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CONTENTS

SUMMARY	5
Macroeconomic and External Environment	5
Corporate Financial Behaviour and Related Risks	5
Financial Behaviour of Households and Related Risks	5
Banking Sector	6
Securities Market and Other Financial Intermediaries	6
Payment Systems	7
Summary and Financial Stability Risks	7
I GLOBAL ECONOMY AND ESTONIAN ECONOMY	9
External Environment	9
Global Economic Cycle	9
International Financial Markets	11
Estonian Economy and Macroeconomic Risks	13
Economic Growth, External Balance and Inflation	13
Corporate Business Situation	15
Confidence	15
New Companies and Bankruptcies	16
Industrial Sales	16
Corporate Profitability	17
Economic Situation of Households	18
Labour Market	18
Wages	18
Consumer Confidence	19
Structure of Financial Intermediation and Financial Deepening	20
II FINANCIAL BEHAVIOUR OF COMPANIES AND HOUSEHOLDS AND THEIR RISKS	22
Companies	22
Financial Position and Saving	22
Corporate Debt	22
Debt Intermediated by Domestic Financial Sector	24
Households	25
Financial Position and Saving	25
Household Debt and Loan-Servicing Ability	27
Level and Growth of Debt	27
Housing Loans	28
BACKGROUND INFORMATION	
Factors Influencing the Growth of Deposits in Estonia	34
Structure and Development of Estonian Housing Market	37
III BANKING SECTOR STABILITY AND RISKS	43
Strategic Development in the Banking Market	43
Quality of Assets	44
Capital Adequacy	47
Liquidity	49
Funding of Banks	49
Liquid Assets	50
Efficiency and Profitability	51
Efficiency and Profitability of Banks on a Solo Basis	51
Efficiency and Profitability of Banks and Banking Groups on a Consolidated Basis	53

IV SECURITIES AND MONEY MARKET	54
Money Market	54
<i>BACKGROUND INFORMATION</i>	
Structure of the Estonian Kroon Money Market	56
Bond Market	58
Stock Market	60
V OTHER FINANCIAL MARKETS	64
Investment Funds	64
Pension Funds and Insurance	66
Pension Fund Assets	66
Yield of Pension Funds	67
Insurance Companies	68
Institutional Changes	68
Life Insurance	68
Non-life Insurance	69
VI PAYMENT SYSTEMS	71
Settlement System of Interbank Payments	71
Payment Intermediation	72
Payment Environment	72
Payments via Credit Institutions	73
Use of Payments Cards	75
Assessment by the Overseer of Payment Systems	76
<i>BACKGROUND INFORMATION</i>	
Performance of the Role of Payment Systems Oversight in Different Countries	77

SUMMARY

■ Macroeconomic and External Environment

Being a member of the European Union for a year and a half has given an additional boost to Estonian economic development. Regardless of the deceleration of economic activity in major economic areas in the second half of 2004, the Estonian corporate sector stands out for **good export figures, which supported the acceleration of economic growth and helped improve external balance**. The relatively strong private consumption growth and the increase in (real estate) investments reflect the continuation of favourable demand conditions also for local providers.

Growing sales figures in the first half of 2005 entailed an **increase in corporate profitability**. Profit was above average in the rapidly developing real estate sector. Similarly to positive corporate future expectations the household confidence has improved as well. However, this was hampered by higher price increase expectations evoked by the fuel price rises of 2005. Labour market trends, rapidly growing household incomes and increased savings exerted a positive impact on economic growth.

The domestic financial sector had a major role in financing fast economic growth, being able to intermediate resources to enterprises and households on very favourable terms and conditions due to the continuously low interest rates of the euro area. As the economic outlook for the euro area is expected to improve in 2006, the **euro area interest rates will probably also increase**, inevitably affecting the interest payments of Estonian companies and households.

■ Corporate Financial Behaviour and Related Risks

An increase in corporate profitability revealed in the faster growth of financial assets. A positive future outlook was also reflected in the increased investment demand, which boosted debt growth. The **growth rate of the corporate debt** started to accelerate in 2005, reaching 22% by the middle of the year. A positive disposition on the real estate market drove the debt growth, as the demand for new commercial and residential property has notably improved the financing portfolios of mainly domestic financial intermediaries. Meanwhile, the share of the external debt kept decreasing. In the near future, the latest trends are expected to continue, although an anticipated increase in interest rates may start to inhibit the positive impact of increased demand on corporate profit margins.

■ Financial Behaviour of Households and Related Risks

In the spring and summer months of 2005, the **growth in household debt** picked up speed again, aggravating the net position of financial assets and liabilities even further. This was somewhat alleviated by the **improved savings rate** of households – the deposit growth rate reached the highest level of the past four years in September 2005. In addition to bank deposits also pension savings have increased significantly, their ratio to deposits rising to 18% by the end of September.

The **housing loan market** remained very active throughout the whole summer period. By the end of September, the growth rate of housing loans reached its highest level in recent years (57%), owing to new clients as well as earlier loan customers. Although the number of households taking housing loans has increased considerably over the last year, reaching 16% of the total number of households, it is still not a high indicator in international comparison. Thus, in the long run the housing loan market has growth potential. In a shorter perspective, loan supply can be affected by banks' active sales campaigns, though the loan intentions of households have not changed substantially compared to the previous year.

In the next years, housing loan demand may be constrained by high real estate prices. During the past two years prices of residential property in Estonia have increased much faster than incomes, causing an **overpricing of housing**. Households regard real estate investments as an alternative form of saving and the share of speculative real estate investments has increased, i.e. housing is increasingly purchased for speculative purposes (including for rent). As rental prices have decreased in ratio to purchase and sales prices and the rental market is dominated by oversupply, it depends on the potential liquidity constraints of investors whether the risk pays off in the short run.

Compared to the very expansive housing loan market, other household loans have increased with the pace of previous years. As durable goods are purchased less and less by instalments due to increased incomes, the growth of consumer credit market will probably rest on more active use of credit cards and car leasing in the coming years.

■ Banking Sector

Tight competition in the banking sector has continued, manifesting itself in lowered interest margins and aggressive loan campaigns. This has kept the clients interested in taking credit and helped banks increase their loan portfolios. So far, the loan quality of banks has been good; however, the ratio of allowances for uncollectible claims to the total loan portfolio has decreased due to changes in financial accounting principles.

With the rapid growth of risk assets, major banks decided not to pay dividends in 2005 and retain last year's profit in their own funds. This, in turn, has contributed to higher level of **capitalisation**.

Upon the evaluation of banks' capital buffers favourable economic environment and relatively good loan-servicing ability should be taken into account. Nevertheless, the provisioning of banks' claims has decreased. Changes in the economic environment, however, may entail an increase in loan losses. Should banks increase the share of assets/operations with higher risk level in order to maintain profitability, it is important that the increase in risk level be reflected appropriately also in banks' capital buffers.

The share of liquid assets in the banking sector has decreased due to fast loan growth. Meanwhile, the share of foreign institutional funds in liabilities has remained at the level of 40%. The decrease of liquid assets and the potential increase in the share of short-term liabilities in major banks may cause a higher liquidity risk, which might make local banks more dependent on their parent banks and the market situation.

Further decline in the net interest margin and limited opportunities to increase fee and commission income have rendered earning revenues more difficult for the banking sector. Still, profitability increased thanks to the continually good quality of assets, low administrative expenses and changes arising from the adoption of international financial reporting standards (IFRS/IAS) which temporarily also affected profitability.

Based on the economic forecast, the **outlook for maintaining the present profitability is good**, although an increase in the key interest rates of the European Central Bank may restrain the loan demand, thus also slowing down growth in banks' revenues. On the other hand, the increase in key interest rates enables to keep the funding cost at a low level for a while, if the rise in deposit interest rates is postponed, and thus uphold profitability.

■ Securities Market and Other Financial Intermediaries

The domestic **bond market** has become much more active due to the expansive environment. The primary market and capitalisation grew in volume owing to an increase in the volume of issues by residents, especially non-financial sector¹ companies. The secondary market expanded thanks to a robust growth

in the bond turnover of non-residents. This was further supported by the establishment of the single Baltic market and opportunities for cross-border trading with securities listed in Latvia and Lithuania.

The **stock market** became more active in spring when Swedbank, the strategic owner of Hansapank, the stock market leader, made a bid for the bank's takeover. New issues of shares, which took place after a break of several years, enlivened the market even further. The Tallinn Stock Exchange index TALSE² achieved its peak level at the beginning of October with 700 points and the annual growth of the index totalled 90%. After the takeover of Hansapank the structure of investors changed substantially. In spring, the share of non-residents on the market stood at its all-time high with 84% of the market value of listed companies, declining, however, to 59% in autumn.

Due to the dynamic growth of developing markets and low key interest rates the increase in **investment fund** assets that had lasted already for several years shot up suddenly. Majority of that could be attributed to the manifold growth in stock fund assets. The development of East European and Russian markets during the past half-year as profitable investment regions brought about a rise in the share of external assets up to three quarters of the assets of companies registered in Estonia. The volume of the steadily increasing second pillar **pension funds** exceeded 4 billion kroons, but their future increase will depend on the wage growth of current subscribers rather than the payments of new customers. Along with investments in mandatory pension funds, household savings include payments to voluntary pension insurance.

Positive developments in the **insurance market** stemmed mainly from the flourishing real estate market, the spread of voluntary pension insurance and successful car sales to households. The growth rate of the life insurance market has considerably picked up pace; the non-life insurance market also keeps expanding steadily.

■ Payment Systems

According to the overseer, the payment systems operating in Estonia witnessed no such cases that would have posed a threat to the country's financial stability.

On 3 October 2005, an interbank Settlement System of Ordinary Payments (ESTA) was launched, which is an updated version of the Designated Time Net Settlement System (DNS) used so far. The new settlement system should expand the opportunities of smaller banks and help boost competition in the banking market. In the near future, it would be expedient to implement also an interbank direct debiting system. In order to prevent card frauds, Pankade Kaardikeskuse AS (Card Centre of Banks) in cooperation with banks is enhancing the security of the card payment environment. This process also involves transition to using payment terminals supporting processor cards based on the EMV standard³.

The payment environment has been developing steadily and according to expectations, following the trends of recent years. As for the means of receiving income and making regular payments, bank account settlements are increasingly preferred to cash – this year 6-7% of households have ceased to pay just in cash.

■ Summary and Financial Stability Risks

The current financial stability can be considered good, but the accumulation of loan-related risks into the future renders our economy increasingly vulnerable. Optimism springing from the positive trends

¹ Here and below the non-financial sector refers to households and non-financial corporations, excluding general government.

² As of 3 October 2005, the new name of the Tallinn Stock Exchange index (TALSE) is OMX Tallinn (OMXT).

³ The name is derived from the initials of international card organisations Eurocard, Mastercard and Visa.

on the recent years' macroeconomic level has contributed to expansive developments in the loan market, thus increasing the possibility that companies, households and the financial sector have overestimated the borrowers' future loan-servicing ability and underestimated the risks.

Favourable loan terms and conditions have boosted household loan growth. As a result of tight competition, loan maturities have lengthened and interest margins have declined. However, given the achieved level, loan terms and conditions cannot improve much further. Therefore, the future **loan demand will be more dependent on the increase in incomes and growth expectations**.

The **overpriced housing market** involves risks caused by potential misjudgements or inaccurate expectations as to the continuation of present trends. Since the present favourable loan terms and conditions are unlikely to improve further, the difference between real estate prices and household incomes may start to diminish. As a result, the increase in residential property prices may slow down in ratio to income growth and level off thereafter. Purchasing real estate on credit and for profit-making purposes is thus a speculative investment, which might turn less profitable than expected.

The good quality of banks' loan portfolios shows that the **macroeconomic environment has been favourable for borrowers**. Though households' interest burden in ratio to disposable income has increased along with the growth of the housing loan market, no major loan-servicing difficulties have occurred at the microeconomic level. However, the impacts of fast loan growth have not been tested under weaker economic conditions, i.e. we have no experience as to the flexibility of borrowers' financial behaviour. Considering the modest financial assets of borrowers compared to their relatively large financial liabilities, financial behaviour cannot possibly be very flexible. Thus, borrowers and creditors might have underestimated the buffers necessary to hedge their risks.

For the sustainable operation of banks they should retain a conservative approach to assessing the future solvency of borrowers as well as the market value of collaterals (incl. real estate prices) despite the tightening competition. As to loan quality it is essential that in addition to the sufficiency of collaterals also the solvency of the client would be properly assessed.

The current capitalisation of banks meets present requirements. This year's change in the financial accounting principles of banks does not allow making provisions for covering potential loan losses. Therefore, profits depending on the economic cycle should be retained in own funds, which should now be higher by the unallocated provision.

Close convergence with international markets has led to a situation where factors influencing financial stability can be pinpointed less and less as being economic decisions of a certain country. The financing volume of the Estonian economy and fast loan growth mainly depend on the decisions of Nordic financial groups. As the rapidly developing Baltic loan market has been able to offer a great return-risk combination, there are virtually no supply-side constraints to loan growth. At the same time, Estonian business entities may not have sufficient resources for coping in times of economic recession, as risk management and decision-making at the group level of financial intermediaries does not clearly indicate whether buffers maintained for covering the risks of Estonian business entities do exist. Moreover, potential usage of these buffers proceeds solely from the specific business interests of the respective financial group. In order to ensure financial stability it would be safer if taking risks were in line with maintaining their buffers.

I GLOBAL ECONOMY AND ESTONIAN ECONOMY

■ External Environment

Global Economic Cycle

Global economic activity in major economic areas started to slow down at the end of 2004 and further on in the first half of 2005. The **annual GDP growth** remained below the previous year's level: in the US, real GDP increased 3.6% in the first as well as in the second quarter, the euro area experienced a growth of 1.3% and 1.1% respectively, and in Japan the GDP grew 1.3% and 2.1%.

The dynamics of **industrial production and retail growth** have been controversial. While in the third quarter the growth indicators of industrial production were smaller compared to the same period in 2004 (see Figure 1.1), the year-on-year retail growth has been stronger thanks to low interest rates and consumption growth spurred by asset prices. Various activity and confidence indices have also been slightly more positive than other economic indicators, implicating faster growth in the fourth quarter. All in all, the total global economic growth of 2005 should remain 0.8 percentage points below the level of 2004 (3.8%) and maintain its pace (3.0%) also in 2006.¹

Inflation remained stable in the US as well as in the euro area until July (staying in the range of 2.5–3.2% and

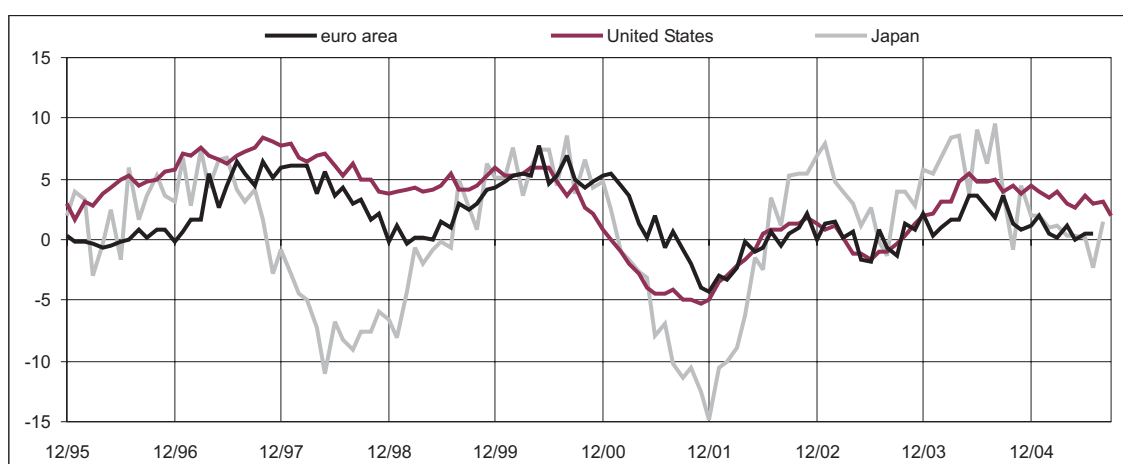


Figure 1.1. Annual growth in the industrial production of the euro area, the United States and Japan (%)

Source: EcoWin

2.0–2.2%, respectively), but further oil price increase in August and September boosted the annual growth of consumer prices at the end of the third quarter to the highest level of recent years (see Figure 1.2). In September, the year-on-year growth of the consumer price index (CPI) rose to 4.7% (the highest level in 14 years) in the US and to 2.6% in the euro area. The impacts of the oil price increase have not yet affected the core inflation of consumer prices (CPI, excluding energy and food) and thus it decreased slightly from March until September. Consumer price growth in Japan ranged from -0.5% to -0.2% from March to September.

¹ Source: Consensus Forecasts, September 2005.

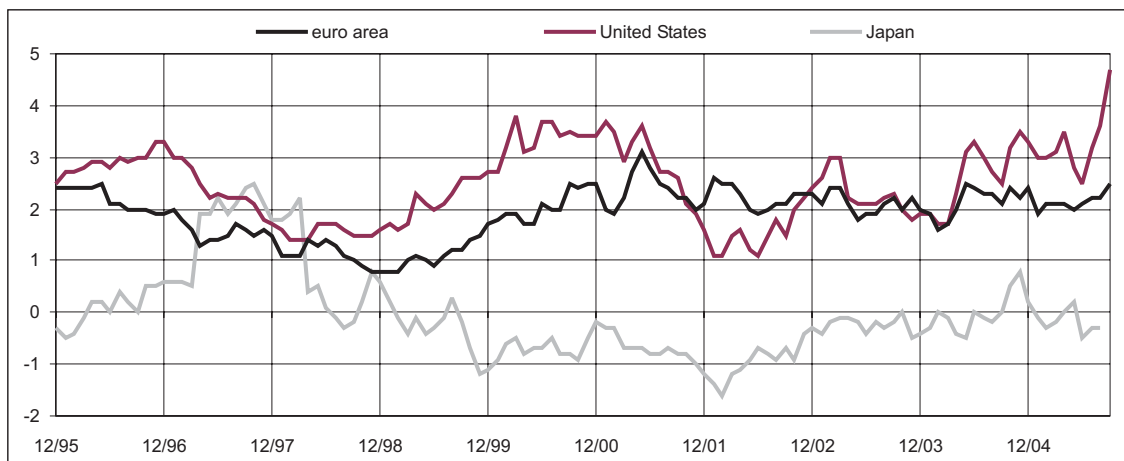


Figure 1.2. Consumer prices in the euro area, the United States and Japan (%)

Source: EcoWin

The relatively fast economic growth of Finland and Sweden slowed down slightly in 2005. Though domestic demand (including private consumption as well as investments) remained strong, the relative weakness of external environment (primarily the euro area economy) still inhibited the positive contribution of the external sector. Inflation was further affected by the high level and fast increase of raw material prices, primarily oil prices. At the same time, a decrease in the prices of some goods and services kept the price rise at a relatively low level.

