Eesti Pank Bank of Estonia

# Financial Stability Review

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#### FINANCIAL STABILITY ASSESSMENT

#### **Financial markets**

Most regions of the global economy started to recover from the recession in the second half of last year. Countries that used extensive national support measures to stabilise the financial system and stimulate their economy are facing higher government debt. In spring 2010 it emerged that debt financing has become complicated in some euro-area countries and the credibility gap in markets may spread to other European countries as well. Although measures to avoid it and also to alleviate financial-market tensions were agreed upon in the euro area with the support of the IMF, there persists a serious risk that the improvement in the liquidity of banks over the past half a year may suffer a setback.

The situation in international financial markets affects the financing of banks operating in Estonia by their parent banks. The parent banks' access to financing has improved relative to the same period a year ago and market participants view their investment in Nordic countries as more secure than average. However, should tensions in the European financial markets intensify, it may also complicate the financing of Nordic banks.

Since euro-area economic growth is gradually recovering and inflation is low, monetary policy interest rates are projected to also remain low in the course of the next half a year. The yield of stock and bond markets will probably remain volatile against the backdrop of high uncertainty and affect the value of investment of financial market participants, including banks, investment funds and insurance companies.

Although Estonia's emergence from the deep recession and improvement of the country's economic situation will take time, the assessments of international financial markets and analysts regarding our economic developments are more positive compared to autumn 2009. Risk premiums in the kroon futures transactions market have markedly contracted and rating outlooks have become more positive. Assessments

are already reflecting Estonia's possible accession to the euro area at the beginning of 2011.

#### Real economy and loan quality

The sales turnover and profitability of mostly exporting-sector companies has started to pick up this year. However, its effect on improving the solvency of enterprises is modest for the time being. In order to be prepared for a new growth cycle, companies need to make even more adjustments to their balance sheet. Here the business sector benefits from the key interest rates, which continue to be low, although it may happen that problems in some euro-area countries are damaging the confidence of companies and households there. Thus, the Estonian exporting sector is facing a real threat that external demand, which is currently on the mend, will suffer a setback.

Recovering from the recession, companies with unutilised capacity continue to keep their expenditure in check, which means that increasing production volumes will not be accompanied by rapid employment growth. Labour-market problems are the main factor holding back the confidence of households in 2010, although it is likely the current cycle will not undergo such an upsurge in unemployment as it was experienced during the recession. The financial standing of people without a job is going to deteriorate markedly after they stop receiving the unemployment insurance benefit.

Improvement in the credit portfolio quality of banks will take time, depending on economic growth and labour market situation. Although it is assumed that problems with repaying loans peaked last year, Eesti Pank's forecast expects the share of loans overdue by more than 60 days to remain at a relatively high 6% level in 2010 and decline rather slowly also in the years to come. This is partly related to more extensive use of repayment holidays and loan restructuring as from the second half of 2009, so part of repayment problems is distributed over a longer period of time. If borrowers in temporary sol-

vency difficulties resume meeting their liabilities once economic activity recovers, the positive impact of loan restructuring will soon manifest itself in the improving loan quality of banks. At the same time it is likely there are borrowers who will not be able to continue meeting their liabilities even after a repayment holiday.

#### Strength of financial institutions

Banks continue to write down loans, since the volume of problem loans may still increase in some sectors this year. The volume of new provisions will be notably smaller compared to 2009 and, according to Eesti Pank's forecast, it will withdraw to the level of 2008. The expected decline in loan losses in the second half of 2010 is presumably the main factor supporting profitability growth in the banking sector.

Since the balance sheets of banks are dominated by floating interest rate and euro-based loan contracts, low interest rates have, on the one hand, exerted a negative impact on net interest income, but, on the other hand, contributed to interest income earning by enabling better repayment ability. The pronounced curtailment of kroon deposit interest rates has this year contributed to net interest income growth. With economic recovery being slow, positive effects on banks' profitability arising from this development are not expected to show within the next half a year. Though payment intermediation may increase somewhat, lending activity will remain sluggish and provide no considerable support to banks' income growth.

The capitalisation of both the banking and insurance sector is good. If the assumptions of Eesti Pank's forecast materialise, capitalisation of the banking sector will remain sufficient throughout 2010. At the same time, it is important for banks to be ready to cope with a less favourable situation than projected in the forecast base scenario. Banks need to consider the risks listed above in their risk management and in securing their liquidity and capital buffers.

The credit market has been most affected by weak demand. In addition, uncertainty and possible amendments to legislation may inhibit the willingness of banks to establish new customer relations and offer favourable credit conditions for financing projects. In addition to the stricter liquidity and capital requirements planned to be laid down in Europe, the behaviour of banks operating in Estonia depends also on the legislation on restructuring households' debt. From the point of view of credit market developments and financial stability it is important that the provisions of the new act would neither deteriorate borrowers' repayment discipline nor increase transaction costs related to debt liabilities.

#### **Settlement systems**

The liquidity of Eesti Pank's settlement systems has been sufficient owing to the high reserve requirement. However, there will be changes in banks' short-term liquidity management, since the reserve requirement will be reduced to the level applicable in the euro area. Since larger banks operating in Estonia belong to the liquidity management framework of their parent banks, the changes they have to undergo will mainly be of technical nature. In addition, the adoption of the euro will contribute to further centralisation of liquidity management.

#### **Summary**

Although several risks observed in autumn 2009 have decreased, recent developments in the external environment have increased uncertainty also for banks operating In Estonia. If the external environment deterioration continues, it is possible that assessments of the financing possibilities of banks and of the materialisation of a credit risk, which have improved over the past half a year, will worsen again. Thus, the reasonable thing to do is to ensure there are sufficient financial buffers in place.

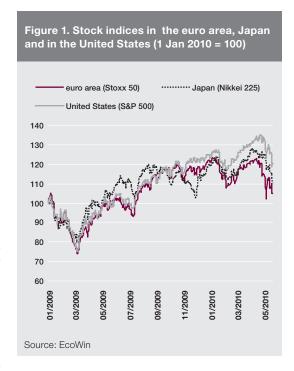
#### I FINANCIAL MARKETS

#### **GLOBAL FINANCIAL MARKETS<sup>1</sup>**

The decline in major stock markets that stemmed from the financial and economic crisis bottomed out in March 2009. Further developments gave rise to two distinct periods. Until mid-April 2010, the markets mainly experienced an upward trend, as the stabilisation of the financial sector and economic revival was accompanied by investors' growing optimism and desire to invest into the stock market. An increase in stock prices was fostered by extraordinarily low key interest rates and improving future outlooks (see Figure 1). In the middle of April 2010, however, stock markets resumed their decline due to the rapidly deepening debt crisis in some euro area countries. Therefore, the risk appetite of investors decreased and stock indices shrank all over the world. In conclusion, during the observed period the stock indices of the G3 countries changed as follows: by -6.2% in the euro area (Stoxx 50), by -2.5% in Japan (Nikkei 225) and by +5% in the USA (S&P 500).

Developments in **bond markets** were also affected by two contradictory factors. The first half of the monitored period was dominated by the effects of economic recovery: growth accelerated, corporate profits increased and unemployment rates stabilised. This exerted pressure on the interest rates on government bonds to rise. In some advanced economies, central banks started to curb monetary policy stimuli: for instance, the Australian central bank raised the key interest rate by 100 basis points to 4.25%, and the Norwegian central bank by 50 basis points to 1.75%. Other central banks kept the key interest rates low at 1% in the euro area and at 0.0–0.25% in the USA.

Due to the economic revival and the stabilisation of the financial sector, the supply of liquidity was also reduced. The US Federal Reserve closed

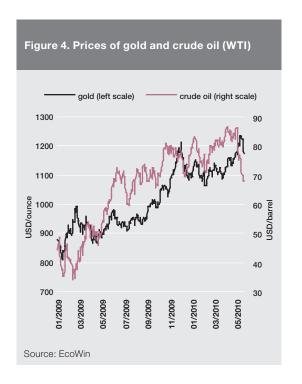


 $<sup>^{\</sup>rm 1}$  The Review covers the period from 31 October 2009 to 21 May 2010.

most of the liquidity channels opened specially to alleviate the financial crisis; the European Central Bank put an end to the auctions of liquidity instruments with 6-month and 12-month maturities. As a result, the three-month Euribor remained relatively stable and decreased by 4 basis points. In the USA, where the economic recovery was more dynamic, the threemonth Libor rose by 22 basis points. The spread between interest rates in the interbank money market and government bonds remained relatively stable until the debt crisis in some euro area countries started to deepen, exerting upward pressure on the interest rate spread. In the USA the spread rose by 10 basis points and in the crisis-stricken euro area by 18 basis points (see Figure 2).

Another, and perhaps a more important factor in the development of bond markets was the changing risk environment that exerted downward pressure on interest rates. The most noteworthy changes were the Dubai debt crisis at the end of 2009 and the debt crisis of some euro area countries that developed from the Greek public debt crisis. Both events, the latter in particular, had a downward effect on long-term interest rates: in the euro area (Germany) the ten-year interest rate dropped by a total of 58 basis points, and in the USA by 15 basis points (see Figure 3).

