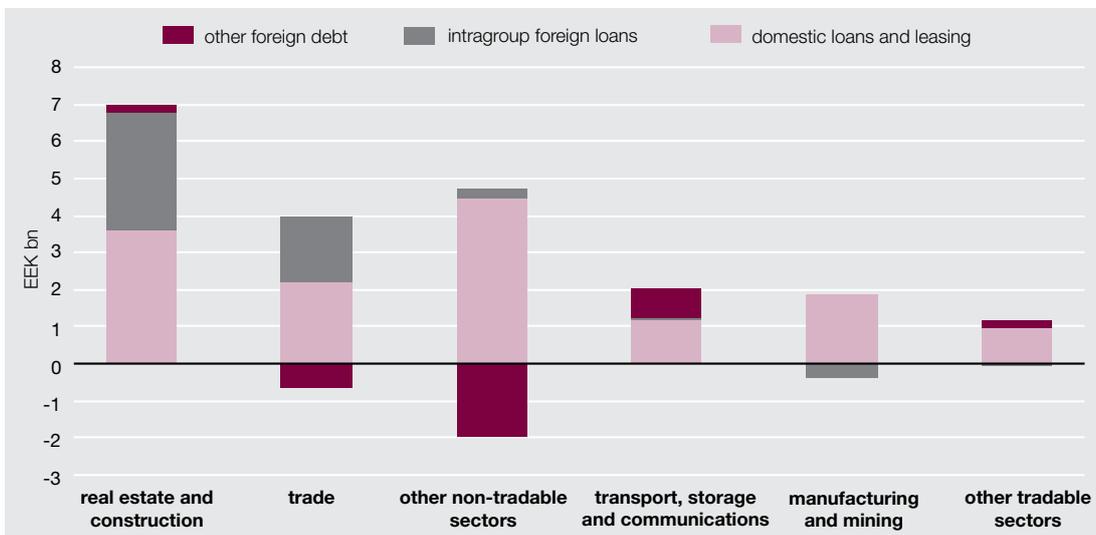


Figure 9. Corporate net borrowing in the second half of 2007

By the end of the first quarter of 2008, the growth rate of **domestic corporate debt** had declined to 23%. The moderation in debt growth was the most pronounced in the real estate sector. The credit growth of export-oriented sectors, including manufacturing, has not eased and has remained higher

than companies' average. According to the forecast base scenario of Eesti Pank, in 2008–2009 corporate investment and credit growth will be weaker than in 2007. True, in the first quarter of 2008 domestic corporate debt grew slightly faster than expected.

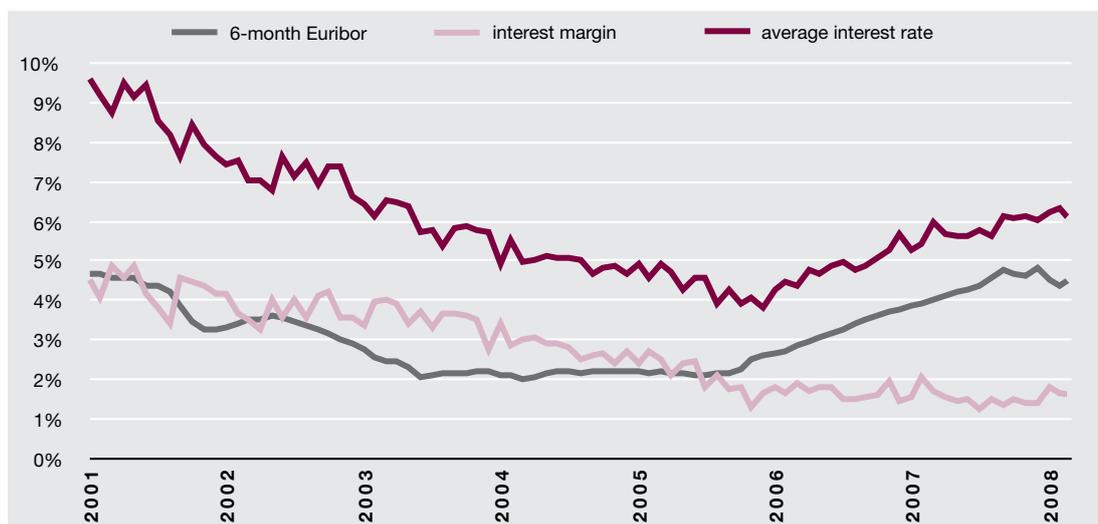


Figure 10. Average interest rate, 6-month Euribor and average interest margin on long-term corporate loans

The **average interest rate on long-term corporate loans** had not changed significantly by March 2008 compared to autumn 2007, reaching 6.2% (see Figure 10). The increased volatility of key interest rates at the end of 2007 and the beginning of 2008 also increased the volatility of the **average interest margin** calculated as a ratio of the key interest rate. However, the average interest margin on corporate loans has not risen because of tight competition among banks.

HOUSEHOLDS

Economic situation of households

Confidence

In the second half of 2007, **household confidence** started to weaken rapidly and continued to decline also at the beginning of 2008 (see Figure 11). According to the consumer barometer of the Estonian Institute of Economic Research, consumers became more sceptical about their future income growth and the general economic outlook. Compared to earlier periods, fear of unemployment

increased the most. Moreover, the expectations of saving were also more pessimistic compared to a year ago. There has been a significant shift in inflation estimates: although in the first quarter of 2008 inflation was the highest of recent years (11.1%), consumers see this as a one-off event and expect the inflation rate to be lower in the next twelve months.

Labour market

The year 2007 stands out for strong tensions in the labour market: unemployment reached its lowest level in ten years, whereas wage growth peaked. The tensions started to abate in the second half of 2007. Compared to 2006 when the number of the employed grew by 6.4%, in 2007 **employment** growth slowed and reached only 1.4%. The average **unemployment rate** dropped to 4.7%, declining in terms of both the short-term and long-term employed³ (see Figure 12). For 2008, the economic forecast of Eesti Pank expects a decline in employment, an increase in unemployment and moderation of wage growth.

³ Persons who have been seeking employment for a year or longer.

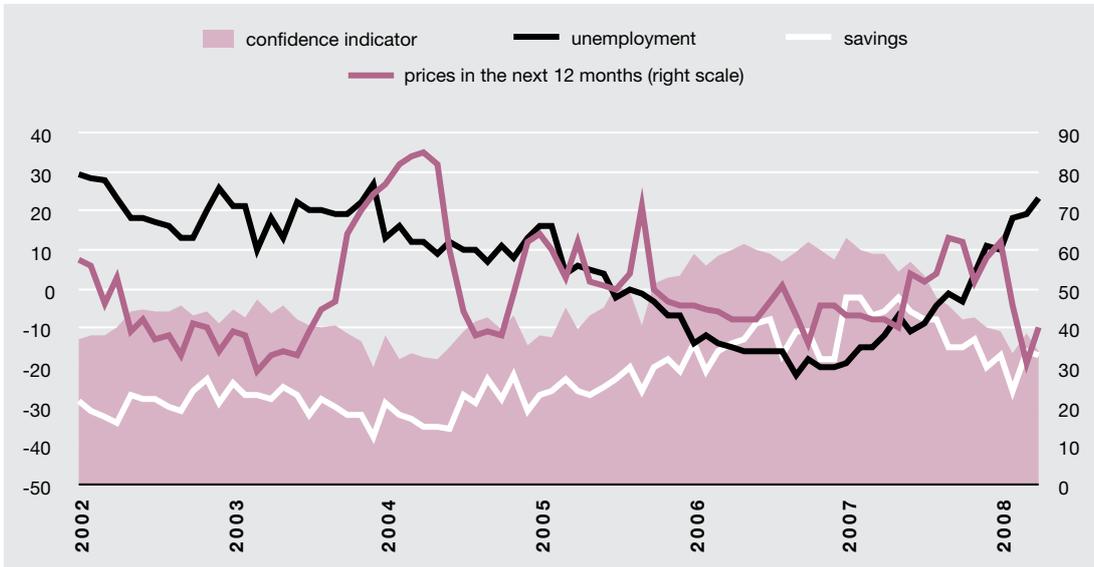


Figure 11. Consumer confidence indicators

Source: Estonian Institute of Economic Research

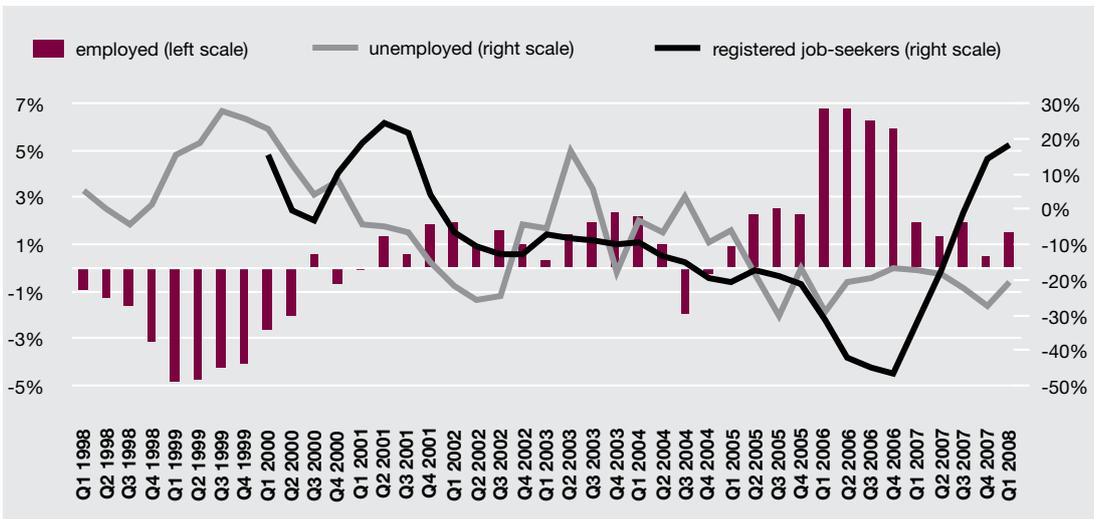


Figure 12. Annual change in the number of the employed, the unemployed and registered job-seekers

Source: Statistics Estonia



Figure 13. Average annual wage growth

Source: Statistics Estonia

Wages

Supported by strong demand and limited labour supply, **average gross monthly wages** continued rapid growth also in 2007, although in the second half-year growth started to stabilise (see Figure 13). In 2007, gross monthly wages increased by an average of 20.4%; that is, by over 4 percentage points more than in the previous year. The amounts of bonuses and additional remunerations were usual.

In the fourth quarter of 2007 **real wage** growth started to adjust too. Compared to the robust growth in the first half of 2007, the growth rate of real wages declined by almost 5 percentage points to 10.1%. The main reason for the drop was the sudden acceleration of inflation (9.1% in the fourth quarter).

Structure of expenditures

According to Statistics Estonia⁴, the average expenditure per household member amounted to

4,358 kroons and net income to 5,286 kroons in 2007. Compared to 2006, expenditures increased by 17% and incomes by 22%.

Rapid growth in household **income** was primarily driven by considerable growth in wage income, which increased by 24.8% with the year, and by pensions that grew by nearly a sixth (16.1%). Increase in child allowances was slow (4.4%), other incomes diminished, and both lost share in the income structure.

Large differences in **expenditure** by income brackets persisted in 2007. The share of unavoidable costs (expenditure on food and housing) in the lowest and highest income quintile differed about two times. In 2007, a household member in the lowest income quintile spent 58% of consumption expenditure on food and housing; the respective figure in the highest income quintile stood at 29%⁵. The share of unavoidable costs in total expenditure declined even further: the average monthly expenditure of a

⁴ The estimates are based on the data of the Household Budget Survey, which Statistics Estonia has been conducting since 1995. 3,400 households took part in the survey in 2007. Household budget surveys are conducted by statistics organisations based on a harmonised methodology in all EU Member States.

⁵ Loans are not included in income and expenditure: taking a loan is treated as using savings, and the repayment of loan as savings.

household member on food and housing amounted to 39% of total costs. The share of expenditure on transport and leisure continued to increase.

Financial position and saving

The positive **net financial position** of households declined also in the second half of 2007. At the end of 2007, the net financial assets of house-

holds comprised 2.3% of GDP. While earlier the net financial position had deteriorated because of rapid growth in households' financial liabilities, in the second half of 2007 weaker growth in financial assets (in particular household deposits) was the underlying cause. For the same reason, the second half of 2007 saw a rapid rise in **household debt as a ratio to liquid financial assets**, even though growth in loan liabilities decelerated (see Figure 14).



Figure 14. Household financial assets and liabilities

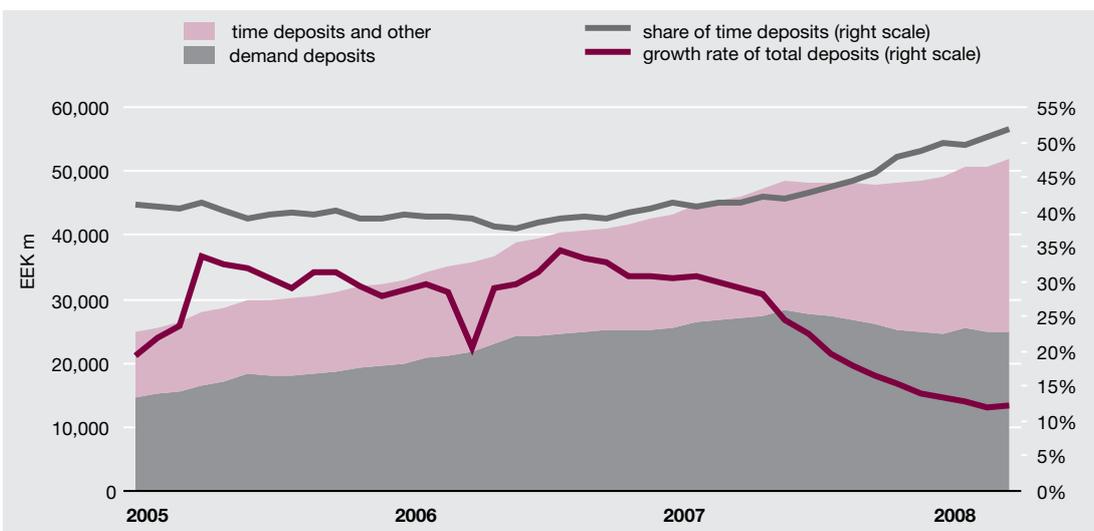


Figure 15. Household deposits in domestic banks and deposit growth

Growth in **household deposits in domestic banks** eased further in the second half of 2007 and the beginning of 2008, reaching 12% by the end of March 2008 (see Figure 15). Weaker deposit growth can be attributed to demand deposits, which started to decrease in volume in the second half of 2007. However, growth in time deposits has not waned and reached as high as 37% at the end of March 2008. This means that time deposits comprise about a half of total household deposits in domestic banks. Households have thus continued to save, which has also been stimulated by a rise in deposit interest rates. Funds available for daily settlements, on the other hand, have decreased.

In addition to deposits, growth in financial assets has been affected by the fact that households reduced their positions of **mutual fund shares** in the second half of 2007. Moreover, the volume of mutual funds shares, shares and other equity has decreased owing to a decline in their market value. Thus, the percent of shares and other equity in household financial assets has continued to decline in favour of **pension assets and insurance reserves**: from 39% in mid-2007 to 36% at year-end. The net equity of pension fund reserves and

the volume of life insurance reserves comprised 16% of total household financial assets at the end of 2007.

Household debt and loan-servicing capability

Level and growth of debt

By March 2008, annual growth in loans and leasing granted to households had dropped to 27%, being over two times slower than a year ago (see Figure 16). As growth in household debt has slowed, household **indebtedness** has remained at the level recorded in autumn 2007. At the end of March 2008, it accounted for 46% of GDP and 83% of disposable income.

Future developments in household loan stock will primarily be shaped by the situation in the housing market. According to the forecast base scenario of Eesti Pank, a new growth cycle in household investment is not expected before 2009–2010. Given that, household credit growth should decelerate further in 2008–2009 and indebtedness should remain at the level of 2007 for the next three years (see Figure 17).

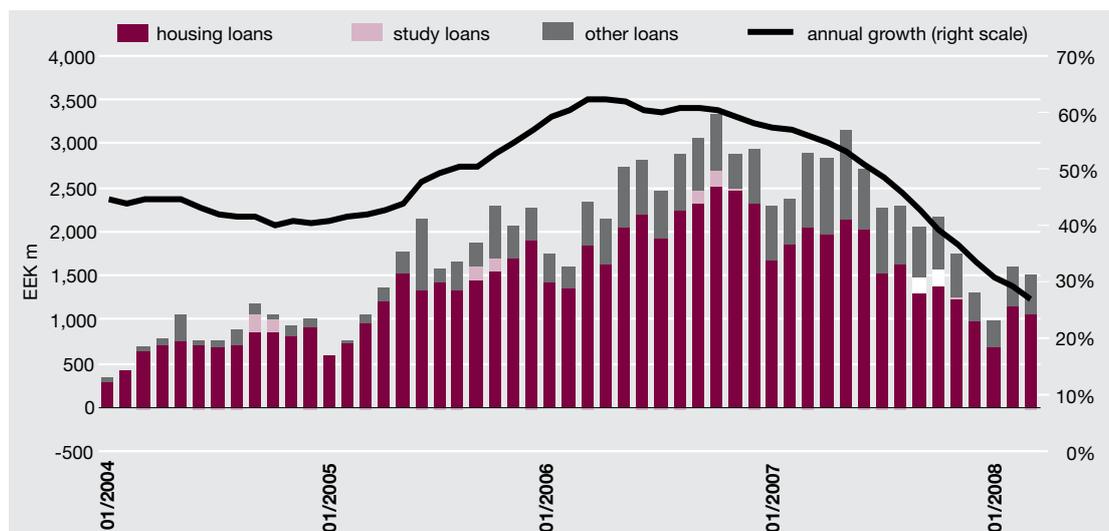


Figure 16. Monthly change and annual growth in household loans

The indebtedness of Estonian households is still substantially smaller compared to most of the Nordic countries. Finland is an exception, because at the end of 2007 their household debt as a ratio to GDP was only 2% above Estonia's indicator. Financial

deepening was the fastest in the most highly indebted Denmark and Iceland, where the debt-to-GDP ratio rose considerably faster in 2007, compared to Estonia and Latvia who had posted exceptional growth figures in earlier periods (see Figure 18).

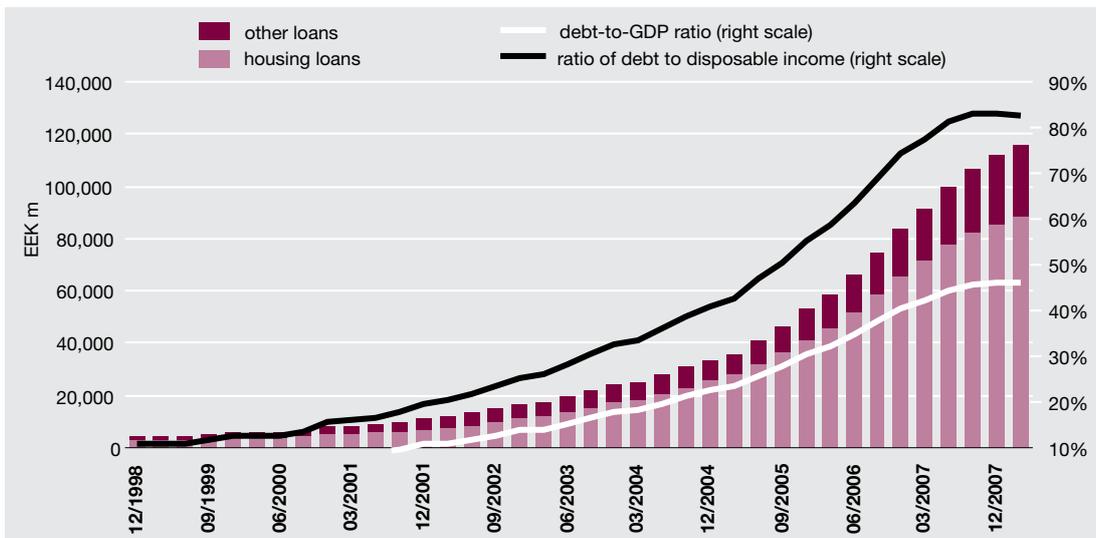


Figure 17. Household debt and indebtedness

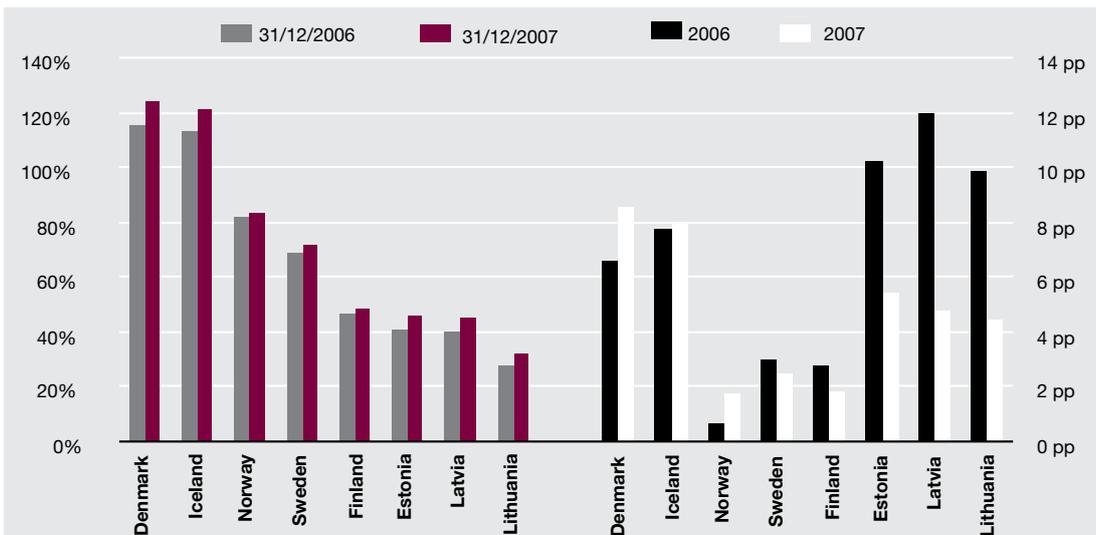


Figure 18. Household debt to GDP (left scale) and change in debt-to-GDP ratio (right scale) in Nordic and Baltic countries

Source: national central banks

Housing loans

Transaction activity on the **housing market** decreased even more in spring 2008, when the number of transactions performed with houses, apartments and plots of land dropped to the levels of 2004. According to the Land Board, by April 2008 the median price of Tallinn apartments had fallen by 14% compared to the peak reached in April 2007 (see Figure 19). The number of dwellings up for sale increased further in spring 2008. In light of the decreasing transaction volume this means longer sales periods and additional price pressures.

Growth in the stock of **household housing loans and leasing** has continued to slow along with the decreasing transaction activity on the housing market. In March 2008, the growth rate was 24%. The monthly increase in loan stock was two times lower than in the same period of the previous year.

As the key interest rate dropped slightly at the beginning of 2008, the **average interest rate on household housing loans** has also declined compared to the end of 2007. In March, it returned to the level of last July, that is 5.4%. The average interest

margin calculated as a ratio of the key interest rate did not change from 2007 levels (see Figure 20).

Consumer credit

The decline in household confidence has been accompanied by a slowdown in consumer credit growth. Annual growth in the stock of **non-housing loans and leasing** decreased from 50% in September 2007 to 37% at the end of March 2008. In the first quarter of 2008, the increase in loans and leasing was over two times smaller compared to its peak in the second quarter of 2007. Though the volume of car leasing also grew less than in the summer and autumn of 2007, the slowdown has been slightly smaller compared to other loans (see Figure 21).

The volume of consumer credit together with car leasing and study loans amounted to 27.4 billion kroons at the end of March 2008. As a ratio to GDP it did not grow compared to autumn 2007 and still stood at 11%. As the economic forecast of Eesti Pank expects quite an abrupt deceleration in household consumption in 2008, consumer credit growth is likely to continue decreasing.