Finnish economic activity decreased significantly in the first half of 2005 compared to the previous year: in the first quarter the year-on-year GDP growth reached 2% and in the second quarter only 0.2%. The already unfavourable condition of the industrial sector was further aggravated by a relatively long-term paper industry strike that began in spring. In July the situation improved, indicated by a modest growth of 0.6% (see Figure 1.3) in the total output of industrial production. The consumption willingness of residents and private sector investments remained at a stable level in the first half-year and strongly supported economic growth. Nevertheless, due to the paper industry strike and relating issues the Finnish central bank downgraded its economic forecast of 2005 by 0.8 percentage points, expecting a 1.6%² GDP growth in 2005. In 2006, GDP growth is expected to accelerate up to 3.7%.

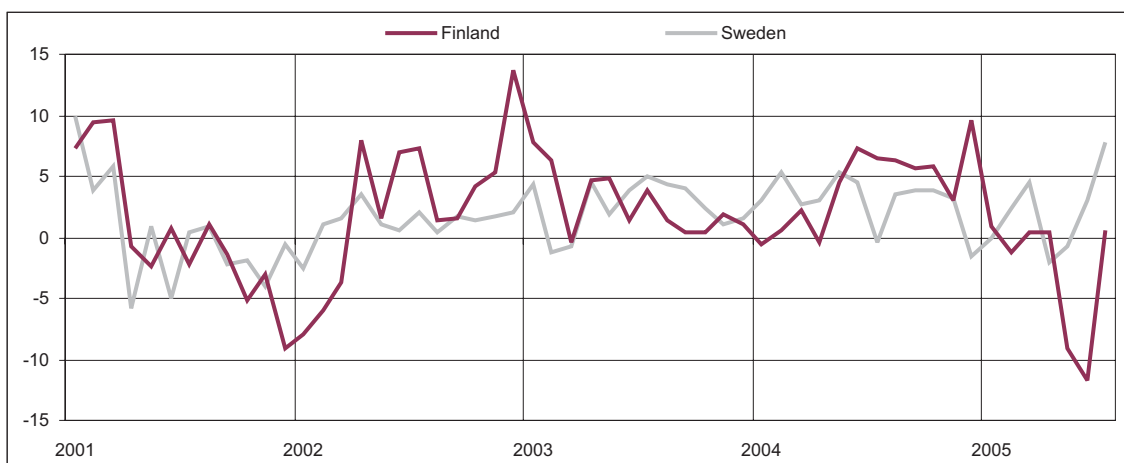


Figure 1.3. Annual growth in the industrial production of Finland and Sweden (%)

Source: EcoWin

² Source: Bank of Finland, *Euro ja talous*, No 3/2005.

The rise in Finnish consumer prices was primarily caused by high raw material prices, especially oil prices. This was offset by the price decrease of electronics and telecommunications products and services. All in all, the inflation of 2005 has remained close to 1%. According to the forecast of the Finnish central bank, the average annual growth of consumer prices in 2006 will reach 1.6%.

Swedish economic growth has been supported mainly by private sector fixed investments and the consumption willingness of households. The year-on-year GDP growth reached 1.4% in the first and 2.3% in the second quarter. The annual growth of industrial production has been particularly volatile this year: in spring the sector's production output decreased slightly, but in July the growth rate exceeded all expectations and reached a record high level of 7.8%. Meanwhile, the volume of retail sales has been fostered by households' fairly strong confidence and great willingness to consume.

The consumer price increase has followed trends similar to Finland: an upward pressure is exerted mainly by raw material prices and a downward pressure stems from the price decrease of electronics and telecommunications products and services.

Although in summer the economic forecast was downgraded also in Sweden due to unexpectedly low macroeconomic indicators, the Swedish central bank's expectations concerning its economic outlook expressed in the inflation report of October were more favourable than in June. Therefore, the central bank upgraded the expected GDP growth indicator of 2005 to the level of 2.3%, while next year the indicator is expected to accelerate up to 3%³. According to the forecast, consumer prices will increase 0.5% in 2005 and 1.5% in 2006.

International Financial Markets

In most developed countries, the **stock markets** witnessed a strong upward trend (see Figure 1.4)⁴. The euro area stock index STOXX 50 increased 9% and in several countries major stock indices experienced double digit growth rates (e.g. 15.3% in Japan, 14.9% in Finland and 13.4% in Sweden). Stock price dynamics were slightly exceptional in the US, where the S&P 500 index decreased a little. Such a result can be explained by recent hurricanes as well as the fact that the US stock market prices have already reached a level where investors have increasing difficulties in finding long-term values, i.e. hope for further increase.

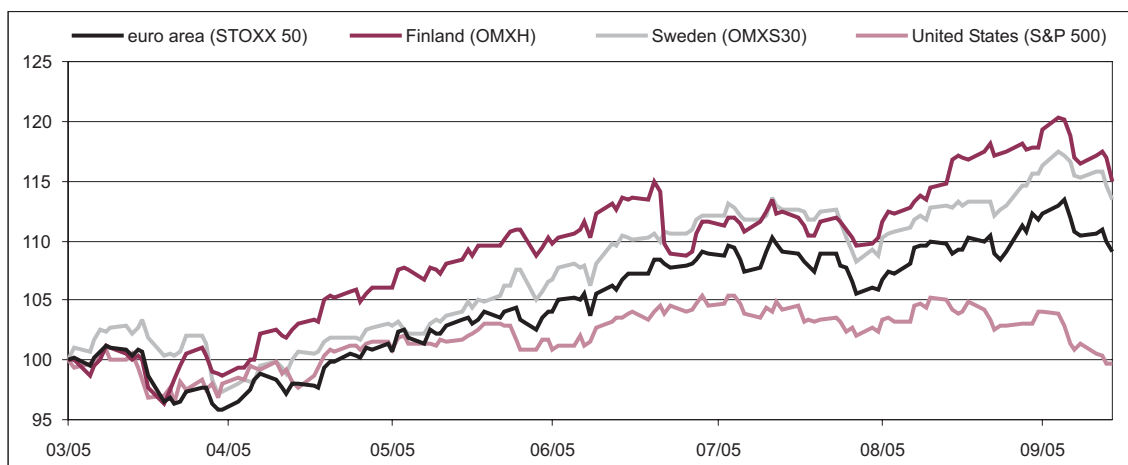


Figure 1.4. Stock indices in the United States, the euro area, Sweden and Finland (31 March 2005 = 100)

Source: EcoWin

³ Source: Swedish central bank, Inflation report, October 2005.

⁴ The review covers the period from 31 March 2005 to 13 October 2005.

The US Federal Reserve continued decreasing monetary policy stimuli, raising the **key interest rate** altogether on four occasions (by 100 basis points, i.e. to 3.75%). Hence, the US three-month interest rates increased in line with that (see Figure 1.5). Key interest rates were also raised by the central banks of Canada and Norway; the Bank of England and the central bank of Sweden, on the other hand, lowered monetary policy interest rates. An increase in the key interest rate is also expected in the euro area – a rise of 25 basis points is forecasted by the end of the first quarter of 2006. This will be brought about by the improved economic outlook as well as stronger inflation pressures stemming from the oil price increase.

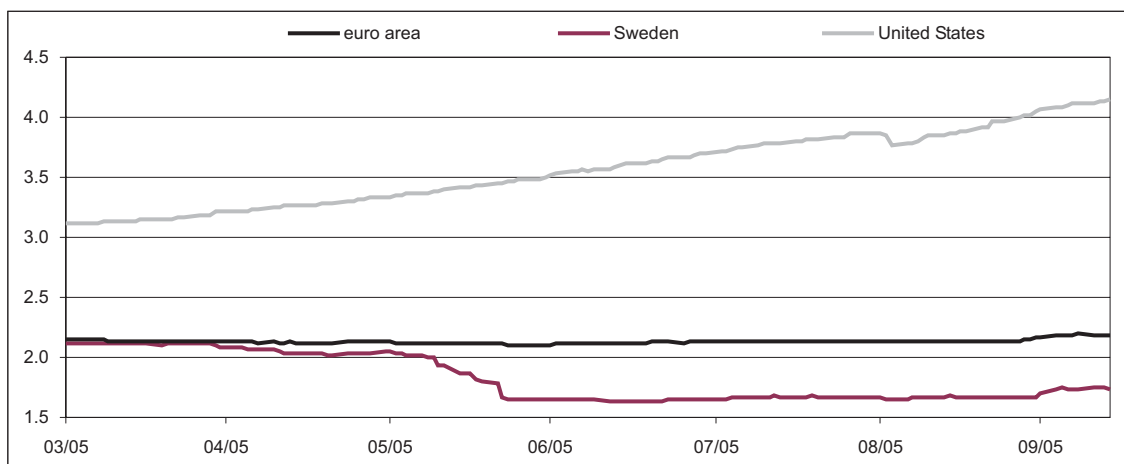


Figure 1.5. 3-month interest rates in Germany, Sweden and the United States (%)

Source: EcoWin

The dynamics of long-term (ten-year) interests in **government bond markets** varied across the countries monitored: in the US they remained closed to previous levels, but decreased in the euro area and in Sweden (by 35 and 54 basis points, respectively; see Figure 1.6).

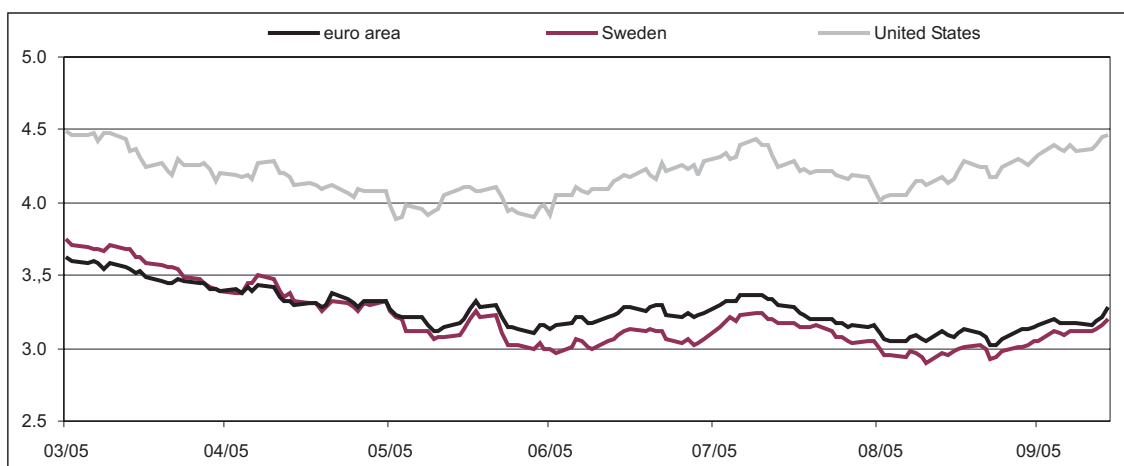


Figure 1.6. 10-year interest rates in the euro area, Sweden and the United States (%)

Source: EcoWin

Currency markets saw further appreciation of the dollar against other major currencies, which had started at the beginning of 2005 (see Figure 1.7). The euro depreciated against the dollar by 7.6%, the yen depreciated by 7% and the pound sterling by 7.2% in the given period. The appreciation of the dollar was supported by raising monetary policy interest rates by the US central bank, while the euro was weakened due to lower economic indicators in the euro area and inert reform processes. Although the dollar has appreciated

significantly against the euro in 2005, the process may halt or even reverse when the upward cycle of the US key interest rate comes to an end (in 2006, according to market estimates). At the end of June, the Swedish krona depreciated against the euro to its lowest in past three years (1 euro = approximately 9.4 kronas).

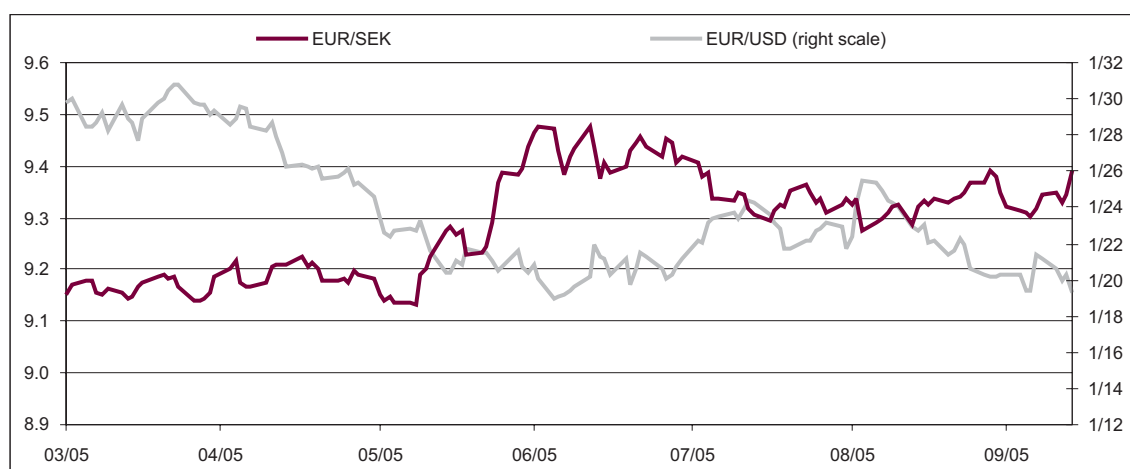


Figure 1.7. Exchange rate of the euro against the Swedish krona and the US dollar

Sources: EcoWin

■ Estonian Economy and Macroeconomic Risks

Economic Growth, External Balance and Inflation

Estonian economy continued rather rapid growth in the first half of 2005. While in the first quarter the **GDP growth** at constant prices reached 7.2%, in the second quarter economic growth accelerated to 9.9% (see Figure 1.8). Increase in domestic demand slowed down while the contribution of net exports to growth was exceptionally large. All in all, growth reached 8.5% in the first half of 2005, exceeding that of the euro area by more than 7 percentage points. Domestic demand remained relatively modest but net exports increased, also improving external balance indicators.

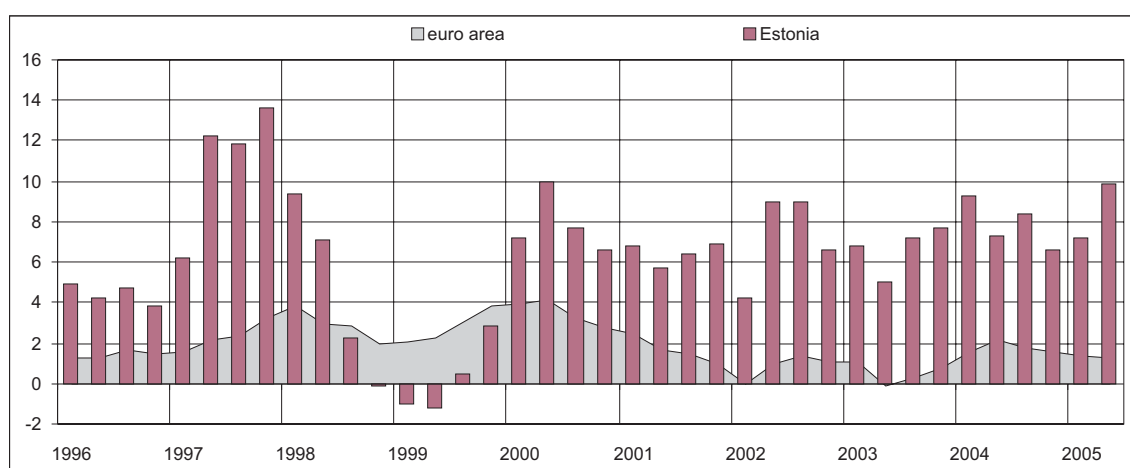


Figure 1.8. Real GDP growth by quarters (%)

Sources: Statistical Office of Estonia; Eurostat

The slower growth of **domestic demand** in the second quarter of 2005 was quite expected in light of the high comparison base. It was primarily affected by a decrease (-34%) in the purchase of stocks. Fixed

investments continued to increase rapidly. Growth relied mainly on new business projects, including residential construction, though the fixed investments of companies already operating in the market also increased by approximately 9% at current prices. The share of the investment volume made up 30.1% of GDP at current prices.

In the first half of 2005, **private consumption** growth remained at an average level of 6.7%, accelerating by 1.7 percentage points, year-on-year. This was facilitated by stronger real income growth. The annual growth of gross wages reached approximately 12% in the second quarter. In net terms, wages increased even more due to raising the non-taxable income threshold and lowering the income tax rate at the beginning of the year.

The **current account deficit** decreased to 10.8% of GDP in the second quarter of 2005; goods and services deficit decreased to 5.7% of GDP (see Figure 1.9). The income account deficit increased even further, comprising 5.3 billion kroons, i.e. 6.8% of GDP, in the first half-year.