Foreign exchange markets witnessed an appreciation of the dollar against the euro in the monitored period. On the one hand, this was related to the greater recovery of the US economy, and on the other, by the debt crisis that struck the euro area, which gave a serious blow to the stability and long-term perspectives of the euro. Consequently, the euro depreciated against the dollar by 14.6% to 1.257. The depreciation in the exchange rate of the yen owing to the dollar's upward trend was offset by a down trend in the stock market at the end of the period, which fuelled risk aversion and buying of the yen



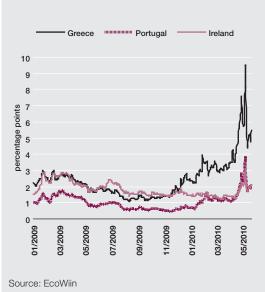
as result of the liquidation of carry-transactions<sup>2</sup>. Thus, the Japanese yen depreciated against the US dollar only by 0.1%.

At the end of the period, the debt crisis also affected significantly developments in **commodity markets**, having a negative impact on the oil price and substantially raising the price of gold as a safe investment. As a result, the price of crude oil dropped by 11.7% to 68 dollars per barrel during the period (see Figure 4). The price of gold soared, owing to the Dubai debt crisis that broke out in November 2009 and also the debt crisis of euro area countries, reaching a record price of 1,236 dollars per ounce (up by 12.5% during the period) in May 2010.

Primary risks in the near future are undoubtedly related to whether advanced economies can service their public debts and curb their government deficits. The roots of the problem reach back to the latest economic and financial crisis, as a result of which several countries developed substantial government deficits. Moreover, countries and central banks were forced to employ expensive measures to support their struggling financial sectors. Thus, they assumed a large share of the banks' liabilities, meaning that the financial difficulties of the private sector were transferred to the government sector.

The beginning of 2010 revealed that Greece was unable to finance its government deficit, which had grown up to nearly 14% of GDP. The crisis spread rapidly, also threatening other countries of the euro area that suffered from large government deficits, such as Portugal and Spain. The credit ratings of all these countries were downgraded, which made the refinancing of existing debts even more difficult (see Figure 5). In order to halt the aggravation of the crisis, since it was

Figure 5. Spread between 10-year bonds of Greece, Portugal and Ireland with Germany



threatening to destabilise the whole Eurosystem, Greece was compelled to request 110 billion EUR of financial help from the IMF and the European Union. Pursuant to the terms and conditions of the agreement, Greece undertook to implement stricter austerity measures and curb the government deficit to below 3% GDP and to stabilise the government debt at 140% of GDP.

Unfortunately, the aid package brought only temporary relief. The scope and depth of the debt crisis and the lack of a single fiscal policy weakened the confidence in euro, which entailed a rapid depreciation of the single currency against other currencies, including the US dollar. In light of that situation, the European Central Bank decided to interfere and started to purchase the government bonds of struggling countries. In addition, the European Union and the IMF decided to set up a support fund of 750 billion EUR for European countries.

As regards the future outlook, it must be noted that the rising debt burden is also stirring up

<sup>&</sup>lt;sup>2</sup> Trading strategy in the case of which differences between interest rates of two currency areas are exploited. In particular, loans are taken in currency with lower interest rate and invested in currency with higher interest rate and thereby carry is earned.

problems in major economies such as the USA, the UK and Japan, where the government deficit exceeded 10% of GDP in 2009 (the total of the euro area was "only" 6.3%). Thus far, the euro area struggling with the debt crisis remain the weakest link, as the region does not have a single fiscal policy, but the crisis has already seriously affected the prospects of global recovery, on which all the struggling countries relied on to decrease their fiscal deficits. How will the crisis develop further in Europe, to what extent will it spread to other countries and how will the economic recovery continue? These are the key issues currently troubling investors and economic policy institutions. There is a real threat that the extensive government deficit and public debt may entail higher interest rates in advanced economies and seriously hinder the recovery in advanced economies as well as in the rest of the world.

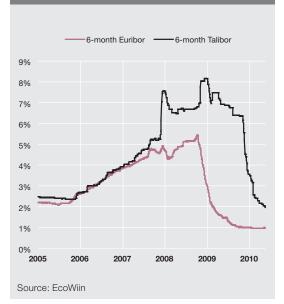
#### **ESTONIA'S FINANCIAL MARKETS**

#### **Money market**

The sovereign debt crisis in some of the euro area countries, which brought along higher uncertainty in the global financial markets, failed to have much effect on the risk assessments towards Estonia by the middle of May. The quotations of money market interest rates (Talibors) for the Estonian kroon declined further. By 17 May, the three-month Talibor had dropped to 1.72%, being 140 base points lower than at the beginning of the year (see Figure 6). The actual money market transactions were concluded at interest rates significantly lower than the Talibor. While some recovery in transaction volumes could be seen in the Estonian kroon money market at the beginning of 2009, in the first quarter of 2010 the turnover of the interbank money market dropped to an extremely low level.

Even though the crisis which hit the bond markets of some euro area countries is bound to

Figure 6. Money market interest rates in Estonia and the euro area



cause uncertainty about the near-term developments of money market indicators, the money market quotations for the Estonian kroon are rather expected to show a downward trend in the near future. In the middle of May, the spread with euro quotations was still nearly 80 basis points wider than at the beginning of 2007.

Ever since the beginning of the year, the **forward premiums of the Estonian kroon** against the euro have remained low, but have still been volatile due to very little transaction activity (see Figure 7). At the start of 2010, market participants had generally low interest in hedging the Estonian kroon risk, and no heightened activity is to be expected in the second half of 2010 either.

The only financial market segment that seemed to be affected by the public finance problems of certain euro area countries was the **credit default swap (CDS) market**. Similar to other European countries, Estonia saw a temporary increase in CDS spreads at the beginning of May (see Figure 8). Being one of the lesser trends, it soon receded. In general, CDS spreads have

shown a clear downward trend in Estonia in the past six months, with a speed greater than that of the neighbouring countries. However, the economic essence of the indicator is purely speculative. For instance, in Estonia the instrument has no underlying assets, and as such can be considered a kind of a cyclical confidence indicator.

#### **Bond and stock markets**

The banking sector, which operates on a strong set of foundations, plays the predominant role in Estonian financial intermediation, and thus the local **bond market** has been an alternative channel for market participants mainly for hedging kroon risk and for channelling financing to higher-risk investments. As the investor risk appetite fell sharply during the recession, the bond market contracted by several fold in the second half of 2008, compared to the pre-recession period (see Figure 9). The majority of the bond issues in the last six months comprised bonds issued by resident non-financial sector companies with the total volume of 492 million kroons.

The secondary bond market has never before been as passive as in the past six months. The average daily turnover amounted to a mere 2 million kroons, which is 15 times less than in the same period in 2008.

While bond market capitalisation decreased by approximately 1 billion kroons to 9.3 billion kroons (4.4% of GDP), the structure of issuers witnessed no major changes. Local non-financial companies continue to account for the majority, approximately 75%, of total bond market capitalisation, with the coupon interest rate of around 50% of the bonds being higher than 8%.

The structure of bond investors has also remained unchanged. Resident investors hold 70% of the issued bonds, with non-financial companies, credit institutions and insurance companies contributing 28%, 24% and 10%

Figure 7. Forward premiums of the Estonian kroon against the euro

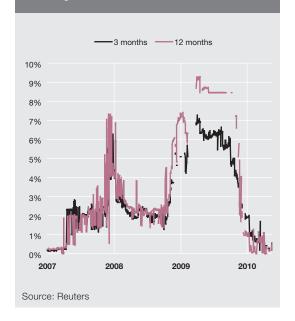
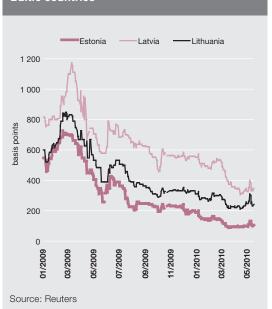


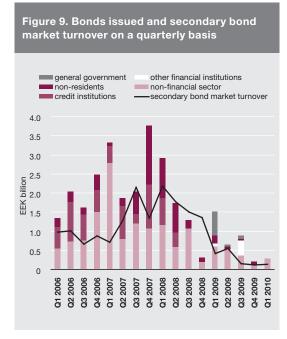
Figure 8. Credit default swap spreads of the Baltic countries

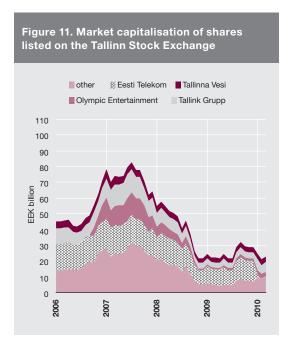


respectively. Among non-resident investors, credit institutions have been the most active in investing into bonds issued in Estonia – their total investments account for 16% of total bond market capitalisation.

The **Tallinn Stock Exchange** has witnessed several events over the last six months. Eesti Telekom, who had accounted for around 44% of total stock market capitalisation, was delisted in January 2010. In March, Automotive Holding made a takeover bid for Norma's shares. The stock capitalisation of Arco Vara was reduced, and supplementary Ekspress Group shares were listed. At the beginning of May, the shares of Premia Foods were listed on the main list of the Tallinn Stock Exchange.