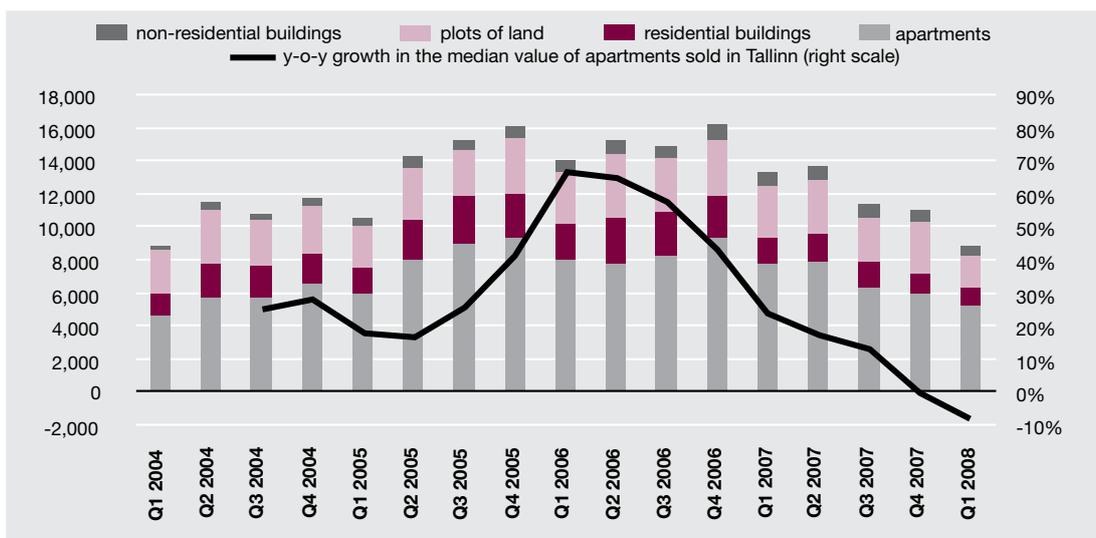


Figure 19. Number of notarised purchase-sale contracts and annual growth in the average value of real estate

Sources: Statistics Estonia, Land Board

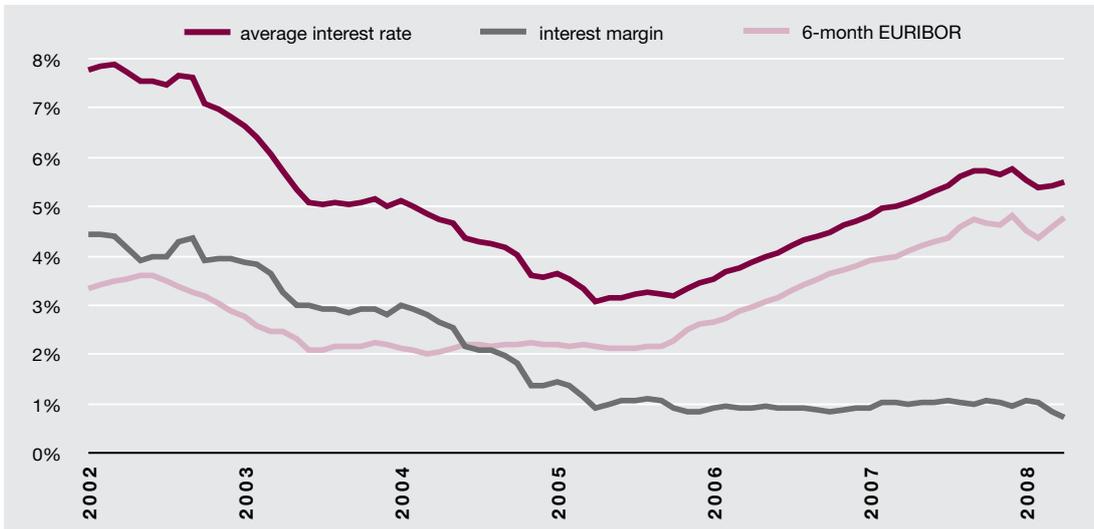


Figure 20. Average weighted interest rate, 6-month Euribor and interest margin of housing loans

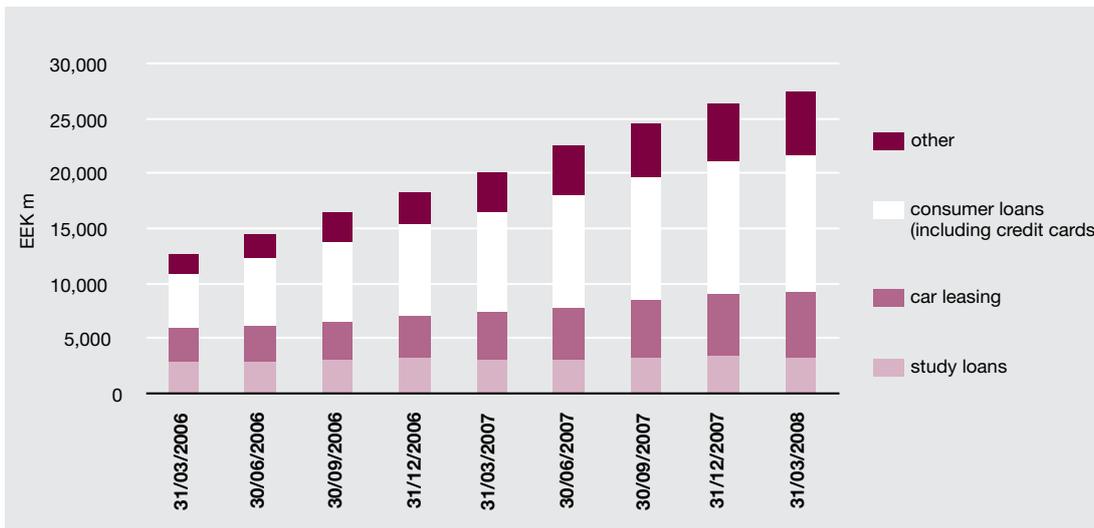


Figure 21. Stock of non-housing household loans/leasing

Loan-servicing capability and risks

The **interest burden** of households (the ratio of interest expenditure to disposable income) had increased to 5.1% by the end of March 2007. As the key interest rates did not increase that much any longer in the last six months and credit growth has abated, growth in interest costs may also start to slow. At the same time, household disposable income growth is moderating as well and thus, the interest rate burden is not expected to decrease in the near future.

Compared to the Nordic countries, where debt burden is much higher, the interest burden of Estonian households was relatively high at the end of 2007 (see Figure 22). For instance, it was comparable to Sweden where debt burden is considerably higher (150% of disposable income) and where the interest burden remained even 40 basis points lower than Estonia's indicator at the end of 2007. Meanwhile, the interest burden of Estonian households is not significantly larger compared to Latvia and Hungary. This may be caused by the high share of loans with

floating interest rates, in which case interest costs increase faster during an upward cycle of interest rates than in the case of fixed interest rates.

As the key interest rates have been constantly rising in recent years, the popularity of fixed interest rates is increasing among households who wish to protect themselves against interest rate risk. The share of **loans with fixed interest rates** among new housing loans has been growing rapidly since the third quarter of 2007, when the key interest rates rose suddenly along with the tensions in financial markets. In the first quarter of March 2008, loans with fixed interest rates accounted for 11% of new housing loans; that is 3% more than a year ago (see Figure 23).

Rapid growth in indebtedness in recent years has contributed to the rise in household interest burden, whereas the increase in financial assets has remained smaller than debt growth. Therefore, also financial buffers have decreased as a ratio to debt. In 2008, the expected moderation in wage growth

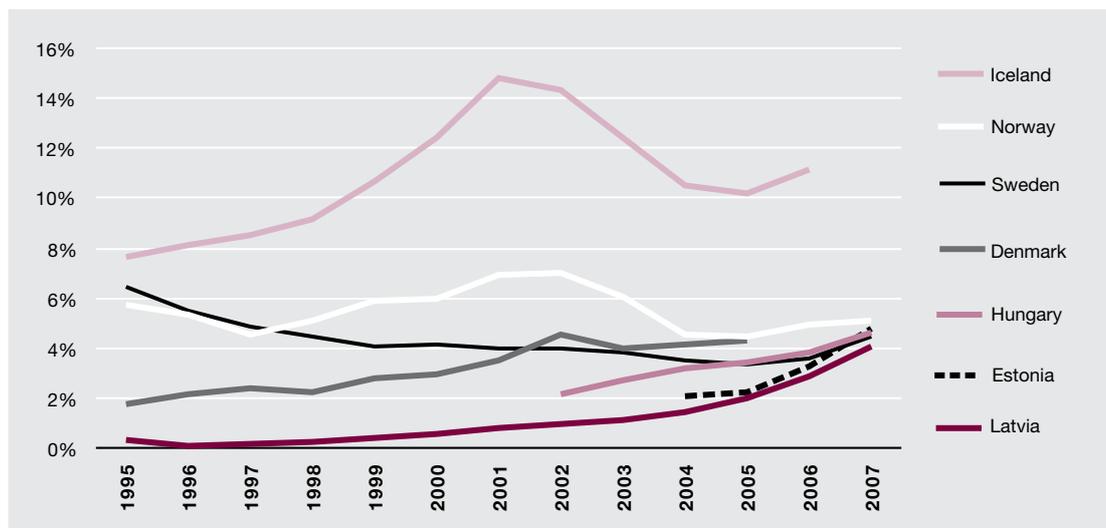


Figure 22. Interest burden in selected Nordic and EU countries (% of household net disposable income)

Source: national central banks

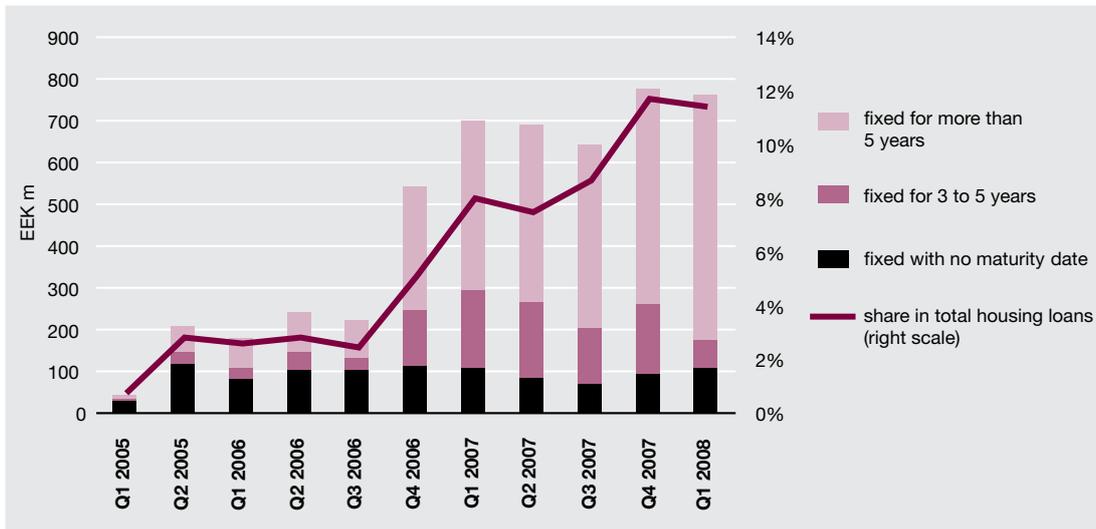


Figure 23. Volume and share of housing loans with fixed interest rate

and decreasing employment along with a relatively high inflation rate will put pressure on household budgets and loan servicing. Although according to the economic forecast of Eesti Pank wage growth will still be relatively strong and inflation will decrease

in the coming years, unexpected shocks cannot be ruled out. Therefore, households should continue saving, should incomes be lower than expected or expenditures increase.

II BANKING SECTOR STABILITY AND RISKS

Strategic development of the banking sector

The role of the banking sector in the structure of Estonia's financial sector is clearly predominant: at the end of March, banks' financial assets accounted for 124% of GDP (see Figure 1). Stock market capitalisation and leasing portfolios followed with 22% and 16% of GDP, respectively. Owing to the economic adjustment process and developments in the global market in the past six months, financial sector assets have decreased as a ratio to GDP.

Seven companies licensed as credit institutions in Estonia, eight branches of foreign credit institutions and over 190 cross-border banking service providers were operating on the Estonian market at the end of the first quarter of 2008. The number of cross-border service providers has increased by 20 in the past six months.

The number of market participants has increased by two branches of foreign credit institutions: Allied Irish Banks PLC Estonia branch and AB Bankas Snoras Estonia branch. Siemens Financial Services AB Estonia branch left the market. In the first quarter of

2008, the owner of Sampo Pank, Danske, decided to turn Sampo Pank from a subsidiary into a branch of foreign credit institution. This decision will enter into force in summer 2008. Currently the branches of foreign credit institutions are holding around 14% of the market. Once Sampo Pank has become a branch as well, the market share of branches will rise above 25% of the Estonian banking market.

Although some new participants entered the market, the distribution of market shares did not change remarkably in the past half-year. At the end of the first quarter, 95% of the total loan and leasing stock in Estonia had been issued by the four largest market participants. Two of the largest market participants were holding a 71% market share (nearly 73% six months before). The assets of branches of credit institutions or credit institutions controlled by non-resident financial groups accounted for almost 100% of the total assets of banks operating in Estonia.

Quality of assets

The **growth rate** of financing portfolios has decelerated considerably in the last six months. In 2007

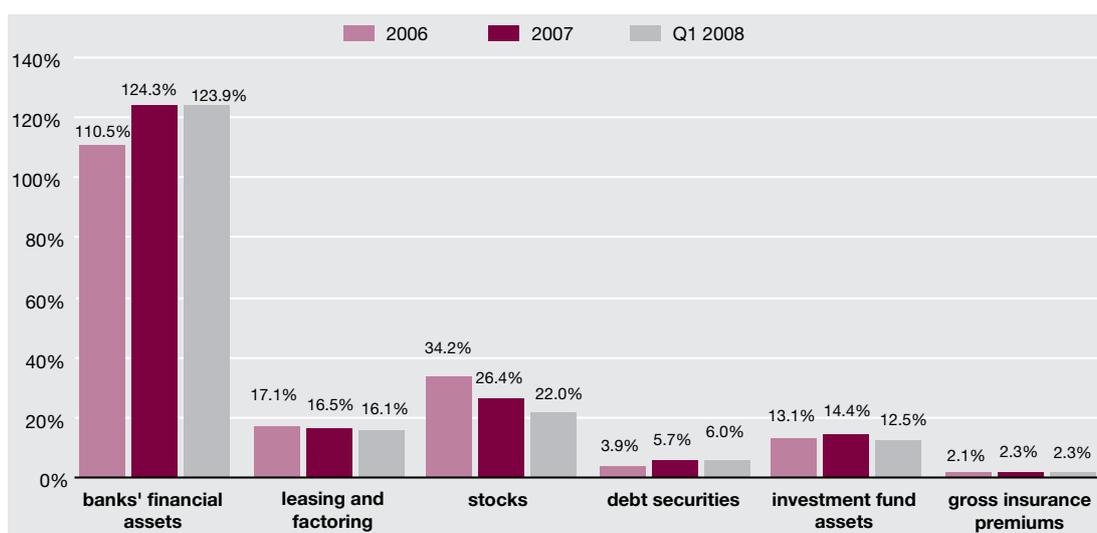


Figure 1. Structure of financial intermediaries

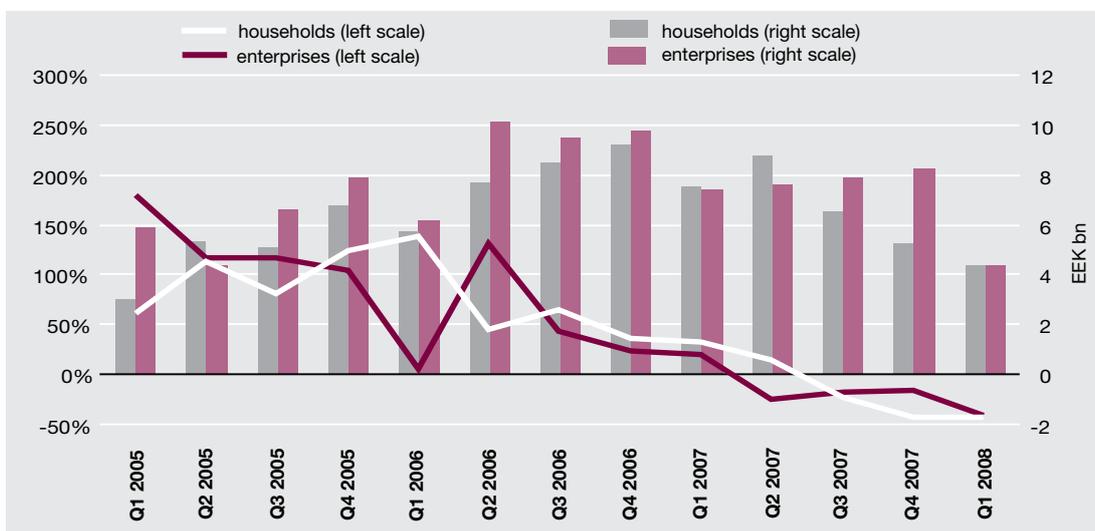


Figure 2. Loan stock added in a quarter and change compared to the same quarter a year ago

portfolios increased by 48% year-on-year, whereas in March 2008 this indicator was 25%. In the first quarter of 2008, the stock of loans granted in a quarter accounted for nearly 58% of the loan stock added in the first quarter of 2007.

At the end of the first quarter of 2008, **foreign currency loans** (the majority issued in euro) constituted 80% of the loan stock of Estonia's non-financial sector. The share of euro loans among corporate loans has somewhat increased (by 5 percentage points) over the year. However, the high share of foreign currency loans is not an issue of concern in terms of financial stability because:

- loans have been taken in a foreign currency to which the exchange rate of the Estonian kroon is pegged;
- the Estonian kroon belongs to the exchange rate mechanism ERM II, and when Estonia will adopt the euro, the central rate will be used;
- the natural exchange rate risk has been covered, as the income level of economic agents (even if they work in the non-tradable sec-

tor) depends on the economy's ability to earn income in euros;

- it is less expensive and less risky for economic agents to borrow in euros because the interest rate risk and the resulting potential loan-servicing cost is higher in the case of a currency of a small economy.

The structure of the **collaterals** of non-financial sector loans has not changed much over the period under review. The only considerable change is that the share of loans collateralised by securities in total corporate loans has increased. In March 2007 loans collateralised by securities accounted for 3.2% of the corporate loan portfolio, whereas in March 2008, this indicator was 4.6%.

Due to tougher economic environment and rising interest rates, the volume of **overdue loans** and their share in total loan portfolio has increased considerably over the last year. In March 2007 loans overdue for more than 60 days constituted 0.35% of the loan portfolio, whereas in March 2008 this

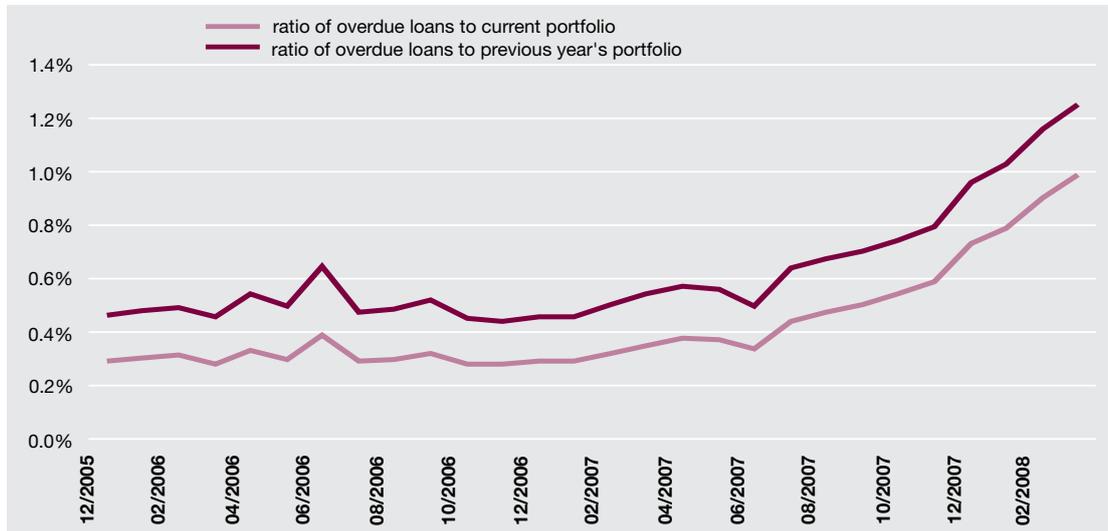


Figure 3. Ratio of loans overdue for more than 60 days

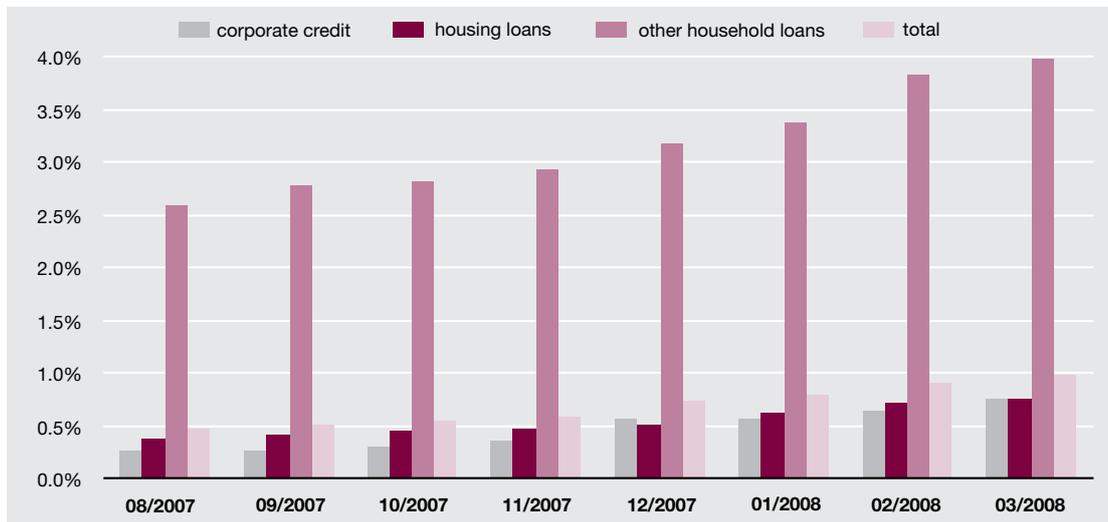


Figure 4. Structure of overdue loans in the loan portfolio

indicator stood at 0.99% (see Figure 3). In the current period, the increase in the share of overdue loans is largely influenced also by the slower growth of financing portfolios.

By sectors, in March 2008 the non-housing loan portfolio of households contained the largest share (4%) of loans overdue for more than 60 days (see Figure 4). At the same time, nearly 61% of the overdue consumer loans of households had been issued by a small institution. In the case of other credit institutions, the respective indicator is much smaller.

At the end of March, loans overdue for more than 60 days accounted for 0.75% of the corporate loan portfolio. The construction sector had the highest percentage of overdue loans; in terms of volume, however, the commercial real estate sector had the most of such loans (see Figure 5). The total stock of corporate loans overdue has increased 3.5 times over the last year, while the stock of commercial real estate loans overdue has increased nearly 8 times at the same time.

Since the pressure on average prices in the **housing market** will presumably persist (see also Housing loans), real estate companies may expect further difficulties. In the coming years, a record amount of new office premises will be completed, but it will be difficult to rent them out owing to increased uncertainty. Then again, new office premises are being established mainly by large and experienced real estate developers, and banks have also limited their funds for financing office premises.

The increase in overdue loans is also indicated by the reclassification of loans by banks. The share of household loans in different classes of loan quality has remained relatively stable over the past year. In the case of companies, however, the share of problematic loans has risen from last year's 13.7% to 19%.