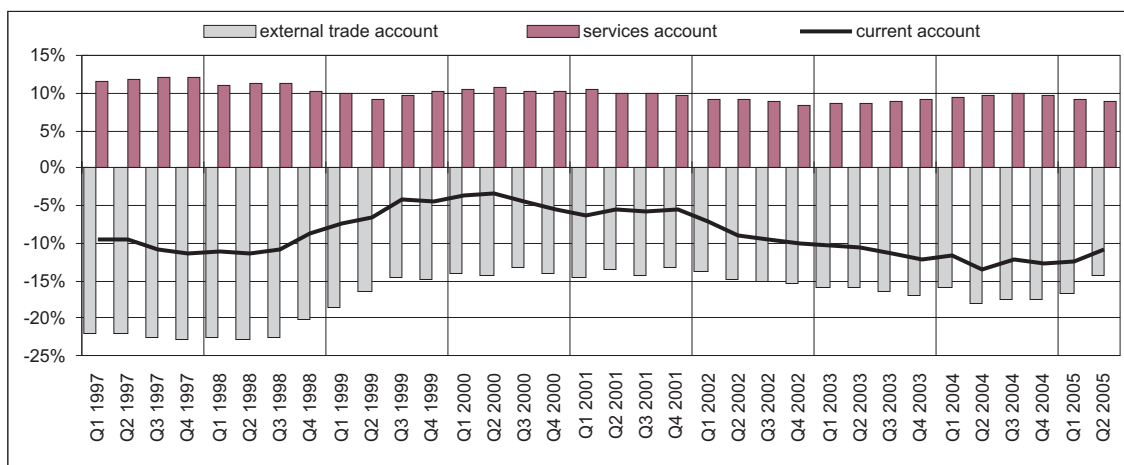


Figure 1.9. External trade account, services account and current account balance in ratio to GDP (4-quarter average)

As expected, **consumer prices** rose to 3.5% in the second quarter of 2005, reflecting the changes that took place in the previous year's comparison base. In July the decrease of inflation halted and, due to the increase in oil prices, consumer price growth accelerated to 3.8% (see Figure 1.10). The slightly greater than 1.5 percentage point difference with the euro area inflation may be considered a natural price convergence indicator in Estonia in the long run.

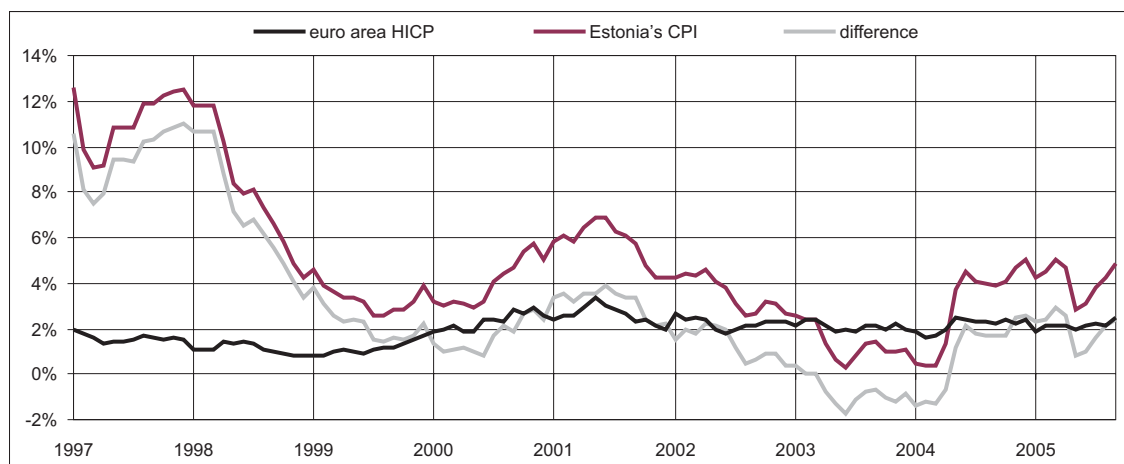


Figure 1.10. Annual consumer price growth in Estonia and the euro area

Sources: Statistical Office of Estonia, Eurostat

Corporate Business Situation

Confidence

In the second quarter of 2005, the economic confidence index calculated by the Estonian Institute of Economic Research increased by 2 points, year-on-year. Besides consumer confidence, economic confidence was boosted by the construction confidence indicator, which reached its historical high (see Figure 1.11). The retail trade confidence indicator also stood high in the second quarter, even though it remained slightly lower, year-on-year.



Figure 1.11. Confidence indicators of Estonian companies

Source: Estonian Institute of Economic Research

The **construction sector** continued rapid growth – the annual growth of its value added at constant prices accelerated to 13.9% in the second quarter and its share in the GDP structure rose to 7%. According to the estimates of the Estonian Institute of Economic Research, the confidence in the construction market will remain exceptionally favourable. In the following months, companies expect a rise in workload as well as in construction prices. The factor most inhibiting to construction activities is the lack of qualified workforce.

The improved **industrial confidence** in 2005 probably derived from the optimism emerging after the accession to the European Union (see Figure 1.12). However, tighter competition and expanding economic

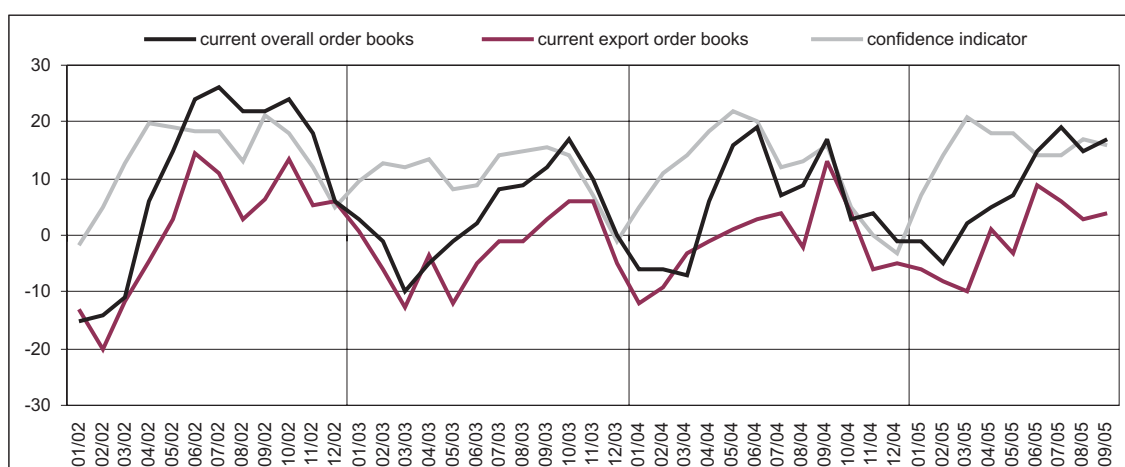


Figure 1.12. Demand for the production of manufacturing companies and confidence indicator

Source: Estonian Institute of Economic Research

links have brought along new problems as well. For instance, some enterprises have increasing difficulties in finding qualified workforce.

New Companies and Bankruptcies

The large number of **new companies** entered in the commercial register in 2005 also refers to a positive macroeconomic outlook. Within the first nine months of this year the number of new companies registered exceeded the past year's indicator by more than 14% (see Figure 1.13). Nearly half of them are wholesale and retail companies. Since the second half of 2004, establishing companies in real estate and other business services has been picking up pace. By months, 170–190 new business enterprises are set up in this sector on average.

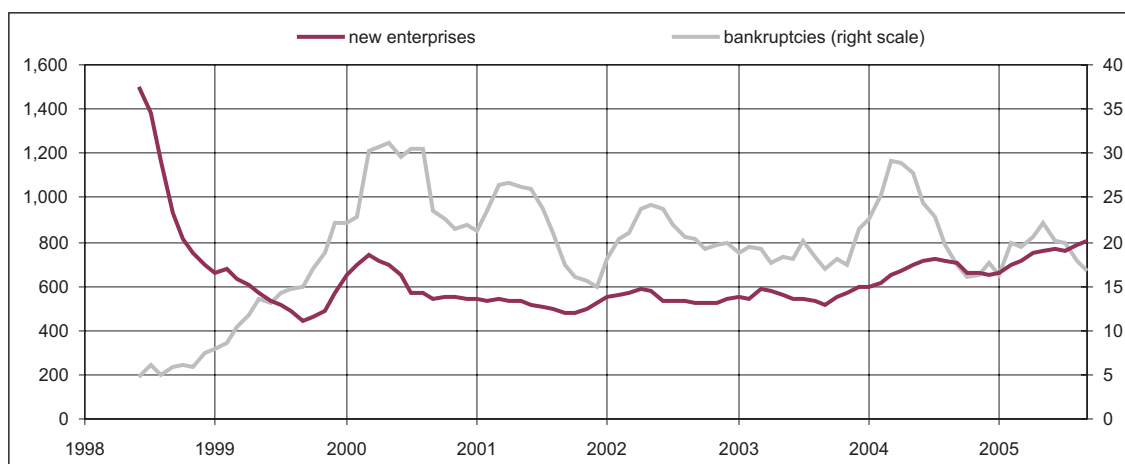


Figure 1.13. New enterprises entered in the commercial register within a month and bankrupt enterprises (6-month moving average)

Source: Estonian Enterprises Register

The **number of companies going bankrupt** remained nearly 19% lower (155 companies) in the first nine months of 2005, year-on-year, which shows that the business climate has improved. Just as in earlier years, the greatest number of bankruptcies occurred in the wholesale and retail sector, where the number of companies is also largest. As to the total number of companies, going bankrupt was slightly more intense in fishery and manufacturing, but the indicators are marginal (bankruptcies comprised less than 0.5% of the total number of companies in the sector).

Industrial Sales

In the first half of 2005, the demand-side conditions remained favourable for both the export sector and local providers. The euro area interest rates stayed low and although global economic growth did not pick up speed yet, the close integration of Estonian economy after the accession to the European Union was seen as an additional positive factor.

The rapid growth of Estonian goods exports continued in the first half of 2005, with a 9 percentage points higher growth rate than in the second half of 2004. In addition to fast export growth, the production and sales output of manufacturing also increased (see Figure 1.14). The growth rate was boosted by the timber and furniture industry, where production growth accelerated thanks to higher domestic demand and rapid export growth. The subcontracting machinery and electric machinery manufacturing made a substantial contribution to the output growth of the manufacturing industry.

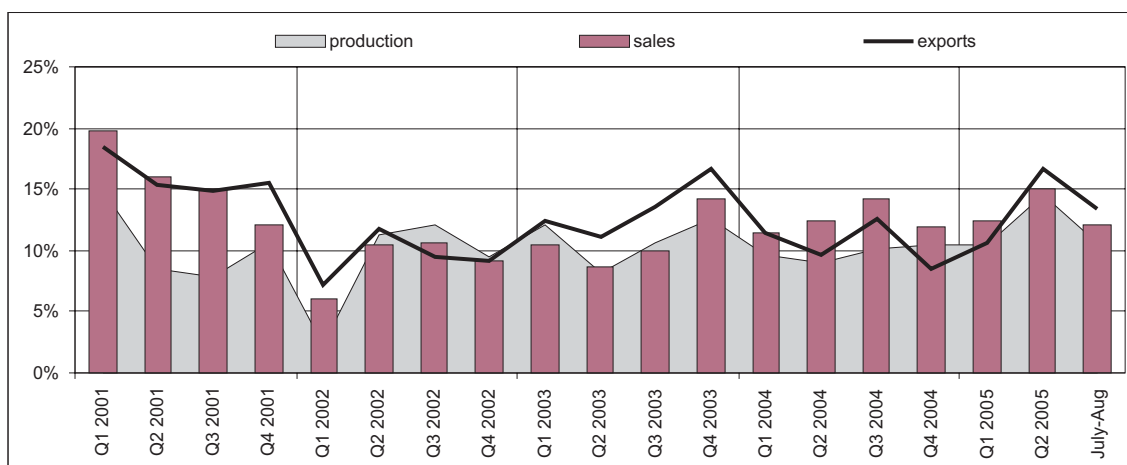


Figure 1.14. Production and sales indices of manufacturing

Source: Statistical Office of Estonia

Corporate Profitability

According to the business statistics of the Statistical Office of Estonia, the **net sales of enterprises** accelerated from 13.7% in 2004 to 16.9% in the first half of 2005 (see Table 1.1). Meanwhile, the profit of the corporate sector increased, resulting in an improved total profitability⁵ indicator compared to 2004. However, due to a rapid rise in expenses total profitability remained smaller in the first half of 2005 in comparison with 2003.

Table 1.1. Corporate indicators (%)

	All fields of activity			Manufacturing		
	2003	2004	2005 first half-year	2003	2004	2005 first half-year
Growth of net sales	8.4	13.7	16.9	9.8	13.8	14.2
Growth of total costs	8.3	14.8	16.4	9.9	15.1	13.1
Growth of total profit	10.5	0.7	25.5	9.3	0.6	27.1
Total profit to net sales*	7.7	6.8	7.1	9.1	8.0	8.5

* 4-quarter average

Source: Statistical Office of Estonia

Profitability indicators varied greatly by fields of activity. **Total profits** increased notably in the fields of construction (more than twice), trade, real estate and business services (both over 40%); on the other hand, the profits of forestry and mining companies decreased. Losses increased in agriculture.

The **total profitability** indicator remains the highest in the sector of real estate and business services, whereas the indicator improved to a great extent during the last half-year. Profit margins increased also in construction, though the sector's growth of net sales slowed down slightly. Profitability continued decreasing in the transport, storage and communications sector, its net sales growth being more modest compared to earlier periods.

⁵ Total profitability is measured using the ratio between total profits (+/-) and net sales.

Economic Situation of Households

Labour Market

In the first half of 2005, unemployment dropped to its lowest level in the past ten years, resulting in an increase of employment and lower economic inactivity.

Employment growth recovered in the first half of 2005 after a slowdown in the previous half-year (see Figure 1.15). Growth was facilitated primarily by the non-tradable sector, especially by private sector service providers. In the second quarter, employment started rising also in manufacturing; however, as to the first half-year the number of the employed remained close to the year-ago level. According to the Statistical Office, the rapid employment boost was partially brought about by seasonal jobs, which is also reflected in the increased number of hotel and restaurant employees in the first half-year. Employment increased vigorously in construction and real estate.

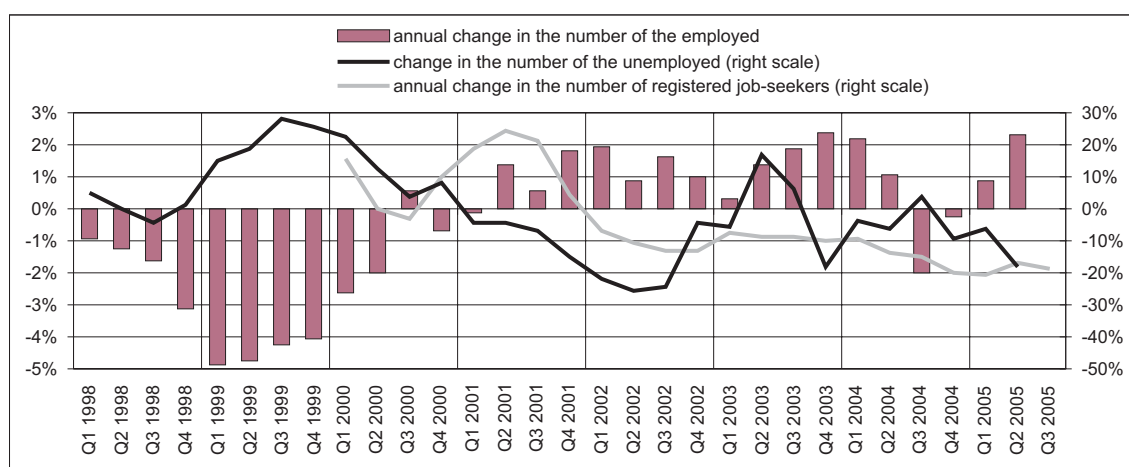


Figure 1.15. Annual change in the number of the employed and the unemployed and registered job-seekers

Source: Statistical Office of Estonia

Unemployment continued declining, reaching a record low level (8.1%) in the second quarter. While in the first quarters of 2004 and 2005 unemployment decreased only due to the short-term unemployed, the second quarter of 2005 witnessed a decline in short-term as well as long-term unemployment.

Meanwhile, the situation common to structural unemployment still persists, because some regions suffer from insufficient workforce. Besides the construction sector, labour shortages also occur in some manufacturing companies.

Wages

In the first and second quarter of 2005, the growth rate of average **gross monthly wages** accelerated to 10.1% and 11.8% respectively, comprising 7,427 and 8,291 kroons (see Figure 1.16).

Net monthly wages increased faster than gross monthly wages (12.5%), which stemmed from the lowered income tax rate and the raised non-taxable income threshold⁶. While in 2004 raising the non-taxable income

⁶ As of 2005, the income tax rate was lowered from 26% to 24%; the non-taxable income threshold increased from 1,400 to 1,700 kroons.

threshold enabled employers to restrain labour cost growth, in 2005 the tax changes exerted a favourable influence on the situation of employees.



Figure 1.16. Annual growth of average wages, compensation of employees and nominal GDP growth

Source: Statistical Office of Estonia

The fastest wage growth took place in the field of hotels and restaurants as well as in health care and social welfare. In the second quarter, wage growth accelerated substantially in construction (19.6%) and agriculture (19.2%).

Consumer Confidence

Within the first nine months of 2005, the household confidence indicator calculated by the Estonian Institute of Economic Research has on average stood at a level higher than in the same period of 2004 (see Figure 1.17). The development of its subcomponents has varied: the risk of becoming unemployed is considered lower, which is consistent with labour market statistics; on the other hand, price rise expectations have surged again. Households' estimates of their ability to save have improved since the first half of 2004. This is also confirmed by TNS Emor's survey F-monitor 2005, reflecting the financial situation and behaviour of Estonian households.