Against the backdrop of improved economic outlook, the Tallinn Stock Exchange index OMXT grew over 50% by mid-April, as compared to the beginning of the year, reaching the level of spring 2008 (see Figure 10). After that, stock prices fell across Europe as well as on the local Estonian market. By the second half of May the OMXT had retreated close to 14% from its April highs.



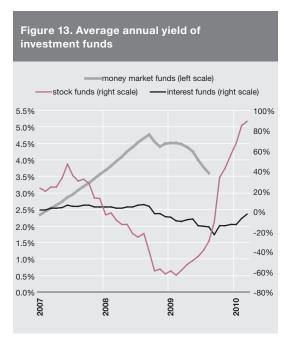


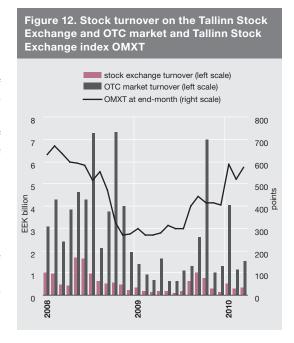
The delisting of the largest publicly traded company further reduced the size of the Estonian stock market, which was already only one-third of its former size due to the global financial crisis. At the end of March, the capitalisation of 15 companies totalled 22.8 billion kroons, or 10.8% of GDP (32 billion kroons in September 2009; see Figure 11). After the delisting of Eesti Telekom and the takeover of the shares of Norma, the share of resident investors grew to 64% by the end of March.

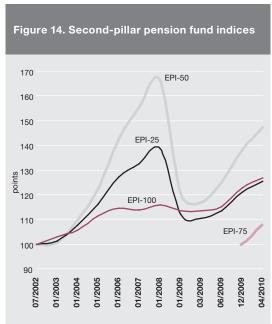
The stock market's liquidity remained low in the last six months, the average daily turnover being 19 million kroons (see Figure 12). The shares of Tallink Group and Olympic Entertainment Group had the highest trading volumes, accounting for 22% and 17% of total turnover respectively.

#### **Investment funds**

The **annual yield** of investment funds has risen rapidly due to the low reference base in the past year, increasing from -63% in February 2009 to 89% at the end of March 2010 (see Figure 13). The annual yield on interest funds rose to -3%.







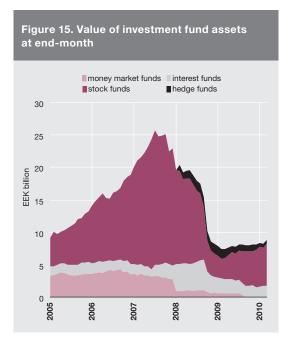
In general, the annual yield of the funds has fluctuated widely: starting in early 2007 the average annual yield of equity funds and interest funds has been 8% and -5% respectively.

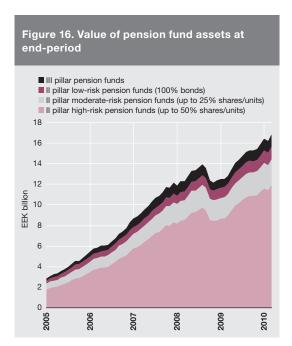
The average yield of high-risk second pillar pension funds rose to 28% by the end of March, while the annual yield of third-pillar pension funds improved by 55 percentage points to 37% by the end of March. The yield on pension funds has grown 8–47%³ since they were established (see Figure 14).

Even though the annual yield of investment funds has risen rapidly, **funds' assets** remain low at around 50% of the pre-crisis levels (see Figure 15). In the last six months, only the assets of equity funds grew by 1.2 billion kroons. The total assets of investment funds increased by around 780 million kroons to 9.6 billion kroons.

The assets of second-pillar pension funds grew by about 1.4 billion kroons in the last six months to 15.6 billion kroons, reaching a historical high at the end of March (see Figure 16). Growth stemmed primarily from an increase in the assets of higher-risk second pillar pension funds (1.1 billion kroons). The total assets of third-pillar pension funds amounted to 3.6 billion kroons at the end of March, of which 34%, or 1.2 billion kroons, comprised assets invested into the funds.

Based on rough estimates, the assets of investment funds and pension funds have increased since the beginning of 2010, primarily as a result of an increase in annual yield. Only the volume of relatively low-risk second-pillar pension funds grew more as a consequence of capital inflow. During this time, equity fund assets, which have grown by 734 million kroons since the beginning of 2010, experienced an outflow of 3 million kroons.





 $<sup>^{\</sup>rm 3}$  In 2010, the EPI-75 index of aggressive pension funds was added to the existing indices.

The share of external assets in investment and pension funds rose during the last six months and reached 79% at the end of March (see Figure 17). Deposits grew by 327 million kroons to a total of 2.9 billion kroons.

Investment strategies have not changed compared to the autumn. Investment in "old" European Union countries amounted to 13 billion kroons, which represents 64% of total external investment, of which 6.7% (1.4 billion kroons) comprised investment in euro area countries suffering public finance problems. The share of investment in "new" European Union countries dropped by 3 percentage points to 12%, while the share of investment in Russia increased by 3 percentage points to 8%.

#### **CROSS-BORDER FINANCING**

## Financial strength of the groups of parent banks

Major banks that operate in Estonia belong to international financial groups, and their parent banks have an important role in funding the activities and managing the liquidity of local subsidiaries.

In recent quarters, the performance of major banking groups operating in Estonia has primarily been shaped by low interest rates, due to which their interest income has declined. At the same time, the profitability of banks has been supported by a decrease in the amount of new loan provisions. All major banks operating in Estonia ended the first quarter of 2010 again with a profit (see Figure 18).

Banks' interest incomes have been curbed by diminishing deposit margins and also by the price of new long-term funds that they have obtained. Although banks have tried to boost their interest incomes by raising the margins on new loans, the demand for new loans remains low and has not yet contributed much to the interest incomes. In some banks, loan contracts allow to change the

Figure 17. Structure of investment and pension fund assets and the share of foreign assets

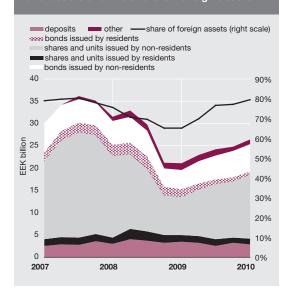
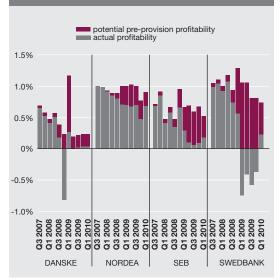


Figure 18. Profitability of banking groups and potential profitability with loan provisions excluded



interest margins also on performing outstanding loans, should the risk estimates change. However, this option is primarily used in case of customers' loan payment defaults.

Banks have responded to falling incomes by a further reduction of operating expenses. They have cut down on staff and have reconsidered bonus systems. Despite this, the operating expenses of some groups remained high during recent quarters owing to goodwill write-downs and fees for participation in national support programmes. Although by now the national support schemes of the monitored banking groups are about to end and related costs have declined, a new permanent cost item has been added to the interest costs of Swedish banking groups – the so-called stability fund fee.

The capitalisation of monitored groups has remained satisfactory, regardless of the recent losses posted by the four largest market participants in Estonia. In 2009, the stock of own funds was increased through additional equity issues and subordinated loan issues. In addition, banks have ceased to pay dividends or have lowered the dividend rate. Moreover, comparative data on groups show that the adoption of the new methods for calculating capital requirements for credit risk, or the so-called internal ratings based approach, has significantly reduced banks' capitalisation requirement. This means that the change in calculation methods has allowed for additional credit supply.

In general, banking groups tend to presume that the slow recovery of the economy in their primary operation areas will continue in the near term; however, the solvency of customers is not expected to gain momentum soon. Therefore, no major improvements in profitability are expected in the coming quarters.

#### **Funding of parent banks**

Nordic banking groups have attempted to increase their retail **deposits** again after a decline at the beginning of 2009 (see Figure 19). The competition for stable and relatively cheap deposits, however, is strong and it is difficult for any bank to increase its market share on account of other institutions. The fall in deposits in the first quarter of 2010 can be attributed to the shrinking deposits of institutional investors, who have probably relocated their assets on more productive capital markets.

Given that a large extent (over 40%) of the funding of Nordic banking groups comes from **bond issues**, the capital market developments are crucial for banks. In the past six months, the key ratings of the four banking groups under observation have drawn somewhat closer to each other. Standard & Poor's has downgraded the long-term rating of Danske Bank by one notch and has raised the outlooks of SEB and Swedbank from negative to stable (see Table 1). In November 2009, Moody's took Nordea's ratings under revision for a possible

Table 1. Ratings of Nordic banks (as at end-April 2010)

	Standard	& Poor's	Moody's			Fitch		
	Long-term	Change*	Long-term	Change*	Financial strength	Long-term	Change*	
Nordea Bank	AA-	-	Aa2	7	C+	AA-	-	
Svenska Handelsbanken	AA-	-	Aa2	-	C+	AA-	-	
Danske Bank	А	<b>↓</b>	Aa3	-	С	A+	-	
SEB	А	1	A1	-	C-	A+	-	
Swedbank	А	1	A2	-	D+			

<sup>\*</sup> Change since the last Financial Stability Review (spring 2009). "-" no change, "\" downgraded by one notch, "\\" downgraded by two notches, "\" rating outlook raised, "\" rating outlook lowered.