While provisioning has also gradually increased, the stock of provisions for loan losses as a ratio to loans overdue for more than 60 days has decreased significantly over the past year. In March 2007, the provisions accounted for 129% of overdue loans,

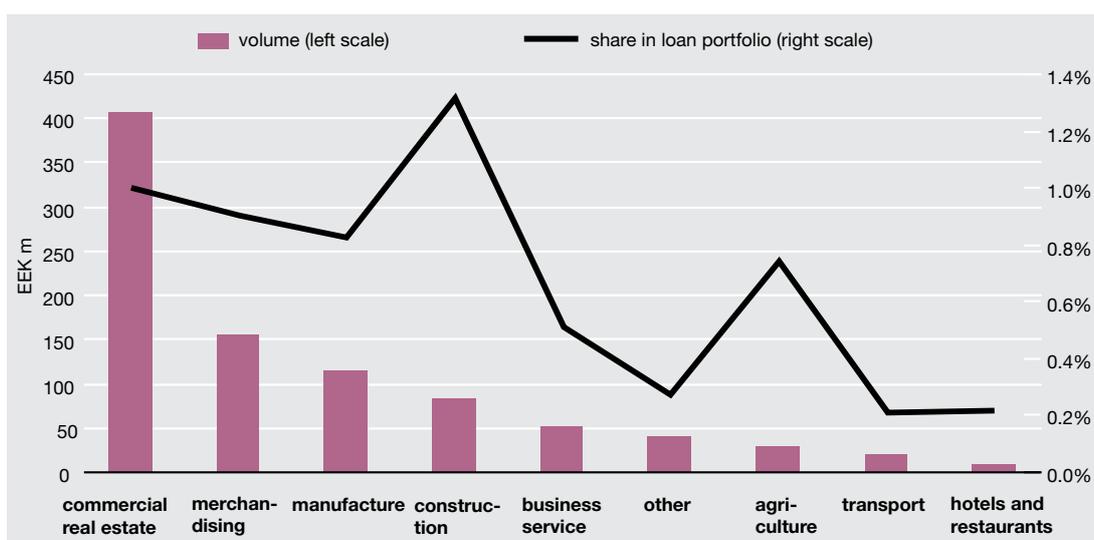


Figure 5. Overdue loans by sectors as at March 31, 2008

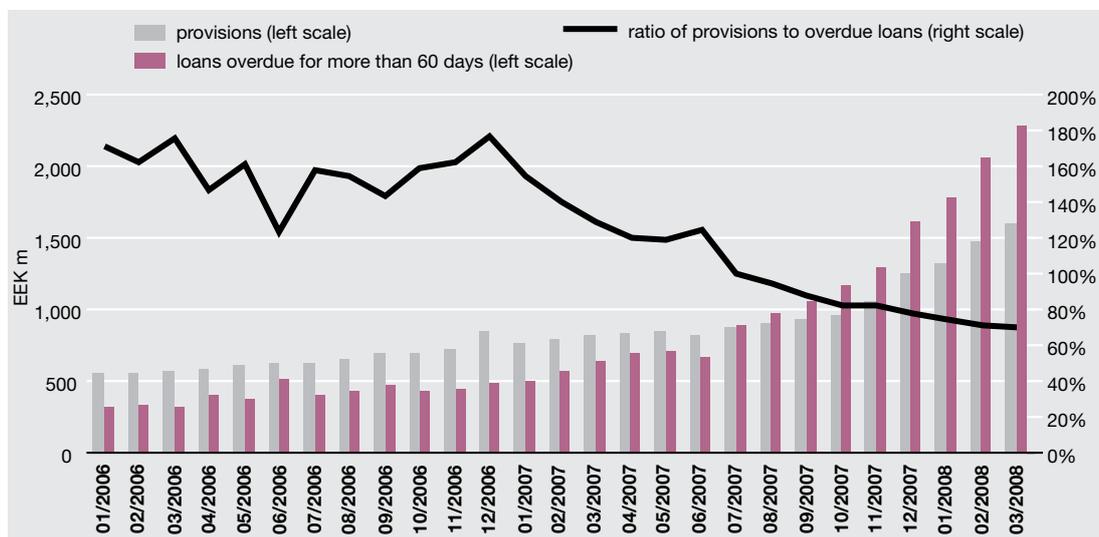


Figure 6. Overdue loans and provisions

and in March 2008, for 70.3% (see Figure 6). The share of general provisions has decreased the most, which is partly due to changes in accounting. Specific provisions¹ accounted for 63.5% of the total provisions last year; in March 2008, the respective indicator was 70.7%.

As regards the **total of banking groups**, the share of provisions for loan losses has increased. At the end of the first quarter, the stock of provisions for loan losses comprised 0.73% of the aggregate portfolio of banking groups (0.67% in the first quarter of 2007). The share of loans overdue for more than 60 days in the financing portfolio of banking groups has also increased. In December 2006, overdue loans accounted for 0.31% and in December 2007 for as much as 0.56% of the loan portfolio. Provisions of banking groups exceeded the volume of loans overdue for more than 60 days by 30%; however, year-on-year, the coverage of overdue loans by provisions has decreased considerably.

Capital adequacy

On January 1, 2008 the revised, more risk-sensitive capital adequacy framework (based on Basel II) became mandatory for all credit institutions operating in Estonia. The quantitative impact studies conducted beforehand showed that the implementation of the new principles may bring along a considerable decrease in risk assets. Although Estonia has established a 60% risk weighting on housing loans instead of the customary 35%, the first months of the new framework have confirmed the validity of the study results.

Credit institutions operating in Estonia use the less sophisticated approaches for calculating capital requirements. Changes in risk weighted items after the implementation of the new framework are presented in the following table.

¹ Specific provisions are made when there are objective reasons to believe that a claim will not be collected in full.

Table 1. Changes in risk weighted items after implementing the new capital adequacy framework

	12/2007	01/2008	02/2008	03/2008
Tier I own funds	25.2	25.3	26.1	26.7
Tier II own funds	11.8	11.7	11.7	11.7
Deductions	1.6	1.6	1.6	1.6
Own funds in capital adequacy calculation	35.3	35.4	36.2	37.0
Credit risk	233.9	204.5	204.2	203.1
Other risks	5.2	5.1	5.6	5.5
Operational risk		9.2	9.2	9.3
Risk weighted items	239.1	218.8	219.0	218.2
Banking sector average capital adequacy	14.78	16.20	16.50	16.95
Lowest average capital adequacy ratio	10.74	11.60	12.70	12.26

Resulting from the implementation of the new framework, the share of credit risk weighted items in total risk weighted items has decreased from 97% to 93%. Comparing the credit risk weighted items calculated on the basis of the earlier system to those calculated on the basis of the new framework, the credit risk weighted items have decreased by 12.5% in the new framework. The difference between risk weighted items calculated on the basis of the new and old framework – after the addition of the capital requirement calculated for covering the operational risk – was 8.5%.

Banks' own funds increased in the period under review, supported by growth in Tier I own funds. Major banks have included the retained profits of previous periods in own funds and currently meet the required capital level with some margin. At the end of March, the average capital adequacy ratio of the banking sector was 16.95%, which is the highest indicator of the last seven years. The respective indicator of banking groups was 11.6%, being rather similar to earlier indicators (see Figure 7).

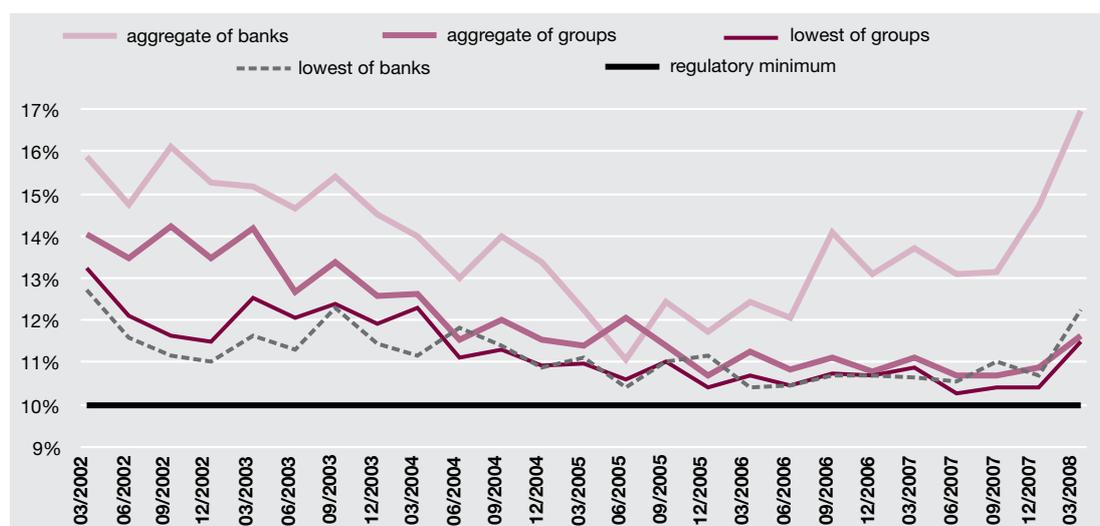


Figure 7. Capital adequacy ratios of banks and banking groups

Since major banks had included the retained profits of previous periods in own funds by the end of the first quarter, the average capital adequacy ratio of the banking sector might decrease in the coming periods. Nevertheless, the current strong capitalisation and slowing credit growth suggest that

banks have enough own funds to comply with the capital adequacy requirement in the forecast horizon. It should also be stressed that strong capitalisation together with sufficient liquidity is one of the most important preconditions for ensuring financial stability.

STRESS TEST OF OVERDUE LOANS AND CAPITALISATION OF BANKS

In order to assess the vulnerability of the banking sector, Eesti Pank conducted a test on the potential impact of overdue loans. To this end, the central bank used an econometric model including such macroeconomic determinants of overdue loans as loan interest rate, nominal GDP growth and the share of overdue loans in the previous period.

Interest rate is a direct indicator of the loan servicing cost. When the interest rate increases, the number of overdue loans increases too. Nominal GDP growth reflects cyclical unemployment and inflationary pressures. One determinant of nominal GDP growth is nominal wage growth which illustrates households' loan-servicing capability. The share of overdue loans in the previous period was included in view of the autoregressive nature of the process. Moreover, this component also comprises, at least partly, overdue loans reduced by refinancing.

The stress test covered the period from the first quarter of 2000 until the first quarter of 2008 because the structure and characteristics of loan products has changed significantly over that time.

Therefore, compared to later surveys, the earlier values of the time series provide significantly different qualitative (as regards econometric evaluation, also quantitative) information. The test was based on the method of least squares.

The principles of the conducted stress test are similar to those used in earlier tests. The model's parameters were used to test the base scenario as well as the three risk scenarios of Eesti Pank's macroeconomic forecast (see Figure 8).²

According to the **base scenario**, the share of **overdue loans** in the loan portfolio will increase to 1.5% by the end of 2008 and to 2.2% in 2009. According to **risk scenario 1**, which is the most negative of the spring forecast risk scenarios, the ratio of overdue loans will increase to 2.6% by the end of 2008 and to 3.1% by the end of 2009.

In the case of **risk scenario 2**, the development of overdue loans is quite similar to that set out in the base scenario: at the end of 2008, overdue loans constitute 1.6% of the loan portfolio, and at the end of 2009 – as much as 2.5%.

² Risk scenario 1 describes the correction in domestic demand. Risk scenario 2 is a positive scenario expecting the realisation of the export potential together with a new global growth cycle in 2009. Risk scenario 3 describes what might happen should the wage-price spiral continue.

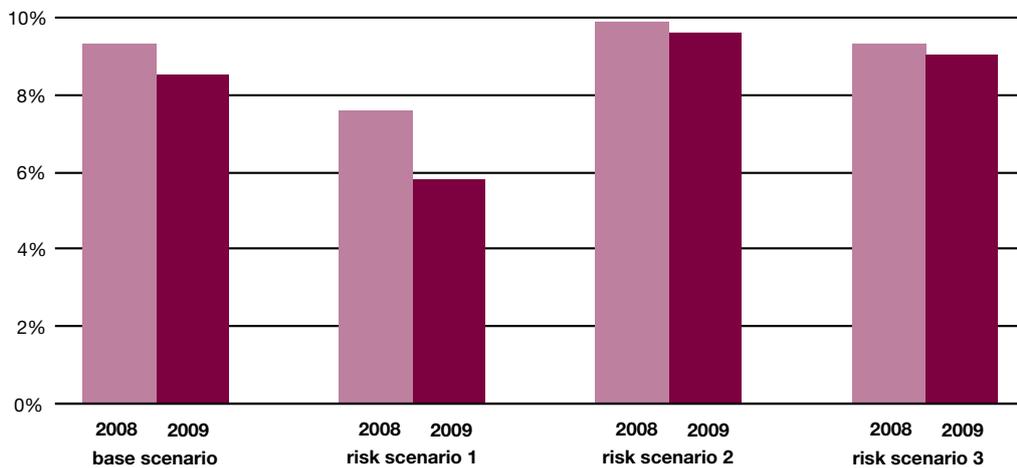


Figure 8. Loan growth under different scenarios

According to **risk scenario 3**, the share of overdue loans will not increase considerably in 2008, and will account for 1.3% of the loan portfolio. In 2009, however, the economic situation will worsen significantly and the share of overdue loans will increase to 2.3%.

Arising from the strong capitalisation of banks at the end of 2007, the banking sector will not have any difficulties with meeting the **capital adequacy requirement**, considering the assumptions used in the base and risk scenarios. The results of the stress test are strongly affected

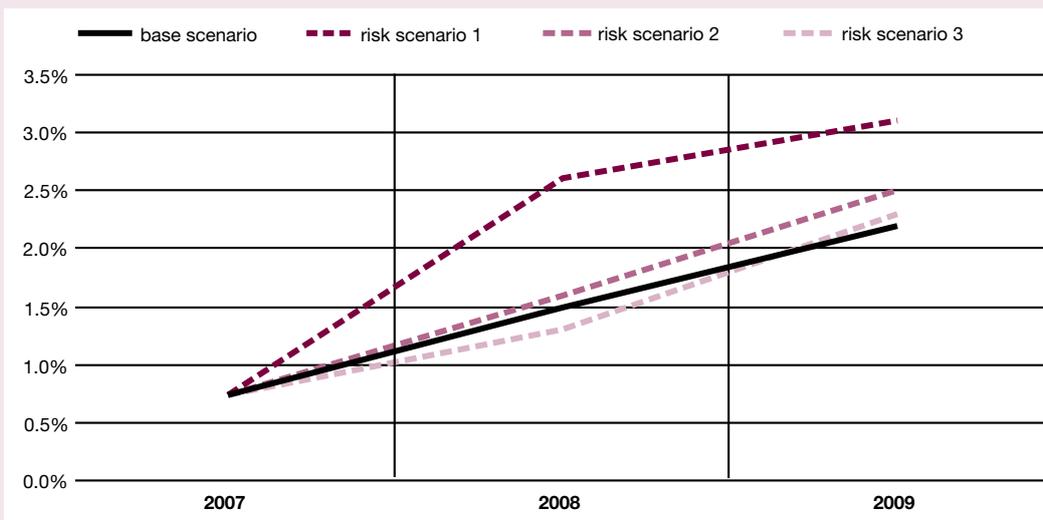


Figure 9. Ratios of loans overdue for more than 60 days under different scenarios

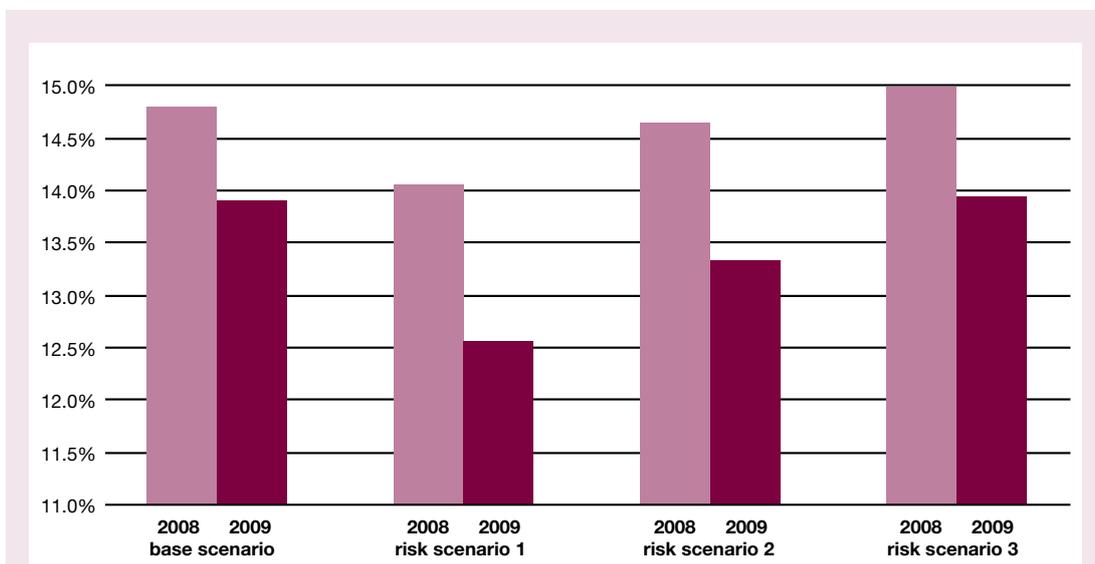


Figure 10. Capital adequacy ratio under different scenarios

ted also by the implementation of the new capital adequacy framework. The new framework did not have an impact on own funds. The volume of risk

weighted items, on the other hand, decreased significantly.

Liquidity

Funding

Although the growth rate of loan portfolios decelerated in the period under analysis, growth in deposits was insufficient to reduce the **funding gap between deposits and loans** (see Figure 11). Therefore, banks again had to include additional funds from parent banks.

At the end of the first quarter of 2008, nearly half of the 298 billion kroons of banks' liabilities originated from foreign **institutions**. The structure of external financing has not changed much over the past half-year. The majority of funds have been received from parent banks as loans and deposits. The share of funds obtained through bond issues has decreased even further in the last two quarters on an aggregate basis. The share of bond liabilities in total lia-

bilities has fallen below 6%; the majority of bond liabilities still consist of long-term funds received in earlier periods.

Arising from the slower growth of loan portfolios and the implementation of the Basel II principles based risk assessment framework as of 2008, in the last quarters banks had no need to raise additional **subordinated funds** in large volumes. Thus, the share of subordinated liabilities in banks' total liabilities had decreased below 4% by the end of the first quarter of 2008.

Parent banks have provided funds to local banks still at more favourable prices compared to the local banks' own opportunities (considering, for instance, the difference in credit ratings). At the same time, the **share of time deposits** in customer deposits has increased further (see Figure 12).

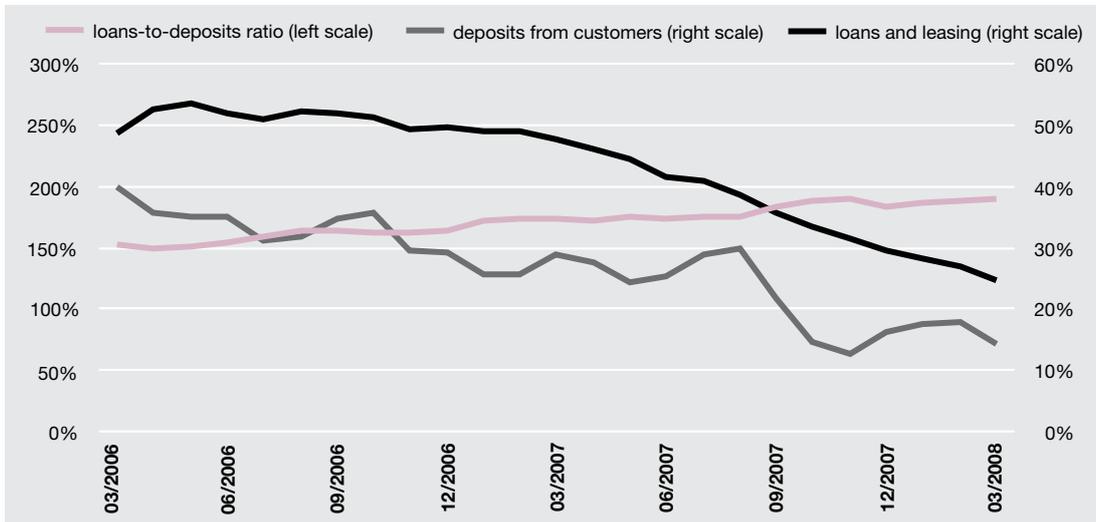


Figure 11. Loans-to-deposits ratio and year-on year loan, leasing and deposit growth

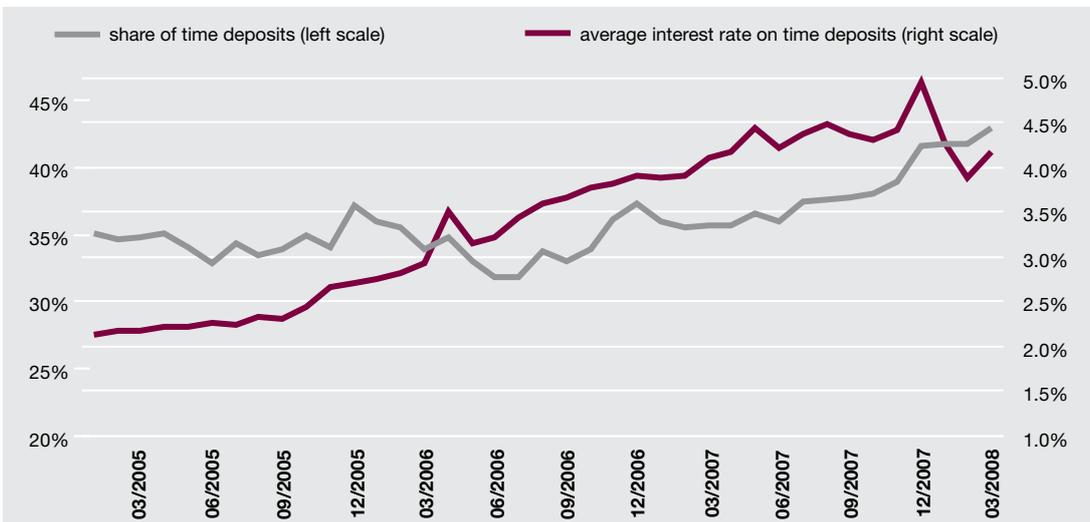


Figure 12. Average interest rate on time deposits and the share of time deposits in total deposits

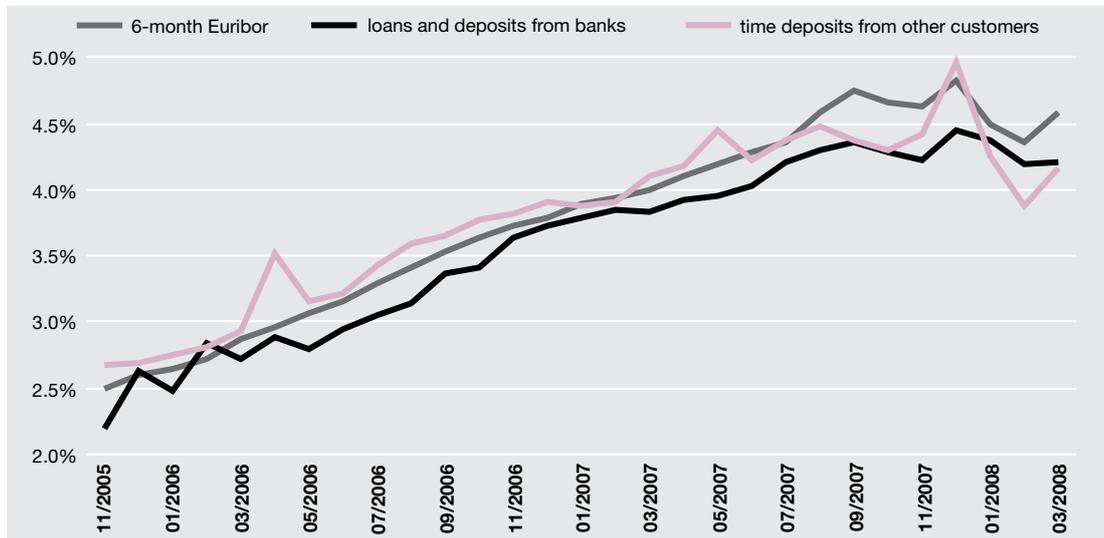


Figure 13. Average interest paid by banks on funds raised and 6-month Euribor

This is reflected also in banks' profitability (see also *Profitability*), since the interest rates on time deposits are considerably higher than those on demand deposits (see Figure 13).

Liquid assets

Since the major rearrangement of intra-group financing schemes in the first half of 2006, the

structure of banks' liquid assets has not changed that substantially any more (see Figure 14).