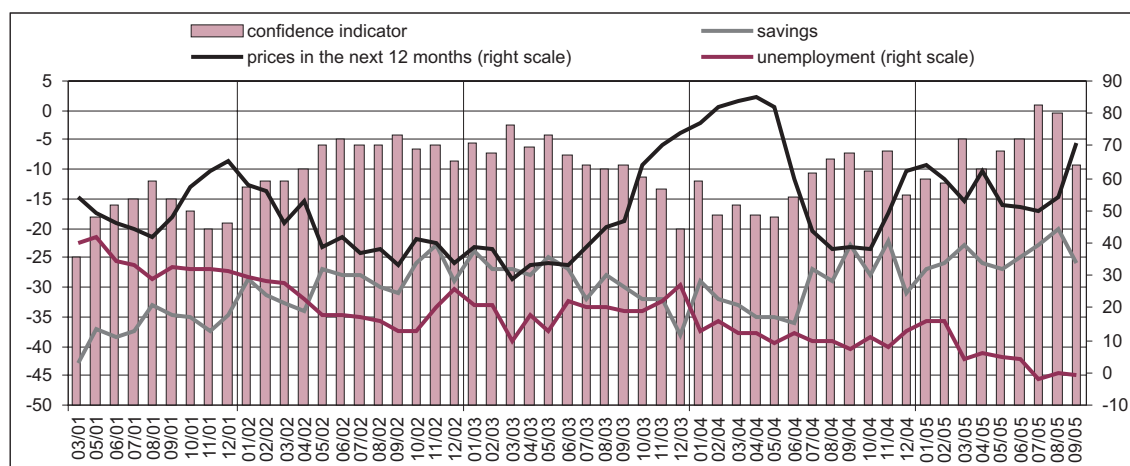


Figure 1.17. Consumer confidence indicators

Source: Estonian Institute of Economic Research

■ Structure of Financial Intermediation and Financial Deepening

The role of banks in the structure of the Estonian financial sector has continually increased (see Figure 1.18). In the low interest rate environment, the annual increase in **banks' assets** remained over 30% due to strong loan portfolio growth (see Figure 1.19). In the third quarter, the financial assets of the banking sector did not increase, quarter-on-quarter, because the loan portfolio kept growing and banks' liquid assets decreased. Due to the improved availability of loans and lending with real estate collaterals, the growth of the second segment of the loan market, namely the **leasing market**, has remained stable during recent years.

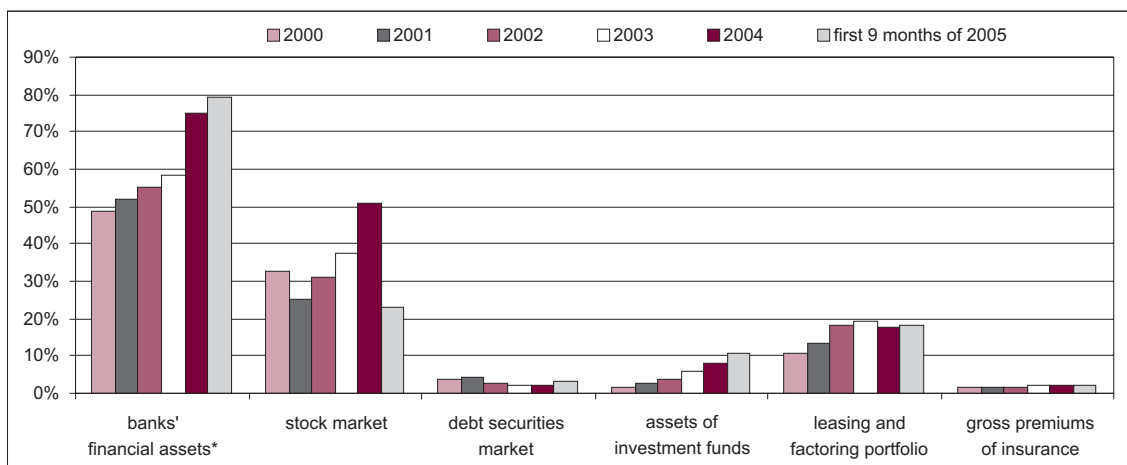


Figure 1.18. Structure of financial intermediaries (% of GDP)

* except loans issued to financial institutions (mostly leasing companies)

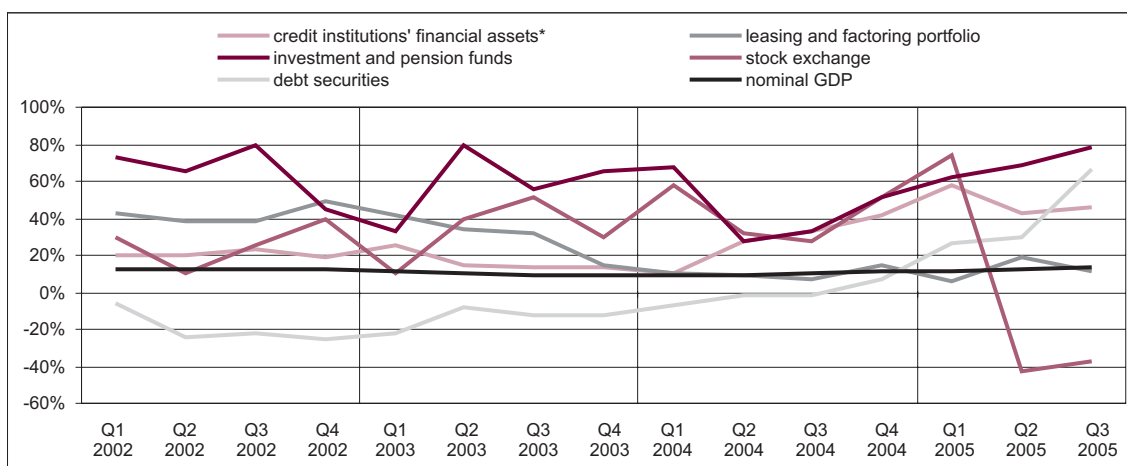


Figure 1.19. Annual growth of financial markets and nominal GDP

* except loans issued to financial institutions (mostly leasing companies)

The market capitalisation of the **shares listed on the stock market** was significantly reduced in the second quarter as a result of the withdrawal of Hansapank from the stock market, the company with the largest market capitalisation. Nevertheless, the prices of newcomers and companies already operating in the market, as well as transaction activity have grown constantly, increasing the market capitalisation level of the third quarter up to a third of the level achieved before the withdrawal of Hansapank. Along with rapid economic growth the **bond market** volume and activity have also flourished.

Rapid growth in the assets of **investment and pension funds** continued thanks to fully funded pension and stock funds. Over the last four quarters, the year-on-year growth of assets amounted to 65%. The **insurance market** developments remained stable. Gross premiums collected by insurance companies increase steadily by 20% within a year.

II FINANCIAL BEHAVIOUR OF COMPANIES AND HOUSEHOLDS AND THEIR RISKS

■ Companies

Financial Position and Saving

Exceptionally high loan demand since the second half of 2004 entailed the weakening of the corporate **net position of domestic financial assets and liabilities** (see Figure 2.1). Although the growth rate of deposits reached its highest level of the last five years in the second and third quarters of 2005, it still remained below the average loan growth indicator of the period.

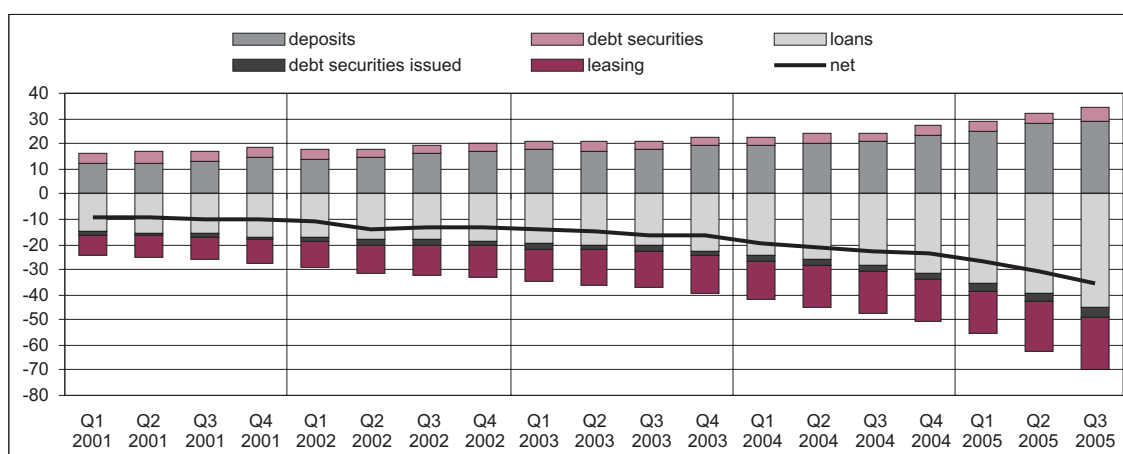


Figure 2.1. Corporate financial assets and liabilities to domestic banks and leasing companies (EEK bn)

The annual growth rate of corporate **deposits** rose high (41%) in April 2005 when minority shareholders received funds from the sales of Hansapank's shares. The outflow of funds was not that large later on, thus keeping the deposit growth rate fast because of lower comparison basis. Excluding transactions with Hansapank's shares, the dynamics of corporate deposits did not change significantly: within the first nine months the growth rate of deposits remained nearly the same, compared to the previous year. However, based on the aggregate data of the domestic financial sector it remains unclear whether the structure of corporate financial assets actually changed after the sales transaction of Hansapank (i.e. in favour of deposits) or whether the growth of total financial assets remained stable.

Corporate Debt

Corporate debt growth started accelerating in the first half of 2005, being partly affected by the previous year's lower base level. At the end of June, the annual debt growth reached 22%, which is the record level of the past five years. Financing through domestic loans and leasing experienced a strong increase, whereas growth in foreign borrowing continued to slow down (see Figure 2.2).

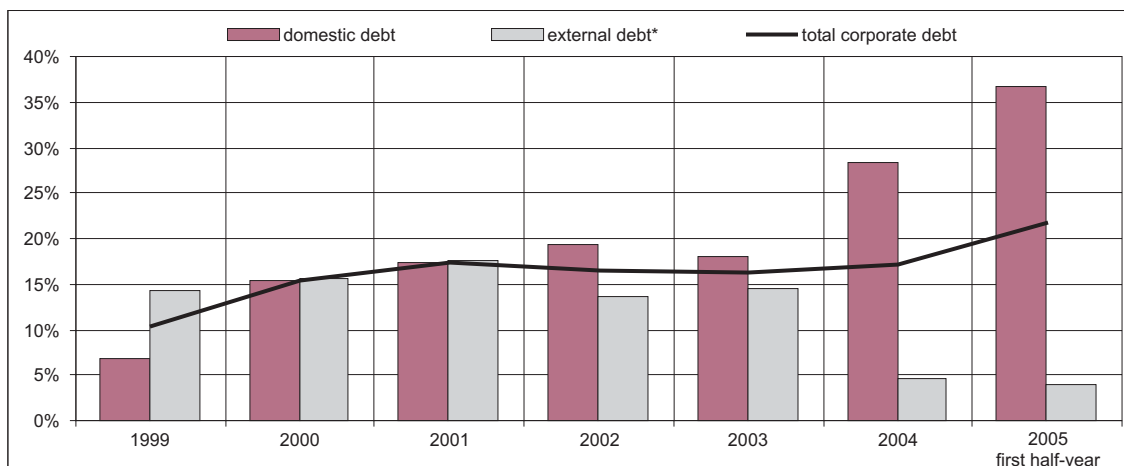


Figure 2.2. Corporate debt growth

* intercompany claims subtracted

Rapid acceleration of debt growth brought about an **increase in corporate debt**. Corporate debt rose to 67% in ratio to GDP in the middle of 2005, increasing by 5 percentage points within a half-year (see Figure 2.3). At the same time, the external indebtedness has remained stable, having even decreased in retrospect. The behaviour of cross-border groups did not change substantially. Although local companies have recently increased lending to their foreign subsidiaries, the difference between intercompany financial claims and liabilities has remained almost unchanged over the past four years.

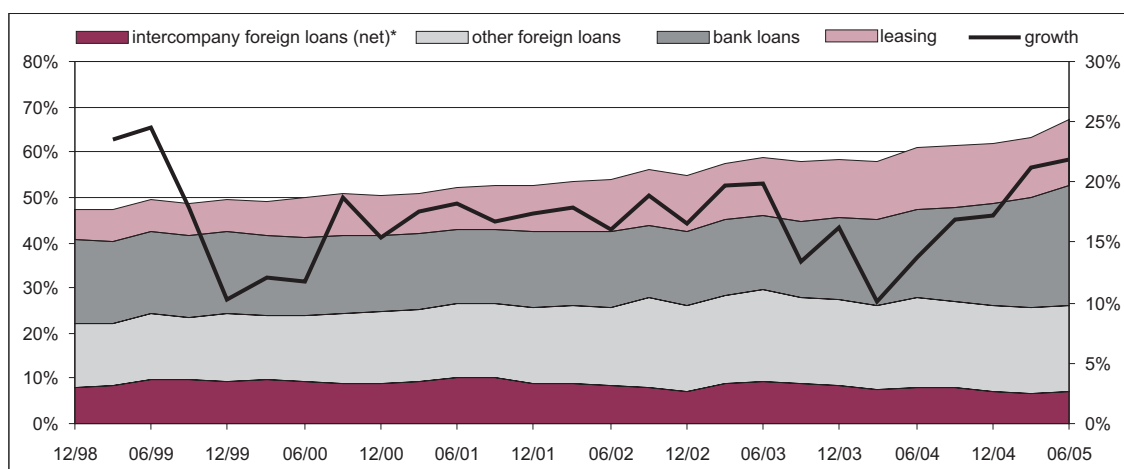


Figure 2.3. Corporate debt (% of GDP; left scale) and growth rate (right scale)

* intercompany claims subtracted

By **fields of activity**, real estate and construction companies were again the most active to attract debt capital in the first half of 2005 – their debt increased by 4.7 billion kroons (see Figure 2.4). The debt growth of trading companies was also remarkable, whereas the increase in trade credit accounted for nearly 58% of that. Transport, storage and communications companies attracted debt capital rather modestly in the first half-year.

As regards the financing structure, virtually all fields of activity preferred domestic loans and leasing. Meanwhile, the use of intercompany funds for financing the industrial sector, which so far has been quite customary, even decreased.

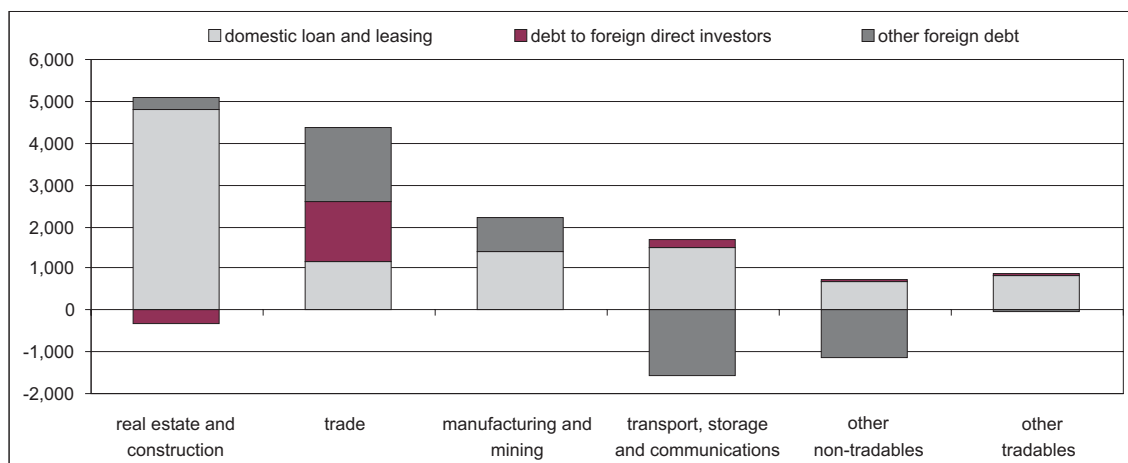


Figure 2.4. Net borrowing of corporate sector in the first half of 2005 by fields of activity (EEK m)

The financial situation of Estonian companies shows no signs of deterioration despite rapid debt growth. Growth of financial assets accelerated at the end of 2004 as well as at the beginning of 2005. The share of own funds in the structure of financial liabilities has also increased, indicating an improvement of the debt-to-equity ratio.

Debt Intermediated by Domestic Financial Sector

The **annual debt growth** intermediated by the Estonian local banking and leasing sector reached 40% in September 2005, considerably exceeding the previous year's indicator (28%). The nominal volume of domestic corporate debt increased by approximately 15.8 billion kroons in the first nine months.

Besides usual economic activity factors, the high domestic loan demand also reflects a certain substitution effect on account of external debt growth deceleration, i.e. preferring domestic loans and leasing to foreign borrowing, and to a lesser extent the growing volume of EU subsidies that has induced demand for bridge financing and loans for required self-financed contribution of the subsidised investment projects. However, the role of the latter factor in loan growth is relatively modest. According to estimates, the credit volume related to structural subsidies exceeded 1 billion kroons (approximately 2.2% of the corporate loan stock) at the end of 2004 and it may increase up to 1.7 billion kroons by the end of 2006. However, as the corporate loan and leasing portfolios mainly consist of loans to the real estate sector (approximately 35%), rapid loan growth in the whole corporate sector can still be explained by high demand in the respective field of activity.

The indebtedness of real estate companies and agricultural companies (the latter being affected by EU subsidies) has grown the most over the past few years. While at the end of the second quarter of 2005 the domestic debt-to-GDP ratio of the whole corporate sector was 40%, the indicators for real estate and agriculture were 93% and 99%, respectively (see Figure 2.5).¹

Strong debt growth has been facilitated by improved credit conditions. For instance, the **monthly average long-term corporate interest rate**, which has remained below 5% since the second half of 2004, reached an average of 4% in the third quarter of 2005 (see Figure 2.6). In addition to the fact that EURIBOR has remained low for quite a while, the interest margin on corporate loans has also declined significantly, amounting to an average of 1.9% in ratio to the six-month EURIBOR in the third quarter.

¹ In fields of activity where financing relies more on external funds, the ratio of debt to value added has been underestimated in the above calculation. Including also foreign borrowing, the debt of real estate and agriculture is still the largest.