Source: rating agencies

downgrade. Investor sentiment towards banks on the basis of their **stock prices** also vary owing to general differences in economy and banking. In the past six months, the stock prices of Nordic banks have been valued more highly than those of European banks on average (see Figure 20). The more positive attitude towards Scandinavian banks is also reflected in credit default swap (CDS) spreads. In addition, the CDS spreads between Nordic banking groups have declined over the last six months, which means that sentiment towards these banking groups has become more homogeneous.

Until May, the developments had been relatively favourable for Nordic countries, contributing to the improved sentiment and risk absorption capacity of investors. Investment was slightly been boosted also by efforts to increase the yield of assets, as interest rates are generally very low. Consequently, the availability of long-term resources for banks continued to improve. Meanwhile, Swedish banking groups attempted to extend the maturities of their liabilities, and upon the maturity of short-term bonds they replaced the majority of them with long-term bonds, mainly by issuing covered bonds (see Figure 21).



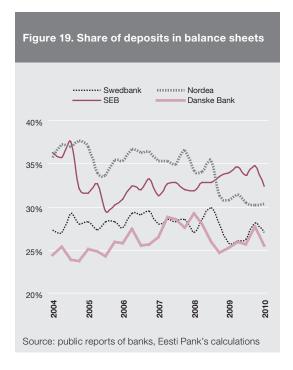


Figure 21. Net borrowing of Swedish banking groups in SEK instruments

long-term loans
short-term loans

80

60

40

-20

-40

-60

800

800

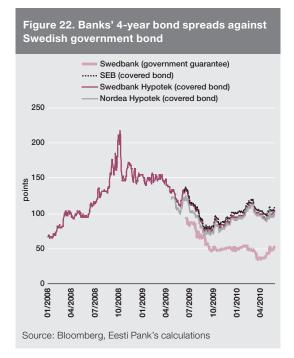
Source: Statistics Sweden, Eesti Pank's calculations

In the first quarter of 2010, the liquidity of all four monitored banking groups had improved, primarily owing to greater inclusion of long-term funds. During the first three months of 2010, Danske Bank raised 4.4 billion DKK, Nordea 10.4 billion EUR and Swedbank 100 billion SEK worth of long-term loans. However, extending the average maturity of funds has had a negative impact on profitability.

Although the availability of long-term funds was good and had even improved, the interest rates of covered bonds rose in the past six months, compared to the risk-free interest rate of the Swedish government bonds. At the end of May, the spread of covered bonds was nearly 20 basis points higher than in last October (see Figure 22). The spread has been mainly affected by banks' increased demand for long-term resources and, since May, also by heightened concerns in the financial markets stemming from the sovereign debt crisis. Although the situation of capital markets had generally improved and banks have therefore been eager to issue long-term bonds, the developments have by no means been only positive and risks are still present in these segments of the financial sector.

Policy measures and risks. As the macroeconomic situation and outlook had improved, central banks were starting to resume their traditional monetary policies and were adopting exit strategies for crisis-related measures. In April, the Swedish central bank stopped offering loans with 12-month and later also 6- and 3-month maturities due to lack of demand from market participants, replacing them by shorter loans with 28-day maturities.

Nevertheless, the Swedish government's guarantee scheme for banks to facilitate long-term funding from markets was extended until the end of 2010. Major banks to participate in this scheme were SEB and Swedbank, but only the latter actually used this measure, most recently in July 2009. Although with this measure, the bond interest rate was substantially lower for Swedbank than without a guarantee, Swedbank has had to pay a



total of around 2.3 billion SEK for participating in the guarantee scheme. Danske Bank paid 0.6 billion DKK for participating in the guarantee scheme of the Danish government in the first quarter of 2010.

Although developments have been favourable for Nordic banks and capital markets until May and it had been easier to raise funds from markets, long-term risks still persist. After a long and relatively rapid surge in stock markets, asset prices are already facing downward adjustments. Interest rates have remained unchanged for quite long. Looking ahead, however, the risks stemming from changes in interest rates may start affecting banks' profitability and availability of funds on the financial markets. The greatest risk is the excessive budget deficits and increasing debt burdens in some countries, which may cause them funding problems on financial markets. Should the debt crisis spread, Nordic banks will be facing a serious risk on the liabilities side of the balance sheet. Namely, if investor confidence on global financial markets deteriorates and their risk appetite is lost, the cost of funding will rise and access to funds for Scandinavian banks will deteriorate.

#### II REAL ECONOMY AND LOAN QUALITY

#### **CREDIT PORTFOLIO OF BANKS**

At the end of March 2010, the financing portfolio of banks totalled 261 billion kroons, or almost 6% less than a year before. The stock of loans and leases granted to households and companies has decreased by 8% and 4%, respectively.

The loan environment has not changed significantly over the past six months and has remained conservative and inactive. Structural changes in the loan portfolio have primarily been shaped by the varying maturity of loan contracts in different loan segments. With the year, the share of housing loans in the credit portfolio has grown the most, by 1.5 percentage points. Although banks have curbed the financing of new real estate developments during the last two years, it has not entailed a sudden drop in their loan stock due to the specific nature of financing contracts in the real estate sector1. Though the loan positions of banks have diminished significantly in the construction sector, the percentage of all real estate related loan sectors2 has increased by 1.4 percentage points to 60% (see Figure 1).

Investment demand, which has contracted in the light of economic uncertainty, has expectedly the least impact on infrastructure companies, whose total loan stock increased by 3.2 billion kroons, or 72%, compared to a year ago.

According to the baseline scenario of the spring 2010 forecast of Eesti Pank, the banks' loan and leasing portfolio will shrink around 2.4% by the end of this year. The growth rate of the loan stock will remain smaller than GDP growth also in the coming years (see Figure 2).

Based on the forecast presumptions, domestic demand will recover with a lag compared to

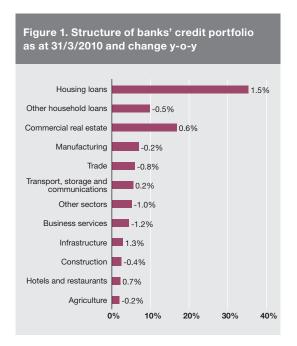
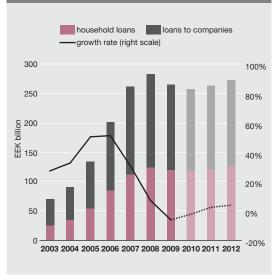


Figure 2. Value and growth rate of banks' credit portfolio and expected growth in 2010–2012



Some of the loans issued to the real estate sector are bullet loans.

<sup>&</sup>lt;sup>2</sup> The household sector – housing loans; the business sector – real estate, construction and business services (as at 30 April 2010).

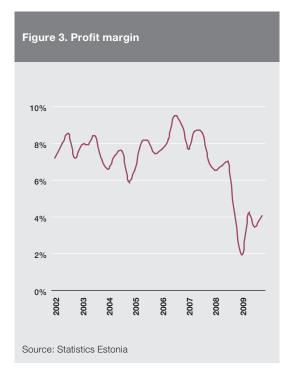
export revenues. This will also affect the growth and structure of banks' financing portfolios in the next few years. In the near future the loan stock will be mainly boosted by external-demand oriented business areas, whereas banks' risk positions will nevertheless include also a large share of loans issued to real-estate related sectors. In case of more positive economic developments, the housing market will probably recover faster, and so will also the issuance of household housing loans. Consequently, banks' credit risk will still largely depend on the developments in the real estate market. However, considering the experience gained from the boom, both creditors and borrowers are presumed to remain conservative in their risk appetite and the risk of another boom in the near future is marginal.

#### **COMPANIES' LOAN REPAYMENT ABILITY**

After covering all operating expenses, the remaining cash flows must be used for covering outstanding loan interest and principal repayments. After a steep drop in 2008, companies' revenues did not experience as robust a decrease in 2009. As domestic demand is weak and external demand is recovering more rapidly, stronger growth in the turnover of manufacturing enterprises can be expected first. In domestic demand oriented sectors, on the other hand, rapid recovery of revenues to earlier peaks is not anticipated.

The business statistics of Statistics Estonia show that the drop in overall profitability came to a halt in the second half of 2009. While profitability remained in a range of 7–8% prior to the global financial crisis, the decline stabilised during the year, with profitability amounting to 4% (see Figure 3).

The situation varies by sectors, but there are clearly some areas of activity where profitability started to recover already in the fourth quarter of 2009. This is partially due to increased efficiency



after the restructuring of activities; furthermore, there are sectors which make good use of price formation opportunities stemming from their monopolistic status. Nevertheless, as the extent and speed of cutting expenses was lower than the drop in revenues, companies recorded lower profits in 2009. Consequently, their loan repayment ability diminished, and the number of companies in financial distress increased.

