

III

BANKING SECTOR STABILITY AND RISKS

Strategic Development in the Banking Market

After more than three years without change new banks have again entered Estonia's financial market. On 10 March 2004 Parex Banka, whose interests lie in financing transit-related business activities in Estonia was issued a permit to set up a branch. In April 2004 Vereins- und Westbank AG submitted an application to open a subsidiary so as to offer project and trade financing services to medium-sized and large companies.

Nevertheless, at the end of 2003 and at the beginning of 2004 market development was mostly affected by the same players, meanwhile competition was the toughest in the housing loan market (see Figure 3.1). In 2003, mainly medium-sized banks that offered particularly favourable housing loan interest rates gained market share. A growth advantage of such banks was also the hitherto small size of the portfolio and the large share of new loan contracts, which is why they were not particularly restricted by a future decline in earnings arising from refinancing older loans.

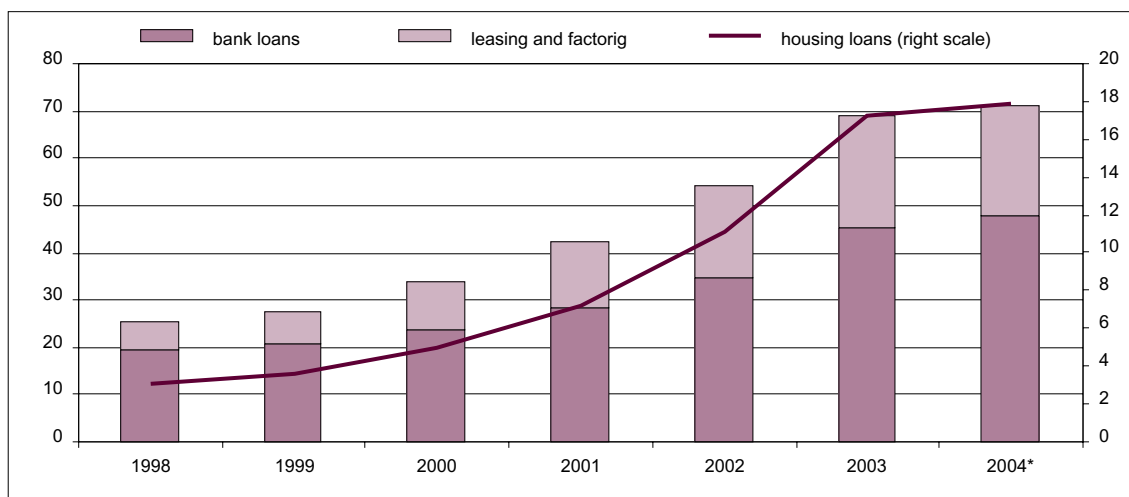


Figure 3.1. Loan and leasing portfolio including housing loans (EEK billions)

* data for Q1

Latvian, Lithuanian, and Russian financial services markets assumed an even more important role for Estonian banks. Besides Hansabank, also Ühispank, which has announced that it is going to re-launch leasing operations in St. Petersburg, is heading for the Russian market. Expansion enables large banks to secure their sustained growth on account of the large scale of operation and development of business areas offering better profitability.

On the group level the investment operations that are not restricted to limited domestic savings but involve mediation of the growing number of EU-expansion-related foreign investments support income from service fees and are assuming an increasingly more important role. In 2003, SEB embarked on intermediating investments to the Baltic region via Ühispank and is planning to establish an Eastern European competency centre in Estonia in the future.

Capital Adequacy

The solo capital adequacy indicator fell to 14% in March (the primary equity adequacy declined to 13.2%), which is the lowest level in the past three years (see Figure 3.2). Besides the 17% per cent year-on-year rise in risk positions, also dividends paid out in the first quarter affected the decline in capital adequacy. The share of trading portfolio and currency risks in banks' risk profile dropped and in March accounted for less than 8% of all weighted positions open to risks (see Figure 3.3). Meanwhile the minimum capital requirement for covering foreign currency risk amounted to 160 million kroons or just 0.14% of all positions open to risk.

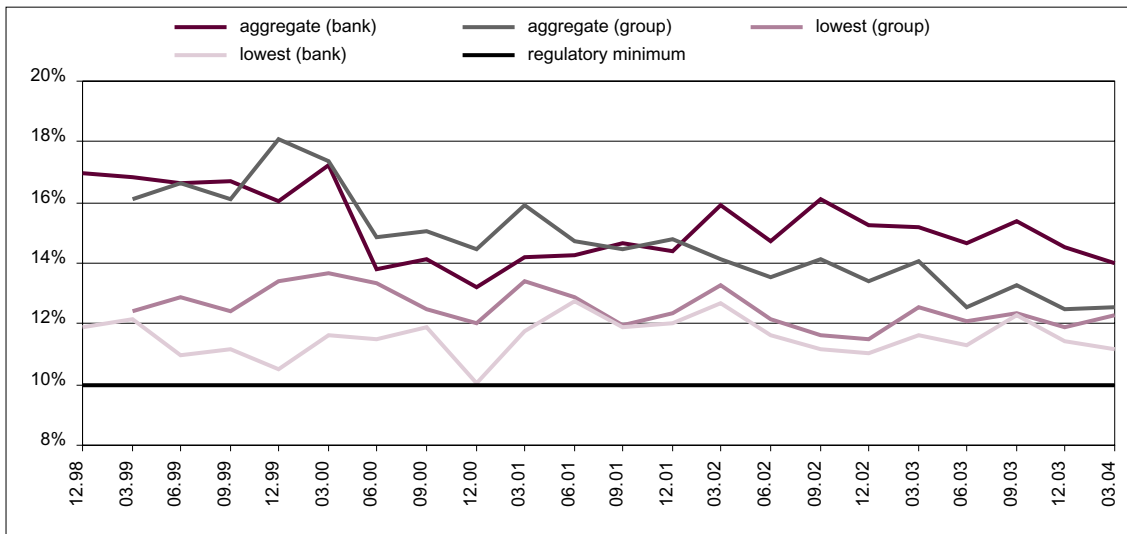


Figure 3.2. Capital adequacy

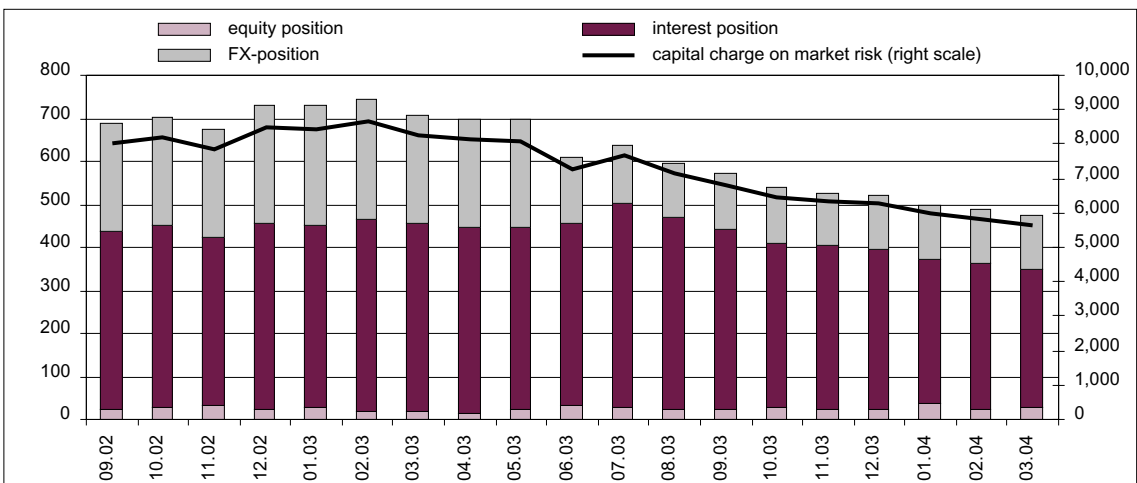


Figure 3.3. Exposures to market risk (EEK millions; left scale)

Consolidated capital adequacy remained on the level comparable to the end-of-year indicator – 12.55% (the respective figure for primary equity stood at 11.5%) in the first quarter. Growth in positions open to risk has accelerated and in the first quarter the year-on-year rate was 32%. Such robust growth was compensated by a large profit recorded as own resources.