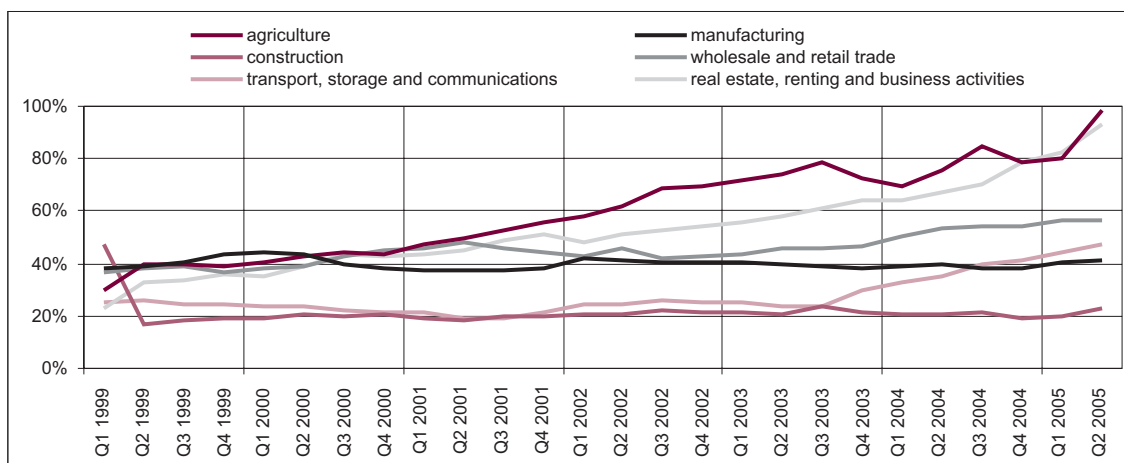


Figure 2.5. Ratio of domestic corporate debt to value added by fields of activity

Source: Statistical Office of Estonia

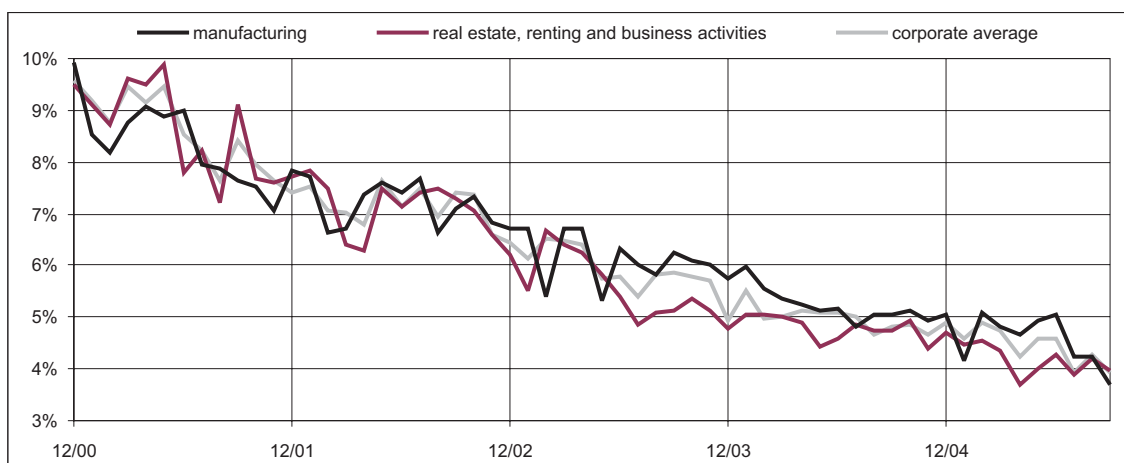


Figure 2.6. Long-term corporate interest rates

Considering the positive economic outlook of Estonia and optimistic corporate forecasts, further rapid growth of corporate (domestic) loans can be expected in the near future. In the coming years, this may be decelerated by increasing loan interest rates and the completion of processes in financing schemes in recent years (i.e. preferring domestic loans and leasing to foreign borrowing).

■ Households

Financial Position and Saving

Although the growth of financial assets accelerated significantly, the net position of households' financial assets and liabilities kept deteriorating also in 2005. At the end of September 2005, financial liabilities exceeded financial assets to the domestic banks and leasing companies by 14 billion kroons (see Figure 2.7). As financial liabilities increased mostly due to purchasing real estate, the wealth of households has continued to grow in light of rising residential property prices.

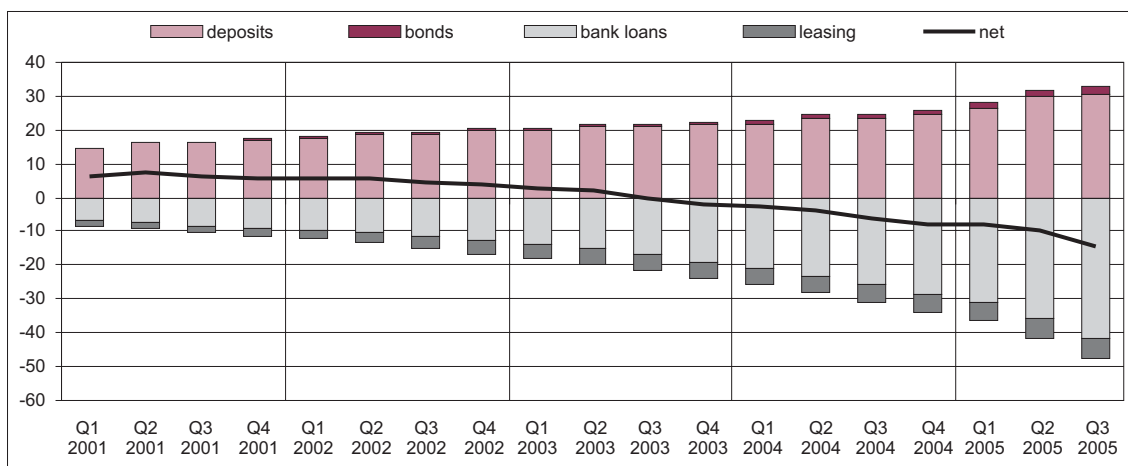


Figure 2.7. Financial assets and liabilities of households to domestic banks and leasing companies (EEK bn)

Deposit growth, which clearly started an upward trend at the beginning of 2005, continued at an accelerating pace until the end of June. In summer months, saving slowed down for a while, but continued again in September. At the end of September, deposit growth reached the highest level of recent years (31%; see Figure 2.8). It is also worth mentioning that the share of time deposits in total deposits still remains close to 40%, indicating persistence in saving habits.

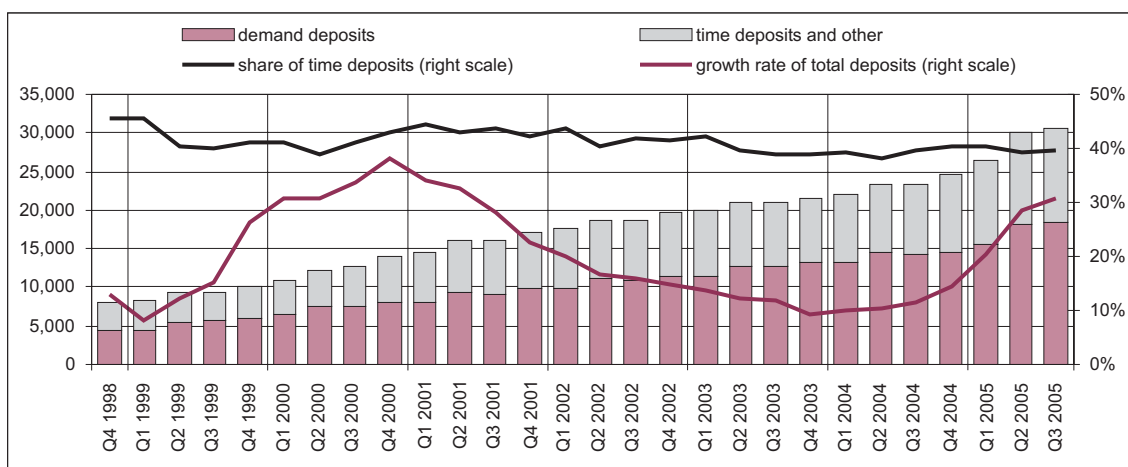


Figure 2.8. Household deposits in domestic banks (EEK m) and deposit growth

Household deposits increased especially fast for reasons similar to corporate sector developments. Analysing short-term factors, the impact of the sales of Hansapank on the growth of household deposits was two-three times weaker compared to the corporate sector, but the effect of this event will probably reveal itself in a longer perspective. Unlike corporate deposits, household deposits continued growth also in the third quarter.

The fact that it was not merely a one-off event (stemming from banks' campaigns) but clearly an attitude towards saving, reflects in the consumer confidence barometer of the Estonian Institute of Economic Research as well as in TNS Emor's survey on households' financial behaviour. TNS Emor's 2005 survey showed that the share of households with financial savings has increased by 5 percentage points up to 59% within a year, whereas for the first time in several years saving is motivated by long-term goals. In forecasting

the housing market's activity it is important to mention that households have started to save more for the sake of purchasing residential property or other kinds of real estate. According to the survey, in autumn 2005 41,000 households, i.e. 12% of all families, had savings.

Households have mainly preferred short-term bank deposits, whereas the demand for long-term deposit products has remained modest. The decrease of interest rates has been most significant in short-term kroon deposits (see Figure 2.9).

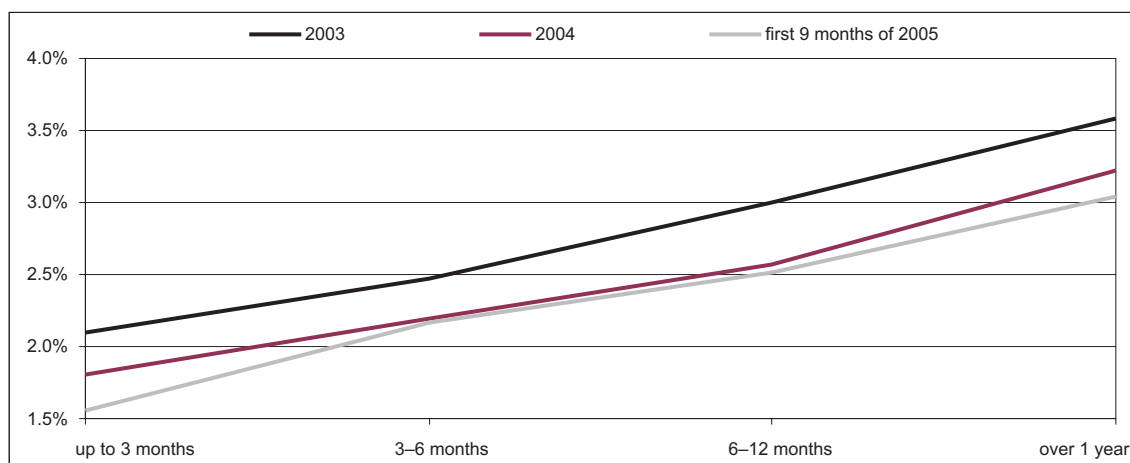


Figure 2.9. Yield curve of household time deposits

In addition to bank deposits, **pension savings** continue to be collected steadily. By the end of September 2005, funds channelled to pension savings made up 5.6 billion kroons, increasing 89% year-on-year (see Chapter V, "Pension Funds and Insurance"). The ratio of pension savings to household deposits has increased from 13% to 18%, year-on-year.

Household Debt and Loan-Servicing Ability

Level and Growth of Debt

The **annual loan and leasing growth** of households that decelerated in the second half of 2004 started to pick up pace in the first months of 2005. During spring and summer months the growth rate accelerated further and exceeded 50% by the end of September (see Figure 2.10). Rapid loan growth was initially brought about by high demand on the housing loan market where the growth rate again reached the highest level in recent years (55–57%). The growth rate of other loans (incl. consumer credit) decreased until the early summer of 2005. In June, the growth rate increased rapidly, caused by a sudden rise in car leasing² and more active credit card use.

Household indebtedness, which comprised over 55% in ratio to disposable income, has increased by more than 14 percentage points, year-on-year (see Figure 2.11). Presuming that household debt will increase at the average pace of the past two years (approximately 11 percentage points per year), it is possible that the indebtednesses of Finnish and Estonian households will level off already in four-five years.

² The increase in the stock of car leasing is partly related to the fact that three previously excluded leasing companies were now added to the aggregate report.

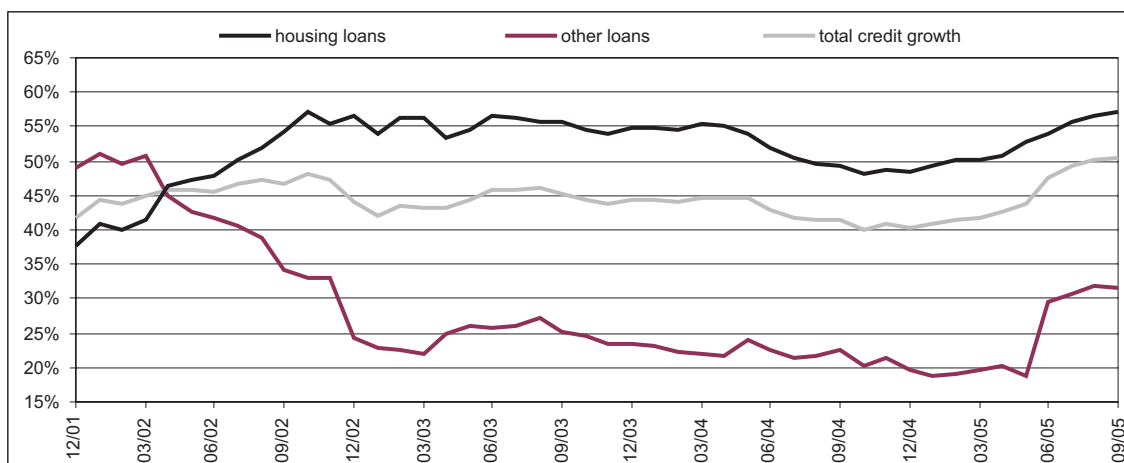


Figure 2.10. Annual growth of domestic credit to the household sector

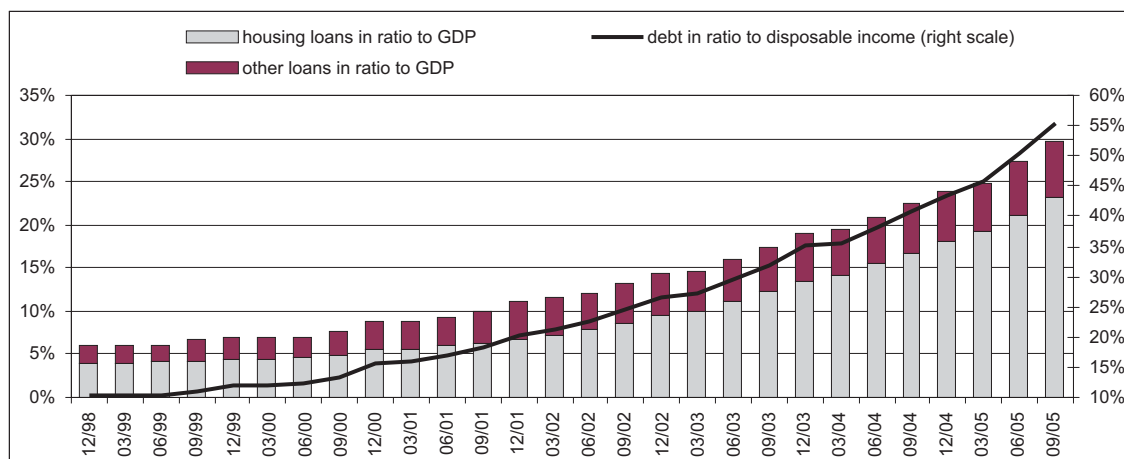


Figure 2.11. Household indebtedness

Housing Loans

The **stock of housing loans** exceeded 36 billion kroons at the end of September 2005, having grown by more than 13 billion kroons (57%), year-on-year. The stock of housing loans increased approximately 60%, i.e. 8 billion kroons, on account of new loan customers. Like in 2004, the 40% growth in the stock of housing loans in 2005 was contributed by earlier loan customers who used credit for exchanging their previous residential property for a more expensive one or increased loan amounts due to the enhanced market value of the collateral.

The slowdown of the interest rate drop and the expectations of an interest rate rise might affect this process negatively: the opportunity to change contracts in order to apply lower interest rates should soon become exhausted. At the same time, income and residential property prices have increased and loan terms and conditions have improved (e.g. repayment periods have prolonged) so much in the last years that a small interest rate rise might not considerably influence the buffer of a customer's loan-servicing costs.

Factors influencing demand and supply on housing market

- Market potential.** The housing market increased in 2005 owing to new as well as earlier loan customers. At the end of September, over 91,000 customers had signed a housing loan contract, which amounts to nearly **16% of the total number of households**. Provided that in the fourth quarter the number of new customers remains close to the third quarter figure (approximately 2,000 new customers per month), the share of households who have taken a housing loan may increase by one more percentage point, i.e. up to 17%.

Micro data analysis shows that the housing market has increased mostly on account of households with above average income. According to the TNS Emor's survey F-monitor, which reflects the financial situation and behaviour of Estonian households, the share of households, who have taken a loan for purchasing or building housing, among households with the highest income level (net monthly income above 5,000 kroons per household member) is more than 25%, having increased by 10 percentage points, year-on-year (see Figure 2.12). Meanwhile, the income structure has also evidently changed, supported by a rise in the share of households with higher income in the present survey sample.