At the same time, companies' estimates of current and future demand had improved by the beginning of 2010 (see Figure 4). The amount of new orders in the manufacturing sector in March had grown by approximately 18% compared to last year, with the growth primarily bolstered by export orders. Domestic demand oriented sectors, such as construction, services and commerce, are still declining in terms of profitability, but the decrease in profits will likely come to a halt based on projections of demand. Recovery of sales volumes, decrease in warehouse inventories and growth in orders can also be seen in trading companies, where the downturn is

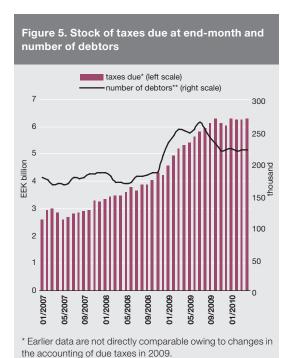
coming to an end. Deflation expectations have abated in both commerce and the services sector. Seasonal factors are contributing in part to the increased confidence and solvency in the months ahead. In the construction sector, the number and volume of building permits issued more than doubled in the first quarter, compared to the same period last year, although they have failed to return to the pre-crisis levels seen in 2008. Profitability in the manufacturing sector, the sector most impacted by external demand, can even be expected to increase in the near future.

The amount of payment defaults and tax arrears indicates some easing of financial problems. According to Krediidiinfo, the net increase in payment defaults has slowed after rapid growth in the second half of 2009. The increase in corporate tax arrears has slowed as well (see Figure 5). Yet the level of payment defaults continues to be very high: in the past six months, one-fifth of companies had tax arrears3, with nearly one-third of all companies having high credit risk according to Krediidiinfo. A pattern of behaviour noted among Estonian companies is that tax liabilities are the first to be deferred, followed by payables to suppliers; companies are most reluctant to have outstanding liabilities to banks. As growth in tax arrears and payment defaults has slowed, it can nonetheless be presumed that, compared to last year, this year will bring a much smaller crop of companies unable to fulfil their liabilities to banks.

The number of **bankruptcies** peaked in 2009 at 536; twice as much as in 2008 (see Figure 6). Unlike many other indicators that are forward looking, the number of **bankruptcy petitions** is not showing signs of decrease, as a result of which a large number of bankruptcies can be projected yet again for 2010. Considering the time-consuming nature of the bank-

Pank's calculations

calculations



Source: Estonian Tax and Customs Board, Eesti Pank's

 $<sup>^{\</sup>rm 3}$  Tax arrears with a value of over 10,000 kroons are taken into account.

ruptcy process, the number of bankruptcies may even prove greater than last year. Indeed, the number of bankruptcies in the first quarter of 2010 exceeded last year's level by one-sixth, and most of the bankruptcies continue to occur in the construction sector. At the same time, bankruptcies reflect financial problems that emerged previously; that is, the realisation of loan losses that have already been accounted for by banks, not so much the occurrence of new and unexpected problems.

Due to the fall in key interest rates, **interest expenses** related to corporate domestic bank loans have dropped continuously, easing the stressful financial situation of companies by an estimated 3 billion kroons in 2009, or more. As the drop in key interest rates has ceased and has largely already passed on to existing loans, no sizeable decline in interest expenses is expected in the near future. It can rather be presumed that interest expenses will remain at a stable level as long as key interest rates remain low.

The **interest coverage ratio**<sup>4</sup> continued to drop in the first three quarters of 2009 in spite of the extensive shrinking of interest expenses. In the fourth quarter, however, the indicator ceased to fall, as profitability stabilised and interest expenses decreased. This means that companies' ability to pay bank loan interest – after covering operating expenses and depreciation – did not deteriorate any further (see Figure 7). In domestic demand oriented sectors, the interest coverage ratio dropped in the second half-year as well. On the other hand, the manufacturing sector was boosted by the recovery of global markets and the solvency of the sector improved in the last quarter of the year.

Figure 6. Bankrupt companies and bankruptcy petitions submitted to courts on a monthly basis

bankruptcies
bankruptcy petitions

180

150

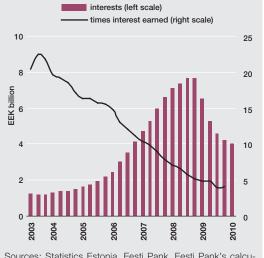
120

90

60

Sources: Estonian Enterprises Register, Courts Information System

Figure 7. Companies' estimated interests on domestic bank loans and the interest coverage ratio



Sources: Statistics Estonia, Eesti Pank, Eesti Pank's calculations

<sup>&</sup>lt;sup>4</sup> Interest coverage ratio or TIE (times interest earned) = ratio of total profits to domestic bank loan interest. Actual corporate interest expenses are larger due to the addition of interest expenses on intra-group and foreign loan finances. Thus the interest expense ratio should be treated on the basis of development rather than level.

In most sectors other than the manufacturing sector, corporate cash flows will likely not improve in the near future. At the same time, cash flows should not decrease significantly either, as the economy is slowly recovering. Corporate budgets are still stretched thin and, in particularly, domestic demand oriented sectors may encounter problems repaying loans.

Aggregated balance sheet data indicate slightly improved corporate liquidity and solvency. Corporate **deposits** grew by around 10% to 56 billion kroons by the end of the first quarter of 2010. At the same time, corporate short-term financial liabilities decreased by a total of more than 17 billion kroons. This was, above all, conditioned by repayment of loans and trade credit. Thus corporate **liquidity** – short-term solvency – had improved slightly in the fourth quarter of 2009 (see Figure 8).

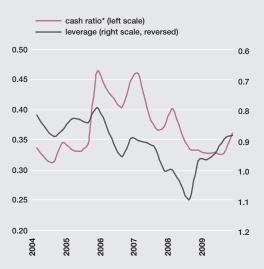
For the same reasons, the long-term indicator of corporate solvency, the **financial leverage**<sup>5</sup> ratio, improved over the course of last year, approaching the levels of 2006. This demonstrates that companies have reduced their excessive indebtedness and that the entrepreneurial sector as a whole is engaging in cautious financial behaviour.

Looking at financial leverage ratios comparatively for European countries, we see that at the end of 2007 Estonia was near the average for the EU (see Figure 9), regardless of the higher than average corporate indebtedness in terms of GDP. The relatively low financial leverage of Estonian enterprises was due to higher equity, probably the relatively high levels of foreign equity investment.

#### **HOUSEHOLDS' LOAN REPAYMENT ABILITY**

Over the last year, consumer **confidence** has been mostly affected by fear of job loss and

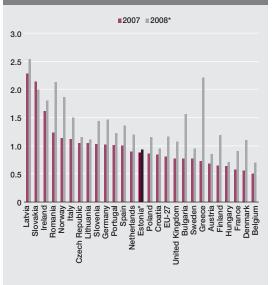
Figure 8. Corporate sector's liquidity and solvency ratios



\* Money and short-term securities in ratio to short-term financial liabilities.

Sources: financial accounts, Eesti Pank's calculations

Figure 9. Corporate sector leverage in European countries\*



\* 2008 data for Estonia are based on Eesti Pank's estimates. Sources: Eurostat, Eesti Pank's calculations

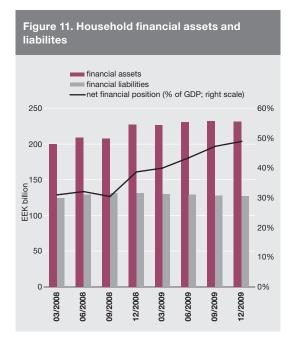
 $<sup>^{5}</sup>$  Financial leverage = debt-to-equity ratio.

lower income. High and increasing unemployment took an especially heavy toll on consumer confidence at the beginning of 2009. In the last six months, confidence has seen stable improvement. Fear of unemployment has dropped to the level seen in the first months of 2008, which was significantly lower than the average for 2009. The improvement in confidence has been supported by the assessment of the country's present economic situation and also the outlook for the next twelve months. Even though the economic situation of households has somewhat deteriorated over the last year, there is stronger belief that it will improve in the next twelve months. Price levels have risen as a result of global growth and administrative factors, decreasing incentives for postponing consumption on grounds of expected deflation. Little by little, purchases of durables are being slated for the near future, which boosts demand for consumer loans.

In spite of increased confidence, developments in households' budgets are and will be shaped by the labour market situation. In the first quarter of 2010, the unemployment rate in Estonia was 19.8%, according to the Statistics Estonia labour force survey. The statistics for April show that registered unemployment has somewhat declined. According to the Unemployment Insurance Fund, registered unemployment amounted to a total of 91,668 people, or 14.1% of the working-age population, at the end of April, around one-third of them receiving unemployment benefits. The share of benefit recipients among the unemployed has started to drop, as there is a greater number of unemployed whose benefits period has run out. Even though the number of registered unemployed in April was already decreasing, it will remain higher than average in years to come (see Figure 10).