Annual profits of all larger banks had been accounted as own resources by March, therefore adequacy should decline in the second quarter in line with the rate of growth in risk assets. Meanwhile a slowdown in the decline in the spread (possible drop in the price of external financing) provides good opportunities for boosting profitability, which will enable to bolster owners' equity in the second half of 2004. In the medium term the banks are interested in reducing capital costs due to the competitive pressure from the European Union.

Asset Quality

The continually lower risk level of the loan portfolio is also reflected in the banks' statistics of **overdue loans**. The ratio of loans overdue more than 60 days measured against total loans fell from the average of 1.4% in 2003 to 0.9% in the first quarter of 2004. The ratio of overdue housing loans, which account for a major share of the loan portfolio (32%), was just 0.66%. The solvency of households has been underpinned by low interest rates and slow inflation, which boosts disposable income.

Besides overall improvement in loan quality arising from a structural change, the share of overdue claims fell fast also in higher-risk loan segments, particularly regarding loans related to **commercial real estate and trade as well as consumer loans** (see Figure 3.4). Regardless of the weak external environment the quality of export-oriented sector loans improved, supported by the transportation sector. The share of long-term (more than 60 days) overdue loans actually rose slightly in the export-oriented sector. While in 2003 the share of overdue loans was clearly the largest in the consumer loans sector, now the ratio has declined to the same level with industrial sector credit – to 3.85% and 3.83% respectively.

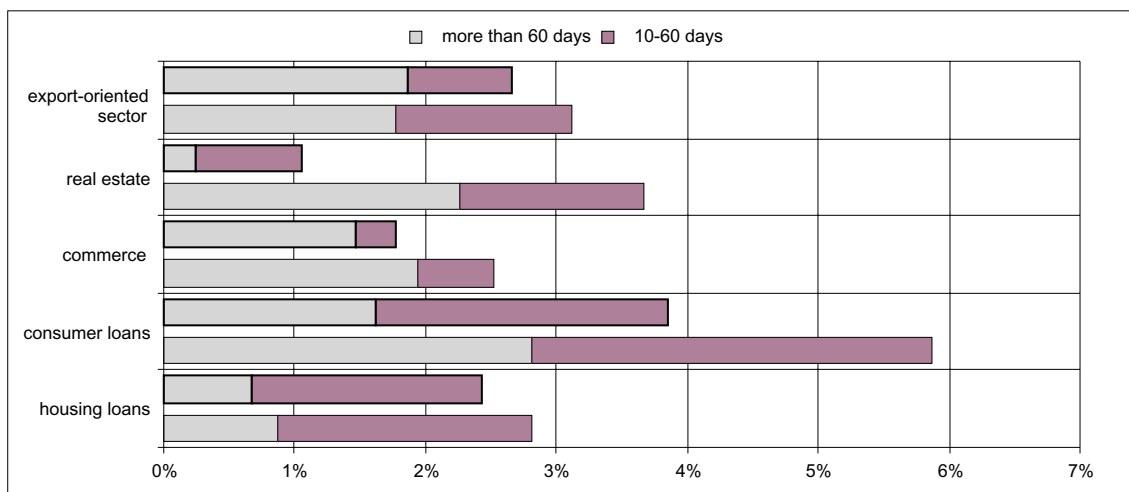


Figure 3.4. Overdue loans in 2004* (upper) and 2003 (lower) by economic sectors

* 3-month average

Due to fast growth in the **housing loans** portfolio the volume of loans overdue more than 60 days was almost as large as that of business loans in the first quarter, amounting to approximately 100 million kroons (see Figure 3.5). Overdue **consumer loans** remained at 40 million kroons, regardless of the high growth in the loan portfolio. Regarding **business credit**, the volume of overdue loans declined most in the real estate sector arising from clearing up payment difficulties of a few large real estate projects. In the **export-oriented sector** the development was controversial: in transportation overdue loans were minimal, meanwhile the balance of overdue loans in the industrial sector has increased since the second quarter of 2003 and amounted to 140 million kroons in the first quarter of 2004.

The decline in the share and aggregate volume of overdue loans indicates that banks have started to monitor

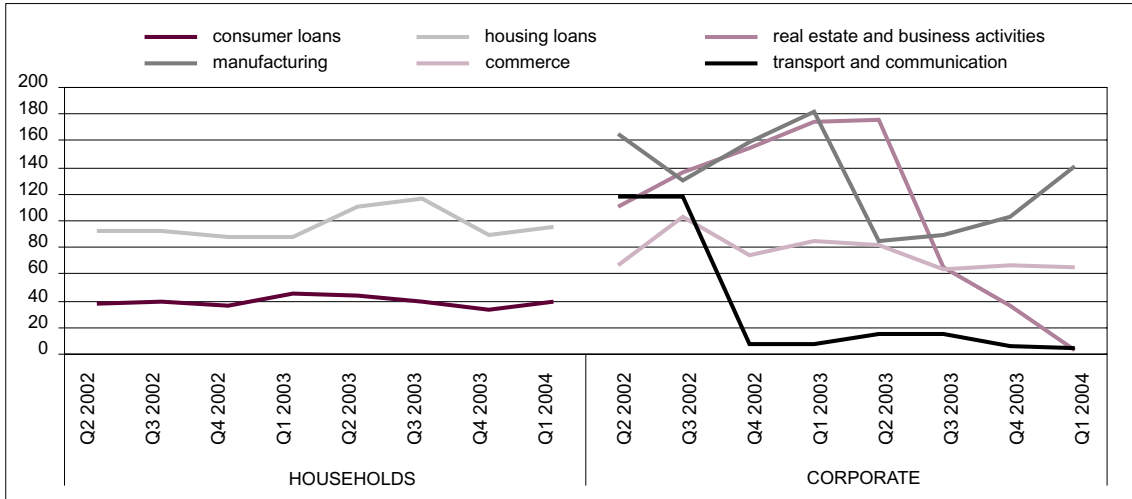


Figure 3.5. Dynamics of overdue loans (over 60 days) by loan sectors (EEK millions)

loans more efficiently, paying attention to potential problems as early as possible. Since it is inefficient for the banks to hold on to overdue claims, they try to restructure such claims as fast as possible.

The volume of loan provisions fell in the first half of 2003, above all due to small loan losses. In the third quarter, net loan write-down expenses were particularly small, which is why the balance of provisions shrank by more than 50 million kroons (see Figure 3.6). Since the last quarter of 2003 the quarterly volume of loan losses has been limited to some 100 million kroons. Comparatively small loan write-offs from the balance sheet have not contributed to the decline in the balance of provisions. Meanwhile the year 2003 differed from previous years for its modest volume of cleaning up the balance sheet at the end of the year (slightly above 60 million kroons). At the end of 2001 the respective figure was 140 million and at the end of 2002 it stood at 260 million kroons.

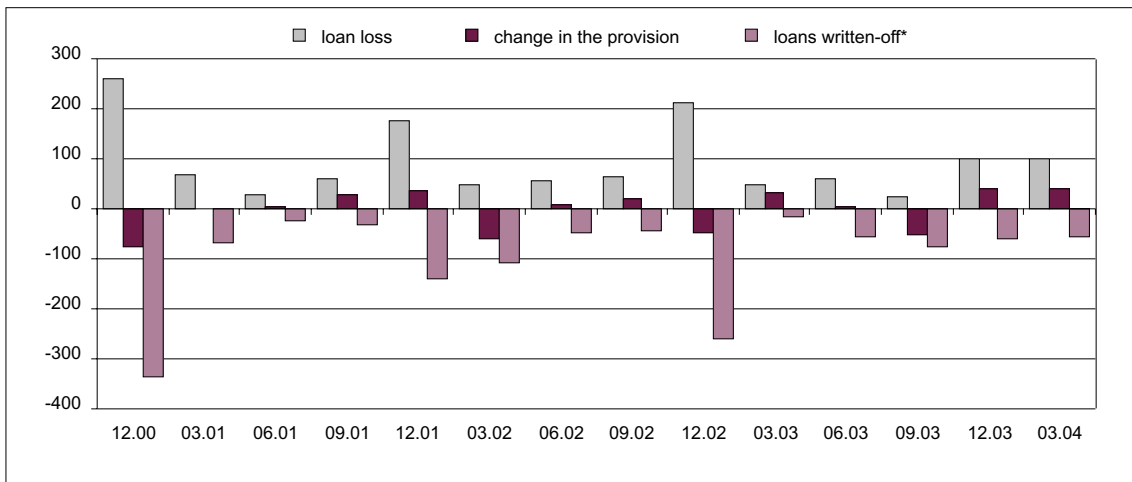


Figure 3.6. Structure and dynamics of doubtful loans (EEK millions)

* including revaluations

Compared to the end of 2003, losses from leasing facilities were somewhat smaller at the end of the first quarter of 2004 while banks' loan losses increased. The aggregate loan loss remained at the level as it had been at the end of the year (300 million kroons). Considering the surge in the loan and leasing portfolio, the ratio of losses in the portfolio fell to 0.4% (see Figure 3.7).