Along with the increasing share of time deposits, the coverage of banks' short-term liabilities by short-term assets has somewhat increased in the last quarters (see Figure 15). However, banks' liabilities with a maturity of up to two days exceed

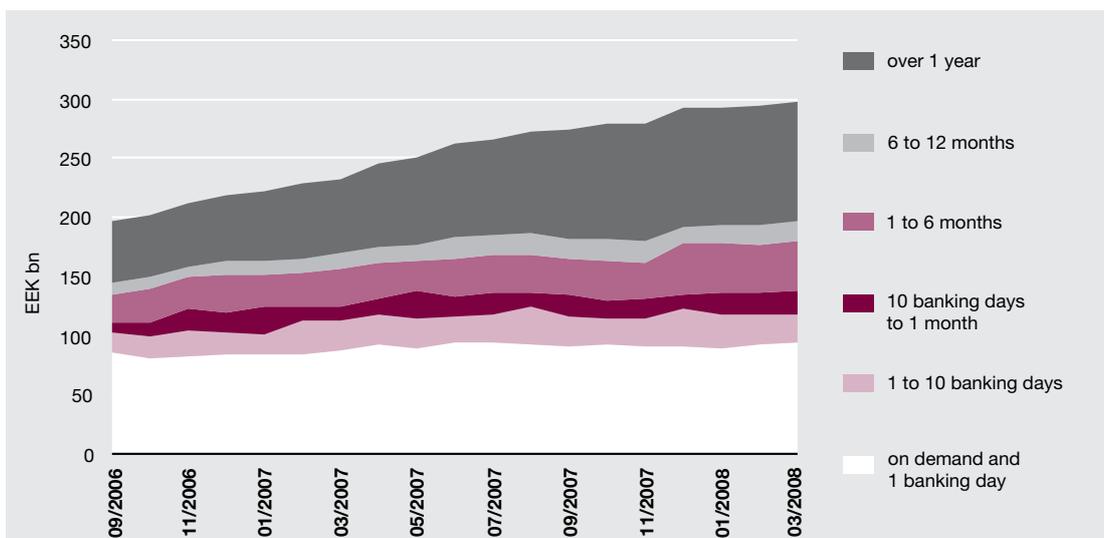


Figure 14. Banks' liabilities by remaining maturity

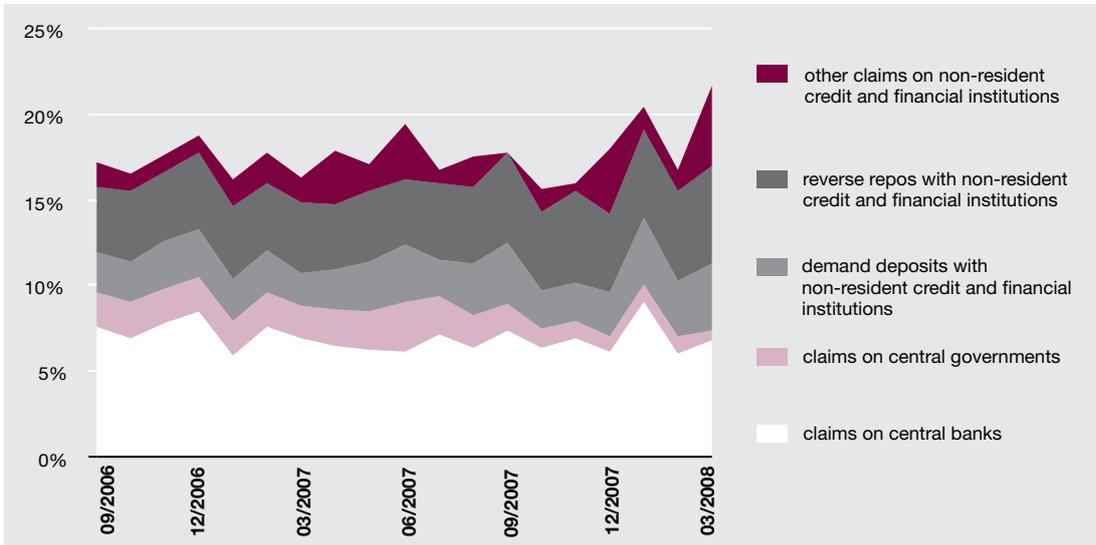


Figure 15. Share of highly liquid assets in banks' total assets

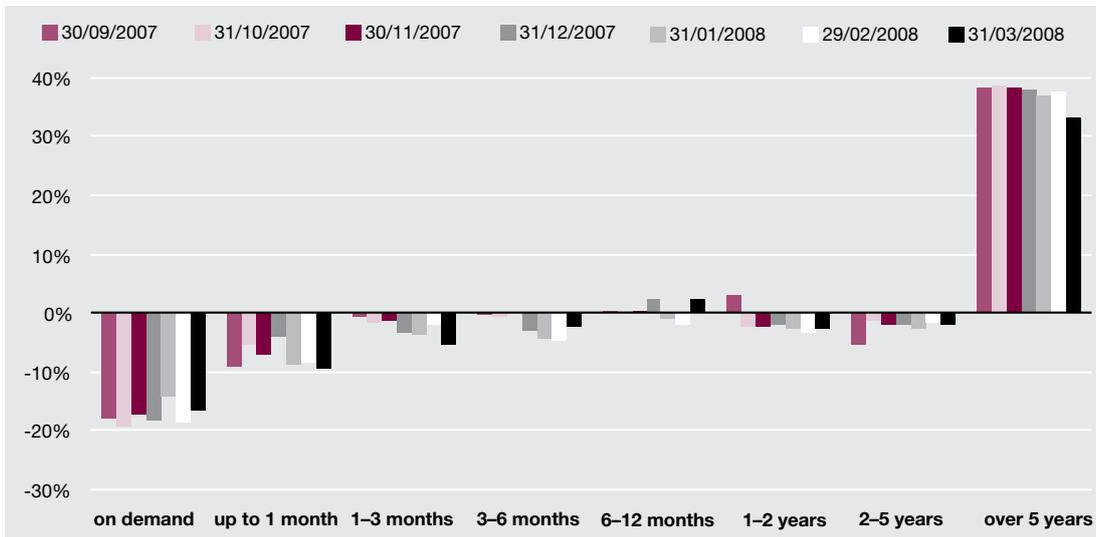


Figure 16. Net positions of banks' claims and liabilities (% of total assets)

assets with the same maturity by nearly 60 billion kroons (see Figure 16). In March, the prevalence of assets with a maturity of over five years decreased as a ratio to liabilities with the same maturity. This was mainly caused by the reallocation of intra-group funds.

The primary liquidity risk of the banking sector can be decreased with the help of the liquid assets reserve requirement, which was increased to 15% in Estonia on September 1, 2006.¹ But even with the obligatory reserve requirement, it is very important that market participants maintain sufficient liquidity buffers in a difficult market situation.

Considering the decreased but still large share of demand deposits in banks' liabilities and the increasing dependency of local banks on parent banks' liquidity management, the **liquidity risk of banks operating in Estonia still largely depends on parent banks' ability and willingness to provide funds to local banks.**

Profitability

The profitability of banks has been influenced by the increase in funding costs, an increase in write-downs of claims accompanying the change in the current phase of the economic cycle, and developments on financial markets.

The 2008 first-quarter net profit barely exceeded two-thirds of the profit of the preceding quarter, both in the case of banks and banking groups (1 billion and 2.1 billion kroons, respectively). **The four-**

quarter aggregate profit of banks was over 7.2 billion kroons and that of banking groups over 10.4 billion kroons. The four-quarter aggregate return on equity remained quite high at 27%, regardless of the poor results posted in the first quarter (see also Tables 2 and 3).

The modest profit figures for the first quarter resulted from the joint impact of several unfavourable factors. The cost of funds has increased and banks have not managed to pass all of it on to clients (see Figure 17). Compared to the fourth quarter of 2007, banks' interest income increased by nearly 6% and interest costs by 11% in the first quarter of 2008. The respective indicators of banking groups were 5% and 13% (see Figures 18 and 19)².

Apart from lower net interest income, the developments on the financial markets have negatively affected also the **trading income** and the **fee and commission income** of banks.

As expected, the current phase of the economic cycle has brought along an **increase in the volume of loan write-downs.** Although in the case of banks net write-downs of assets even decreased in the first quarter, in the case of banking groups they increased by more than a half, quarter-on-quarter, and more than two and a half times, year-on-year (see Figure 20). Growth in write-downs reflects, on the one hand, the increased materialisation of credit risk, which is quite expectable given the changed phase of the economic cycle, and, on the other hand, the continuous conservative write-down policies of banks.

¹ The reserve requirement applies to credit institutions as well as branches of foreign credit institutions operating in Estonia. According to the requirement, credit institutions must hold funds amounting to 15% of the calculation base as a monthly average in the respective settlement account with Eesti Pank. The calculation base includes balance-sheet liabilities of credit institutions (except liabilities to resident credit institutions and the central bank) and to some extent also the financial guarantees issued. A credit institution that has signed an agreement with Eesti Pank is allowed to cover up to 50% of the reserve requirement by liquid foreign assets accepted by Eesti Pank.

² If the funding costs that could not have been passed on to clients had been approximately 0.25 percentage points higher on an aggregate basis, the profit would have been about 10% lower.

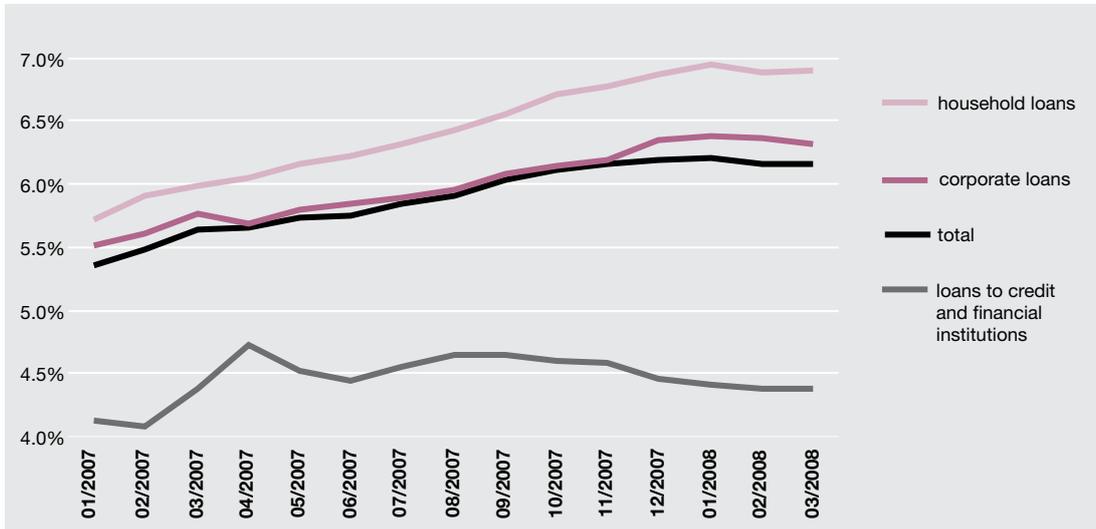


Figure 17. Average interest rates on loan stocks

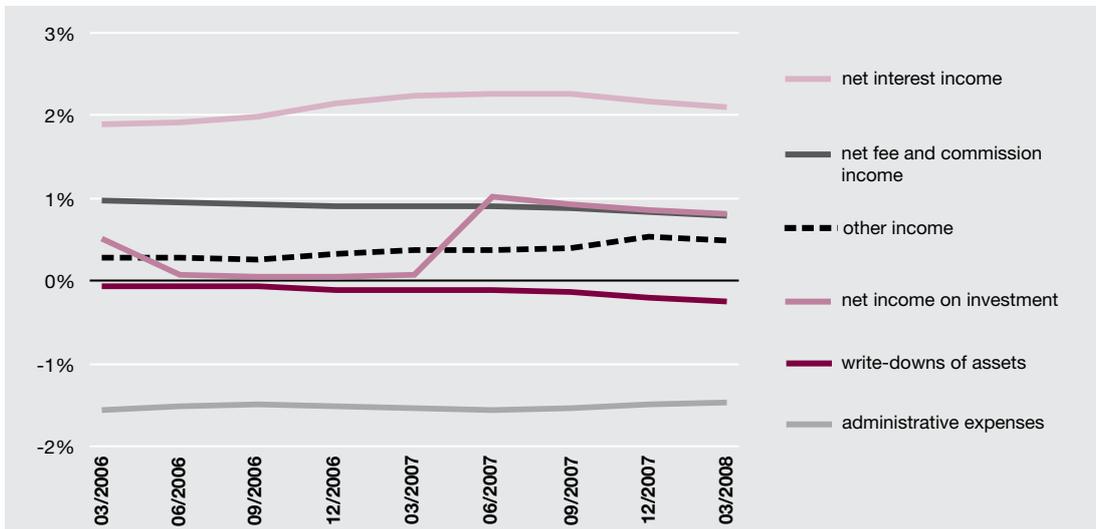


Figure 18. Income and expense items of banks (% of total assets as the aggregate of last four quarters)

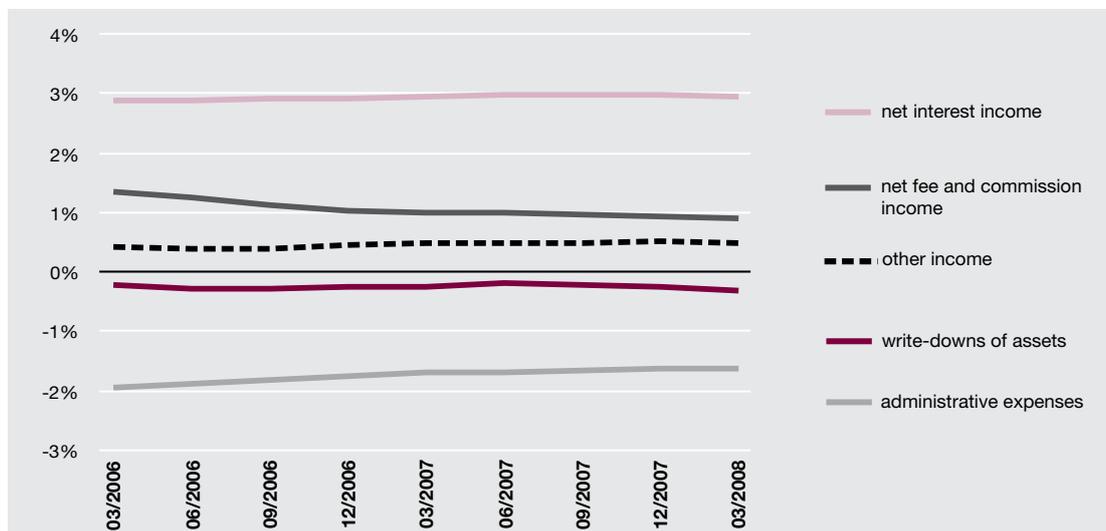


Figure 19. Income and expense items of banking groups (% of total assets as the aggregate of last four quarters)

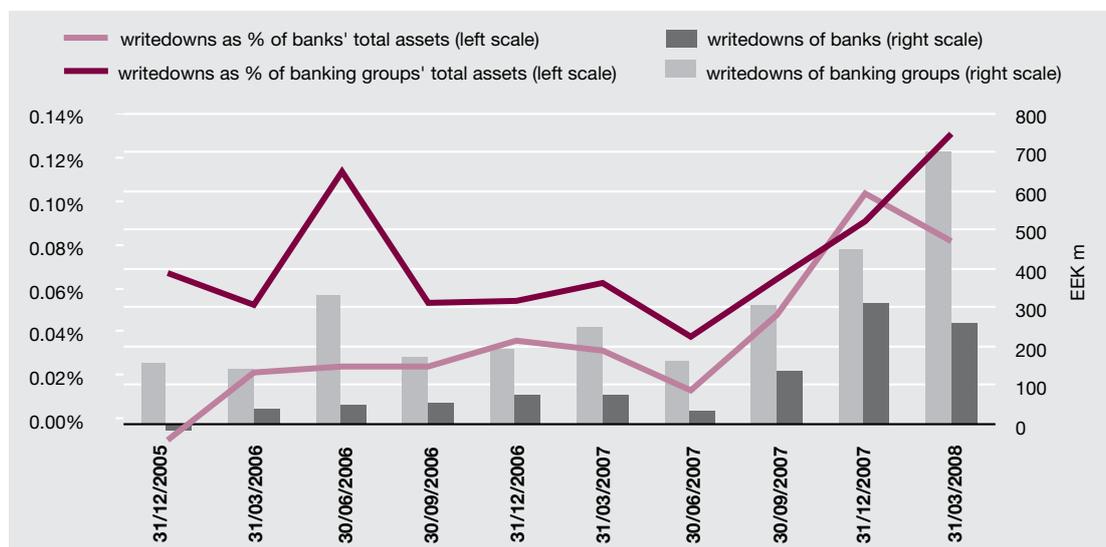


Figure 20. Writedowns of assets of banks and banking groups at the beginning of period

Banks can respond to the decline in income by cutting down on expenses. Although in the first quarter of 2008, the administrative expenses of banks were nearly 4% lower and those of banking groups almost 6% lower than in the last quarter of 2007, this was largely due to seasonal factors. Namely, in the last quarter employee bonuses are also taken into account.

Although banks have managed to keep growth in expenditure slower than the increase in assets, as the aggregate of the last four quarters, this has not been sufficient to offset the decline in income on assets. Consequently, the cost-to-income ratios of banks and banking groups increased in the first quarter (see Tables 2 and 3).

Table 2. Profitability of banks (four quarter aggregate)

	2005	2006	Q1 2007	Q2 2007	Q3 2007	2007	Q1 2008
Return on assets	2.0%	1.7%	1.8%	2.8%	2.7%	2.6%	2.4%
Leverage ratio	9.9	10.7	10.7	10.6	10.5	10.5	10.4
Return on equity	21.1%	19.9%	21.3%	32.5%	31.2%	30.2%	27.0%
Cost-to-income ratio	45.6%	46.6%	45.1%	35.8%	35.9%	35.1%	36.4%

Table 3. Profitability of banking groups (four quarter aggregate)

	2005	2006	Q1 2007	Q2 2007	Q3 2007	2007	Q1 2008
Return on assets	2.3%	2.2%	2.2%	2.3%	2.3%	2.3%	2.1%
Leverage ratio	10.5	12.2	12.5	12.8	12.9	13.0	12.9
Return on equity	24.2%	26.3%	27.4%	29.7%	29.4%	29.3%	27.0%
Cost-to-income ratio	45.7%	42.1%	40.9%	39.7%	39.5%	38.8%	39.6%

The **future profitability of banks** will still largely depend on the cost of funding. The latter, in turn, depends on the general prices in the money market as well as the additional company-specific risk premiums asked. Therefore, given the high share of external funds in the total funds of local banks, the funding cost of banks operating in Estonia significantly depends on the cost of funds raised by their parent banks and also the price at which the latter provide funds to their Estonian subsidiaries. At the same time, as the share of time deposits has grown, the cost of funds received as deposits from customers has increased.

Although the majority of bank loans in Estonia have been issued with floating interest rates, which

enables to charge a higher price when the reference rates change, this does not apply in case the higher funding cost arises from the specifics of a bank. Banks would surely be interested in charging clients a higher risk premium when funding costs increase, but tight competition in the banking market inhibits that. Funding clients/projects of higher risk would, at the same time, increase the probability of incurring losses from credit risk.

However, it should be noted that in the context of changed economic environment a decline in banks' profitability, which has so far been quite high, could only be expected. The high share of floating rate loans in the loan portfolios decreases banks' interest rate risk. Local banks are operating on the basis

of rather traditional banking models, which has kept the risk from trading activities moderate. The conservative write-down policies have decreased the impact of the materialisation of credit risk.

The future profitability of banks depends, among other things, on their ability to respond to the decline

in income by cutting down on expenses. First steps in this direction have already been taken. However, considering the expected asset growth, the impact of cutting down on expenses will probably appear stronger over a longer period.

III SECURITIES AND MONEY MARKET

International financial markets¹

At the beginning of the second half of 2007, major **stock markets** witnessed a turn in the strong upward trend that had been prevailing since 2003. The turn was triggered by liquidity and credit problems in the US financial sector, which diminished investors' risk appetite. Later it became evident that it was a large-scale crisis that comprised also the financial sectors of other advanced economies. At the same time, the growth outlook of the non-financial sector began to deteriorate, giving an additional boost to the ongoing price decline.

As regards **advanced economies**, the euro area stock index (Stoxx 50) fell by 14.8%, the S&P 500 index in the US by 7.8% and the Nikkei 225 index in Japan by 24.1% (see Figure 1). The stock indices in Finland and Sweden declined by 14.3% and 21.5%, respectively. The relatively modest fall in the US stock market can be explained by the fact that one of the hot spots of this economy is the housing market where sales began to decrease already in 2005. This, in turn, restrained growth in US stock prices for a while.

The investment climate of **developing economies** has been more favourable, but compared to the beginning of 2008, there was a setback also in the Chinese and Indian stock markets. Nevertheless, in terms of the whole period the outcome was considerably better than in developed countries: by the end of April, the Shanghai Composite Index had fallen by only 3.3%, whereas the Bombay Sensex 30 index had increased by 18%. Growth in major Asian countries is expected to stabilise, as more moderate slowdown is expected than in advanced economies.

Among developing markets, the **Central and Eastern Europe** (CEE) has probably been the least affected by the slowdown in the US economy, as CEE trade with the US forms only 1–2% of the total trade of CEE. For CEE countries, economic convergence towards wealthier EU Member States is currently in the focus. Yet, due to the turmoil in the global financial sector in the past six months, all CEE securities markets have been undergoing low trading activity, a sharp fluctuation in stock prices and an overall downward trend.

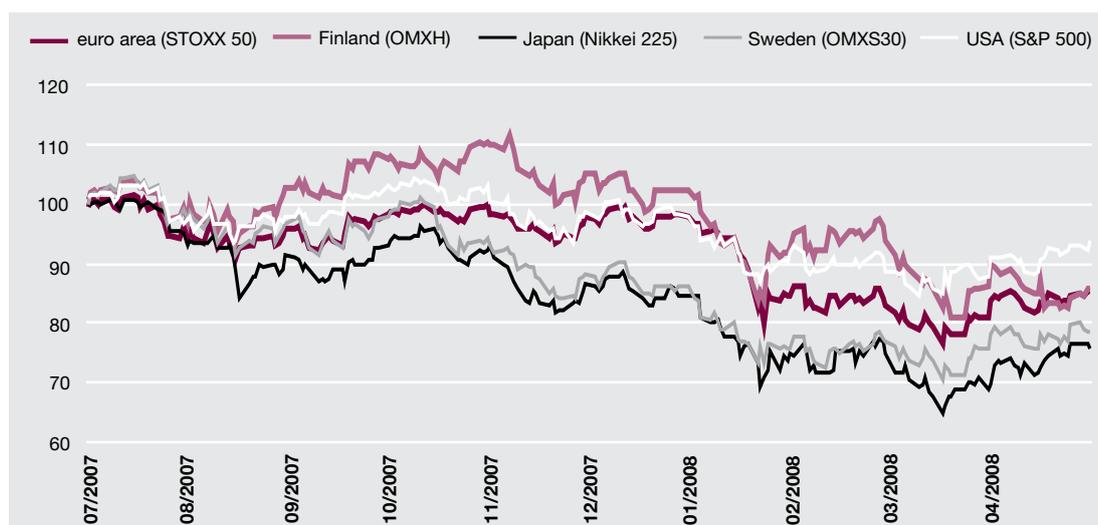


Figure 1. Stock indices in the United States, the euro area, Japan, Sweden and Finland (29 June 2007 = 100)

Source: EcoWin

¹ The Review covers the period from July 1, 2007 to May 1, 2008.

The strongest decline was witnessed by the Baltic market where stock indices fell from the beginning of July 2007 to the end of April 2008 by 17% in Lithuania, 25% in Latvia and 38% in Estonia (see Figure 2). The CEE stock markets were in decline too; the composite index fell 11%. The stock markets in the Czech Republic, Hungary and Poland fell by 14%, 18% and 29%, respectively. Owing to the continuing oil price rise, Russia maintained its leading position with stock prices increasing by 19% after going up and down since June 2007.