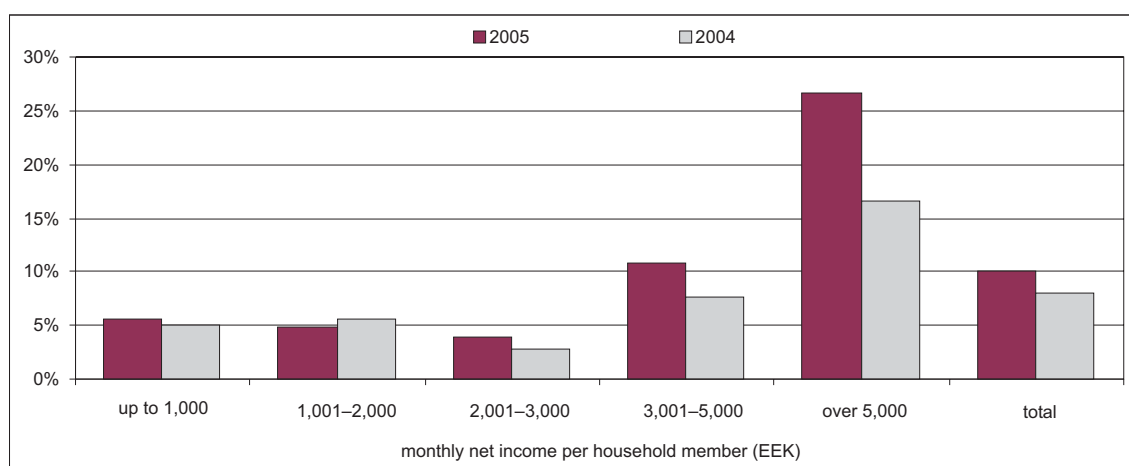


Figure 2.12. Share of households with loans for purchasing/building housing or other real estate by income brackets

* loan commitments arising from loans for renovating not included
Source: TNS Emor, F-monitor 2005

On the basis of natural persons' income tax returns, approximately 65% of housing loan customers declared gross income above the average Estonian wages in 2004 (see Figure 2.13)³. 30% of those who submitted the income tax return and whose income ranged from 100,000 to 500,000 kroons had taken a housing loan. As regards people with annual income ranging from 0.5 to 1 million kroons, over 60% had taken a loan. In 2004, fastest increase took place within these income brackets and the same trends most probably continued also in 2005.

Considering the micro data of present loan commitments, the potential amount of housing loan customers is certainly not on the brink of exhaustion. Although in the near future, loan demand might be inhibited by psychological factors (interest rate rise) on the one hand, and the high level of residential property prices compared to income on the other, there is actually still room for an increase in housing loans across all fundamentally creditworthy income groups. According to TNS Emor's F-monitor 2005, more than 8% (about 49,000) households⁴ intend to take a housing loan (incl. purchase, building as well as renovation) within the next year.

³ However, the amount of people who declared above-average wages was substantially smaller (28%).

⁴ It is noteworthy that 78% of the households who plan to take a housing loan already have personal residential property (incl. households with housing loan or leasing commitments) and less than a quarter rent a housing.

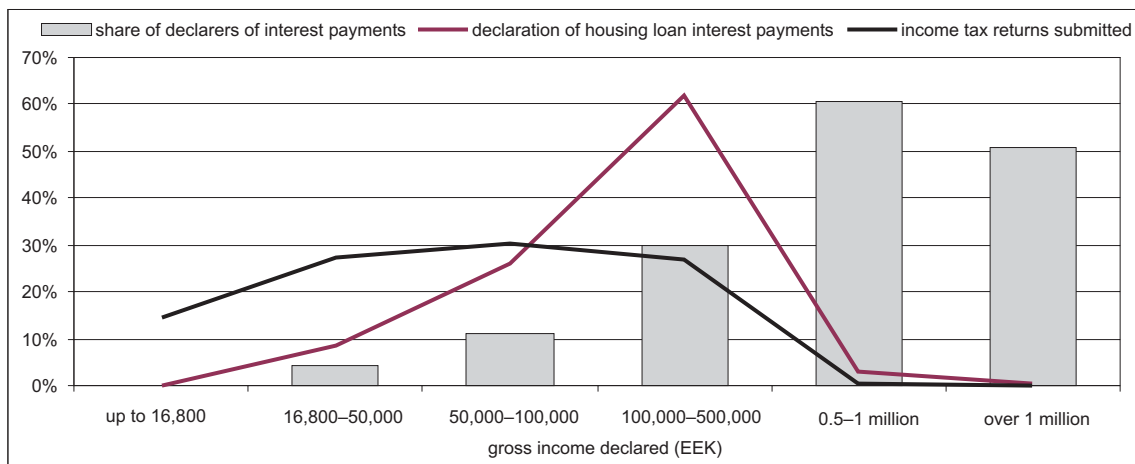


Figure 2.13. Structure of housing loan clients and average income according to the income tax returns of 2004 (% of cases) and the share of declarers of housing loan interest payments in the total number of declarers

Source: Estonian Tax and Customs Board

Presuming that the average loan amount and people’s preferences and attitudes do not change, according to this prognosis the housing loan turnover of 2006 will remain smaller than in 2005 (17 and 20 billion kroons, respectively).

- **Interest rates.** Low interest rates have had a major say when it comes to the activity of the housing market. As nearly all new housing loans have been issued with a floating interest rate, in the long run the Estonian housing loan interest rates will be mainly affected by EURIBOR.

However, as EURIBOR has remained at a low level since 2003, the nearly 2 percentage point decrease of housing loan interest rates since then can be explained mainly by the decline of margins in light of tight competition between banks (see Figure 2.14). In spring 2005, the interest margin reached 1 percentage point in ratio to the six-month EURIBOR and thus a margin lower than that is difficult to achieve for banks (in a longer perspective), presuming that they strive to maintain their profit margin.

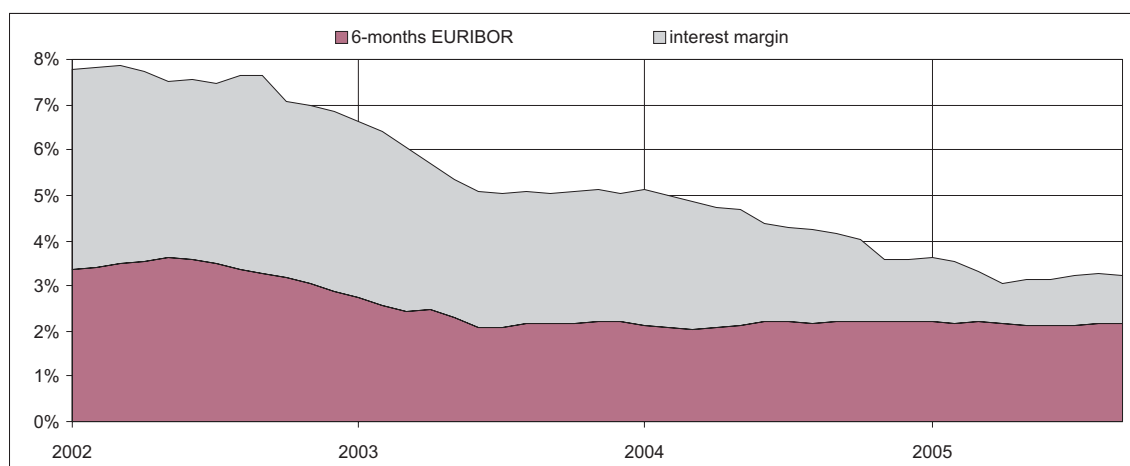


Figure 2.14. Development of housing loan interest rates

Sources: EcoWin, Eesti Pank

A sudden drop in the interest margin of the loan portfolio most probably reflects changes in banks' pricing policy, which has brought about more even customer risk assessments. For instance, while in September 2005 over 60% of housing loans were issued with a margin lower than 1%, in earlier years pricing was considerably more diverse (see Figure 2.15).

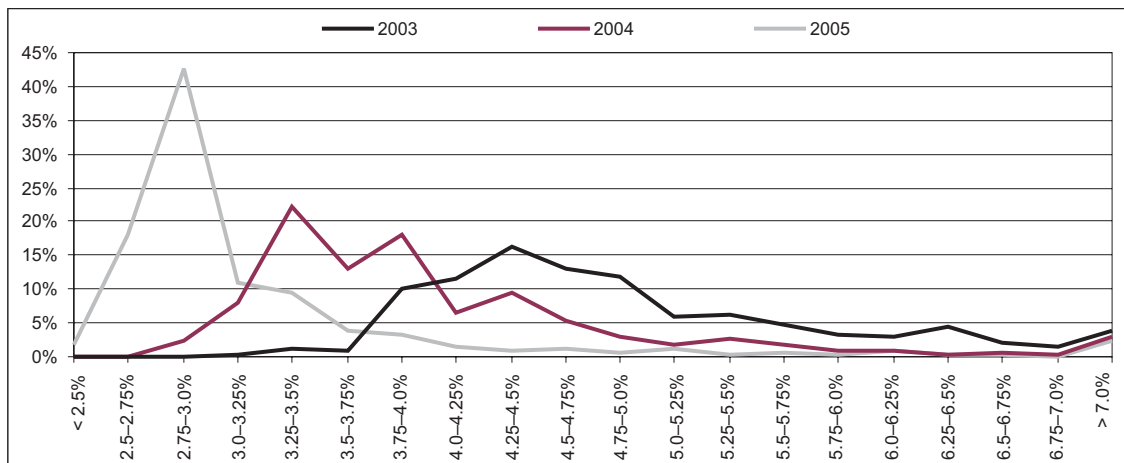


Figure 2.15. Structure of new housing loans issued in September by interest rate ranges

- The **maturities** of housing loans have prolonged significantly within the past five years. While at the end of 2000 the share of loans with the maturity of over 10 years remained below 50%, in the turnover of September 2005 they totalled 91%. Loans with the maturity of over 25 years accounted for more than a quarter of the total number of loans and for over 40% of the turnover (see Figure 2.16).

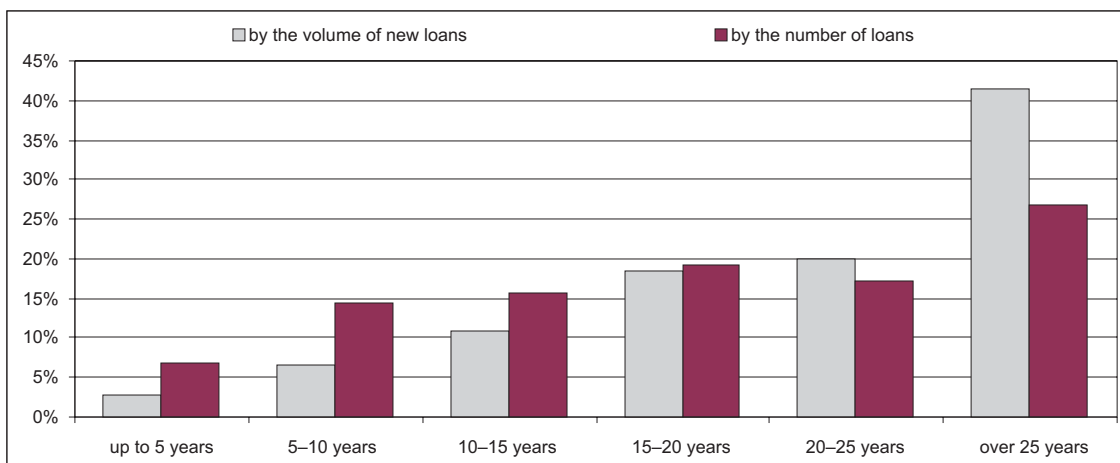


Figure 2.16. Maturity structure of new housing loans in September 2005

- The **government's role** in the development of the Estonian housing market has decreased over the past year. This has been facilitated by the improvement of loan terms and conditions. Compared to 2001, the share of housing loans backed by KredEx has decreased more than twice, accounting for nearly 12%⁵ at the end of 2004.

⁵ Source: Annual report 2004, KredEx.

The **income tax refund** on the housing loan interests has continued steady growth. Compared to 2003, over 21% more income tax was returned in 2004 (see Figure 2.17). Meanwhile, the average interest refund has diminished (3,200 kroons in 2004), reflecting a decrease in loan interest rates. Housing loan interest payments in ratio to the income earned have remained unchanged over the past years (below 2% of the gross income). As regards income brackets with larger debt burden, the interest rate burden has shrunk.

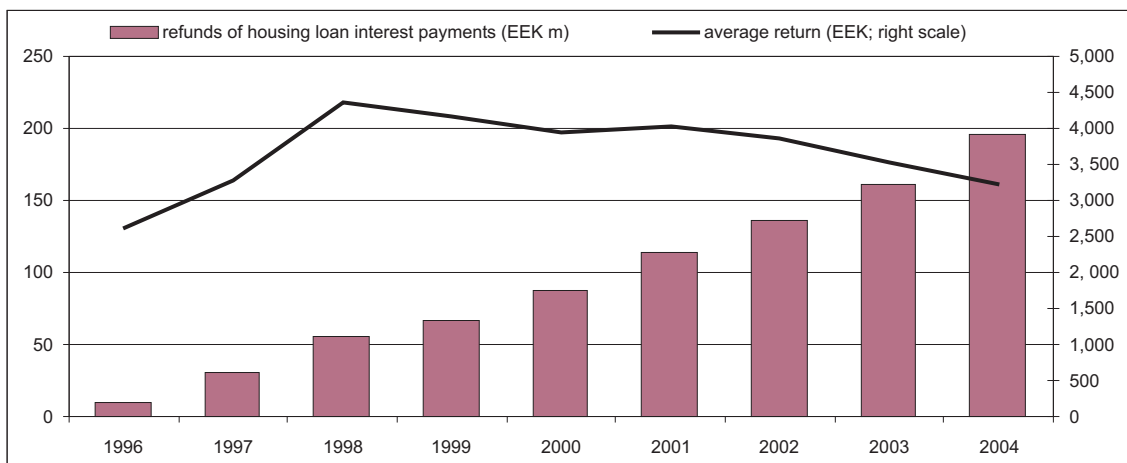


Figure 2.17. Refunds of income tax calculated on housing loan or finance lease interest payments

Source: Estonian Tax and Customs Board

Consumer credit

Loans not directly related to financing housing comprised 22% of the household debt at the end of September 2005, having decreased by 3 percentage points, year-on-year. The majority of non-housing loans still consists of study loans, but rapidly growing credit card debts form already over a quarter of other household loans (see Figure 2.18).

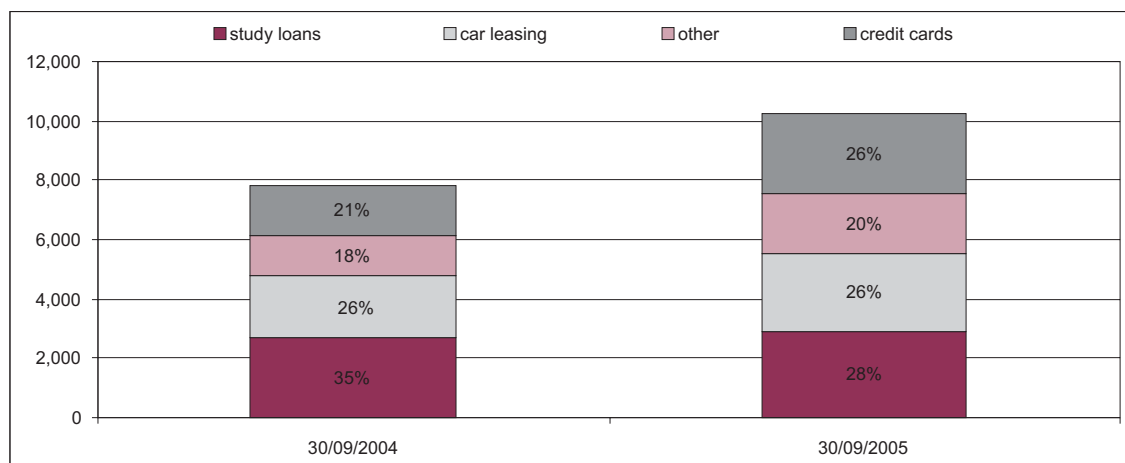


Figure 2.18. Stock (EEK m) and structure of non-housing household loans/leasing

According to TNS Emor's F-monitor, the share of households who finance purchases of durable goods (furniture, home appliances, etc) with a loan remained unchanged in 2005 (17% of households, i.e. about 100,000 families). At the same time, more loan and leasing facilities were used for purchasing a car or other

vehicle compared to last year (7% of households, i.e. about 42,000 families). The loan potential for car leasing will probably remain the same over the following 12 months, whereas the desire to purchase durable goods with loan has started to drop thanks to increased income. The desire to buy durable goods next year has increased, whereas approximately 47,000 households intend to take a loan for that.

Households' loan-servicing ability and risks

Positive macroeconomic developments have secured further increase in household income; meanwhile the favourable interest environment helped households maintain a sufficient loan-servicing ability in the first nine months of 2005. This is also confirmed by the good quality of banks' housing loan portfolios. The favourable loan environment has also encouraged borrowers to take higher risks, which can cause serious setbacks in their loan-servicing ability should the loan environment deteriorate.

The growth of **interest burden**⁶ in circumstances where the average loan interest rate has suddenly dropped indicates that the household sector has become more vulnerable to macroeconomic and financial environment changes. Households' interest payments to banks and leasing companies have increased faster than incomes over the last year, raising the interest burden ratio to a 3% level in the third quarter (see Figure 2.19). As so far relatively few households have taken a long-term loan, it is more expedient to assess the impact of a potential change in loan interests on the basis of micro-level behaviour.