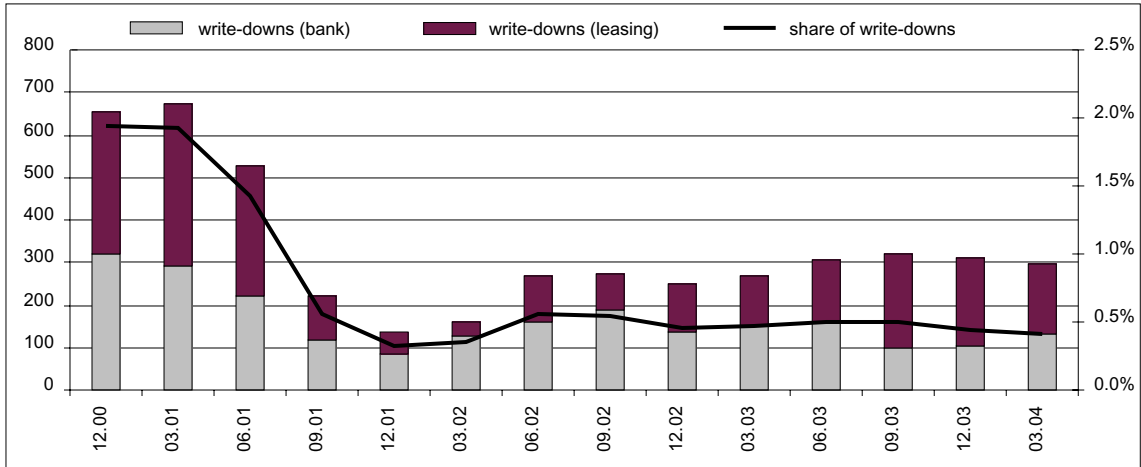


Figure 3.7. Write-downs of loans and leasing (EEK millions, left scale) and their share in the loan and leasing portfolio (%; right scale)

If consolidated loan loss ratios of Estonian and EU25 banks are compared, it becomes evident that the loan quality of Estonia greatly exceeded the EU25 indicator in 2002 since its net claim write-downs were extraordinarily small after serious clean-ups of the balance sheets. In 2003, Estonia's loan loss was comparable to the European indicator, but somewhat higher than the respective national indicators in 2001 and 2002 (see Figure 3.8).

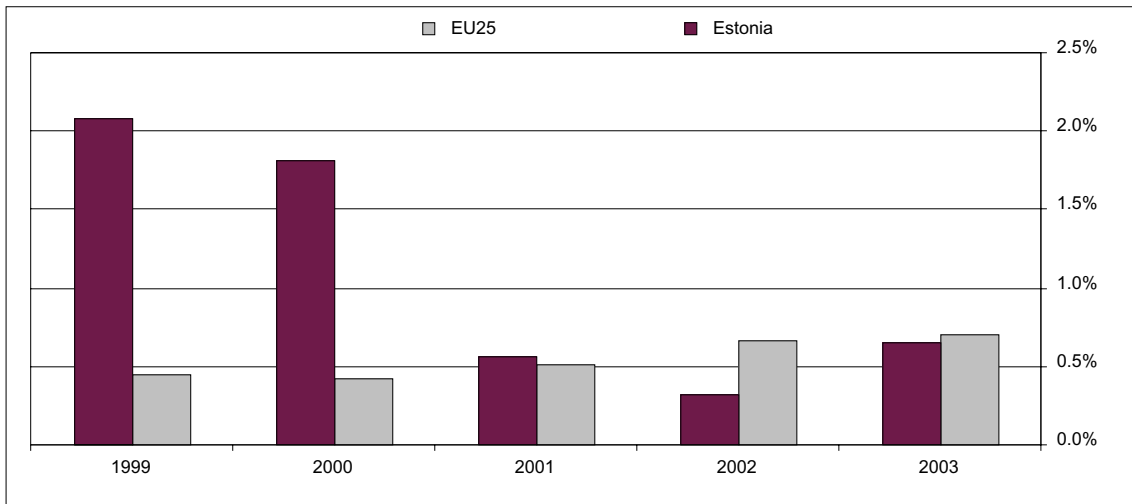


Figure 3.8. Ratio of loan loss to gross loans in Estonia and the EU (%; consolidated)

The median housing loan interest rate fell to 4.6% by the end of March 2004, which marked a decline of just 0.3 percentage points from the second quarter of 2003 (see Figure 3.9). Meanwhile the interest rate on a fourth of the loans with the highest interest rate (and also of higher risk) remained at 5.6%, which reflects the risen risk margin in that loan segment.

Tempestuous growth in housing loans has boosted the share of mortgages in the structure of collateral to two thirds. The share of construction pledges has fallen significantly since more and more building loans have been backed by mortgages (see Figure 3.10). Since the relative importance of securities collateral is also quietly growing, the share of pledges sensitive to fluctuations in the price of underlying assets rose from 69% to 72% in a year. The growing volume of overdraft facilities increased the share of

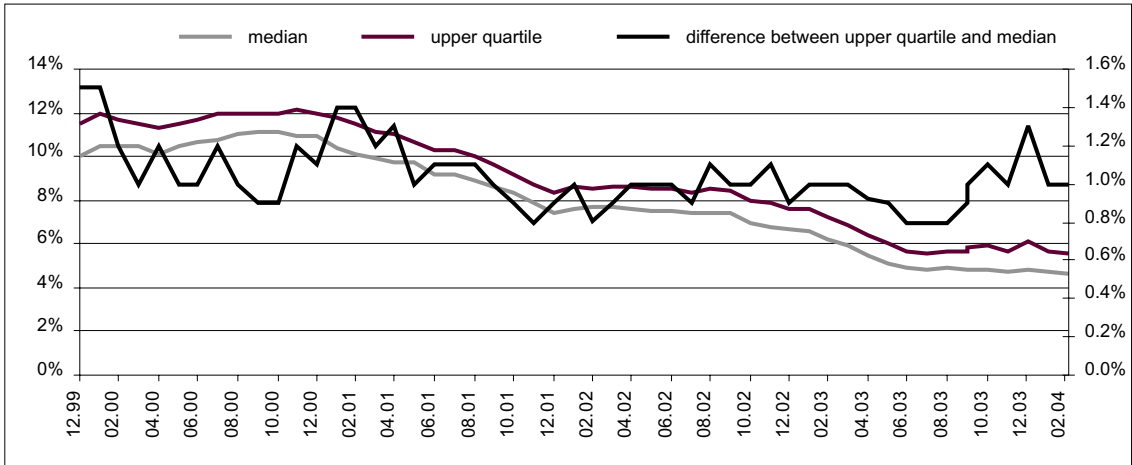


Figure 3.9. Housing loans: median interest, upper quartile (left scale), and difference between upper quartile and median (right scale)

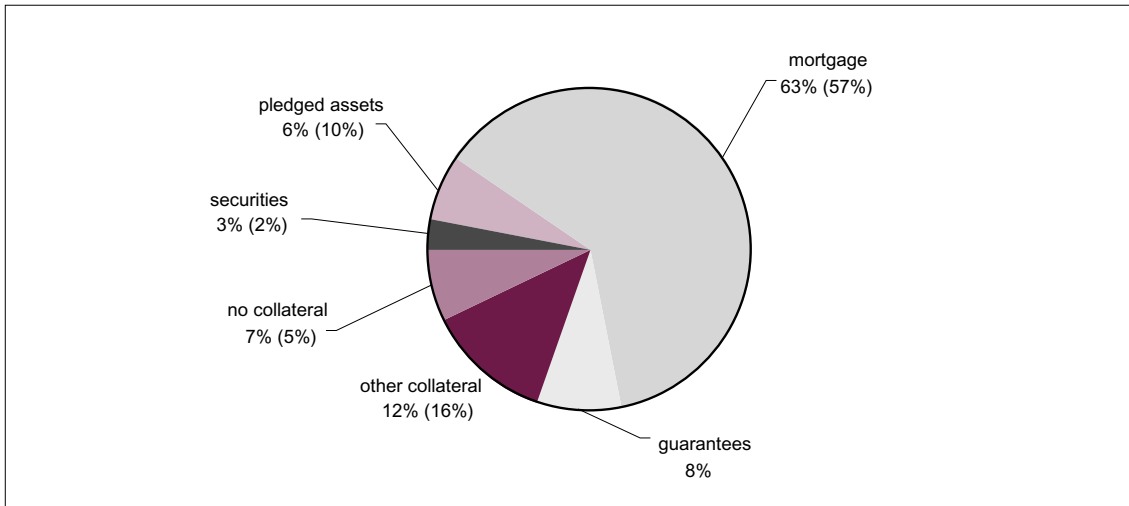


Figure 3.10. Loan collateral at the end of March 2004 (March 2003 indicators in brackets)