However, the stabilisation of stock prices in recent months indicates that investors are regaining interest in Central and Eastern Europe. Although economic growth will probably slow and inflation may be higher than expected, CEE countries are still able to develop faster than Western Europe. However, their growth prospects are affected by developments in global markets and the reassessment of credit risks.

Developments in **bond markets** were shaped by the weakening growth outlook for advanced economies, which influenced both the monetary policy development and government bond yields. In general, though, the development in different countries

varied quite a lot. Furthermore, the markets were strongly affected by the concurrent credit and liquidity crisis.

The biggest change concerned the US monetary policy. Namely, the crisis in the subprime mortgage market and the possibility of economic decline forced the Federal Reserve to start lowering the **base rate** in September 2007. The rate was lowered from 5.25% to 2% by April 30, 2008.

The key policy rate was cut also by the Bank of Canada (from 4.5% to 3.0%) and the Bank of England (from 5.75% to 5.0%). Since the overall economic situation in Europe was more stable, European central banks remained focused on inflation risk. For this reason the European Central Bank maintained the key interest rate at 4% and Sveriges Riksbank (Bank of Sweden) increased it from 3.5% to 4.25% due to the rise in inflation. Other developed countries that increased their key interest rates included Norway and Australia (to 5.5% and 7.25%, respectively).

Changes in **short-term interest rates** were also characterised by the fact that due to the liquidity crisis in the money market, developments in

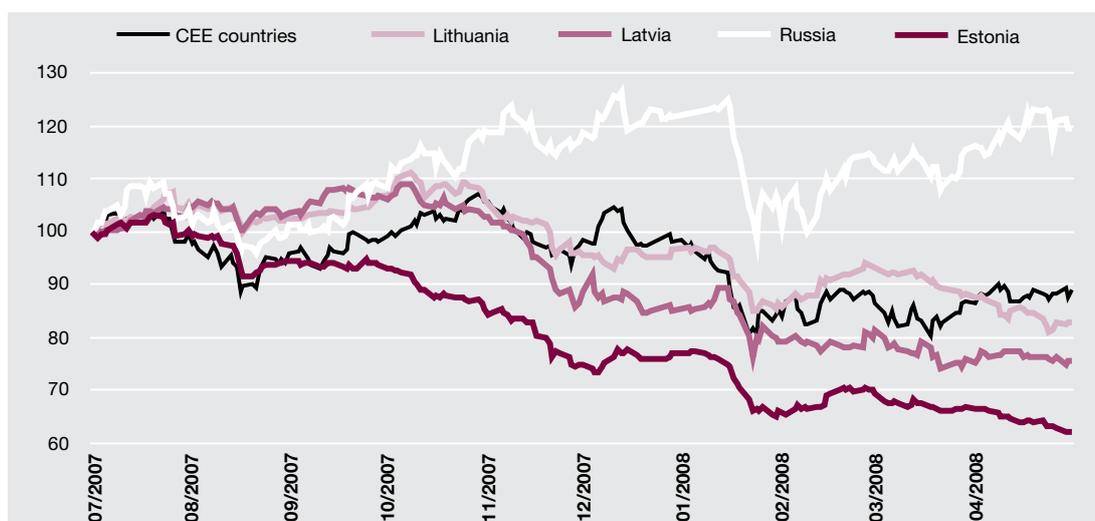


Figure 2. Stock indices in the CEE countries, the Baltic countries and Russia (29 June 2007 = 100)

Source: EcoWin

national interest rates and interbank interest rates varied substantially. The liquidity crisis boosted the risk premium of interbank interest rates, which is why the spread between these rates and government interest rates increased sharply. The US three-month government T-bill rate fell by 340 basis points,

while the three-month US dollar Libor decreased by only 258 basis points. The same could be noted in the euro area, where the respective changes were -8 and +68 basis points, and in Sweden (+58 and +122 basis points; see Figure 3).

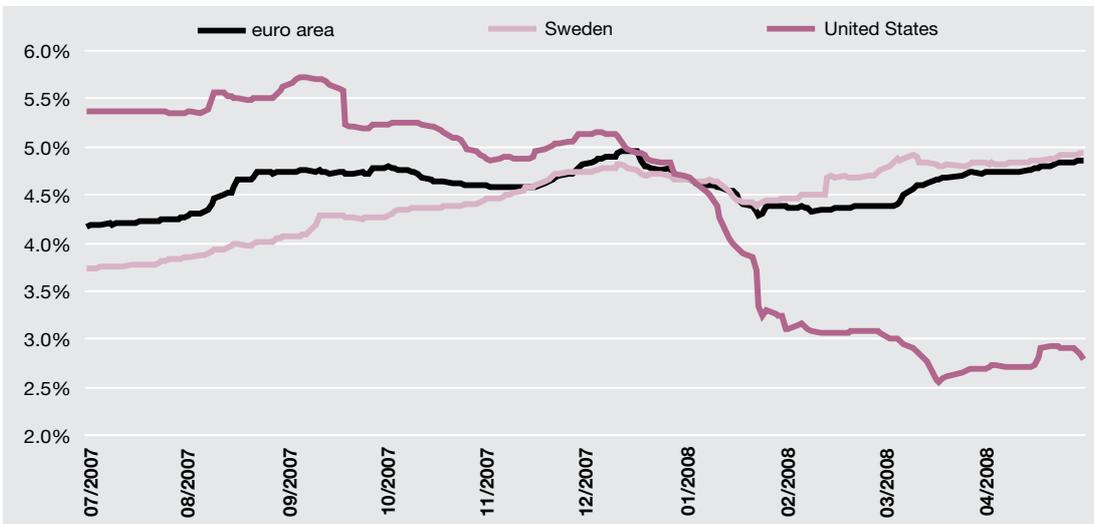


Figure 3. 3-month interest rates in the euro area, Sweden and the United States

Source: EcoWin

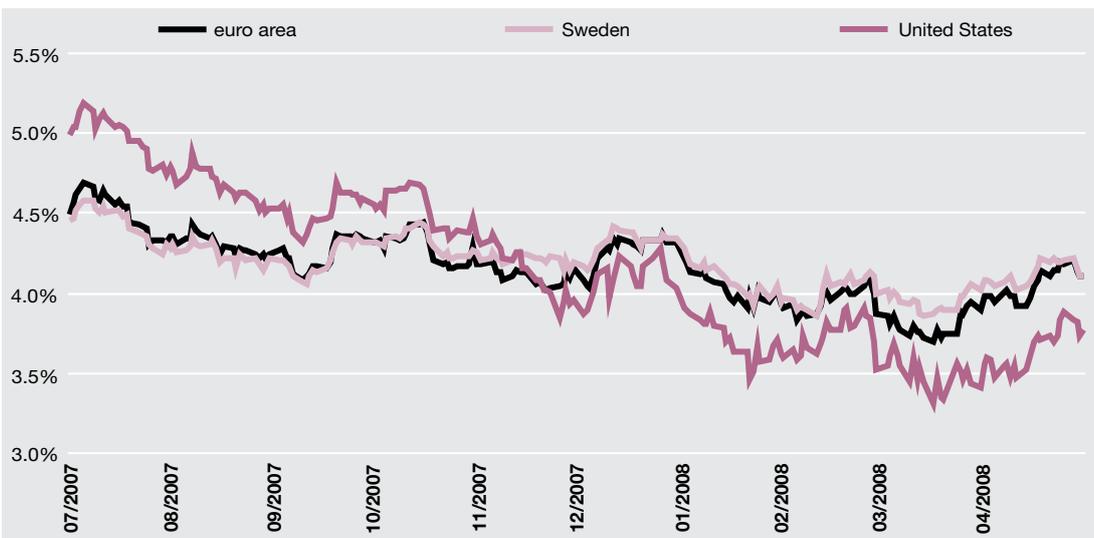


Figure 4. 10-year interest rates in the euro area, Sweden and the United States

Source: EcoWin

Long-term (ten-year) government interest rates declined by 126 basis points in the US, 46 basis points in the euro area and 37 basis points in Sweden (see Figure 4).

As regards **foreign exchange markets**, the US dollar continued to depreciate against other major

currencies, driven by sudden deterioration in the US financial and non-financial sectors. The exchange rate of the euro appreciated against the dollar by 15% and reached a historical high (1.6018) in intraday trading on April 22 (see Figure 5). The dollar weakened by nearly 15% also against the yen, falling at one time below 100 yen per dollar (the lowest

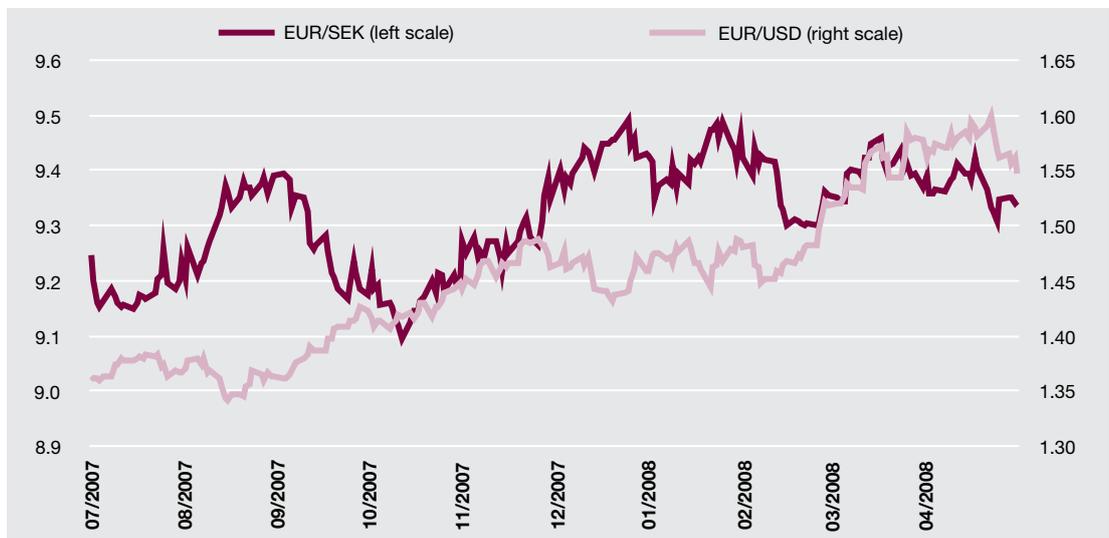


Figure 5. Exchange rate of the euro against the Swedish krona and the US dollar

Source: EcoWin

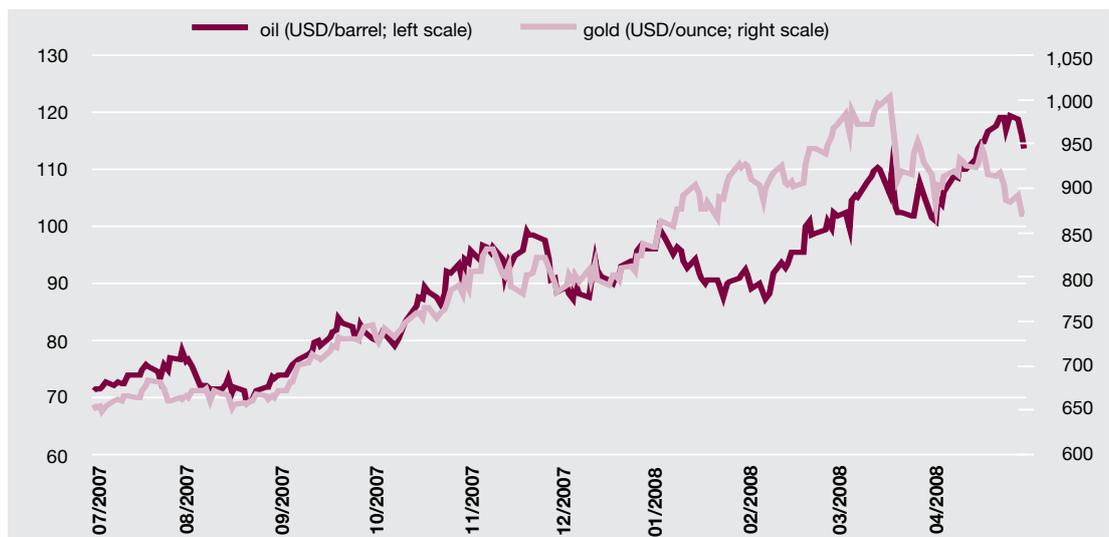


Figure 6. Prices of gold and crude oil (WTI)

Source: EcoWin

level of the last 12 years). The exchange rate of the Swedish krona against the euro ranged between 9.1 and 9.5 (by the end of the period the euro had appreciated by 1.3%). Since 2001, the exchange rate of the euro against the Swedish krona has been fluctuating between 9.0 and 9.5 kronas per euro.

The **commodity markets** continued to trend upwards despite the worsening growth outlook in advanced economies. The CRB index, reflecting the prices of 22 major commodities, rose by nearly 14%. The price of crude oil (WTI) increased from 70 to 113 dollars per barrel (62%) and the price of gold from approximately 650 to 852 dollars per ounce (32%), reaching the all-time high of 1,002 dollars on March 17 (see Figure 6). Prices of food (including rice, wheat and other cereals) rose sharply as well, the sub-index increased by 26%. Growth in food and energy prices has been the primary inflation factor in the current economic cycle.

The general reasons behind strong growth in commodity prices were the rapid weakening of the dollar on the one hand, and the persistent strong demand in developing countries (primarily in China) on the other hand. The limited supply of commodities is becoming more pronounced, and some of them

have changed from ordinary production inputs into strategic resources. Price growth has been further boosted by investors' desire to hedge inflation risk caused by the economic cycle and a few other factors. Thus, to some extent, price growth has been driven by structural factors, but speculative demand also plays a role here. The supply-demand ratio of commodities (be it crude oil, rice or something else) in different markets is influenced also by market specific factors.

Money market

The interest rate applied to main refinancing transactions with the European Central Bank remained unchanged at 4% over the last year. The **euro area money market interest rates**, on the other hand, were rather volatile (see *International financial markets* and background information).

At the end of November, some foreign investors wished to hedge more their kroon positions. Since the market for derivatives issued in Estonian kroons is relatively small, the unexpected increase in demand for kroons brought about a relatively large difference between the **Estonian money market interest rate quotations (Talibors)** and respec-

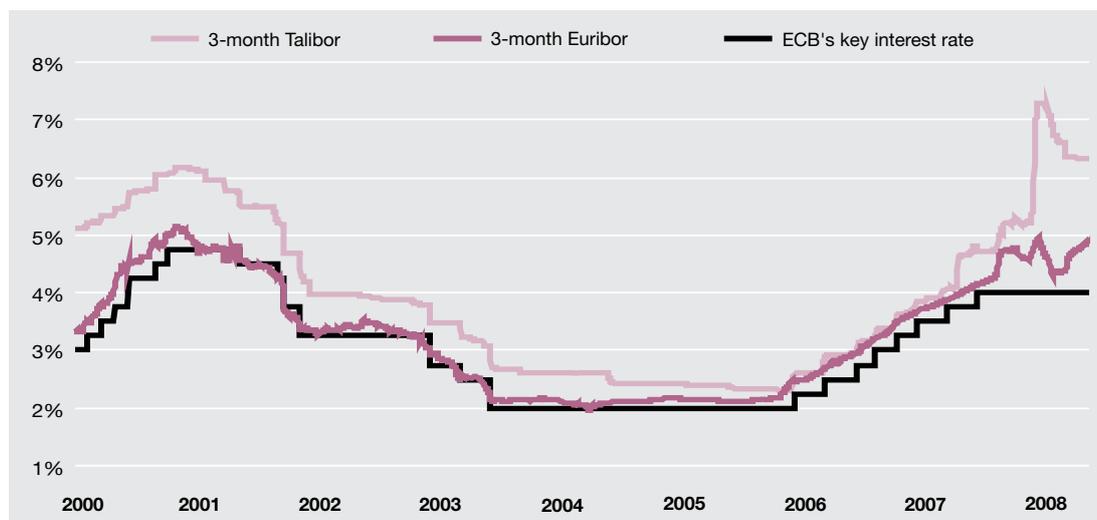


Figure 7. Money market interest rates in Estonia and the euro area

Source: EcoWin

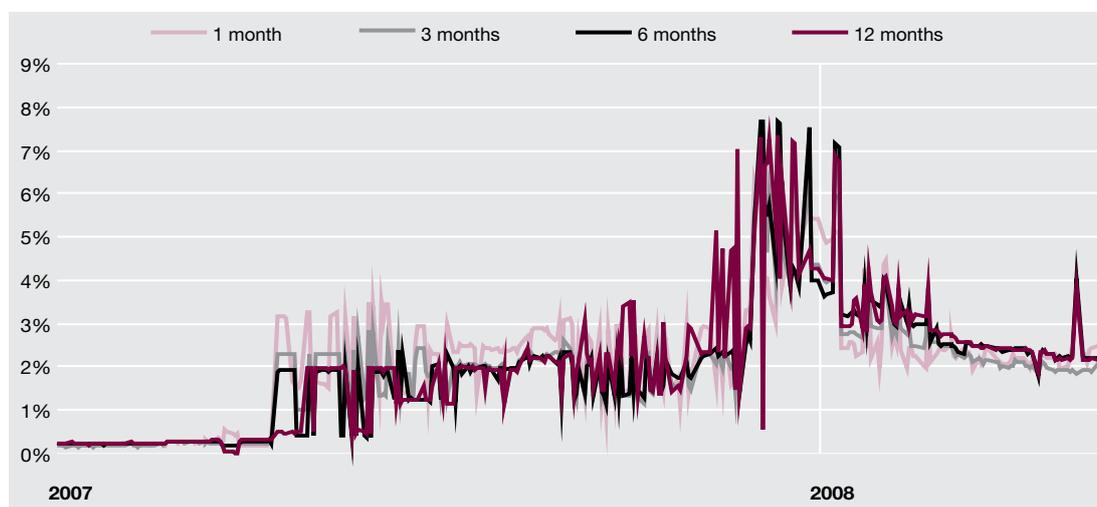


Figure 8. Forward premiums of the Estonian kroon against the euro

Source: Reuters

tive Euribors. By the end of December, the spread between the three-month Talibor and Euribor rose to approximately 265 basis points. In the first half of 2008, the kroon money market was relatively quiet and undisturbed by the tensions in global markets. By the end of April, the spread between the three-month Talibor and Euribor had drawn back to approximately 146 basis points (see Figure 7).

The difference between interest rate quotations that form the basis of future kroon and euro transactions (forward premiums) has also withdrawn smoothly in spring 2008. In April, the derivatives market achieved a balance in the range that is only a little higher than the average level of the period from April to November 2007 (see Figure 8).

The rise in price quotations at the end of last year did not exert pressure on the kroon exchange rate. Neither did it bring about a considerable decrease of confidence in the kroon in the domestic market. When rumours about the possible devaluation of the kroon that spread in the retail market at the end of November increased the share of euro deposits by 3–4 percentage points, then demand in the money market brought about a rise in the interest rates on kroon deposits. This, in turn, renewed interest in

kroon deposits in the first half of 2008. Yet, due to the kroon interest rate, which is much more volatile compared to the interest rates in the euro area, borrowers rather conclude loan contracts in euros (see Chapter II, *Quality of assets*).

The **turnover of the derivatives market** decreased considerably in May 2007 and has been several times smaller since then compared to the high levels of the two previous years (see Figure 9). However, in earlier quarters the turnover was significantly influenced by large foreign exchange transactions between Hansapank and its parent bank (see *Financial Stability Review*, May 2006). In the second quarter of 2008, these transactions were not that extensive any more. Excluding these transactions, the turnover of the derivatives was slightly above usual in the last months of 2007 but declined to previous levels in the first quarter of 2008. The transactions of non-residents comprised approximately 80% of the first-quarter turnover of the foreign exchange derivatives market. In addition to derivative transactions, spot transactions (exchange of Estonian kroons for foreign currency) gained popularity in the final months of 2007. But, similar to the futures market, at the beginning of 2008 trading edged down also in the spot market.

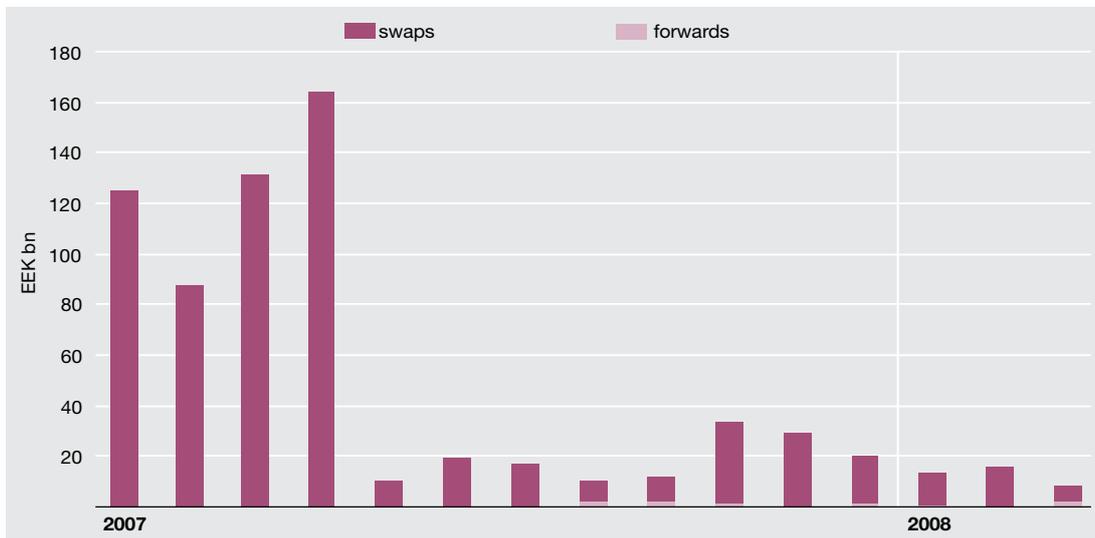


Figure 9. Monthly turnover of derivatives transactions with Estonian credit institutions

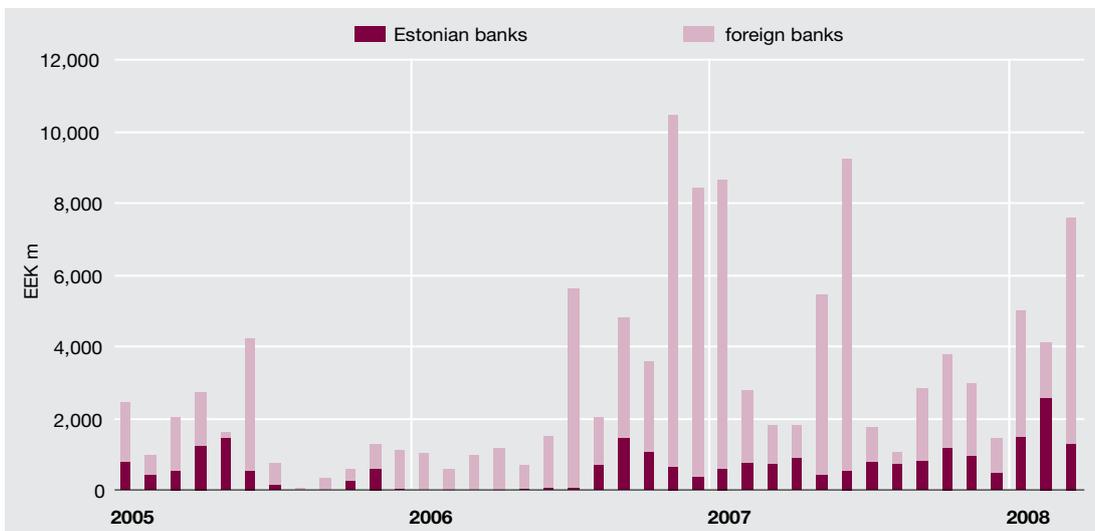


Figure 10. Monthly turnover of short-term kroon loans in the interbank money market

The **turnover of short-term kroon loans** remained low as usual in the fourth quarter of 2007 and first quarter of 2008, although in 2008 an increase in the lending activity of local credit institutions could be observed (see Figure 10). Swedish and Finnish credit institutions still prevailed among non-resident market participants. Estonian credit institutions manage their liquid-

ity mainly in euro via parent banks or directly on external markets, using the central bank's forex window to convert euros to kroons.