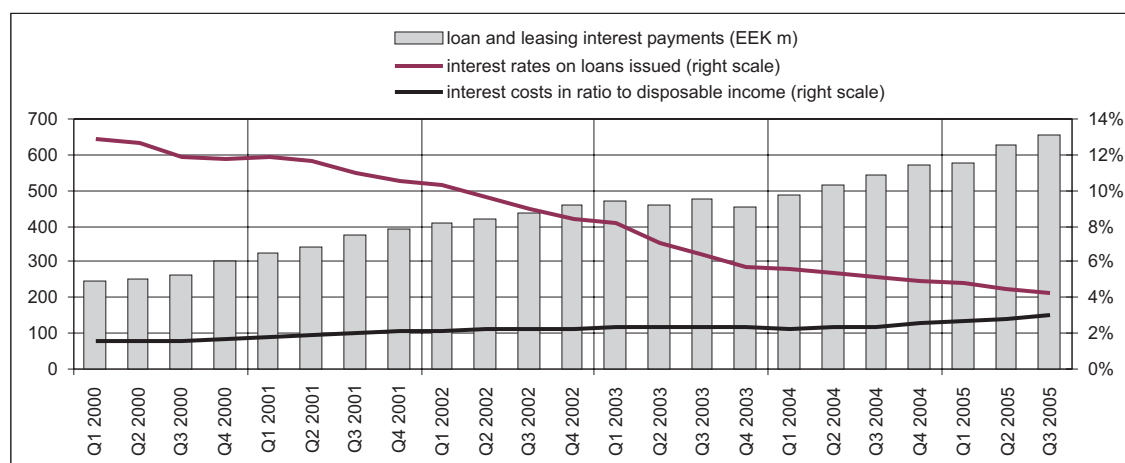


Figure 2.19. Households' loan and leasing interest payments during a quarter, interest rates on outstanding loans and interest costs in ratio to disposable income

Since autumn 2005, several major banks have been recommending households to fix their loan interests in order to protect themselves against the risks accompanying interest rate rises. As Estonian households have not experienced an interest rate rise cycle during the independent banking history of Estonia, it is difficult to forecast how borrowers will react to this recommendation. The interest rate increase will show how they have assessed their options and risks related to the economic environment. As far as financial stability is concerned, the potential interest rate rise enables new loan customers to apply prudent financial behaviour.

⁶ Interest burden is the ratio of interest payments to disposable income.

BACKGROUND INFORMATION

FACTORS INFLUENCING THE GROWTH OF DEPOSITS IN ESTONIA

Majority of deposits (over 80%) held with Estonian banks are comprised of corporate and household deposits (see Figure 2.20). The share of government and financial institutions deposits is relatively modest, thus exerting a minor influence on the dynamics of the total volume of deposits. In addition to the customer structure, deposit growth is affected by the structure of deposit terms. In recent years the shares of demand deposits and time deposits have stayed at 2/3 and 1/3 level, respectively. The share of corporate demand deposits is slightly larger (75%) and that of household demand deposits is smaller (60%).

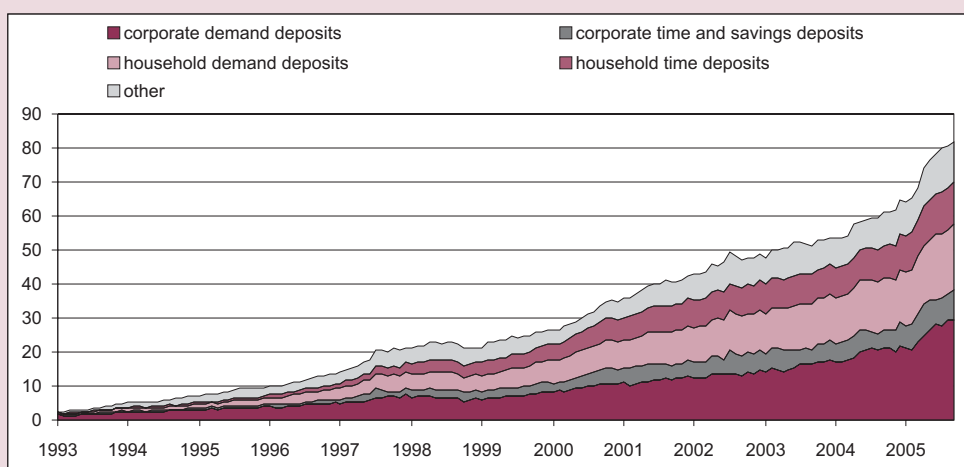


Figure 2.20. Structure of deposits held with Estonian credit institutions (EEK bn)

Deposit growth is mainly related to economic growth. Household incomes and corporate profits increase along with economic activity, including consumption and investment growth. This, in turn, fosters both demand and time deposit growth (see Figure 2.21). While demand deposits are clearly related to economic growth, larger income inflows also enable to make longer-term investments in less liquid but more interest earning time deposits.

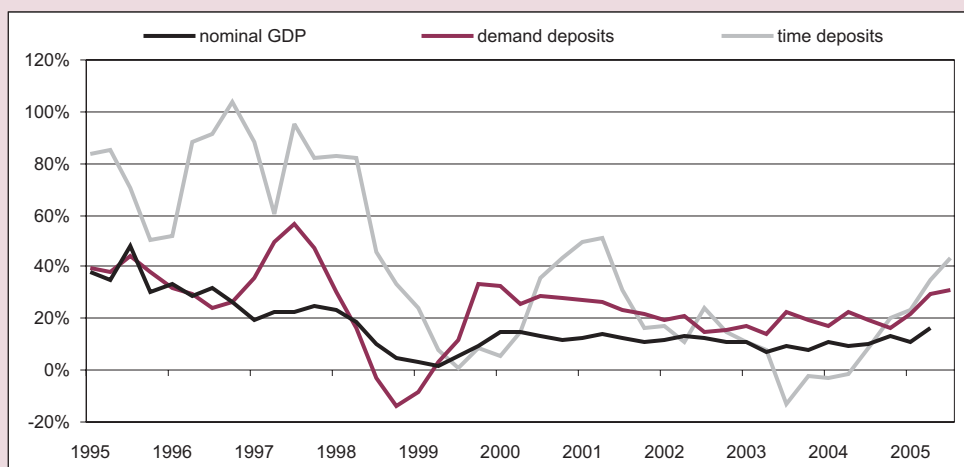


Figure 2.21. Annual growth of deposits and nominal GDP

Deposit growth largely depends on **deposit interest rise**. In Estonia, changes in the interest rates on time deposits do not affect the volume of deposits significantly, although a higher interest rate should motivate to place free funds in time deposits instead of less profitable demand deposits. The relation between deposit growth and the real interest rate remains unclear in Estonia (see Figure 2.22). The real interest rate has been negative for a while but the annual growth of time deposits has nevertheless been positive. Moreover, the relation between inflation and the annual growth of time deposits has been positive rather than negative.

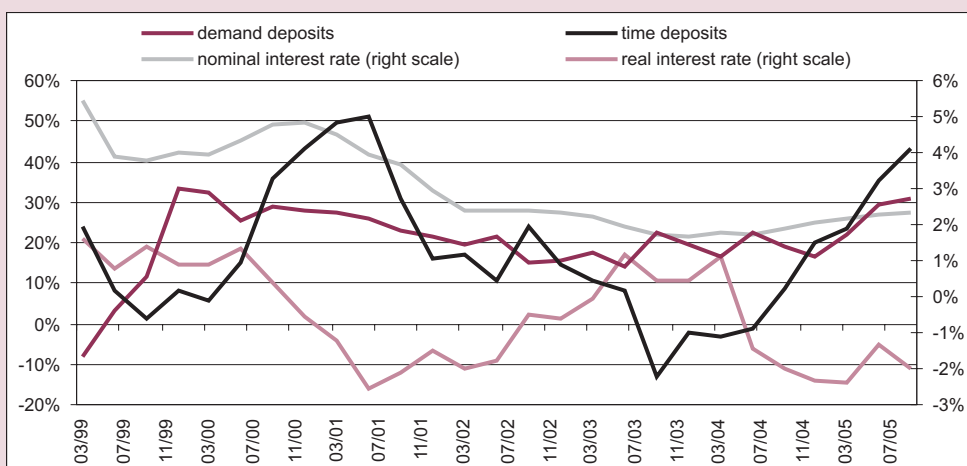


Figure 2.22. Annual growth, and nominal and real interest rate of deposits

Time deposits can be considered as a form of saving, their growth being related to the **general increase in assets** on the one hand, and to less attractive alternative saving (investment) forms on the other. The general volume of assets has an impact on deposits which is supported by the fact that the increase in time deposits has stayed relatively well in line with national saving dynamics (see Figure 2.23).

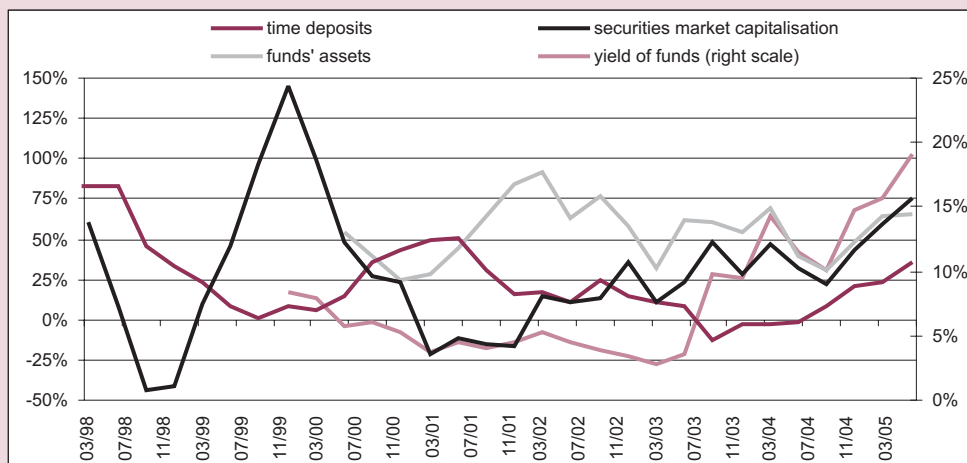


Figure 2.23. Annual growth of time deposits, securities market capitalisation and assets of investment funds, and the yield of funds

The relation between deposit dynamics and developments of other available **savings instruments** remains even less clear. Since the end of 1990s, securities market investment options in Estonia have soared, which has decreased the amount of potentially deposited funds. At the same time, securities market developments have differed from the dynamics of time deposits. Compared to deposits (70 billion kroons) residents invest in shares and investment and pension fund stocks (30 billion kroons) relatively modestly. Although the yield of funds is considerably higher than interests earned on deposits, savings are still preferably placed in deposits. In case of households, market surveys also confirm such tendency. One of the reasons for the modest use of alternative investment forms may be relatively high transaction costs compared to depositing.

In order to purchase real estate or launch another investment project, additional financing is usually needed besides savings. The **dynamics of loan supply (demand)** should therefore reflect the development of deposit volumes, which is also clearly evident in the case of Estonian indicators. Though rising residential property prices should normally cause a decrease in the deposits of real estate purchasers, the aggregate data for Estonia do not reflect that (see Figure 2.24). This may partly reveal the increased need to acquire risk buffers in order to cover potential loan-servicing problems.

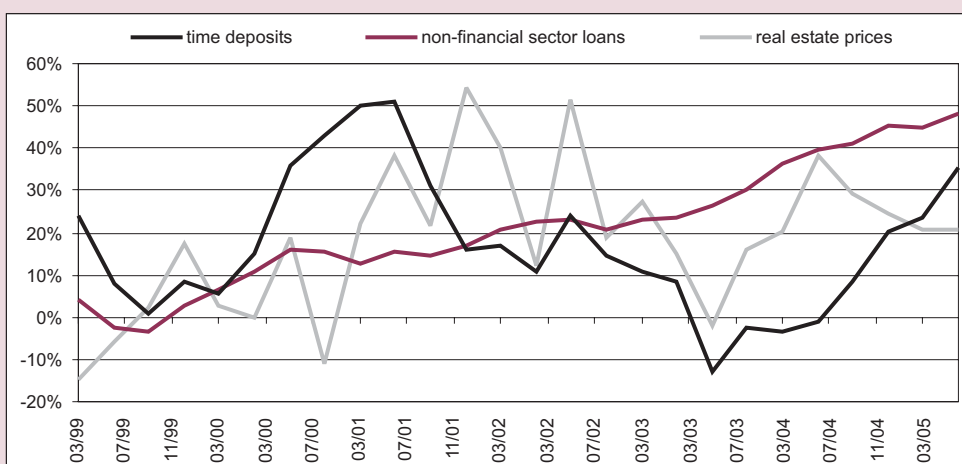


Figure 2.24. Annual growth of time deposits, non-financial sector loans and residential property prices

The **unemployment rate**, which is considered an indicator of households' insecurity, has no impact on deposits based on the data for Estonia. Neither is there evidence that the decrease of labour force in ratio to the number of children and the retired is directly related to deposit decrease, although the number of people receiving professional income has diminished.

In conclusion, the restructuring process related to transition to market economy carries on in Estonia, and thus permanent long-term economic relations have not yet fully developed. The relation of deposit growth to other economic indicators is relatively weak and changes periodically, which does not allow for a successful assessment of the economic environment's impact on the volume of deposits.

STRUCTURE AND DEVELOPMENT OF ESTONIAN HOUSING MARKET

During the last five years the total volume of housing loans and leasing granted by Estonian banks and leasing companies has increased annually more than 40% and the household debt has grown nearly four times, amounting to 30% of GDP. At the same time, residential property prices have risen, e.g. the price of a two-room flat in satisfactory condition in Tallinn has almost tripled in five years. The fast growth of residential property prices and housing loans, which has outpaced that of the disposable income of households, has raised concerns about overpricing in the housing market and the growth sustainability of housing prices and loans. The present background information gives an overview of the risks the decline of residential property prices and loans poses on the financial sector, covers the Estonian housing market developments in recent years, and analyses the possible overpricing of housing in Tallinn and Tartu.

Risks accompanying the decline of residential property prices and housing loans

The survey published by the International Monetary Fund in 2003 on stock market and housing market booms and crashes in industrial countries after World War II⁷ showed that a **real estate boom⁸ was followed by a crash in 40% of cases** and after the crash of residential property prices GDP turned out to be on average 8% lower than the result achieved by extrapolating the pre-crash average growth rate. The change of residential property prices may influence economy in several ways. As regards the real economy, investments of domestic economic agents may rise or decline and private consumption may also change because of the wealth-effect. The financial sector may be affected by the decline of residential property prices.

Bank loans are the main financing source for real estate, whereas housing loans traditionally form a large share in banks' portfolios. Slightly more than half of Estonian banks' portfolios are granted to real estate companies or to households for housing purposes and 70% of these are secured by a mortgage. The decline of residential property prices may affect the activities of banks in several ways: through (1) the decline of quality of mortgage loans and rise of loan losses; (2) the deterioration of the financial position of borrowers or the bank itself, or (3) the decrease of financial transactions and slowdown in economic activity. One of the surveys published this year by the Bank for International Settlements (BIS)⁹ showed that the **profits of banks in industrial countries have decreased by a half in the so-called bad times, whereas provisions have doubled.**

The risk related to housing loans depends on the purpose of the loan. Housing loans are considered to bear the lowest risk since housing is treated as a necessity for which there is less elastic demand and the loan is repaid from household income, which should be more stable than corporate income. Loans issued to real estate developers are considered notably riskier, since their repayments are guaranteed by the sales or rental prices only after the completion of the property. Accordingly, at the beginning of 1990s the growth of bad loans

⁷ "When Bubbles Burst", World Economic Outlook, 2003, Ch 2.

⁸ Boom was defined as a price increase, which exceeded the limit of the upper quartile of all price increases.

⁹ Haibin Zhu, "The Importance of Property Markets for Monetary Policy and Financial Stability. Real Estate Indicators and Financial Stability", BIS Papers, No 21.

of commercial real estate companies was one of the main triggers for the banking crises of industrial and East-Asian countries. Meanwhile, the growth of the so-called speculative real estate investments has been observed in several countries around the world (allegedly also in Estonia). The risk level of such investments is relatively higher, similarly to loans issued to professional real estate developers.

Residential property price dynamics affects banks also through the change of market value of the mortgaged property. In order to protect themselves against the drop of residential property prices, banks apply the requirement of down payment but this may turn out to be insufficient in case of an extensive price fall. Surveys also reveal that the loan terms and conditions of banks are pro-cyclical, i.e. in good times, banks tend to underestimate the risks for different reasons, e.g. self-financing rates are cut down in case of fast growth of residential property prices. Besides the credit risk, the fall in residential property prices might also undermine banks' profitability through the need to increase provisions, which results in a decrease in capital adequacy and loan potential, and thus also reduced interest income as well as fee and commission income.

Estonian housing market trends in recent years

The rise in Estonian housing market prices and transaction volumes has been strongly supported by income growth, declining average interest rates as well loosening loan terms and conditions. For instance, the maximum loan amount a household with two members, both of whom work in Tallinn and receive average income, can take has increased one and a half times in the last five years, taking into account the decline of the average interest rate. Income, on the other hand, has grown approximately 60%. Banks have loosened loan terms and conditions under competitive pressures, e.g. they have lengthened the maximum loan repayment period and found opportunities to decrease the minimum requirement for down payment.

Without doubt, expectations also play an important role in housing market developments. Thus, housing investment decisions may be made on the basis of high yields in previous periods and the assumption that such tendencies would continue in the future. The predictable increase of speculative housing investments reflects that such an approach is widespread. On the other hand, residential property price rise expectations have increased due to Estonia's accession to the European Union and the Economic and Monetary Union. The interest of foreign investors in the Estonian housing market is often mentioned in this relation. According to the statistics of the Estonian Land Board, however, the **share of foreign investors in the Estonian housing market is relatively small** – 7,2% by number and 4,3% by value of all contracts concluded in the first half of 2005 and it has not exceeded 10% in the previous periods either. It has to be taken into account, though, that the share of foreign investors may differ by region, e.g. in Tallinn Old Town it may be quite high. Moreover, some foreign investors may use companies established in Estonia for the ownership of real estate.

Proceeding from the rigid supply characteristic of the housing market, in the medium term prices are mainly determined by the demand. The purchase-sale value of dwellings has risen an average of 20% annually in Estonia over the last two years, raising the average price level by almost one and a half times. As regards the latest developments, where the increase in the number of **purchase-sale contracts of dwellings** has rather accelerated in 2005 (from 19%

in the first quarter to 26% in the second), the increase in the average value of transactions has slowed down from 29% in the first quarter to 20% in the second (see Figure 2.25).¹⁰ Although according to the transaction volumes and values the housing market has become active outside Tallinn as well, the **real estate transactions have concentrated even more around Tallinn during the last three years** – the Harju County accounts for almost 60% of the number of transactions and approximately 80% of their value.