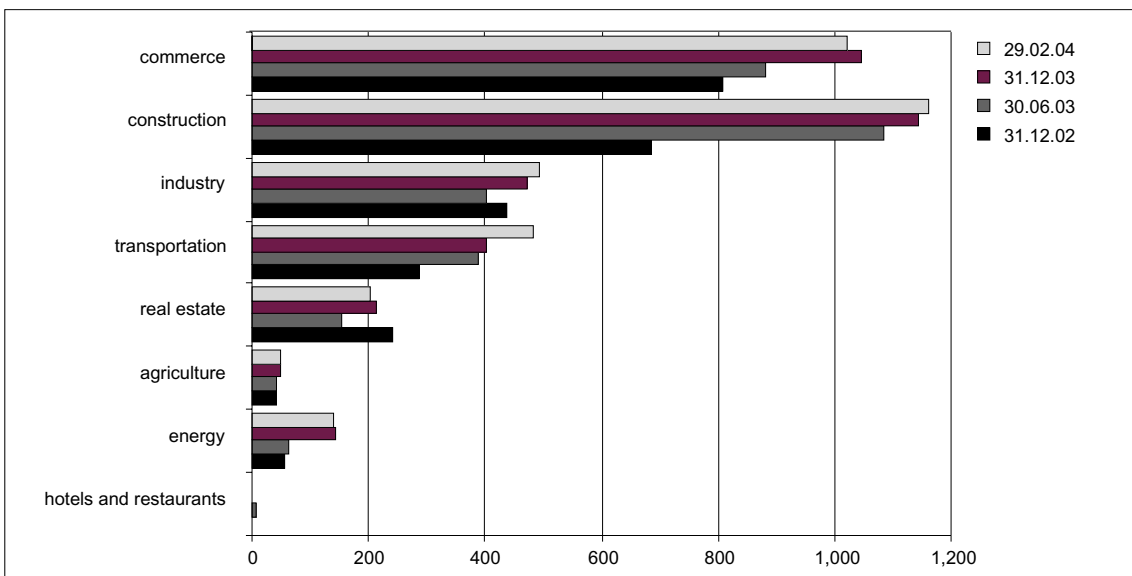


Figure 3.11. Guarantees issued by banks by economic sectors (EEK millions)

unsecured loans. This development was also affected by the fact that banks took charge cards over from leasing companies. In the case of unsecured loans the banks make crediting decisions mainly on the basis of a customer's cash flow history, which can be analysed increasingly in more detail. Besides, many claims in this category are subject to restrictions while the banks have the opportunities to unilaterally limit the resources available to a customer.

The volume of guarantees grew at the same rate as the loans – by an average of 28% in the first quarter of 2004. The amount of guarantees was the largest in construction and commerce (see Figure 3.11). Also the volume of guarantees given to transportation companies surged in February. While the amount of guarantees has grown consistently in construction, a decline was seen in commerce from March to September 2003. After a surge in October the guarantees given to trading companies have remained at around one billion kroons. Meanwhile the volume of guarantees did not increase in the real estate sector.

Efficiency and Profitability

Solo Profitability of Banks

Arising from the fast growth in the loan portfolio and a somewhat stalled decline in margins the banks were able to manage the decline in net interest income. Interest expenses were kept low due to parent bank financing. **In 2003, the banks posted an aggregate net profit of 1.5 billion kroons** (see Figure 3.12). Based on the moving average of four quarters, the 12-month net profit in the first quarter was even 13 million kroons higher. Hence the solo profit of banks is increasing consistently. In the last quarter of the year the profit was boosted mainly by the earnings made on equities in subsidiaries. Due to surging fee incomes the growth in administrative costs arising from disbursing annual bonuses could not affect net profits. The more stable service fee income components are earned on card turnover and administrative fees. Arising from the favourable situation in the securities market, major profits were made on finance transactions in 2003, however, in the past two quarters trading income dropped.

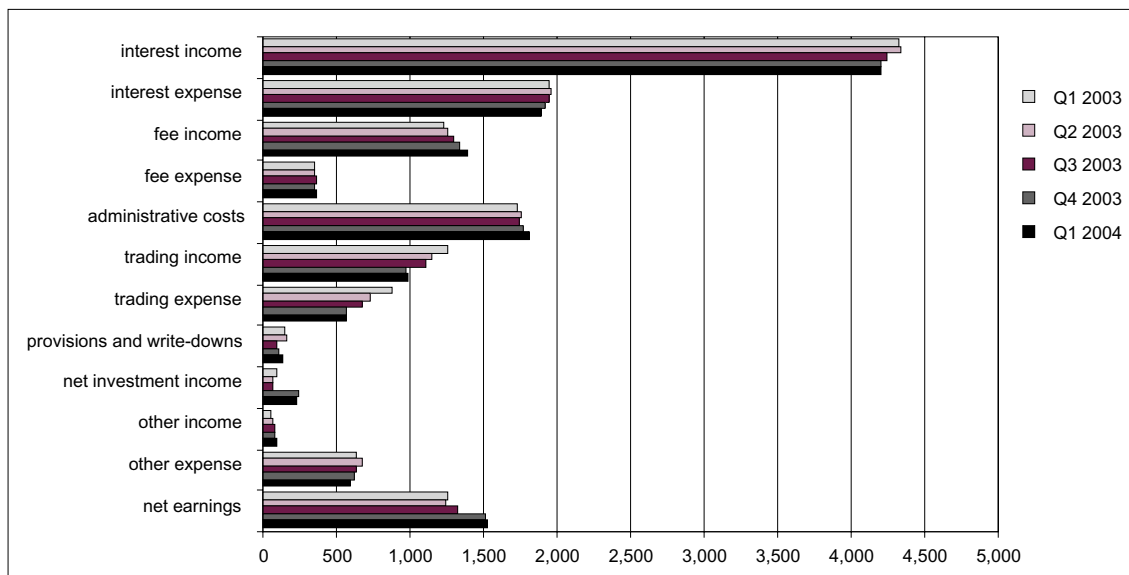


Figure 3.12. Banks' solo annual earnings (4-quarter moving average, EEK millions)

Interest income that had declined in the second half of 2003 showed recovery signs in the first quarter of 2004; meanwhile interest income earned on loans was the highest ever. Besides substantial expansion of the income base, one of the reasons might have been the increasing share of riskier clients,

which translated into higher risk margins. On the other hand, income from liquid assets dropped significantly as a result of a relative decline in the share of liquid assets as well as a change in the structure of liquidity buffers. Since 80% of the interest income is derived from loans, interest income might increase considerably if such development continues. **The particularly aggressive loan policy pursued by the banks, spurred by expectations of an interest rise cycle, might bring about a further decline in interest margins in the short-term.**

Interest expenses dropped moderately on loan instruments and bonds as well as deposits. However, the development was rather diverse in different banks, depending on the method of financing.

Quite expectedly, loan write-downs went up again after an extraordinarily low level in the second half of 2003. Modest growth in loan losses can be expected also in the future, which relates to rising claim volumes as well as a halting decline in the loan-servicing costs of the customers.

Earnings from core activities were the highest in recent years. This was affected by growing income from services fees and trading income as well as lower costs associated with core activities.

Strong profitability boosted a rise in equity and return on assets, even regardless of the surge in assets (see Table 3.1). The cost-income ratio fell to the lowest level ever, indicating strong profitability and successful cost optimisation. The fact that the spread declined to 2.7% highlights the banks' success at maintaining profitability (see Figure 3.13).