The liquidity of the Estonian kroon has been stable and no significant failures have occurred in the financial sector's kroon liquidity. **Banks' settlement buffers in the central bank** have been high

enough and the banking sector has not had difficulties with fulfilling the reserve requirement.

Bond market

The **primary bond market** was very active in the last two quarters of the period under analysis. The volume of issues in the primary bond market was

record high in the last two quarters of 2007, totalling over 3.7 billion kroons (see Figure 11). Owing to a high comparison basis, annual growth in the turnover of the primary bond market decreased to 12% by the end of March. The total market capitalisation of bonds grew by more than 4 billion kroons in the past six months and exceeded 16 billion kroons at the end of March. Although the 54% annual growth

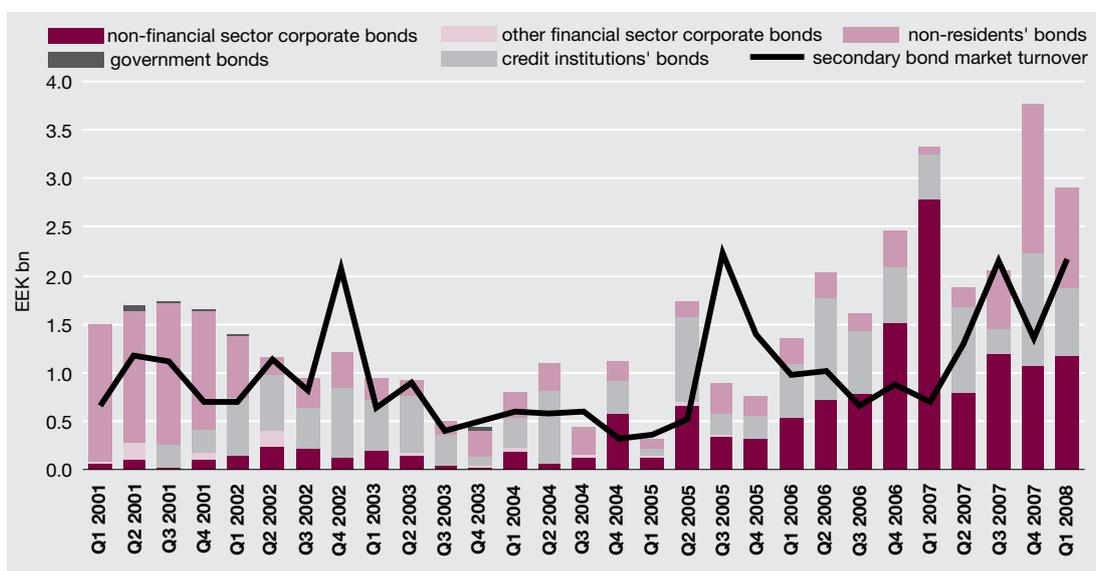


Figure 11. Bonds issued and secondary bond market turnover on a quarterly basis

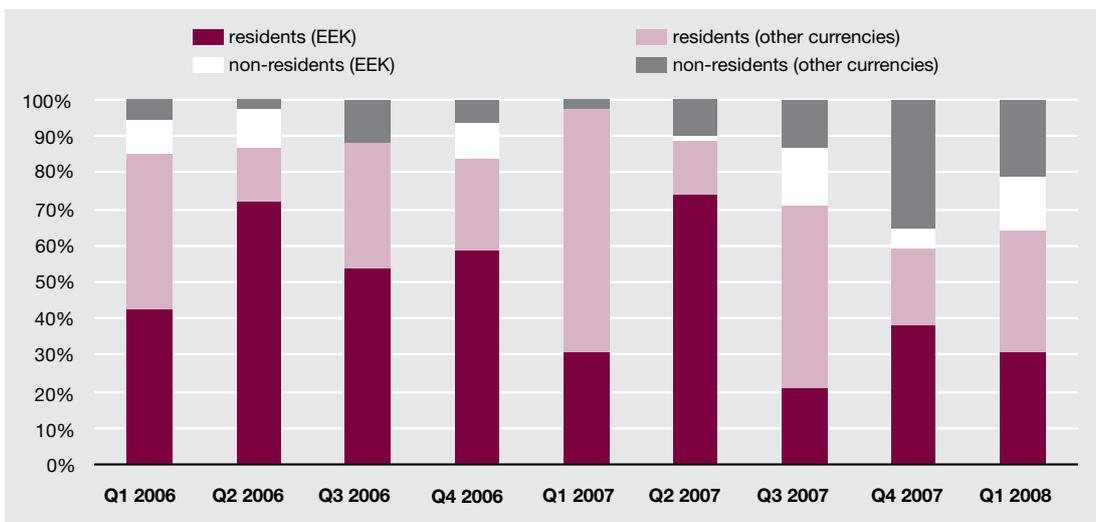


Figure 12. New bonds issued by residency and currency on a quarterly basis

in total market capitalisation is not as high as in the previous periods, it still shows an upward trend (bond market capitalisation was approximately 6.4% of GDP at the end of March).

The majority of primary bond market turnover comprised bonds issued by resident companies and credit institutions. The volume of bonds issued by non-residents increased three times over the last six months and accounted for about 39% of the total volume of the primary bond market (see Figure 12). Growth was facilitated by MP Investment Bank's entry into the market and its bond issues in the total of 938 billion kroons, which constituted 40% of the total turnover of the primary market of bonds issued by non-residents in the last two quarters.

Most of the bonds were issued in foreign currencies. The primary issues in Estonian kroons comprised approximately 45% of the total volume of new issues in the last six months.

Similar to the primary market, the **secondary bond market** was also very active in the first quarter of 2008. The average daily turnover was by two thirds

higher than the average quarterly turnover in 2007. In the first quarter of 2008, the average daily turnover was 35 million kroons.

Over the past six months, no corporate bonds have been redeemed or listed on the Tallinn Stock Exchange. At the end of March, the bonds of four companies had been listed at the Tallinn Stock Exchange with a total market value of approximately 521 million kroons; that is, merely 3.3% of the total capitalisation of the bond market.

Stock market

One of the most important strategic events in the Estonian stock market took place in February 2008, when the **Baltic and Nordic stock exchange group OMX AB, the majority shareholder of the Tallinn Stock Exchange, merged with NASDAQ Stock Market, Inc., a company operating mainly in the US stock exchange**. The outcome of the merger is NASDAQ OMX Group – currently the world's largest exchange company. In the long run, the establishment of NASDAQ OMX Group will provide better access for the Baltic markets to

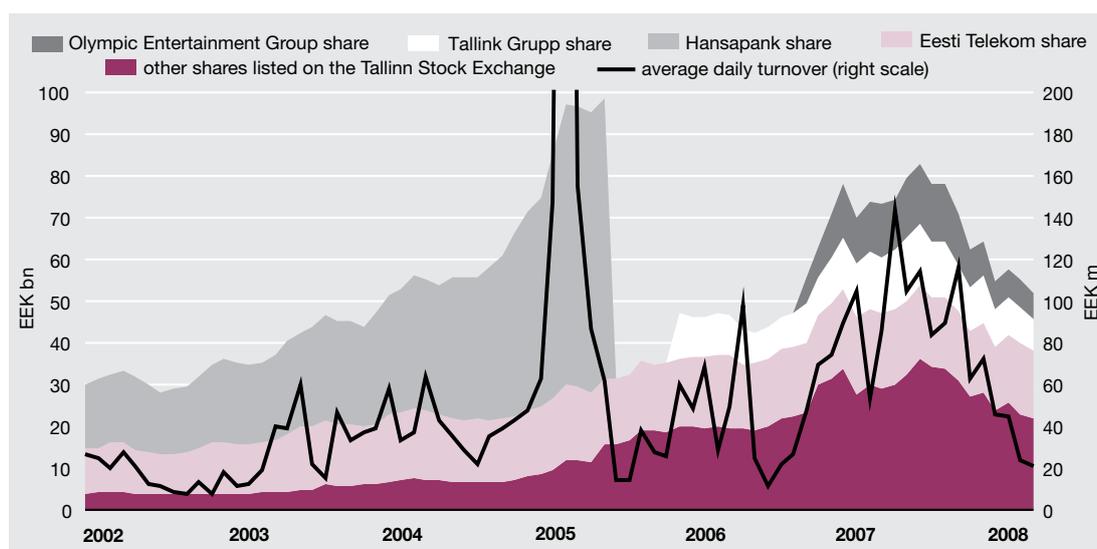


Figure 13. Market capitalisation of shares listed on the Tallinn Stock Exchange and average daily turnover of the stock exchange

global securities markets. However, a **cross-Baltic capital market and appropriate infrastructures** need to be developed first, both in technological terms and identity-wise, to achieve a further goal of integrating into the single Nordic capital market.

The value of Tallinn Stock Exchange index OMXT has been fluctuating a lot over the past six months, but has generally followed a downward trend. At the end of April, the index fell below 600 points. Annual decline was approximately 34%. Stock market capitalisation has also been fluctuating over the past six months because of stock price volatility (see Figure 13). Compared to the levels recorded before the uncertainty in international markets, the value of the total market capitalisation of listed companies declined by nearly 27 billion kroons and reached 55 billion at the end of March. Consequently, at the end of March, the total market capitalisation of listed companies was 22% of GDP, which is almost 10 percentage points less than at the end of September.

After the emergence of uncertainty in the financial markets at the end of summer, the Tallinn Stock

Exchange has experienced a continuous decrease in trading activity. The daily average turnover was only 24 million kroons in March (see Figure 14). The average daily turnover of the past six months was 61 million kroons, which is 40 million kroons less compared to the previous period's figure.

Most of the transactions in the last six months were made with the shares of the Olympic Entertainment Group, Tallink Group, Starman and Eesti Telekom, forming the majority of the stock market turnover.

In March Instinet Europe Limited, a global agency brokerage, was listed on the Tallinn Stock Exchange, which increased the number of members to 30 by the end of the month. More than 67% of the stock exchange transactions in the last six months were intermediated by AS Hansapank (35%), SEB Eesti Ühispank (21%; now SEB Pank) and AS LHV (11%).

Since 2006, the share of local investors in the stock market has been slightly over 50% (see Figure 15). The share of local and foreign investors has remained the same also after the turmoil in stock markets.

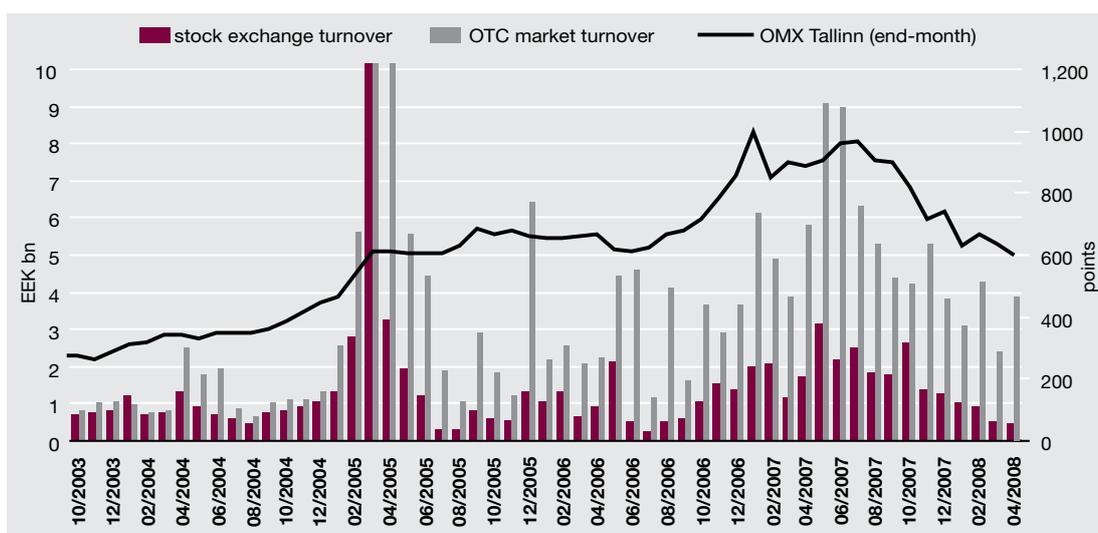


Figure 14. Stock turnover on the Tallinn Stock Exchange and OTC market (left scale) and Tallinn Stock Exchange index OMX Tallinn (right scale)

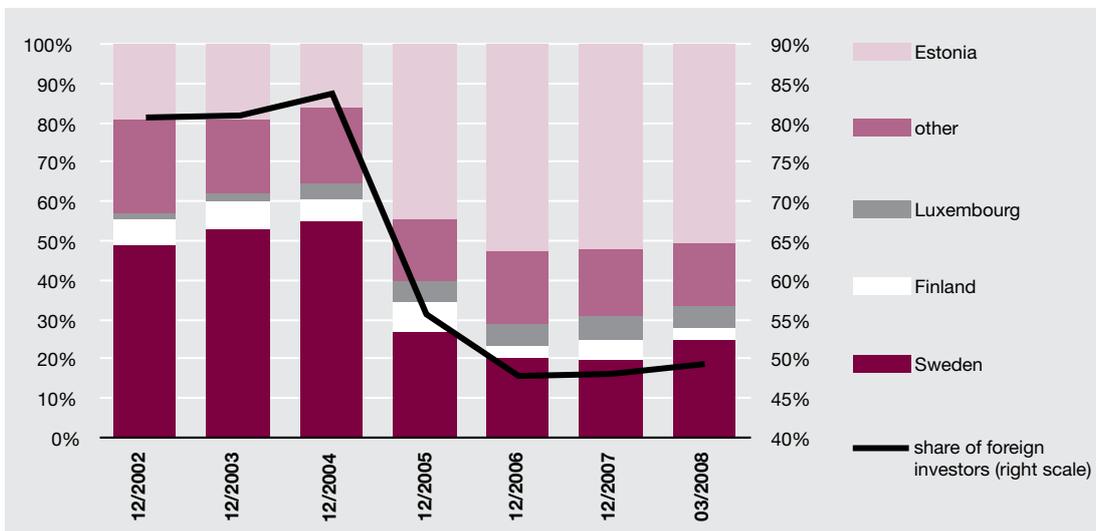


Figure 15. Structure of investors by residency and share of foreign investors of shares listed on the Tallinn Stock Exchange

At the end of March, the share of foreign investors was 49% (about 27 billion kroons), approximately 50% of which belongs to Swedish foreign investors. Finns have cut their investment by nearly 1.5 billion

kroons in the last six months and their share has declined to only 3%. The percentage of retail investors has grown from 3.8% to 5.2%.

PROGRESS OF THE GLOBAL LIQUIDITY AND CREDIT CRISIS

The last Financial Stability Review (November 2007) took a closer look at the sources of the global liquidity and credit crisis, its development and the reactions of central banks. Since the crisis has continued, below is an account of events until the beginning of May 2008, underlining the key characteristics of the crisis and its possible impacts on financial intermediaries and markets.

The change in the spread between three-month interest rates of the interbank money market and three-month government interest rates indicates that the development of the liquidity crisis in the US and euro area has been quite synchronous

(see Figure 16). Yet in the US, the spread has been much more extensive and volatile. So far, three main waves of the crisis can be distinguished.

The **first wave** marks the beginning of the crisis, which relates to the emergence of problems arising from the US subprime mortgage loans and the subsequent financial shock. In September, the Federal Reserve began to lower the key interest rate, which stabilised the situation in money and credit markets to some extent.

However, the end of the year witnessed the **second wave of crisis** that can be character-

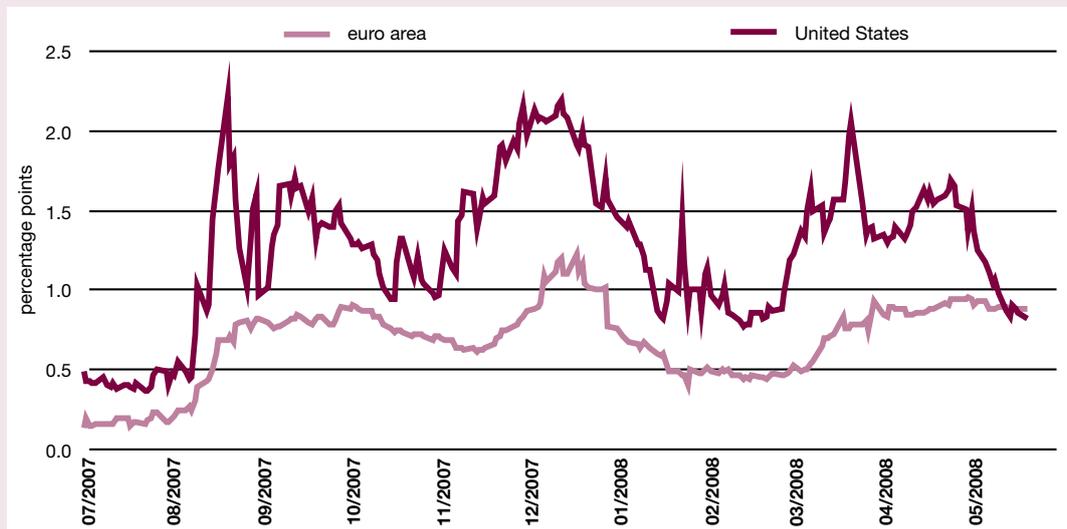


Figure 16. Difference between interbank money market interest rates and government bill interest rates in the United States and the euro area

used as the globalisation phase of the crisis. In addition, there emerged the risk of US economic recession and the possibility that the situation would get out of control. The vulnerability of the euro area's financial sector also became more evident and the economic outlook for the euro area worsened. The drastic easing of monetary policy in the US and expectations regarding lowering the key interest rate also in the euro area contributed to the stabilisation of the situation in January and February 2008.

In spite of that, the **third crisis wave** followed, which was related to the financial difficulties of a major US investment bank Bear Stearns & Co. and the takeover of this bank by JP Morgan. As a result, the Federal Reserve took several measures to safeguard financial stability. More precisely, liquidity was added to the market and made available to a greater number of banks, and the list of acceptable collaterals was expanded. Additional liquidity to the euro area financial sec-

tor was provided by the European Central Bank, but unlike the Federal Reserve, the ECB did not rush to lower the key interest rate because of the increasing inflation rate and persistent inflationary pressures. This disappointed those investors who had already discounted the easing of monetary policy in the euro area.

At the beginning of May, the money market interest rate spread was 91 basis points in the euro area and 138 basis points in the US, which indicates the persistence of **serious tensions in the money market**. Economic forecasts expect growth to be weak both in the US and euro area, meaning that financial intermediaries may face new problems in the near future as well.

In the meantime, the causes, scale and possible consequences of the current liquidity and credit crisis have become clearer. **In general, it can be said that the crisis was caused by excessive risks that accumulated in the financial**

sector in three areas: lending (especially as concerns housing loans), financial leverage and reliance on short-term financing.

As noted in the case of the US, the ratio of household credit and assets (mostly houses) continued to increase until the insolvency of riskier borrowers emerged. The evolving crisis was exacerbated by a decline in house prices. At the same time, the impact of crisis on economy was intensified by increasing financial leverage, as the financial sector relied ever more on external resources that were obtained by reselling loans as securities to investors outside the scope of central bank supervision. These investors often used short-term loans for longer-term investment. The investment bank JP Morgan has estimated the amount of these loans to be around 5.9 trillion dollars. All these processes together turned the US financial system into an unstable pyramid with a relatively narrow base, whose crisis symptoms affect also the financial sectors and economies of other countries through global economic relations.

Although the crisis is not over yet, it is already possible to pinpoint some of its specifics that will

be affecting credit market participants, central banks and financial supervision authorities also in the future. First, the crisis has proved that housing loans can be much riskier than initially seemed. The crisis has also undermined the reliability of rating agencies that have not been able to adequately assess the riskiness of various securities and their holders.

Apparently, greater caution regarding the use of financial leverage is to be expected in the future – both on the part of households and financial institutions. Experience has shown that in the case of a systematic crisis, the insurance companies may not be able to provide help either, as they too may face serious financial difficulties. The use of extensive short-term financing for longer-term investment must also be constrained, since the inter-bank money market might become non-liquid in a crisis situation.

These lessons may affect the behaviour and regulation of markets for several years. Yet, the periodic recurrence of different financial crises shows that it is not realistic to expect their complete disappearance once the current crisis has passed.

IV OTHER FINANCIAL MARKETS

Investment funds

Since the end of March 2007, the **yield** of investment funds has been shaped by the key interest rates moving in opposite directions as well as uncertainty in global financial markets (see Figure 1). These factors primarily affected the yield of equity funds, which experienced a rapid downward trend.

By the end of March, the yield of equity funds had dropped to 7% as a moving average; that is, to the level preceding the rapid growth on stock markets that started five years ago and lasted for several years. The average yield of interest funds declined to 1.3% by the end of March 2008, returning to the level recorded two years ago. The key interest rates remained at a relatively high level, which led to a

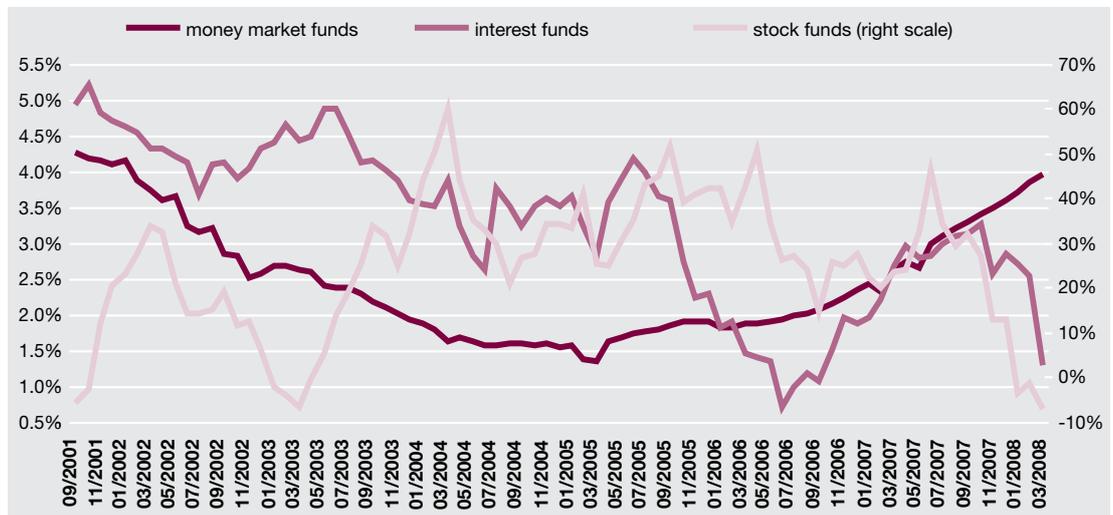


Figure 1. Average annual yield of investment funds at end-month

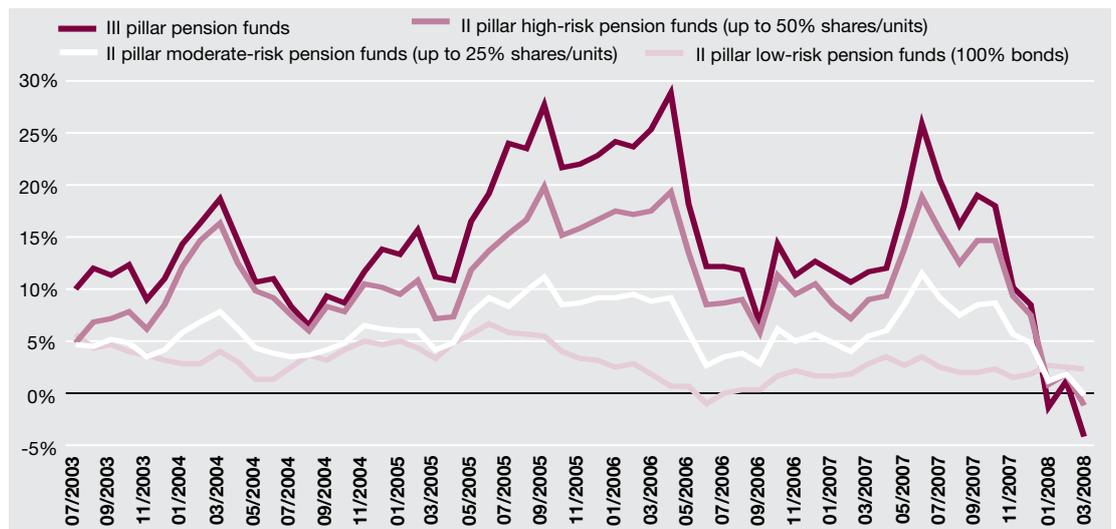


Figure 2. Average annual yield of pension funds at end-month

rise in the average yield of money market funds that posted the highest result in six years (almost 4%) at the end of March.