Besides the drop in total employment rate, the drop in wages also decreased households' disposable income. Last year average gross wages fell around 5%, and the drop continues this year

Figure 10. Number of registered unemployed and unemployment insurance beneficiaries registered unemployed (left scale) beneficiaries (left scale) beneficiaries as % of total unemployed (right scale) 100,000 90,000 40% 80,000 35% 70.000 30% 60,000 25% 50,000 20% 40,000 15% 30,000 10% 20,000 10,000 5% 2010 2008 Source: Unemployment Insurance Fund



as well. Given the combined effect of unemployment and decreased income, Eesti Pank forecasts household disposable incomes to be as much as 10% lower in 2010 compared to 2009.

Households' uncertainty about the future was clearly reflected in their financial behaviour. The **net financial position** of households increased from 37% of GDP in 2008 to 49% of GDP in 2009 (see Figure 11). The improvement of financial positions was affected by the decline in financial liabilities and also by the fact that, regardless of the decreasing income, the stock of household financial assets increased 2% in 2009. The rise in financial assets was facilitated by the improved situation on capital markets and households' increased willingness to invest into higher-risk investment instruments. Household deposits grew by 1 billion kroons to 55.8 billion kroons. Time deposits accounted for 58% of total deposits at the end of March 2010. As interest rates on time deposits dropped significantly, so did households' interest in investing into time deposits.

Household credit demand was extremely low in 2009; transactions with major financing practically came to a standstill. As a result of very low credit demand and amortisation of the existing loan portfolio, the stock of loans issued to households shrank by 4% to 116 billion kroons. Households have responded fairly rapidly to the recession, as evident from the fact that their liabilities to banks have dropped since the beginning of 2009. As the situation became more challenging, households focused, above all, on meeting their existing liabilities, with major spending being postponed. New borrowing activity was hindered by tightening of lending conditions and also the unfavourable situation on the labour market.

Even though the stock of loans has decreased, **indebtedness** of households remains fairly high. According to Eesti Pank's spring forecast,

Figure 12. Annual interest expenditure and interest burden of households annual interest expenditure (left scale) interest burden (right scale average interest rate (right scale) 9.000 8% 8.000 7% 7,000 6% 6,000 5% 前 5,000 4% 4.000 3% 2% 2.000 1% 1,000 03/2010 03/2008 33/2006 39/2006 33/2007 39/2007

indebtedness is expected to decline only in the first quarter of 2011. The impact of the considerable fall in disposable income will, however, diminish over a longer period of time. As the spring forecast expects no growth in the stock of household loans in 2010 and to grow only marginally in 2011, household budgets are constrained mainly by the existing loans.

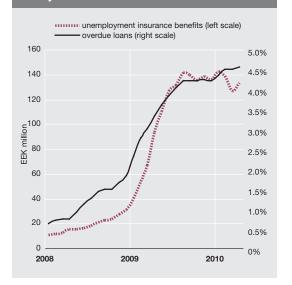
Very low key interest rates have contributed to meeting the liabilities of households, significantly decreasing their **interest payments**. The annual amount of households' interest payments in the first quarter of 2010 was 5 billion kroons, which is comparable with the figure for the second half of 2007 (see Figure 12). The modest increase in borrowing and the continuously low key interest rates mean that households' expenses related to repayment of loans will not increase in the near term.

The loan repayment ability of households is affected by developments in the labour market. Although compared to the autumn, the percentage of companies that desire to reduce their workforce in the months ahead has declined,

and unemployment will peak in the second quarter of 2010 as set out in the Eesti Pank spring forecast, it will take time for the labour market to normalise.

The portfolio of household loans will shrink also in 2010, meaning there will be little new liabilities taken. At the same time, unemployment benefits will end for most recipients. Those unable to find a job will lose most of their current income. In part, temporary difficulties in loan repayment can be alleviated by a loan grace period. Still, considering the relatively high number of unemployment benefit recipients (see Figure 13), developments in the labour market may lead to a slight decline in the loan repayment ability of households.

Figure 13. Unemployment insurance benefits and share of loans overdue for more than



#### Real estate market

Due to the extensive cash flows of banks into sectors related to real estate and private housing loans during the period of rapid loan stock growth, banks' credit risk largely depends on developments in the real estate market. Developments in the real estate and construction market and the probability of the materialisation of risks are mainly determined by Estonia's macroeconomic growth outlook. The recovery of markets can be hindered by the fact that the loan repayment ability of borrowers has not started to improve yet, and this may be accompanied by an increase in the forced sales of the collaterals of mortgage loans and bankruptcy estates.

#### Housing market

After more than two years of decline, the fall of the housing market stopped at the end of last year. Although the market will probably improve slightly in 2010 along with the recov-

ery of the general economic situation, no rapid growth in activity is expected. Demand is primarily inhibited by the slow recovery of the labour market. The developments in the real estate market are also affected by the structure of the existing housing stock and the continuous need for dwellings.

In 2009, 32% less construction permits and 70% less permits for use were issued in Tallinn, and no new major projects were released to the market. At the end of April 2010, nearly 6,000 apartments were still on sale, 20% of which have been built in recent years <sup>6</sup>. In addition to the fact that demand on the real estate market has weakened due to uncertainty and shrinking incomes, the relatively high number of sales offers could indicate that the location, size, price or quality of the apartments on sale does not meet the requirements of buyers. Given the needs of buyers and much lower land and construction

 $<sup>^6</sup>$  Source: City24, Ober-Haus, Tallinn real estate market 2009–2010.

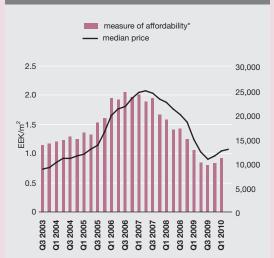
prices compared to the boom, several real estate developers have disclosed new housing development projects.

The median price of apartment transactions in Tallinn is comparable to the level of 2005, that is 12,800 EEK/m2. The real estate purchasing power of households has improved significantly in comparison with the last six years as a result of real estate price drops. During the real estate boom, the average price per square metre of apartment deals in Tallinn was over twice larger than the average gross monthly wages of the residents of Tallinn, whereas in the first quarter of 2010, the affordability indicator<sup>7</sup> stood at 0.9 (see Figure 14). Although the price drop has made real estate more affordable to average wage earners, the number of people, whose incomes have declined and whose uncertainty about their future personal budget has increased, has grown over the year.

Meanwhile, the stock of deposits has grown in recent years, which contributes to meeting banks' loan requirements. Despite that, the availability and conditions of loan money continue to be the key determinants of financing housing purchases.

Tighter credit terms have increased the importance of the rental market. The rental market gained momentum at the beginning of 2009, when the number of vacant apartments for rent grew by 40% within three months since the end of the year. However, in the first quarter of 2010, the market stabilised at a slightly lower level along with the average price offers per square meter of rental apartments (77 EEK/m2). Further developments in the rental market greatly depend on how fast

Figure 14. Affordability of real estate in Tallinn with average wages



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

Sources: Land Board, Statistics Estonia, Eesti Pank's calculations

the confidence of people is restored and how the potential housing purchasers and banks assess their loan repayment ability.

#### Office and commercial premises market

Developments in the business real estate market occur with a slight delay, which is why this sector is likely to face greater difficulties in 2010, as the incomes of real estate owners are shaped by the drastic fall in rental prices and the rising number of vacant office premises.

At the beginning of 2009, the supply of **office premises** in Tallinn grew significantly, as the stock of administrative premises grew by 11% (see Figure 15). This increased the number of vacant objects in the suburbs up to 50%. By the year-end, the number of vacant office premises in Tallinn had grown to 15–18% on average. The number of vacant premises

<sup>&</sup>lt;sup>7</sup> The ratio of the median price per square metre of apartments in Tallinn to the average gross monthly wages of the residents of Tallinn, based on the data of the Land Board.

increased owing to bigger supply and also because companies wanted to optimise costs due to solvency issues and moved to smaller spaces. Given the oversupply of office premises on the market, it is likely that few new projects will be launched in the next couple of years. It may take years for all the existing commercial real estate to be taken into use.

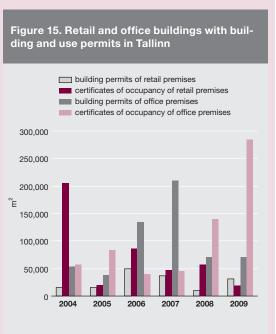
The great supply of office premises has, in turn, exerted pressure on rental prices, which dropped by an average of 30% in 2009<sup>8</sup>. In 2010, the rental prices of vacant premises have remained relatively stable and will stay in the average range of 80 EEK/m2 also in the coming quarters.

Last year, the demand for new **retail premises** still exceeded the supply and the fill rate of major shopping centres was 100%, whereas in 2010 real estate developers are likely to face bigger difficulties in finding lessees. Consumption has dropped considerably, which will bring about changes in rental

#### **QUALITY OF ASSETS**

Although the situation in the non-financial sector is still tense, overdue loans no longer increased in the past six months, stabilising in all loan segments. The share of **loans overdue for more than 60 days** rose by 0.3 percentage points to 6.7% of the portfolio (see Figure 16) but this was mainly due to decreasing loan portfolio. The increasing share of overdue loans in total loans points to the fact that the problems of companies and households in financial difficulty persist, and resolving them will take time.