Table 3.1. Key profitability indicators (solo)

	2000	2001	2002	Q1 2003	Q2 2003	Q3 2003	2003	Q1 2004
Return on equity	8.04%	20.71%	11.91%	12.67%	12.20%	12.61%	14.15%	13.81%
Return on assets	1.18%	2.66%	1.55%	1.62%	1.54%	1.56%	1.70%	1.63%
Cost-income ratio	72.49%	53.26%	61.58%	58.52%	56.49%	55.78%	53.01%	52.94%
Net interest margin	4.26%	3.89%	3.59%	3.43%	3.32%	3.08%	2.91%	2.78%
Spread	4.05%	3.69%	3.44%	3.28%	3.18%	2.94%	2.78%	2.66%

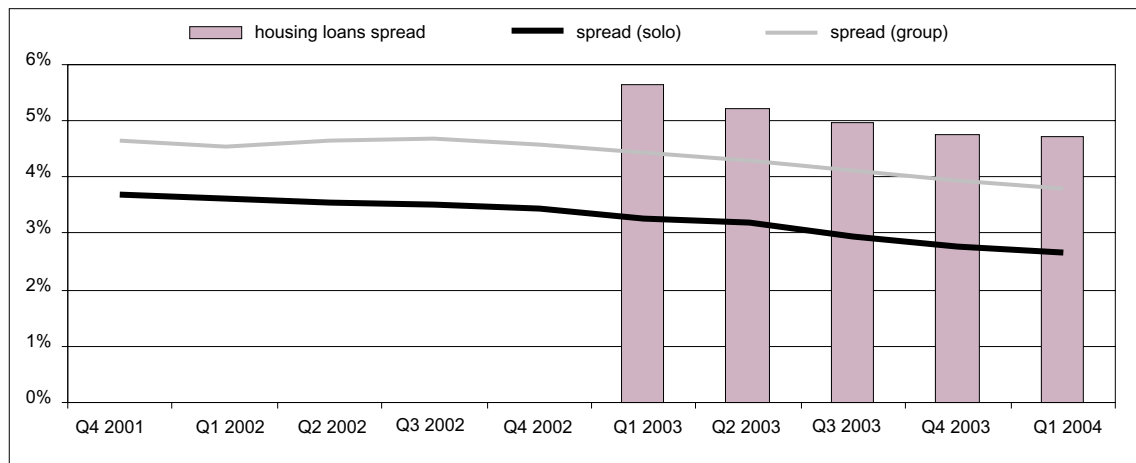


Figure 3.13. Spread (4-quarter moving)

Profitability of Leasing Companies

Also the profit of leasing companies has consistently increased: in 2003 it stood at 756 million kroons and the four-quarter moving average rose to 784 million kroons in the first quarter of 2004 (see Table

3.2). Leasing companies are more dependent on interest income than banks, which is why the development of interest rates is a key profit factor. In the first quarter, net interest income was smaller than at the end of the year, which was the first decline after the Russian crisis. Also service fee income dropped in the first quarter. Despite reduced administrative costs, structural profit was smaller than in previous periods. Another reason for the modest leasing indicators was the integration of leasing activities into banks' business line as a result of which both the size of the portfolio and income have dropped. Compared to the second half of 2003, the loss from writing down claims fell significantly (by 42 million kroons), which in turn boosted net profit.

Table 3.2 Profitability of leasing companies

	Q4 2001	Q1 2002	Q2 2002	Q3 2002	Q4 2002	Q1 2003	Q2 2003	Q3 2003	Q4 2003	Q1 2004
Net interest income	586.4	646.6	712.9	755.0	791.0	827.4	860.9	884.5	904.2	893.1
Net fee income	157.6	167.4	179.3	191.1	205.5	210.7	216.6	202.6	186.5	174.0
Administrative costs	-148.7	-144.5	-152.2	-144.9	-152.8	-161.5	-164.6	-169.55	-152.6	-158.5
STRUCTURAL PROFIT	595.3	669.5	740.1	801.2	843.7	876.6	912.9	917.6	938.1	908.6
Provisions	-49.9	-34.4	-104.4	-87.1	-113.0	-114.7	-149.3	-219.887	-207.761	-165.666
Net trading income	-1.6	-1.5	-7.4	-8.9	3.1	1.7	6.7	7.4	18.7	19.7
Other operating income (net)	25.7	16.5	20.4	17.1	12.6	7.8	1.2	4.8	8.8	21.7
TOTAL NET PROFIT	569.5	650.1	648.7	722.4	746.4	771.4	771.4	710.0	757.9	784.3

Consolidated Profitability

Banking groups ended the year 2003 with a record profit of 2.7 billion kroons. In the first quarter of 2004 returns rose even faster, this is why the cumulative four-quarter moving average rose to 2.9 billion kroons. All profit entries supported profitability, except administrative costs, which rose slightly. The biggest profit boost came from net interest income (see Table 3.3). This was based on increasing interest income, which even a modest growth in interest expenses could not stall. Also income from service fees as well as trading income grew. The expenses that had increased at the end of 2003 due to loan write-downs stabilised.

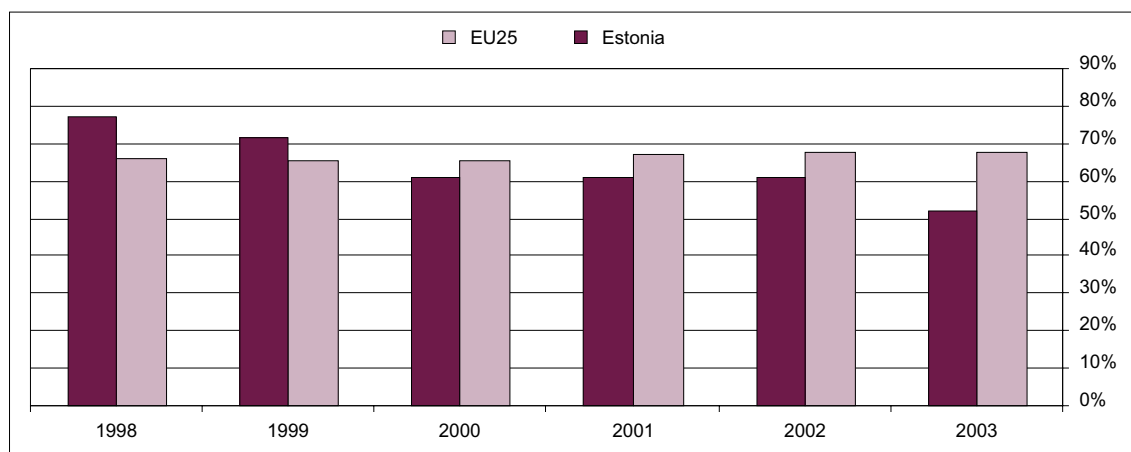
Table 3.3. Key revenue and expenditure items (on group basis)

	Q4 2001	Q1 2002	Q2 2002	Q3 2002	Q4 2002	Q1 2003	Q2 2003	Q3 2003	Q4 2003	Q1 2004
Net interest income	2,840.1	3,030.1	3,198.0	3,309.9	3,386.6	3,444.8	3,475.9	3,476.0	3,484.2	3,539.7
Net fee income	1,013.3	1,089.0	1,145.5	1,219.6	1,310.8	1,374.1	1,466.2	1,520.6	1,568.5	1,626.6
Administrative costs	-1,979.0	-2,230.7	-2,375.3	-2,404.0	-2,442.1	-2,370.0	-2,340.6	-2,332.8	-2,336.7	-2,382.5
STRUCTURAL PROFIT	1,874.4	1,888.4	1,968.2	2,125.5	2,255.4	2,448.9	2,601.6	2,663.8	2,716.0	2,783.8
Provisions	-65.3	-47.3	-57.6	-50.1	-48.3	-125.3	-277.0	-410.1	-439.6	-442.7
Net trading income	530.9	552.5	510.0	484.0	463.0	463.8	539.0	559.6	573.1	619.8
Other operating income net	-35.0	-66.6	-81.0	-93.3	-98.9	-115.4	-102.5	-95.5	-128.2	-115.2
OPERATING PROFIT	2,305.0	2,327.0	2,339.6	2,466.1	2,571.2	2,672.0	2,761.1	2,717.8	2,721.3	2,845.6
Other net earnings	-598.4	-641.5	-738.4	-732.8	-697.3	-646.4	-701.0	-672.4	-672.6	-668.8
TOTAL NET PROFIT	1,706.6	1,685.6	1,601.1	1,733.3	1,873.9	2,025.6	2,060.1	2,045.4	2,048.7	2,176.8

As for return ratios, the pace of decline in interest margins stabilised, which boosted profitability. Extensive loan growth reduced return on assets; meanwhile return on equity was still over 20% (see Table 3.4).