The yield of pension funds was generally in line with developments in global financial markets. Only second pillar low-risk pension funds had a positive average annual yield at the end of March 2008 (see Figure 2). The average annual yield of other pension funds fell to historical lows by the end of the first quarter: to nearly -1% in the case of second pillar funds and -4% in the case of third pillar funds.

The turmoil on financial markets affected also **investment fund assets**. Their growth started to slow at the beginning of 2008 and reached an annual aggregate of -11% by the end of March (see Figure 3). With 19.2 billion kroons, investment fund assets stood at the level recorded at the beginning of 2007, having lost over 20% of their volume with six months.

Growth in second pillar funds decelerated from 56% to 36% by the end of March. Their total volume amounted to 11.3 billion kroons (see Figure 4). The total value of third pillar assets was over 3 billion kroons; the share of funds rose to 34%. However,

growth in fund assets has slowed by over two times to 23% with the year.

According to imputed estimates, 29% of the year-on-year decrease in investment fund assets was caused by a **decline in the yield of assets**. The rest of the decline, that is approximately 2.5 billion kroons, can be attributed to capital paid out from investment funds. The majority (2.3 billion kroons) of the reallocated capital was withdrawn from equity funds, resulting in a nearly 20% decrease in equity fund assets. Money market fund assets decreased by 25% by the end of March owing to the 1 billion krown outflow of funds. The decrease was slightly offset by the improved yield of these funds. As a result of the relocation of investment only interest fund assets increased, 98% of the increase in assets coming from newly invested capital.

The **share of foreign assets** in total fund assets started to descend again at the end of the fourth quarter of 2007 and reached approximately 76% at the end of March 2008 (see Figure 5). Foreign assets have decreased mainly on account of residents' investment in bonds and deposits, which increased from 14% in September to 18% in March in terms of total fund assets.

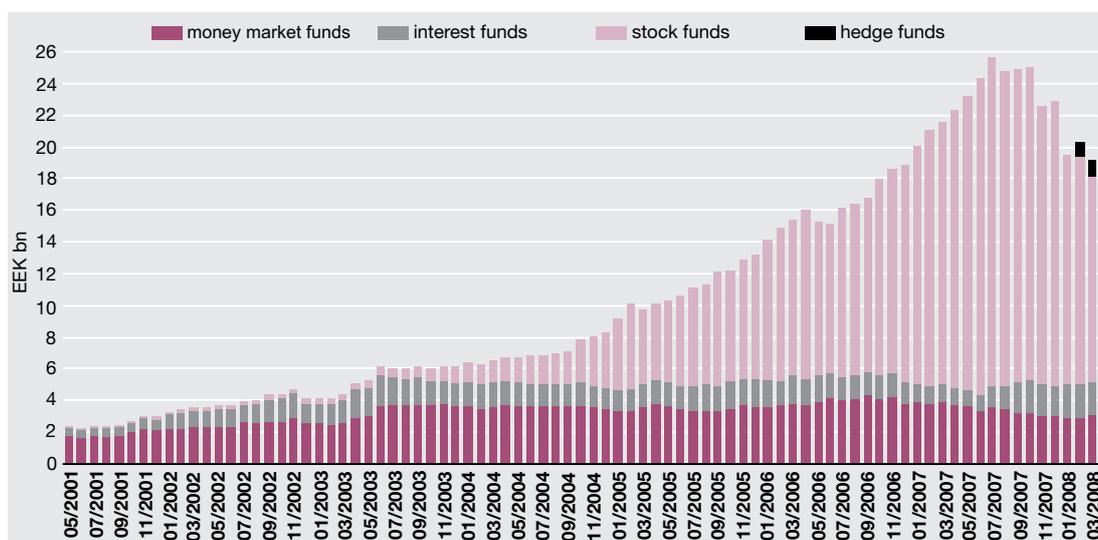


Figure 3. Value of investment fund assets at end-month

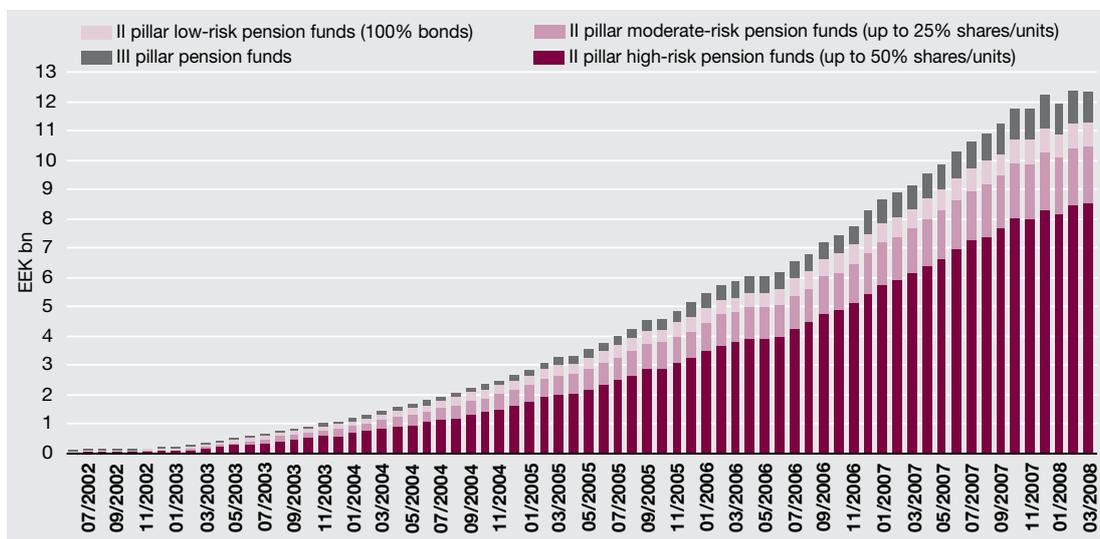


Figure 4. Value of pension fund assets at end-period

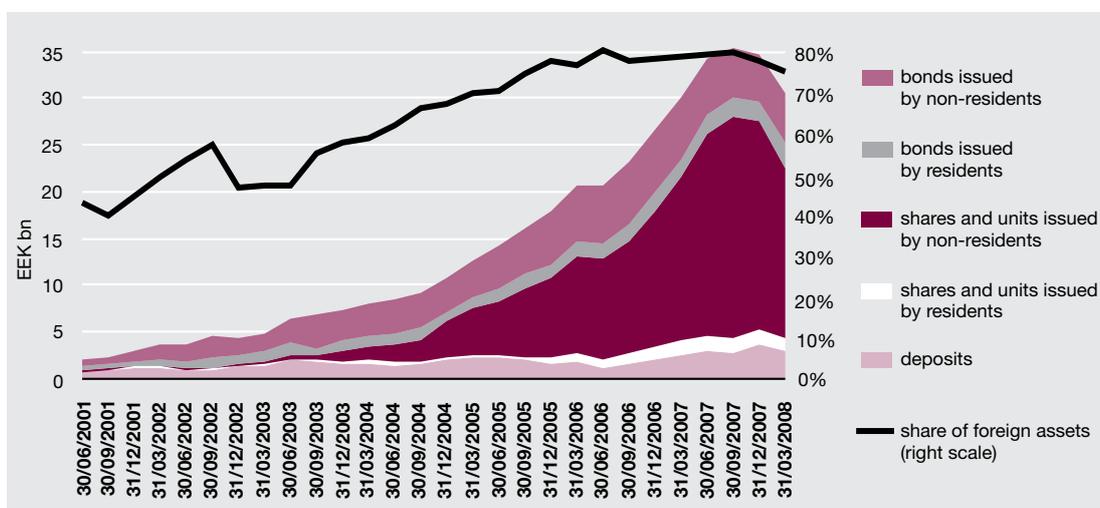


Figure 5. Structure of investment and pension fund assets and the share of foreign assets

The percentage breakdown of investment regions did not change significantly; however, changes occurred within the regions (see Figure 6). For instance, in the European Union, capital investment in the markets of Romania, Austria, the United Kingdom and Poland decreased remarkably, whereas investment in the markets of Ireland, Cyprus, Finland and Sweden increased.

The total value of instruments issued to the Estonian stock, bond and fund market among the assets of investment and pension funds registered in Estonia rose to 13% (4.0 billion kroons) by the end of March 2008, after a decline to 10% in autumn 2007. Over 20% (865 billion kroons) of the capital invested in the Estonian securities market was channelled to the funds of Hansapank. Investment in shares listed

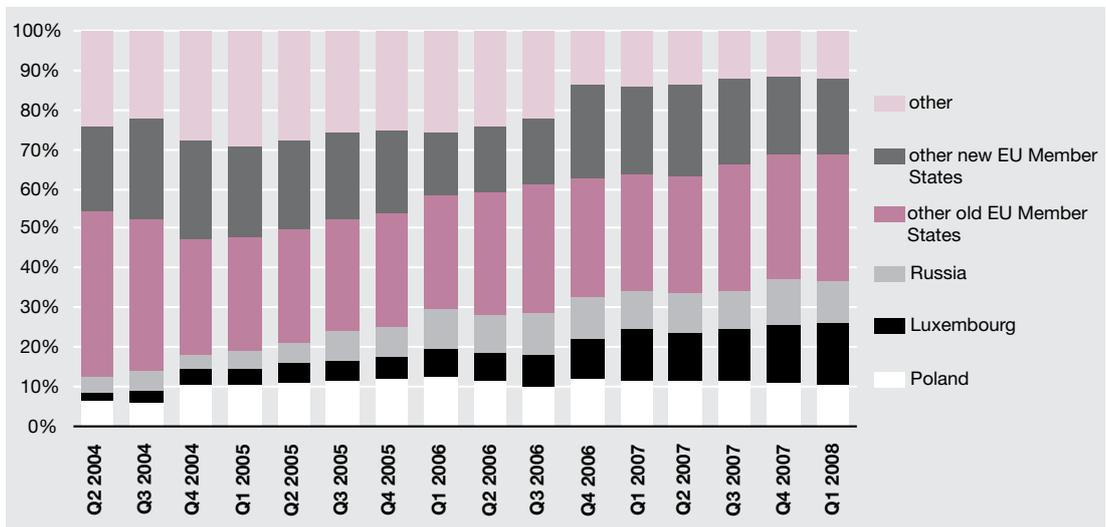


Figure 6. Foreign investment of investment and pension funds by residency at end-period

on the Tallinn Stock Exchange totalled only up to 234 billion kroons.

In general, pension management companies preferred to **invest the assets of pension funds registered in Estonia in other funds**. However, this does not apply to second pillar pension funds, as the percentage of capital invested in other funds decreased in second pillar pension fund assets (see Figure 7). At the end of March, all pension funds had

invested in investment fund shares or units; third pillar pension funds had invested over two thirds and second pillar pension funds 46% of their assets in other funds. More than half of equity and interest funds had invested in other funds; meanwhile, the value of investment continued growing and reached 15% in the case of equity funds and 5% in the case of interest funds. Money market, hedge and real estate funds did not have any shares or units invested in other funds.

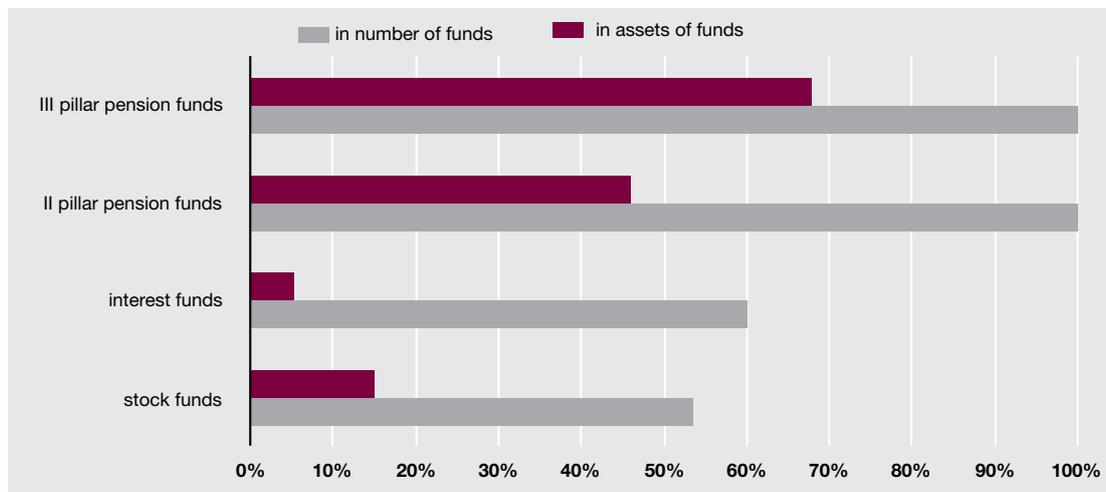


Figure 7. Share of investment funds invested in other funds at end-period

Two new equity funds entered the market in the last half-year, as well as the **first hedge fund and the first real estate fund**.

Insurance

Direct insurance gross premiums collected from Estonian residents in 2007 comprised 2.3% of GDP. Payments collected by life insurance companies accounted for 0.8% and those of non-life insurance companies for 1.5%. According to the European Insurance and Reinsurance Federation (CEA), the share of insurance payments in the GDP of EU Member States at the end of 2006 stood at an average of 8.8%, which is nearly four times higher compared to Estonia's respective indicator. Luxembourg clearly stands out with 37.4%, which probably arises from the fact that relatively many international companies have been registered there (see Figure 8).

Life insurance

Life insurance companies registered in Estonia concluded 97,099 new life insurance contracts in 2007. 5,901 contracts were terminated, comprising 1.3% of total life insurance contracts. New contracts formed 22% of total contracts. Increase in the num-

ber of new contracts was facilitated by the intra-Baltic merger of some life insurance companies in 2007. Therefore, this indicator also includes contracts concluded between life insurance companies registered in Estonia and non-residents.

Premiums collected on contracts concluded with Estonian residents totalled 1.9 billion kroons (24%) in 2007. In the first quarter of 2008, 37% less life insurance premiums were collected compared to the first quarter of 2007 (see Figure 9).

The majority of premiums are unit-linked life insurance payments; their share increased by 37% year-on-year. However, in the first quarter of 2008, 42% less such payments were collected compared to the first quarter of 2007.

The popularity of unit-linked life insurance products mainly lies in the exemption from income tax on investment incomes after a 12-year investment period. The situation in the securities markets is another substantial factor affecting the sale of investment products. With this type of insurance, single or irregular payments are common, whereas in the case of traditional life insurance regular payments prevail. Thus, traditional life insurance provi-

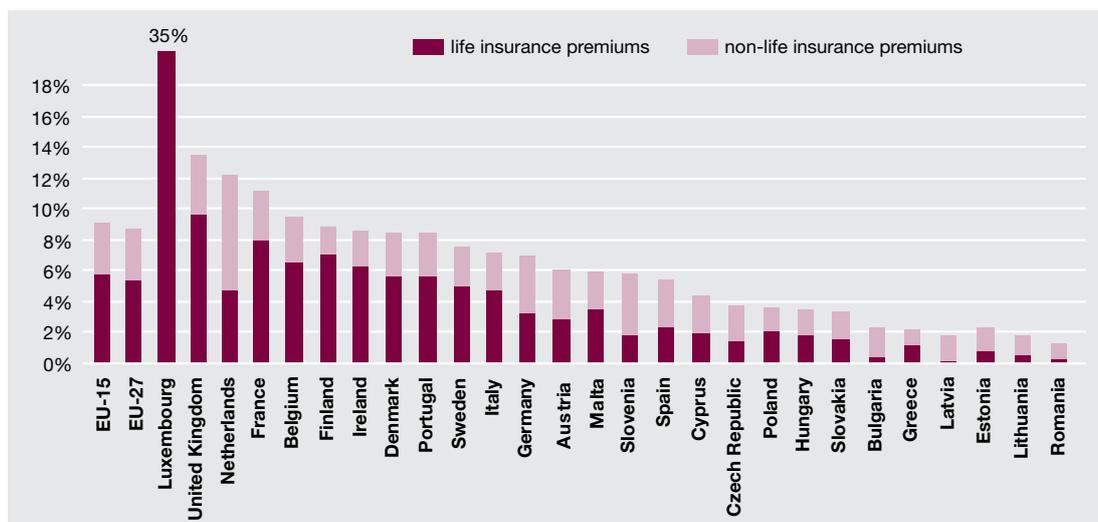


Figure 8. Insurance premiums as a percentage of GDP in EU countries (as at end-2006)

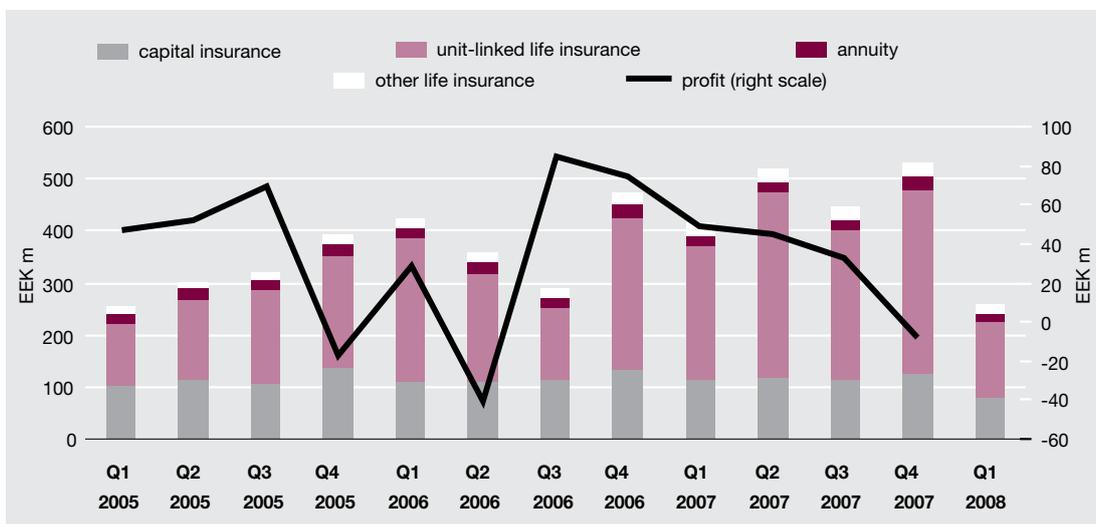


Figure 9. Profits of life insurance companies and gross premiums from residents

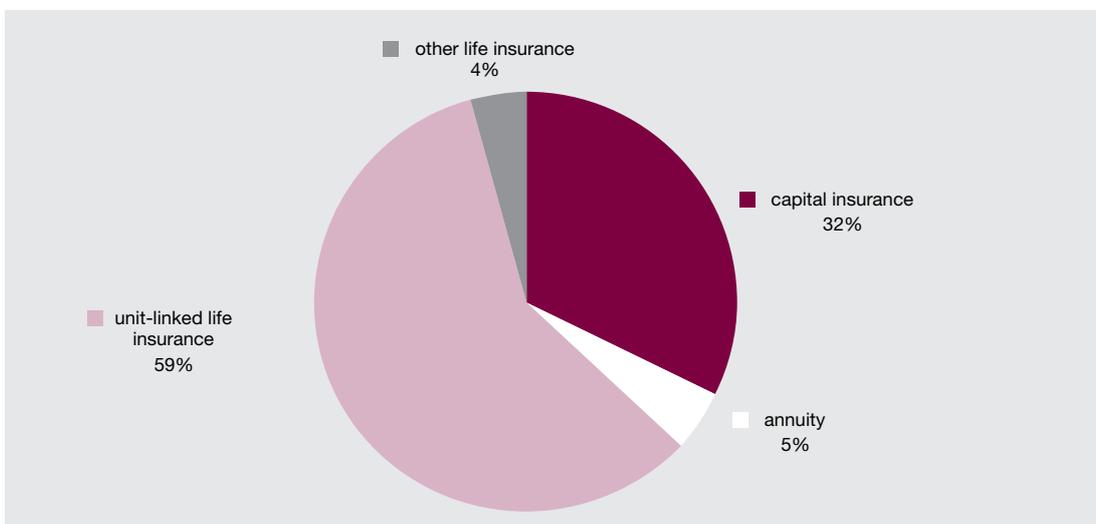


Figure 10. Insurance benefits paid in 2007 by types of life insurance

des a steady inflow of funds. As regards unit-linked life insurance, a decrease in premiums might mean that no further premiums are to be expected and thus, the inflow of funds may decrease and the structure of funds may change significantly. As the share of unit-linked life insurance grows, insurance risk in the portfolio of insurance providers decreases

and financial risk increases.

In 2007, 550 million kroons of claims (incl. occurrence of insured event, maturity of policy, cancellation or lapse) were paid to residents, which is 53% more than in 2006. Over a half of that were claims paid by unit-linked life insurance companies (see Figure 10).

Although a loss was recorded for the fourth quarter of 2007, in annual terms life insurance companies earned 118 million kroons of profit in total (20% less than in 2006). The poor results for the fourth quarter were primarily caused by the losses of two life insurance companies with significant market shares. Results of life insurance companies, on the other hand, mostly depended on investment yield and cost efficiency.

The majority of the portfolio of life insurance companies consists of shares and undertakings, bonds and other fixed-income securities. Owing to unfavourable conditions in the securities markets the profitability of investment has been declining since the end of 2006, decreasing to 0.07% in the fourth quarter of 2007 (see Figure 11).

Operating expenses of insurance companies totalled 307 million kroons in 2007, of which 197 million were acquisition costs¹ (year-on-year growth

75%) and 111 million kroons administrative expenses (year-on-year growth 124%). Rapid growth in expenses arose from the establishment of European companies in Estonia and a merger of insurance companies, but apparently also from increased wage pressures on the Estonian labour market.

The volume of equity capital of life insurance companies totalled 890.6 million kroons at the end of 2007, having grown by 29% with the year. Return on equity declined from 22% to 13%, primarily as a result of a substantial decrease in profits.

The required solvency margin of life insurance companies was nearly 217 million kroons in 2007, which is almost twice higher than the indicator for 2006. At the same time, in 2007 the solvency of life insurance companies exceeded the required margin by four times, which means that the amount of available own funds has been constantly growing (see Figure 12).

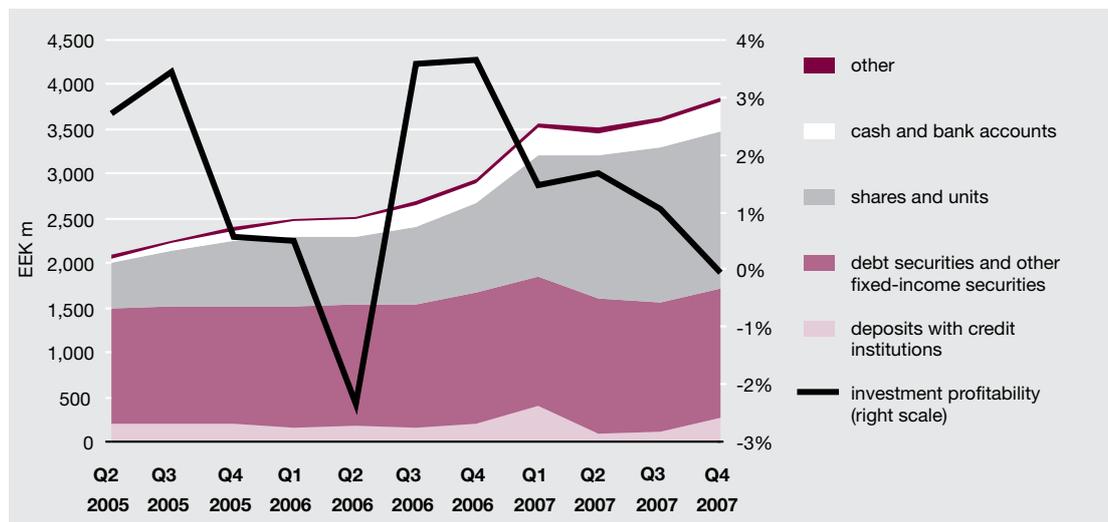


Figure 11. Structure and profitability of life insurance companies' investment

¹ Acquisition costs are costs related to sale, formulation of insurance contracts and product development; their estimated amounts are added to insurance premiums.