The sectors related to real estate have the most overdue loans, with their share of problem loans



Source: register of construction works

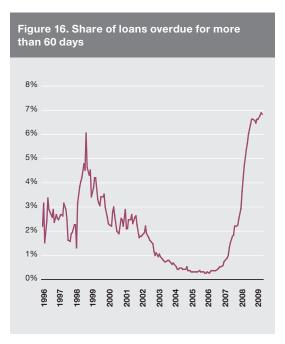
prices and in the number of lessees, and a rise in the number of vacant plots, especially as some commercial premises<sup>9</sup> will expand further in 2010. The market of commercial premises is likely to stabilise in the second half of 2010, but growth is not expected before 2011.

being greater than their share in the banks' loan portfolio. The loans issued to the real estate-related sectors constitute 60% of the portfolio, while the stock of overdue loans of these sectors accounted for 72% of total overdue loans in April 2010 (see Figure 17). Consequently, the quality of the banks' loan portfolio depends to a great extent on the well-being of the real estate market, in particular as regards corporate loans.

Growth in overdue loans stabilised in the second half of 2009, but banks continued making loan loss **provisions**. In the first quarter of 2010, around 1.2 billion kroons of additional provisions were made (see Figure 18). Total provisions for covering potential loan losses amounted to

<sup>&</sup>lt;sup>8</sup> Source: Statistics Estonia.

<sup>&</sup>lt;sup>9</sup> Kristiine shopping centre, Tähesaju City.



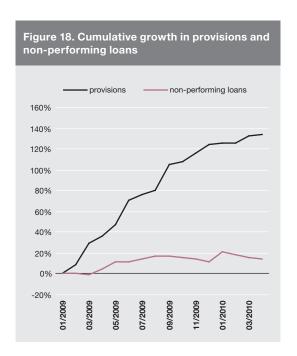
12.2 billion kroons, of which specific provisions for corporate loans made up 7.5 billion kroons, specific provisions for household loans 2.1 billion kroons and general provisions 2.6 billion kroons (see Figure 19).

At the end of April, provisions had been made for nearly 80% of loans overdue for more than 60 days. As the dynamics of growth in overdue loans and provisions for potential loan losses is quite different, banks have presumably changed their principles for handling overdue loans.

In August 2009, banks began dealing more actively with customers in loan repayment difficulties by restructuring their loan liabilities and granting grace periods. Thus, the stabilisation of the stock of overdue loans does not only stem from lower emergence of new non-performing loans but also from the preventive actions of banks. In case of a functioning customer relationship, banks have already taken into account the problems that have arisen, and have made the necessary write-downs.

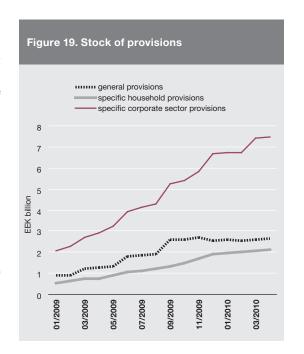
As regards the banking groups, the share of

Figure 17. Stock of loans overdue for more than 60 days and their share in total loan portfolio as at 30/4/2010 stock (left scale) • share (right scale) 25% 6,000 5,000 20% 4,000 15% ₹ 3,000 10% 2,000 5% 1,000 0% commercial real estate mortgage credit consumer credit manufacturing



loans overdue for more than 90 days in the portfolio rose by 1.8 percentage points to 10.6% over the last six months. At the same time, credit institutions have made large-scale provisions for covering potential loan losses: at the end of April, provisions had been made for 94% of loans overdue for more than 90 days. The provisions of groups accounted for 9.9% of their total loan portfolio.

The realised **loan losses** have increased in recent quarters, but the volume of write-offs is still very small. From the beginning of 2009 to the end of March 2010, banks wrote off a total of 1.3 billion kroons of loans, or 0.5% of the loan portfolio. At the same time, banks recovered 371 million kroons of written-off assets. In 2010 and also 2011, loan write-offs are likely to grow further.



## The impact of the Debt Restructuring and Debt Protection Act on the financial sector

One factor with a significant impact on the operating environment of financial institutions is the draft Debt Restructuring and Debt Protection Act which is being deliberated in the Riigikogu. When it enters into force, the Act will result in changes in the relations between lenders and borrowers. The purpose of the legislation is to enable individuals in financial difficulty to restructure their debts, thus offering an alternative to personal bankruptcy. The Act is expected to enter into force on 1 January 2011 and it is planned to have retroactive force with regard to claims incurred before it enters into force.

The draft Debt Restructuring and Debt Protection Act submitted for the first reading calls for extensive debt restructuring, including reduction of principal claims. Such an amend-

ment could have significant implications on the functioning of the economy and socio-economic relations, as in general a reduction in the debt obligation of a debtor must be covered by other service consumers of the same undertaking or economic branch. This problem does not only pertain to banks, but rather a very broad swathe of the economy, ranging from public utilities to money-lending. A radical change in creditor-debtor relationships could result in more passive behaviour on the part of banks and other financiers, impairing financing opportunities and postponing economic recovery to an even later date.

From the perspective of financial stability, it is to be expected that, if the legislation is supplemented in the form of the initial draft law, the risks for banks will increase and, as a result, interest margins on private loans will increase. For instance, in Finland and Sweden, individuals enjoy no similar debt relief option, and this helps keep interest margins

lower. This stems from better financial discipline and a legal space that encourages better financial discipline.

From the perspective of the debtor, the debt restructuring method proposed in the draft legislation is costly and requires expert consulting. Thus, analysis should be devoted to determining how large a debt must be in order for the savings thereby achieved to exceed the procedural costs, and how many individual debtors would be willing to and could afford to carry out debt protection proceedings in this form. Undoubtedly, it would benefit a greater number of debtors, were the reorganization procedure to provide only a few more easily implemented options, such

as deferral of debt. As an additional measure, personal bankruptcy proceedings could be made more flexible. Yet another factor that must be considered is the burden placed on courts by proceedings.

To sum up, the provision for debt restructuring for natural persons is a significant new feature in Estonian law. In the opinion of Eesti Pank, such fundamental changes to property law will require additional analysis and a longer transition period. It is preferable to defer debts or recur to other, more feasible ways of restructuring debt, since reduction of principal claims may result in general deterioration in financial behaviour and higher cost of transactions related to debt obligations.

#### III STRENGTH OF FINANCIAL INSTITUTIONS

#### **BANKS**

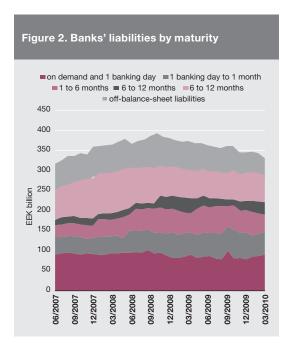
#### **Funding**

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

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

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

Figure 1. Quarterly changes in loan and deposit stocks and loan-to-deposit ratio loans and leasing deposits loan-to-deposit ratio (right scale) 20.000 200% 180% 15,000 160% 140% 120% 100% 5.000 80% 60% 40% 20% -5,000 2005 2005 2006 2006 2006 2007 2007 2007 2008 2008 2008 2008 



31

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

#### **Profitability**

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

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

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

Figure 3. Time deposits as % of total deposits and their average interest rate foreign currency deposits (right scale) EEK deposits (right scale demand deposits (right scale) EEK deposit interest rate (left scale) ····· EUR deposit interest rate (left scale) 100% 8% 7% 80% 6% 5% 60% 4% 40% 3% 2% 20% 1% 0% 0% 03/2010 06/2008 03/2009

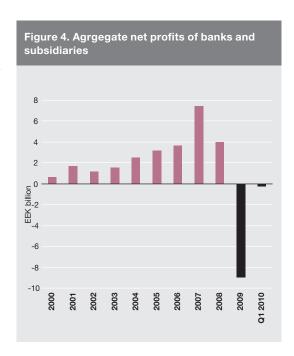


Table 1. Profitability of banks

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

Table 2. Profitability of banking groups

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

<sup>\*</sup> Excluding data of Danske Group.

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

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

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

Figure 5. Banks' expected annual incomes and expenses by type (% of average assets per quarter x 4) •••• net interest income net fee and commision income asset write-downs - other net income .....changes in the value of subsidiaries excluded operating expenses 4% 0% -2% -4% -6% 03/2008 06/2008 09/2008 12/2008 03/2009 12/2007

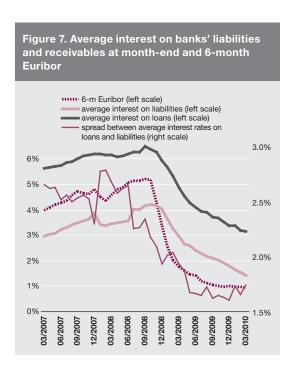
Low economic activity continues to restrain payment intermediation, which is the primary source of **fee and commission income**. Nevertheless, in ratio to average assets, fee and commission income has remained relatively stable in recent quarters.