Table 3.4. Key profitability indicators (on group basis)

	Q4 2001	Q4 2002	Q1 2003	Q2 2003	Q3 2003	Q4 2003	Q1 2004
Net interest margin (leasing)	11.01%	9.22%	8.87%	8.47%	8.11%	7.83%	7.48%
Net interest margin (banks)	3.83%	3.99%	3.80%	3.61%	3.31%	3.09%	3.01%
Return on assets	2.18%	2.21%	2.31%	2.30%	2.24%	2.16%	2.21%
Return on equity	20.20%	20.45%	21.26%	21.07%	20.65%	20.10%	20.63%
Spread	4.66%	4.58%	4.43%	4.30%	4.11%	3.94%	3.82%
Cost-income ratio	60.81%	60.69%	57.48%	53.85%	52.47%	51.95%	50.96%

**Figure 3.14. Cost-income ratio (consolidated)**

The consolidated cost-income ratio of Estonian banks has been below the respective European level since 2000 when the impact of the Russian crisis began to decline (see Figure 3.14). Meanwhile in the EU the cost-income ratio has gone up. This may be associated with the problems of German banks. Large profits boosted the indicator of the Estonian banking sector to a very strong level of 51% at the end of 2003.

Background Information

PROFIT SENSITIVITY SCENARIO ANALYSIS

The share of foreign loans in banks' liabilities accompanying extensive credit growth makes such liabilities more interest-rate sensitive than before. Therefore the banking sector is more vulnerable to possible increases in the price of resources. The following scenario analysis provides an overview of profit sensitivity regarding the price of external financing, should loan quality deteriorate.

Deterioration of loan quality has to be assumed in order to establish an understanding of the co-effect of different risks, which is inherent to cyclical development. Banks' indicators from the first quarter of 2004 have been taken as the base scenario of the analysis. A required prerequisite for the risk scenario to materialise is that loan interest rates should remain constant. In reality such a situation might be caused by extremely tough competition as a result of which banks make concessions when choosing customers, which would damage loan quality, meanwhile loan interest rates do not rise and loan growth remains fast because

of low interest rates and competition. Risk scenarios have been drawn up on two different credit risk levels, considering double and triple growth (to 0.8% and 1.2%) in the current risk expense (0.4%). Besides, this simulation also monitors the impact of loan growth on the interest rate sensitivity of the profit regarding external financing since a constant 10% growth in deposits is assumed.

Table 3.5 Profit sensitivity scenario analysis

Scenarios	Risk expense	Loan growth	Growth in deposits	External financing			Net profit
				Share	Interest	Interest growth	
Basis	0.4%	28%	10%	37%	2.6%	-	1,512.43
I	0.8%	15%	10%	42%	7.3%	7.3%	0.00
II		20%		47%	6.4%	6.4%	
III		25%		52%	5.7%	5.7%	
IV		28%		55%	5.3%	5.3%	
V		30%		57%	5.1%	5.1%	
VI		33%		60%	4.8%	4.8%	
I	1.2%	15%	10%	42%	6.2%	6.2%	0.00
II		20%		47%	5.5%	5.5%	
III		25%		52%	4.9%	4.9%	
IV		28%		55%	4.6%	4.6%	
V		30%		57%	4.4%	4.4%	
VI		33%		60%	4.2%	4.2%	

With 0.8% risk expense the critical interest rate threshold of external financing is 5.7%, if annual loan growth is 25%, i.e. a situation in which interest rates would be over 3 percentage points higher than at present. If the price of external financing rises to that level, the total net profit of the banks will be used to cover the liabilities that have become more expensive. If the risk expense is 1.2%, i.e. three times above the current level, a price rise of just 2 percentage points in external financing is sufficient so that external resources required for financing the 25% loan growth would swallow the whole net profit.

Assuming that the base scenario is maintained, i.e. loan growth is 28% and risk expense 0.4%, an interest rate rise by 3.5% would lead banks to the loss threshold, which means that for the banks to fall on the loss threshold, interest rates should be more than 6%. The banks would fall to the level of minimum capital adequacy (10%), if interest rates on external funds rose by 7–8 percentage points to 10–10.5%.

The factors provided in this analysis certainly affect the banks differently, and taking into consideration the maturities of claims and liabilities, the outcome might differ from the simplified treatment above. But such a calculation provides a perception of the sensitivity of profit to credit risk, loan growth, and accompanying external financing.

■ Liquidity

Interest Environment and Foreign Confidence

The expansiveness arising from the external environment has kept the interest rate level low, even though the downward trend has stalled since the second half of 2003 (see Figure 3.15).

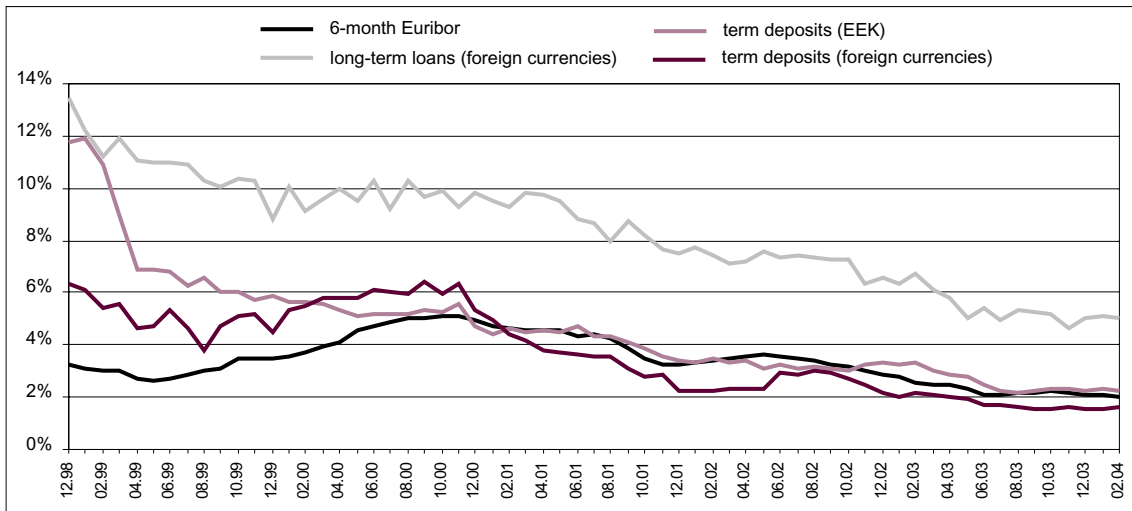


Figure 3.15. Interest rates on deposits and loans

In parallel with the open liquidity environment the ratings of Estonian banks as well as that of the overall economic environment have gone up. In April 2004, Fitch raised Estonia's sovereign rating in reference to the country's accession to the European Union by two notches – to A+. Simultaneously, in the aftermath to raising the short-term rating Fitch also lifted Hansabank's long-term rating in November 2003. Besides EU perspectives, the agency highlighted cooperation with the parent bank. In February 2004 Moody's lifted the long-term deposit rating of Ühispank, a member of the SEB Group, to A1, explaining it by boosting the ratings of the sole owner of the bank, SEB AB, and the important role that the latter plays in managing Ühispank. Hence the evaluation of foreign experts greatly relies on the strong ties of the Estonian banking sector with Nordic parent banks that are increasingly more important financiers of Estonian banks due to sluggish growth in local deposits (see Figure 3.16). Higher ratings are expected to bring external financing risk margins further down, which will contribute to balancing more expensive liabilities arising from the growth in the share of loan-based resource.