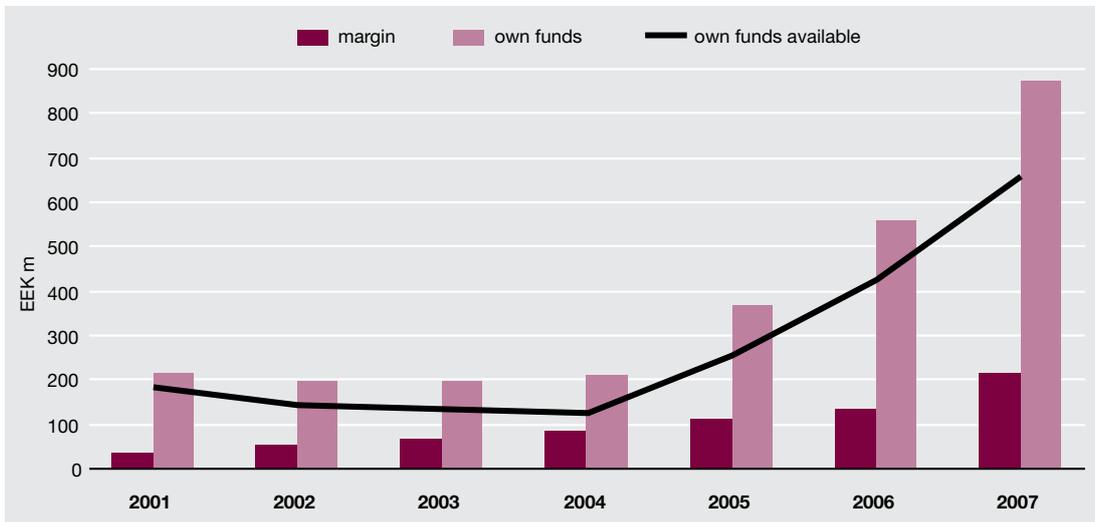


Figure 12. Own funds of life insurance companies and required solvency margin

Source: Financial Supervision Authority

Non-life insurance

In 2007, non-life insurance companies collected 3.6 billion kroons of insurance premiums, which is 15% more than in 2006. In the first quarter of 2008, they collected 949 million kroons – 11% more than in the first quarter of 2007. Benefits paid to residents in 2007 totalled 2 billion kroons (incl. occurrence of insured event, maturity of policy, cancellation or lapse), which is 25% more than in 2006.

As regards types of insurance, the insurance of land vehicles and third party motor liability prevailed (see Figure 13). Growth in the non-life insurance market is primarily facilitated by the compulsory insurance of motor vehicles and housing obtained by loans or leasing. Consequently, if growth in housing loans and car leasing slows, the growth rate of non-life insurance premiums will most probably decrease as well.

The total profit of non-life insurance companies registered in Estonia reached 423 million kroons in 2007, exceeding the figure for 2006 by 10%. The results of non-life insurance companies mainly depend on product prices and cost efficiency.

Estonian non-life insurance market is rather competitive, which hinders adequate pricing. Tight competition keeps prices low in most non-life insurance markets in Europe. Low tariffs, in turn, have influenced the loss ratio² of non-life insurance companies, which rose by 7.5% to 64.8% (net) in 2007. However, as the increasing loss rate calls for a more efficient cost management, the expense ratio of non-life insurance companies has been declining steadily. In 2007, the net expense ratio³ stood at 24.1% (7.9% lower than in 2006). The profitability of insurance companies is characterised by the combined ratio of net expense and loss ratio⁴, which

² Net loss ratio = (claims incurred, net of reinsurance + change in other technical provisions, net of reinsurance) / (premiums earned net of reinsurance + other technical income net of reinsurance).

³ Net expense ratio = (net operating expenses + other technical expenses net of reinsurance) / (premiums earned net of reinsurance + other technical income net of reinsurance).

⁴ Net combined ratio = net loss ratio + net expense ratio.

rose to 88.9% in 2007. All in all, profitability suffered a decrease (see Figure 14).

The required solvency margin for non-life insurance companies was nearly 618 million kroons in 2007, which is 100 million kroons more than in 2006.

Actually, their own funds increased to 2.5 billion kroons with the year and exceeded the margin by four times. The amount of available own funds of non-life insurance companies has also been constantly growing (see Figure 15).⁵

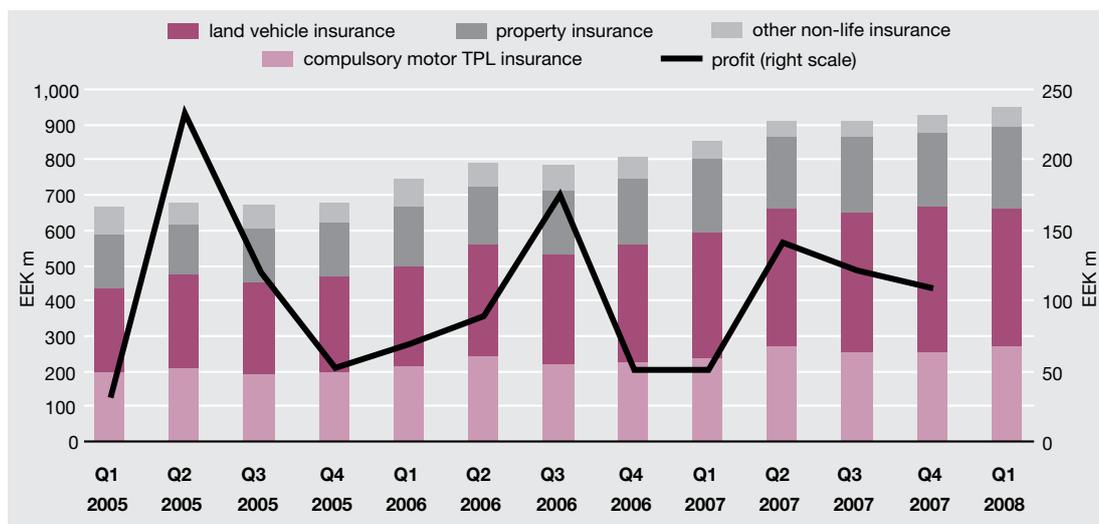


Figure 13. Profit of non-life insurance companies and insurance premiums collected from residents

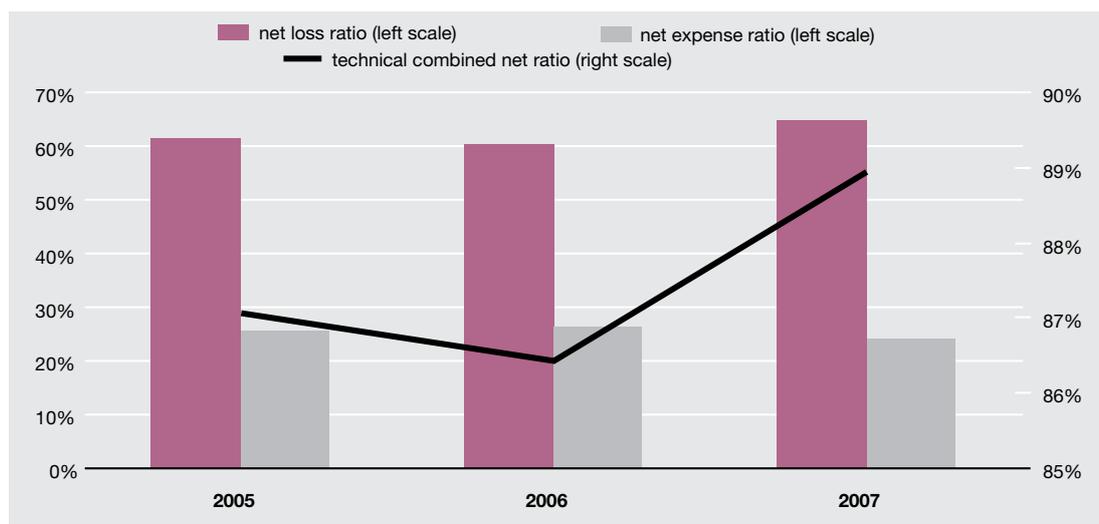


Figure 14. Ratios of non-life insurance companies

⁵ Current data does not include the Estonian Traffic Insurance Fund.

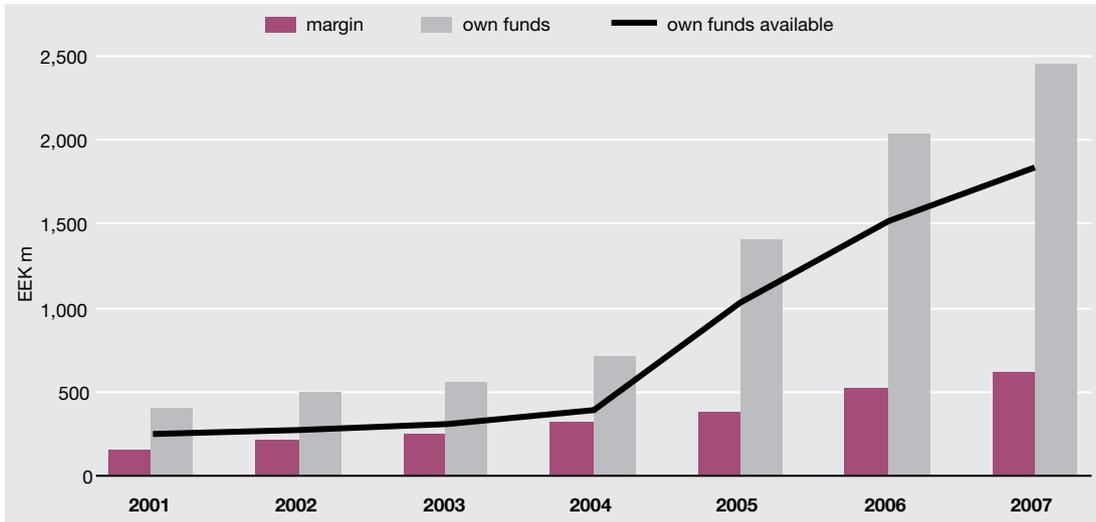


Figure 15. Own funds of non-life insurance companies and required solvency margin

Source: Financial Supervision Authority

V PAYMENT AND SETTLEMENT SYSTEMS

Interbank payment and settlement system

Development of the payment and settlement systems used in Estonia

On May 19, a **new cross-border payment and settlement system TARGET2-Eesti** started to operate, enabling clients of banks linked to the system settle fast and secure euro payments in the European Union. TARGET2-Eesti is a part of TARGET2, which is a second generation of TARGET.¹

TARGET was composed of the real-time gross settlement (RTGS) systems of national central banks and an interlinking system. TARGET2 is a payment and settlement system that is based on a single shared platform and provides a harmonised set of services. The system is decentralised in legal and operational terms. TARGET2-Eesti offers its clients, that is credit institutions, an effective, fast and

safe infrastructure for settling cross-border euro payments.

For the system participants, transition from TARGET to TARGET2 entails up-to-date tools for liquidity management, including liquidity pooling within a banking group, reservation of liquidity and management of payment flows. Since most of the banks in Estonia have joined TARGET2-Eesti², many local bank customers now have an alternative to settle express payments in euro. Payments via TARGET2 are settled fast, safe and in central bank money. Moreover, TARGET2 allows commercial banks to lower the charges for cross-border express euro payments.

Thus, since May 19 Eesti Pank is managing three interbank settlement systems instead of two: the Settlement System of Ordinary Payments (ESTA) for domestic payments, the Real-Time Gross Settlement System of Ordinary Payments (EP RTGS) for domestic payments, and the Real-Time Gross Settlement System (TARGET2-Eesti) for domestic and cross-border payments.

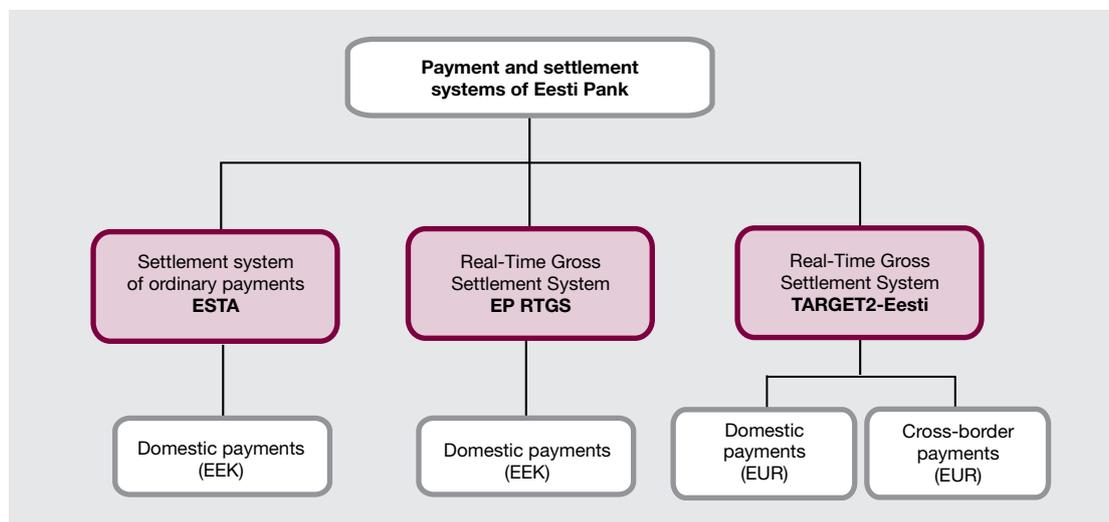


Figure 1. Payment and settlement systems managed by Eesti Pank

¹ Trans-European Automated Real-Time Gross Settlement Express Transfer system. Eesti Pank has been participating in the euro area payment system TARGET since November 20, 2006 when the Real-Time Gross Settlement System of Eesti Pank (EP RTGS) was connected with the Trans-European Real-Time Gross Settlement Express Transfer system (TARGET).

² In addition to Eesti Pank, also Hansapank, SEB Pank, Sampo Pank, Nordea Bank Estonia, Eesti Krediidipank, SBM Pank and Tallinna Äripank have introduced the new system.

ment System (EP RTGS) and TARGET2-Eesti (see Figure 1).

The **cross-border retail payment market** has also gone through some important developments in 2008. For example, under the leadership of the European Payments Council (EPC), Estonian banks have been preparing to join the **Single Euro Payments Area (SEPA)**. The future goal of SEPA is to harmonise and guarantee an easy settlement of both domestic and cross-border euro payments. This would simplify financial matters, strengthen the European internal market and competition as well as enhance efficiency. As of January 28, 2008 several Estonian commercial banks are providing the service of trans-European retail payments in compliance with the SEPA standards.

Operation of the settlement systems managed by Eesti Pank

The number of payments settled through the **EP RTGS system** has not changed over the past year: an average of 174 payments per day were made at the end of the first quarter of 2008, which is as much as at the same time in the previous year

(see Figure 2). However, the structure of express payments has changed. The primary change was a 41% decrease in cross-border TARGET payments. Until March 31, 2007 an average of 55 express euro payments per day were settled mainly via Sampo Pank on a rolling year basis and Estonian clients daily received about 5 payments. A year later bank customers did not initiate any TARGET payments and 25 customer payments were received via TARGET. In response to a decrease in TARGET payments, the number of domestic customer payments processed via the EP RTGS has grown, accounting for 65% of all RTGS payments.

The average turnover of payments settled through the EP RTGS grew by 85% and reached an average of 6.3 billion kroons per day. The turnovers of foreign currency purchase and sale transactions and the collateral transactions of ESTA have grown the most, comprising 45% and 30% of the total turnover, respectively.

The rise in the number of payments settled through the **Settlement System of Ordinary Payments (ESTA)** continued at the same pace (13%), reaching

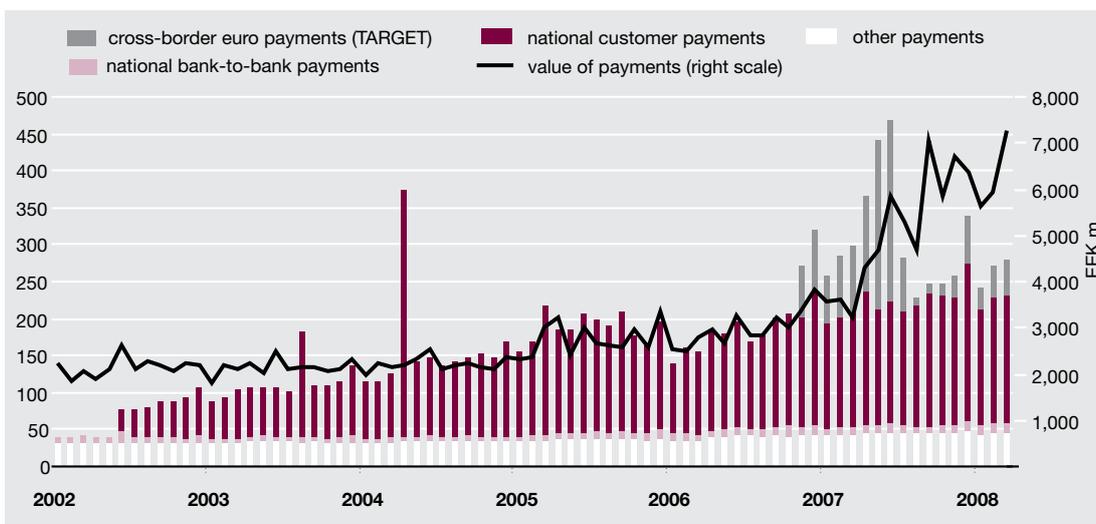


Figure 2. Average number of payments processed per day in the EP RTGS and their average daily value per month

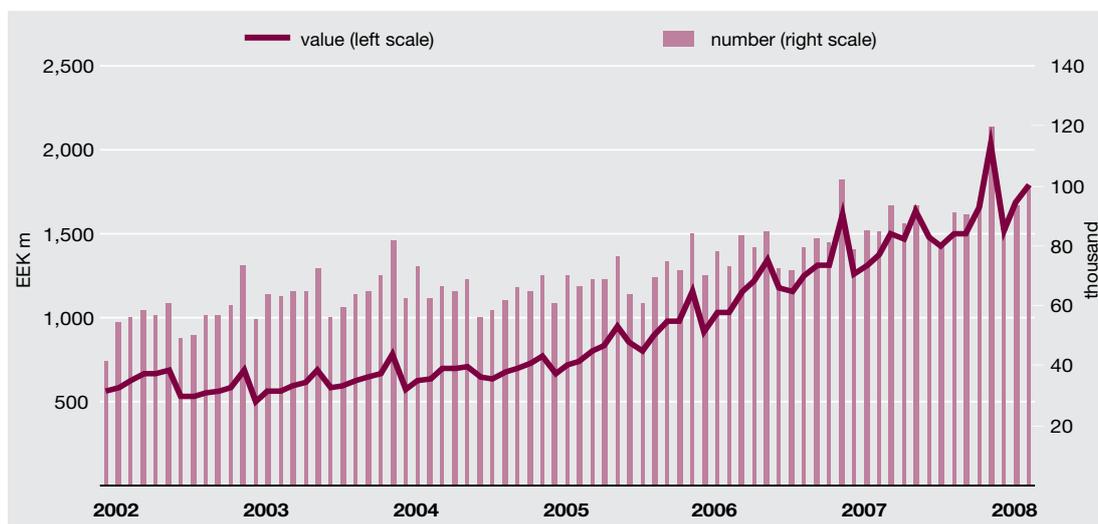


Figure 3. Number of payments processed per day in the ESTA and their average daily value per month

an average of 97,000 payments per day with the year (see Figure 3).

Although the average daily turnover of payments in the ESTA increased by 24%, growth slowed owing to a relatively high comparison basis. The average daily turnover amounted to 1.7 billion kroons. The average value of the payments settled through the ESTA reached 17,500 kroons.

Overseer's assessment of payment and settlement systems

There were no such incidents in the operation of the Estonian payment and settlement systems in the past six months that would have threatened the stability of Estonia's financial sector.

Although the functionality and principles of the **systemically important settlement systems** operating in Estonia – the EP RTGS and the ESTA – have been structured so as to minimise the materialisation of potential risks, some failures nevertheless occurred in the past half-year (see Figure 4). The EP RTGS encountered seven serious failures³, which interrupted the system's operation for 2 hours and 31 minutes. The ESTA survived one serious malfunction, which caused an interruption in operability for 45 minutes. The failures did not affect financial stability.

Oversight of TARGET2-Eesti

In overseeing TARGET2-Eesti, Eesti Pank proceeds from the guide on the implementation of the Eurosystem's TARGET2 oversight function⁴ and Eesti Pank's framework for the

³ According to the risk management procedures, a failure is considered serious if the incident involves several system participants or if it entails the application of business continuity or a decrease in the operability of settlement systems.

⁴ European Central Bank (2006).

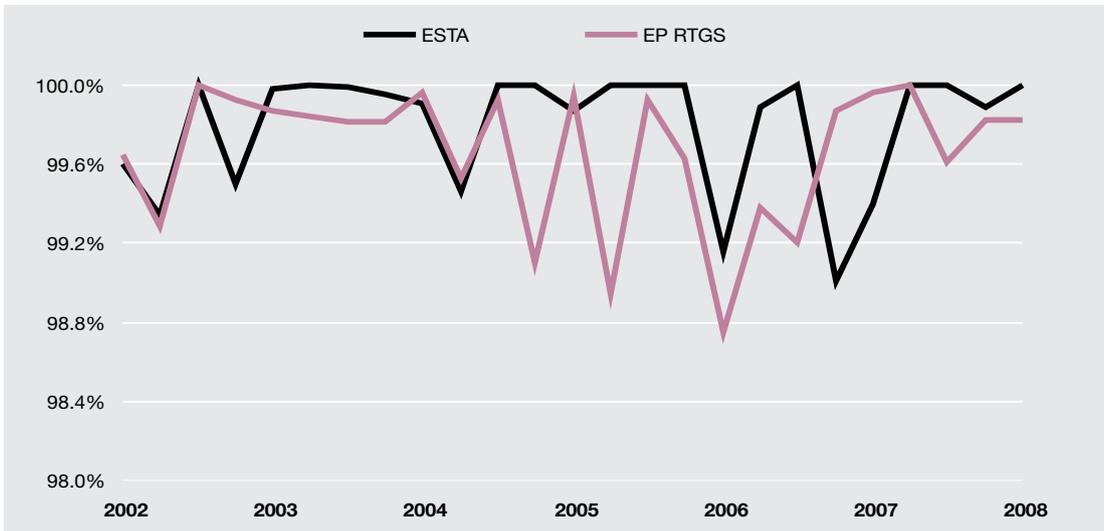


Figure 4. Availability of interbank settlement systems

oversight of payment systems⁵. The assessment of TARGET2 and its subsystems is based on the “Core principles for systemically important payment systems”⁶ by the Bank for International Settlements (BIS) and “Business continuity oversight expectations for systemically important payment systems”⁷ implemented by the Eurosystem.

The responsibility for the oversight of the entire TARGET2 lies with the European System of Central Banks, including the Eurosystem and the central banks outside the Eurosystem that are connected to TARGET2. The leading overseer of the single platform of TARGET2 is the European Central Bank. Owing to the legal and operational decentralisation of the subsystems of TARGET2, the responsibility for overseeing TARGET2-Eesti lies with Eesti Pank.

The oversight of TARGET2 supports its secure and effective operation; the primary purpose of oversight is to minimise systemic risk. To this end,

national central banks assess the compliance of TARGET2 and its subsystems with internationally recognised standards (see above), make recommendations and implement measures to achieve compliance.

According to the overseer of Eesti Pank, the system of TARGET2-Eesti complies with the principles recognised internationally and by the Eurosystem. The probability of the occurrence of systemic risk is reduced by identifying and preventing other potential risks in the settlement system. The legal framework, functional and technical solutions and procedures of TARGET2-Eesti are secure and appropriate. In addition to the legislation of the Republic of Estonia, the legal relationships of TARGET2-Eesti are regulated by the rules of TARGET2-Eesti and the accession contracts concluded between the payment and settlement system participants (between Eesti Pank and the members of the settlement system).

⁵ *Financial Stability Review*, November 2003.

⁶ CPSS, BIS (2001).

⁷ European Central Bank (2006).