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

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

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

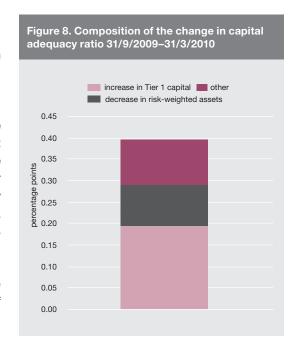
Figure 6. Banking groups' expected annual incomes and expenses by type (% of average assets per quarter x 4) .....net interest income net fee and commision income operating expenses other net income asset write-downs 5.0% 0.0% -2.5% -5.0% -7.5% -10.0% 03/2007 03/2008 06/2008 09/2008 12/2008 03/2009 06/2007



#### **Capital adequacy**

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

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



needed to cover credit risk. This was offset by a slight increase in capital requirements of the trading portfolios in terms of both banks and banking groups.

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

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

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

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

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

#### Stress test of the banking sector

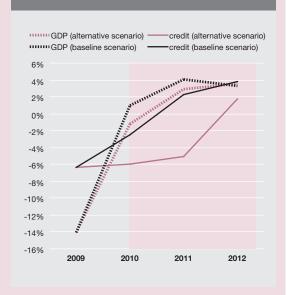
#### Scenarios of the stress test

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

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

According to the spring forecast, the credit market will remain subdued in the months ahead. Market participants have focused primarily on managing their existing loan portfolio; issuing new loans or increasing market share are not considered priorities. The baseline forecast scenario expects the loan port-

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



folio to decline 2.4% by the end of 2010 and increase 2.3% in 2011.

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

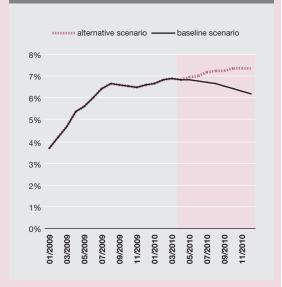
#### Overdue loans forecast

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

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

Loan restructuring gained momentum in 2009, which has somewhat weakened the link between loan loss provisions and loans overdue. More provisions have been made than could be expected based on the analysis of loans overdue. In April 2010, the stock of provisions for potential loan losses comprised 5.3% of the portfolio (80% of loans overdue for more than 60 days were covered by provisions). According to the forecast, the economic situation will improve in the second half of the year; some of the non-performing loans are expected to recover. Drawing on the

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



principle of conservatism, the banking sector stress test nevertheless presumes that banks will make additional provisions in 2010 for new non-performing loans. The main reason is the marked uncertainty about future risks, in particular as regards the recovery of overdue loans.

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

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

#### Profitability forecast

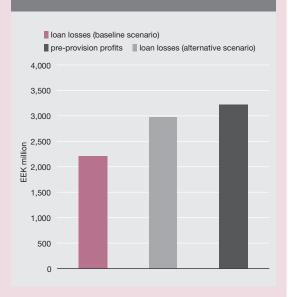
In the quarters ahead, profitability in the banking sector will be most significantly affected by non-performing loans and cost of capital.

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

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

Besides net interest income, banks' profitability is shaped by income from services, the majority of which originates from payments intermediation. Further developments in income from service charges depend on general economic activity, but the spring forecast does not anticipate rapid growth in the near

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



future. Based on current operating expenses, banks will be able to keep expenses under control, or reduce them even further. At the same time, banks are hoping for the economic situation to improve and are not planning considerable cuts in expenses in 2010.

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

#### Conclusion

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

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

The capital buffer of banks will total 10.3 billion kroons at the end of 2010, as set out in the

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

#### **INSURANCE COMPANIES**

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

#### Life insurance

Declining incomes usually entail an increase in the termination of life insurance contracts. In 2008, the contract termination rates of Estonian life insurance companies were among the highest in Europe, which also caused a steep fall in insurance premiums. However, as the outlook for global financial markets and Estonia's economic growth improve, a moderate increase in insurance premiums may be expected already

Figure 12. Profits of life insurance companies and premiums from residents other life insurance pension insurance unit-linked life insurance profit (right scale) capital insurance of life insurance 600 250 200 500 150 6 400 300 100 등 50 H 0 200 -50 -100 100 -150 -200 Q1 2006 Q1 2008 2010 Q1 2007

in 2010. In the first quarter of 2010, 273 million kroons of insurance premiums were collected from Estonian residents, which is 15% more than a year ago. Unit-linked life insurance, which suffered the most in the crisis, still prevails with 44.5% of the portfolio of insurance premiums (see Figure 12). Meanwhile, insurance companies have perceived a slight growth trend in term life insurance contracts, which indicates that customers are increasingly valuing the hedging of financial risks.

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

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

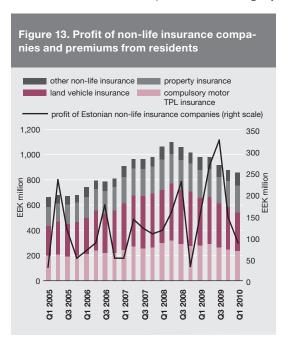
High profitability has helped companies maintain strong capitalisation. The own funds of companies doubled with the year, reaching 1.4 billion kroons at the end of 2009. Given that the required solvency margin, as set out in the Insurance Activities Act, was 385 million kroons, the life insurance sector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

#### Non-life insurance

The insurance premiums of the non-life insurance market have been experiencing a slight downward trend since the third quarter of 2008.

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

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



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

Last year's profitability was also boosted by outstanding technical results (689 million kroons), which stemmed from low loss rates. Claims were settled in the total amount of 2.3 billion kroons and the net loss ratio² posted the lowest result since 2004 at 57%. The insurance risk of nonlife insurance companies remained relatively low owing to the positive impact of lower traffic load and weather conditions. However, owing to difficult winter weather, the first-quarter claims exceeded the year-end figures, and the loss ratio is expected to increase as a result of price pressures and higher loss rates.

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

<sup>&</sup>lt;sup>2</sup> Net loss ratio = (the occurred net claims from reinsurance + changes in other technical provisions from reinsurance) / (earned net premiums from reinsurance + other technical net incomes on reinsurance).

## IV SYSTEMICALLY IMPORTANT PAYMENT AND SETTLEMENT SYSTEMS

### OPERATION OF PAYMENT AND SETTLEMENT SYSTEMS

From October 2009 until March 2010, around 99,000 payments a day were settled in the interbank payment and settlement systems managed by Eesti Pank – the ESTA, EP RTGS and TARGET2-Eesti – at a total value of 11.5 billion kroons. The majority of payments were settled in the ESTA, but the settlement value of these payments was smaller than that of other settlement systems (see Table 1).

On average, 98,800 payments a day were settled through the **ESTA** over the past six months. The average daily value of ESTA payments reached 1.6 billion kroons.

The statistics of payments reflect economic developments. The number of payments processed in the ESTA has not recovered fully, remaining at the level of 2008 (see Figure 1). The value of payments settled in the ESTA has slightly increased; compared to six months ago the average daily turnover has grown by 7% (see Figure 2). The average payments settled in the ESTA has also started to increase, standing at 16,100 kroons at the end of the first quarter of 2010.

In the last six months, around 192 payments were settled daily in the **EP RTGS** with the average value of 5.1 billion kroons. The number of EP RTGS payment has not changed with the last six months and remains at the level of 2009 (see Figure 1). The average settlement value of the EP RTGS, however, continues to decrease, having dropped 15% since six months ago (see

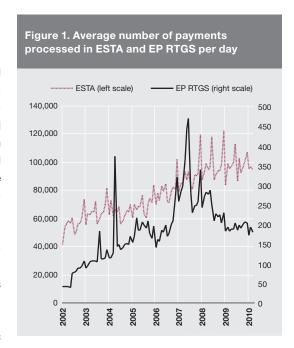


Figure 2). The value shrank the most in February and March 2010.

In terms of payment instruments, the number and settlement value of EP RTGS payments has not changed. The majority of payments of the past six months were express payments initiated by bank customers (70%), an average payment being 4.5 million kroons. The majority of the settlement value consisted of transactions related to the collateral account of the ESTA, and also currency and cash transactions with Eesti Pank.

Sufficient liquidity for performing payments in the settlement systems of Eesti Pank is guaranteed by the high reserve requirement (15% of the total liabilities of a bank). In the past six months, the average reserve requirement for banks operating in Estonia was 43 billion kroons, of which

Table 1. Use of settlement systems of Eesti Pank

Settlement system	% of total number of payments	% of total value of payments		
ESTA	99.7	13.6		
EP RTGS	0.2	43.9		
TARGET2-Eesti	0.1	42.5		

48% was met with liquid external assets. The Estonian kroon accounts in Eesti Pank exceed the settlement value of ESTA and EP RTGS payments by approximately four times.

In the last six months, around 73 payments were settled daily in the **TARGET2-Eesti** with the average value of 313 million euro (4.9 billion kroons). The average daily number of TARGET2-Eesti payments has slightly increased over the last six months, while the average daily value has dropped by 9%.

## AVAILABILITY AND FAILURES 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. The last more serious failure occurred in November 2009, when a communications interruption in Eesti Pank stopped ESTA's operability for 30 minutes. In the first quarter of 2010, the availability of all three systems was 100% (see Figure 3).