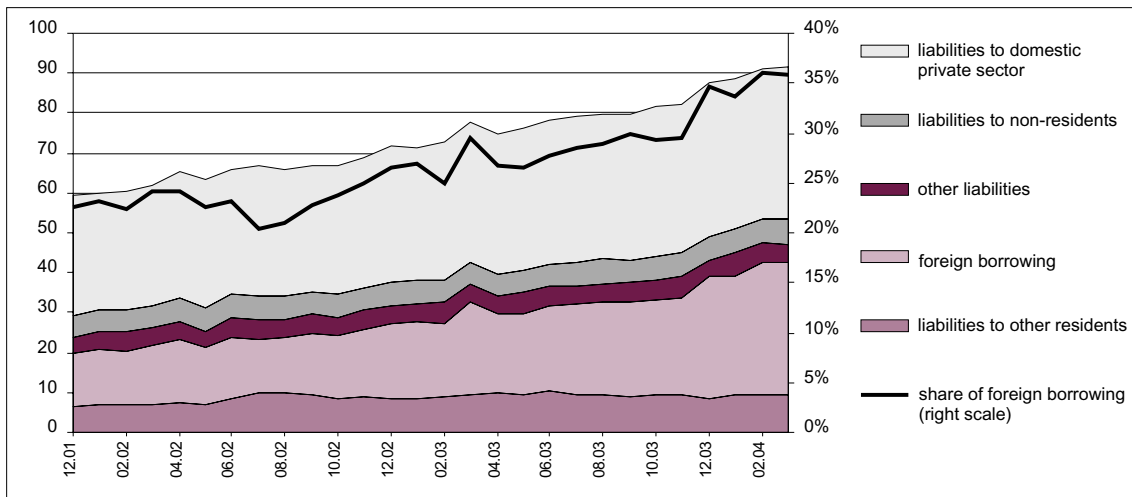


Figure 3.16. Banks' liabilities and share of foreign borrowing (EEK billions)

Financing the Banks

Rapid growth in external borrowing that had lasted for 1.5 years was thrown in full swing in December 2003 in connection with Hansabank's short-term Eurobonds issue. **Average year-on-year growth in external borrowing as a monthly average stood at more than 60%, which boosted the share of external financing to 36% of all liabilities at the beginning of April** (see Figure 3.17).

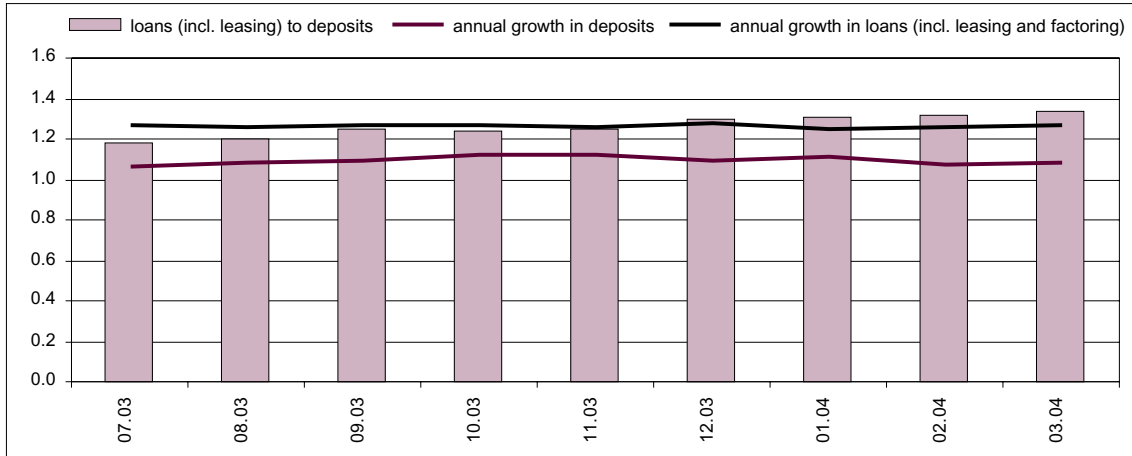


Figure 3.17. Loans to deposits ratio and dynamics

As of March 45% of external loans had been obtained from parent banks. Yet the share of parent banks in financing the banks declined slightly in relation to the above-mentioned bond issue, which strongly boosted market-based resources.

It is evident from the structure of banks' external borrowing that parent banks provide mainly short-term financing based on deposit resources. Meanwhile 90% of the turnover of the resources with a maturity less than a year and inter-bank deposit resources is covered by parent banks. At the same time most long-term and bond-based liabilities are tied to market conditions.

Since the choice of instruments that parent banks use for financing their Estonian subsidiaries differs significantly from market-based financing, it is difficult to compare their prices. But short-term, mainly deposits-based financing excludes risks for the parent bank that maintains the option of either refinancing the claims or restricting financing¹.

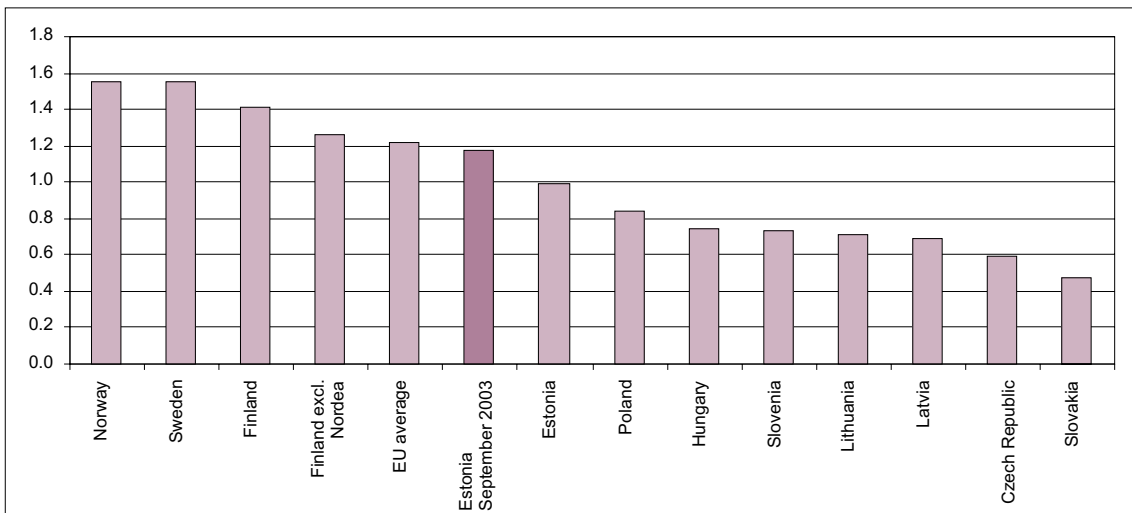


Figure 3.18. Loans to deposits ratio in Estonia and other EU countries in 2002

Source: BankScope

Due to Hansabank's long-term Eurobonds issue in March 2003 and a modest increase in deposits the share of short-term liabilities dropped significantly. Even though a short-term bond issue carried out in December

¹ A financing scheme based on parent bank's short-term resource enables to optimise costs.

temporarily suspended the trend, 57% of external loans were still long-term at the end of the first quarter of 2004. At the end of March liquid foreign assets covered short-term external liabilities by 105%, however, prior to the short-term bond issue at the end of the year the respective ratio had been over 150%. Also in the longer term the indicator in March was one of the lowest.

Borrowing (incl. leasing) has outpaced deposits already since 2002, and during the past two years the prevalence of loans has surged (see Figure 3.18). Tumultuous growth in loans at the beginning of the year accompanied by a simultaneous reduction in deposits translated into a particularly sharp difference. More than 3.5 billion kroons attracted from external sources in December gave another boost to loan growth that had stabilised at the second half of the year. At the end of March loans outweighed deposits by as much as a third.

If we compare the structure of financing Estonian banks to the EU average, one can still see a large share of customer deposits, regardless of loan-based financing that has significantly grown in recent times (see Figure 3.19). While customers' assets account for more than 60% of the liabilities engaged by Estonian banks, the EU the respective figure stands at just 50%. The difference is the biggest in the share of inter-bank financing. While in the EU inter-bank resources account for as much as a quarter of total financing, in Estonia the respective figure is just one tenth.

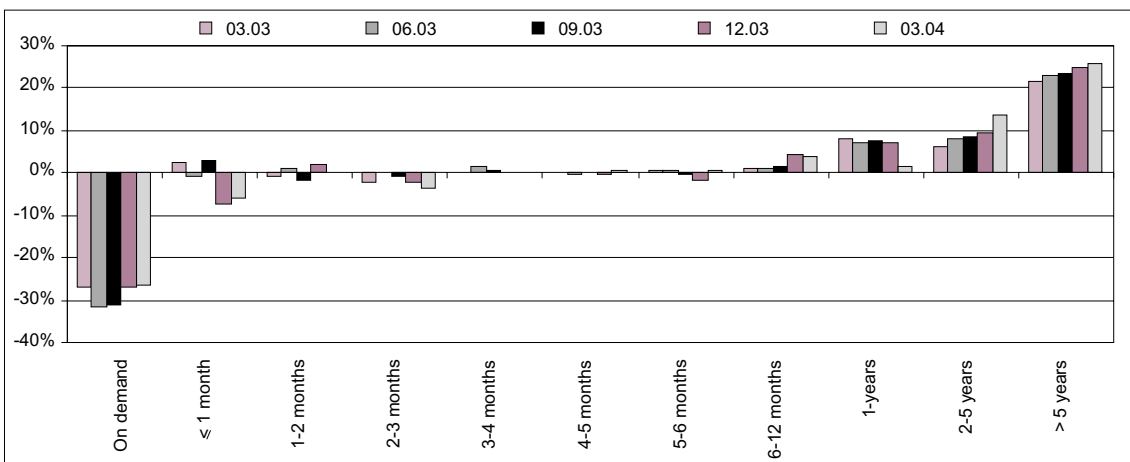


Figure 3.19. Banks' net liquidity position by remaining maturities (% of assets)

Liquid Assets

Following a temporary liquidity surge in relation to Hansabank's long-term bond issue in March 2003 the share of broad liquidity aggregate (claims with maturities less than a month) in current liabilities has consistently declined. While in 2003 the liquidity ratio stood at 53.5%, the average of the first three months in 2004 was 44.8%. Besides a decline in the share of short-term claims also bigger fluctuations in current liabilities, which are significantly affected by the banks' financing schemes changing from being deposit-based to being more loan-based, are a reason behind such development. After Hansabank's short-term bond issue in December the aggregate liquidity ratio fell by 3 percentage points.

Besides, the structure of liquid assets has become significantly more concentrated regarding instruments. More than before, the liquidity reserve is based on foreign deposits and reverse repos, whose share has increased above all at the expense of liquid bonds. Also the share of other short-term assets that do not meet the liquidity portfolio criteria has dropped. Hence the share of highest-liquidity assets has increased; meanwhile the broad liquidity aggregate has declined. The movement towards higher-liquidity instruments

indicates the wish of the banks to optimise liquidity management through the use of more operative instruments, which is necessary for balancing the increasingly more volatile liabilities.

The net positions of liabilities and claims pursue the trend of lengthening regarding assets with maturities over 5 years (see Figure 3.20). This is related to the robust growth in the portfolio of long-term loans, above all due to housing loans. Meanwhile on the liabilities side the negative net position has sooner shortened, again mainly because of the short-term bond issue held in December, as a result of which the share of demand deposits has declined while that of short-term debt obligations has increased. Of liabilities maturing in less than 3 months only approximately 40% have been covered with assets with the same maturities; meanwhile liabilities with maturities over 5 years have been covered with assets by more than 12 times.

Background Information

LIQUIDITY RISK AND MANAGEMENT

Liquidity has been defined as a **bank's ability to finance asset growth and meet expiring liabilities**. Liquidity plays an important role not only for depositors-investors who want to be sure of the bank's ability to disburse money in due time, but also to borrowers who need consistent financing or extension of current financing.

Liquidity management is one of the most important activities of a bank, which also has a **systemic dimension** since liquidity problems in one bank may hurt the whole financial system. Concerning the latter, the role of the inter-bank money market and its weight in the system is particularly important. In Estonia, mutual positions of local banks are marginal; meanwhile more than 99% of inter-bank claims and liability positions are related to foreign banks. An overwhelming part of these are carried by the Nordic parent banks.

Also on a global scale banks have become more **dependant on massive interest-sensitive resource flows** instead of deposits. Such a trend makes liquidity management particularly important for banks. In Estonia, too, the relative importance of financing based on borrowing from foreign banks has grown. A string of studies has concluded that notably short-term institutional loan positions condition the openness of banks to market risks and confidence crises. This phenomenon has been regarded as one on the principal factors behind the Asian crisis.

Liquidity Management and Regulation

There is no universal or best approach to liquidity regulation. Most frequently it is being regulated with the **liquidity ratio** whose computation methods differ in various countries (see Table 3.6). In theory, the ratio of short-term assets to short-term liabilities, which has to guarantee that the latter are at least covered (≥ 1), is viewed as liquidity ratio. Since banks issue mainly long-term loans and hold short-term liabilities by way of deposits, in order to balance the liquidity ratio the banks must also hold liquid assets and attract long-term resources through loans. Mainly cash, reserves placed with the central bank, bonds issued by the central bank and central government, deposits with maturities up to a month, in some countries also money market fund units, marketable bonds and partly also other claims with outstanding maturities below one month are treated as liquid assets. Besides the liquidity ratio, some countries (Korea, Indonesia) have imposed foreign debt restrictions on banks or encouraged credit lines with international banks (Hong Kong, Indonesia, Argentina, Poland).

Table 3.6. Regulatory liquidity requirements per countries

Countries	Minimum liquidity
Estonia, Spain, the Netherlands, Canada, Greece, Cyprus, Poland, Portugal, Sweden, Hungary, the United States	none
Iceland, the United Kingdom, Czech Republic	case-by-case decision
Bulgaria	8% of deposits
Croatia	30.5% of deposits and borrowed resources (incl. bonds)
Denmark	15% of debt obligations and 10% of the total volume of debt obligations and guarantees
Finland	10% of bank's liabilities, excl. debt to government and central bank
Germany	weighted short-term assets/weighted short-term liabilities ≥ 1
France	liabilities due in less than 1 month + owners' equity maturing \leq liquid assets and cash
Ireland	25% of total debt of banks
Lithuania, Latvia, Malta	30% of deposits
Liechtenstein	33% of short-term liabilities
Luxembourg	30% of current liabilities
Slovakia	5% of deposits

Pivotal in managing liquidity in banks is the **liquidity gap**, i.e. the difference between the assets to be financed in the future and the disposable resources. The positive difference indicates liquidity deficit² while the opposite shows liquidity surplus. In case of deficit a bank's interest-sensitive liabilities increase while with surplus interest-sensitive assets grow. During a certain period a bank's assets and liabilities management may be knowingly targeted at maintaining the liquidity gap. For example, in the conditions of falling interest rates it is useful for a bank to maintain a certain liquidity deficit, while in anticipation of a rise in interest rates it is useful to maintain a liquidity surplus. Commonly banks strive to optimise liquidity reserves since excess financing involves interest risks. Interest income earned on short-term investments is mostly volatile (also because of refinancing), and if it differs from the interest paid on borrowed resources, it may result in significant interest risk. Liquidity deficit meanwhile involves a threat that a bank is forced to attract vital resources at a higher price if necessary.

To a certain extent the objective of securing liquidity³ is also met by the minimum reserve requirement, which is 2% of the reserve base according to the European Central Bank standards. The minimum reserve requirements in the accession countries are considerably higher, meanwhile Estonia's reserve requirement ratio is the highest also among the latter (see Table 3.7).

Table 3.7. Minimum reserve ratios in new EU Member States

Country	Minimum reserve ratio
Estonia	13%
Cyprus	7%
Lithuania	6%
Latvia	3%
Malta	4%
Slovakia	3%
Czech Republic	4%
Hungary	5%

² Long-term or anticipated future disbursements are not currently covered by liquid resources.

³ Meanwhile constraints must still be considered. E.g. upon meeting the minimum reserve requirement the daily minimum level in Estonia must not fall under 40% of the total volume of the claim.

In order to promote efficient liquidity management, the Basel Committee on Banking Supervision has worked out fourteen advisory principles (BIS, 2000):

1. A bank must observe daily liquidity management strategy.
2. Liquidity management strategies and policies must be approved on the highest management level in a bank.
3. The management must participate in carrying out liquidity management procedures.
4. A bank must have an adequate system of information, surveillance, control and reporting of liquidity management.
5. A bank must have a system of gauging and surveillance of current compliance with the net liquidity requirement.
6. Liquidity analysis must involve evaluation of stress scenarios.
7. In the course of liquidity management the prerequisites of cash-flow movement must be checked sufficiently frequently.
8. Sufficient attention must be paid to market access and diversification of liabilities.
9. A bank must have internal operating guidelines for liquidity crisis situations.
10. A bank must have in place a system of gauging, surveillance, and control of the liquidity positions in different currencies.
11. Uncovered net cash-flow positions in different currencies must be regularly re-evaluated.
12. A bank must have internal liquidity risk management controls.
13. A bank must release information about liquidity.
14. Banking supervision authority must provide an assessment of liquidity management in banks.