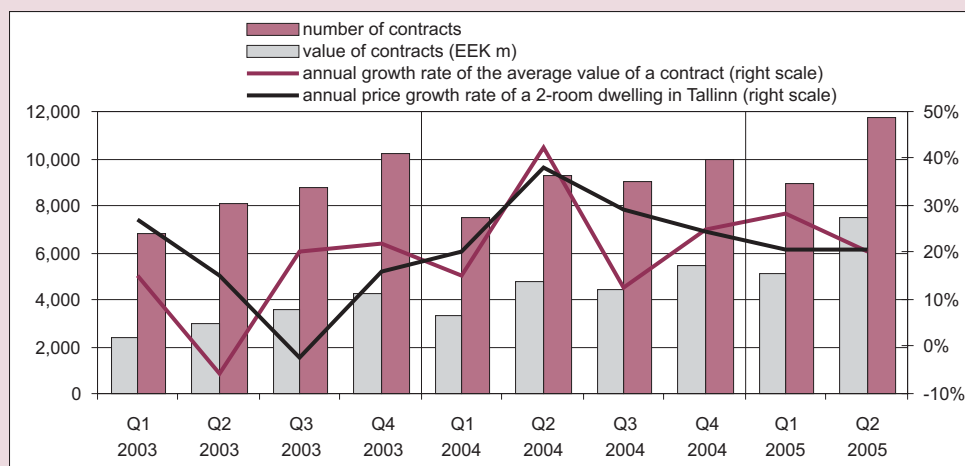


Figure 2.25. Notarised purchase-sale contracts of dwellings and residential buildings as movable assets and real estate, average value of a contract and the price of a 2-room dwelling in Tallinn

Source: Statistical Office of Estonia

The decline in loan interest rates and greater availability of loans has boosted the construction of new dwellings. The fast price rise of typical apartments in 2003 and in the first half of 2004 reduced the price difference between older and new dwellings. Due to income growth and the decreasing price difference between older and new apartments, more and more households could afford to purchase a new dwelling. This, in turn, brought along an increase in the **supply of new dwellings**. Although construction growth might seem enormous (2.3 times more new building permits were issued in 2004, year-on-year¹¹), this year the **total area of the dwellings that were given building permits was 2,5% of the total dwelling stock**, which remains within the 2–3% limit considered to be a common depreciation rate of real estate (see Figure 2.26).¹² At the same time, one must take into account that in Estonia a large share of construction activities and real estate transactions take place in Tallinn and its surroundings, where the share of new building permits in the total dwelling stock is presumably higher.

¹⁰ The price increase of market dictating two-room flats in Tallinn slowed down from 25% in the fourth quarter of 2004 to 21% in the first two quarters in 2005.

¹¹ Issuing of building permits was especially active in the second quarter of 2004, when a large share of building permits were registered beforehand in expectation of a change in VAT from 1 May 2004.

¹² For example, in Austria new building permits formed 5% of the dwelling stock in 2003, according to RICS European Housing Review 2005.

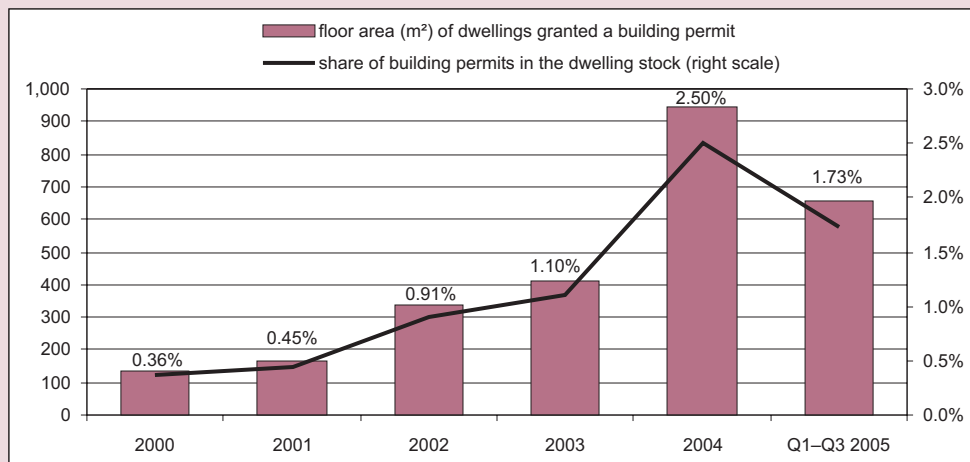


Figure 2.26. Construction permits issued and their share in the dwelling stock

Source: register of construction works

Is the housing market overpriced?

Real estate is considered to be overpriced when its price highly exceeds its fundamental value. At the same time, it is difficult to determine the fundamental value of a property, because it involves forecasting of unrealised expected values. It is as difficult to estimate the extent of the market value exceeding the fundamental value in order to qualify as important in determining whether real estate actually is overpriced. In case of Estonia which is a transition economy, the analysis of possible overpricing in the real estate sector is further complicated, as the nominal and real convergence is expected to be accompanied by an increase in residential property prices, more so because the initial price level of residential property was very low.

There are mainly two ways to gauge whether real estate is overpriced: the ratio of residential property price to income and the real estate price-yield ratio. For example, in the UK the “affordability” ratio (i.e. the ratio of average housing price to annual income) is used to estimate the overpricing of the housing market. The historically optimal level of this ratio is 4. In the Financial Stability Review of November 2004, the “affordability” ratios were compared for Tallinn and Helsinki until 2003¹³ and it was found that in both regions this ratio has remained between 4.5–5.0 since 2002. It was concluded that **in the medium term the price increase of residential property should remain lower than income growth, otherwise the residential property price level may be considered overpriced.** As a ratio of “affordability”, the ratio of price per square meter of an average dwelling to average gross monthly wages may be used as well. In case of Tallinn and Tartu, the two largest cities in Estonia the price per square meter of an average dwelling exceeds the average gross wages at least by a fifth (see Figure 2.27), which stands out **in comparison to Finland, where the price per square meter of an average apartment in the Helsinki region has not exceeded the average gross monthly wages of the country for the last five years.**¹⁴

¹³ See the background information “Price Level of Real Estate and Economic Growth” in November 2004 issue of Financial Stability Review.

¹⁴ Using the average gross monthly wages of the Helsinki region would have rendered the price-wages ratio even lower.

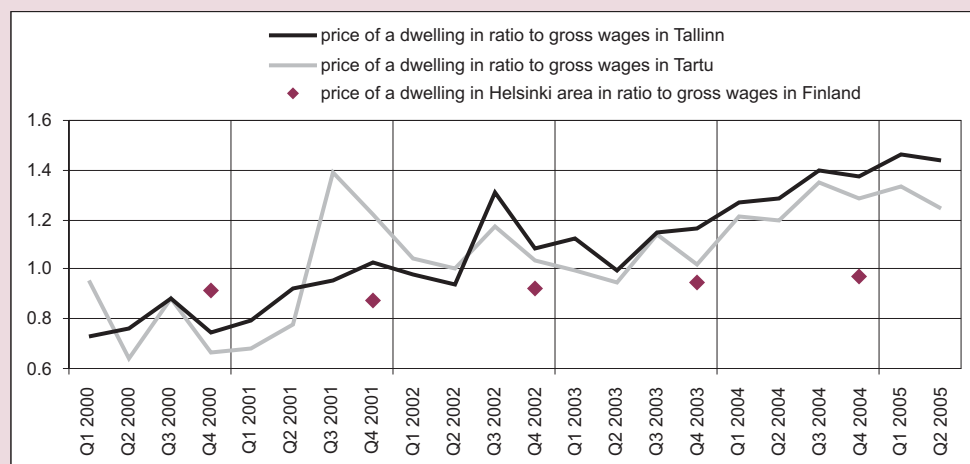


Figure 2.27. Ratio of the price of a two-room dwelling of a certain area to gross monthly wages

Sources: Statistical Office of Estonia, Statistics Finland

Another way to analyse the possible overpricing of the real estate sector is to examine the price-income ratio of real estate, i.e. the ratio of purchase-sale and rental income, as the purchase-sale price should reflect the present discounted value of the future income stream from renting out that property.¹⁵ In recent years, the demand for rental apartments has declined and the supply has increased thanks to the decrease in interest rates and greater availability of housing loans, which has led to a significant reduction in rental prices. While in 1999 it was feasible to earn back the purchase price of a two-room apartment in Tallinn in five years on average through rents, then in 2005 this would take more than ten years (see Figure 2.28).¹⁶

Although rental prices have decreased considerably in relation to purchase-sale prices in the past five years, their current level still does not motivate to rent an apartment rather than purchase one. In the second quarter of 2005, the average rental price exceeded the estimated monthly loan payment marginally¹⁷, but for renting to become attractive, rental prices should be considerably lower than loan repayments. Purchasing property is also regarded as an investment, while rent is expenses (even if capital gain, i.e. gain from the rise in the market value of real estate, is decreasing). Property purchase financed with a loan is more profitable than renting also from the tax perspective¹⁸, as the effective interest rate on the loan is lowered and the yield of the real estate investment increases, whereas there are no tax incentives for renting.

To conclude, the price level of apartments in Tallinn has risen higher than ever in ratio to the income level, while remaining close to the current record high in case of Tartu. At the same

¹⁵ As the Estonian housing market is to a high degree an “owner market” and the share of rental market is small, the incompleteness of the data due to scarcity of observations has to be taken into account in interpreting the results.

¹⁶ Majority of renting still takes place unofficially, which means that the owner does not pay income tax on rents earned. Thus, the profitability indicators are even lower for these contracts than the official statistics suggest.

¹⁷ On the black market, rental prices might have been even lower than the estimated monthly loan payments in the second quarter of 2005.

¹⁸ The Income Tax Act provides for the deduction of interest payments on housing loans from taxable income up to 50,000 kroons per year.

time, the price level of an average apartment in Tallinn exceeds considerably the respective indicator for Finland. The slowdown in the residential property price growth in the first half of 2005 in Tallinn as well as in Tartu gives hope that the situation is going to improve, although a sudden and robust change in the market situation is not expected at present. The decrease in loan interest rates and greater availability of housing loans has decreased the demand for rental apartments, bringing the purchase-sale price and rental income ratio to the historical low. Based on this, the risks of the so-called speculative real estate investments, which have allegedly increased recently and in which case the owner hopes to cover loan repayments from rent income and earn capital gain from the increase in the market price, have increased.

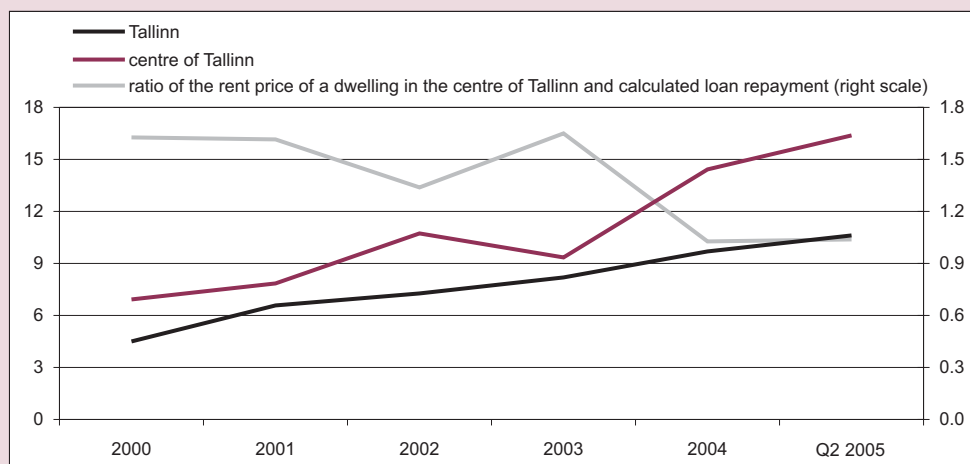


Figure 2.28. Ratio of purchase-sale price to the 12-month rent price of a dwelling and ratio of the monthly average rent price in the centre of Tallinn to the estimated loan repayment

Source: Statistical Office of Estonia
 Calculations: Eesti Pank

III

BANKING SECTOR STABILITY AND RISKS

■ Strategic Development in the Banking Market

The Baltic Investment Group¹, which had been issuing loans in Estonia already before, obtained a licence from the Financial Supervision Authority on September 27 to operate as a credit institution, and thus provided an addition to the six credit institutions licensed in Estonia. Currently there are three branches of credit institutions operating in Estonia licensed in other EU Member States, and the Financial Supervision Authority has been informed by a Latvian credit institution JSC NORD/LB Latvija about their intention to open their branch here. Besides the above market participants, five foreign credit institutions have a representative office in Estonia and 90 foreign credit institutions have submitted applications to provide cross-border banking services.

Compared to the previous review period, there has occurred a change in the ownership of AS Eesti Krediidipank. The Latvian Business Bank, operating in Latvia since 1992 and owned by more than 99% by the Bank of Moscow, increased its share in AS Eesti Krediidipank to over 50%. Consequently, the share of assets of banks controlled by non-resident credit institutions and branches of foreign banks increased to over 99% of the total assets of the Estonian banking sector.

Tight competition in the Estonian banking market continued also in the second and third quarters of 2005, which revealed in aggressive loan campaigns and declining loan margins. The banks licensed in Estonia continue to conduct their activities also on other markets than Estonia. For instance, the Hansapank Group has issued over a half of the total volume of the group's loans and leasing facilities in other countries.

Changes in ownership have brought about changes in the activities of the banking groups. The role of resident banks in intermediating funds to their subsidiaries has decreased. It shows in changes in the banks' balance sheet total as well as in risk assets (see Figures 3.1 and 3.2).

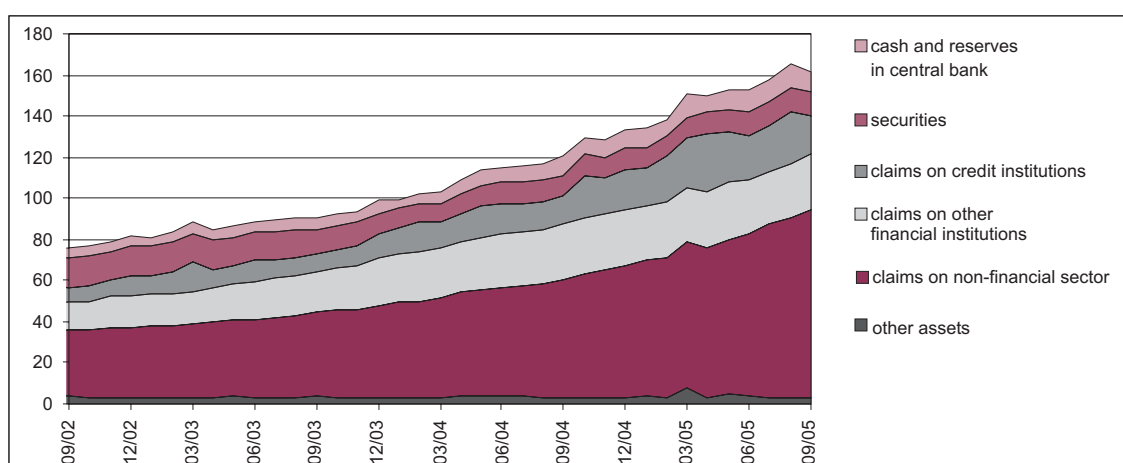


Figure 3.1. Banking sector assets (EEK bn)

¹ Data of the Baltic Investment Group were included in the statistics of the banking sector as of October 2005.

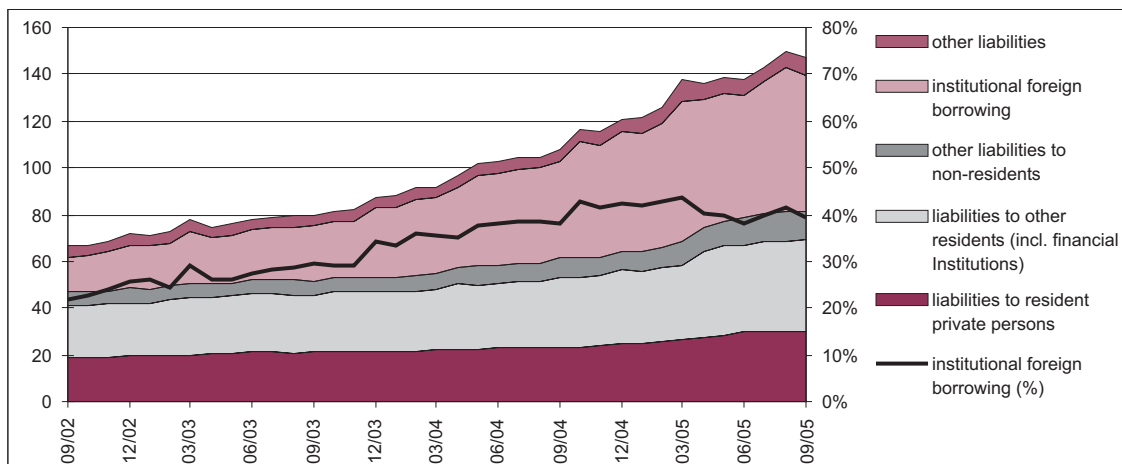


Figure 3.2. Liabilities of banks (EEK bn)

Quality of Assets

The annual growth of the **aggregate credit portfolio of banks and leasing companies operating in Estonia** picked up to over 44% by the end of September due to high loan demand from both households and companies. The volume of credit issued by banks and leasing companies grew to over 119 billion kroons on an aggregate basis by the end of the third quarter. Nearly 5% of the annual growth of finance portfolios arises from improved statistics².

Year-on-year, the share of loans and leasing issued to households for purchasing or renovating housing and to commercial real estate development and management companies has grown the most in the aggregate portfolio of loans and leasing issued in Estonia. The share of household loans and leasing has increased to 39% in the aggregate finance portfolio by the end of the third quarter, 30% issued for purchasing or renovating housing (see Figure 3.3). Claims against commercial real estate development and management companies, which accounted for over 14% of the aggregate portfolio, still form the largest share in corporate loans and leasing.

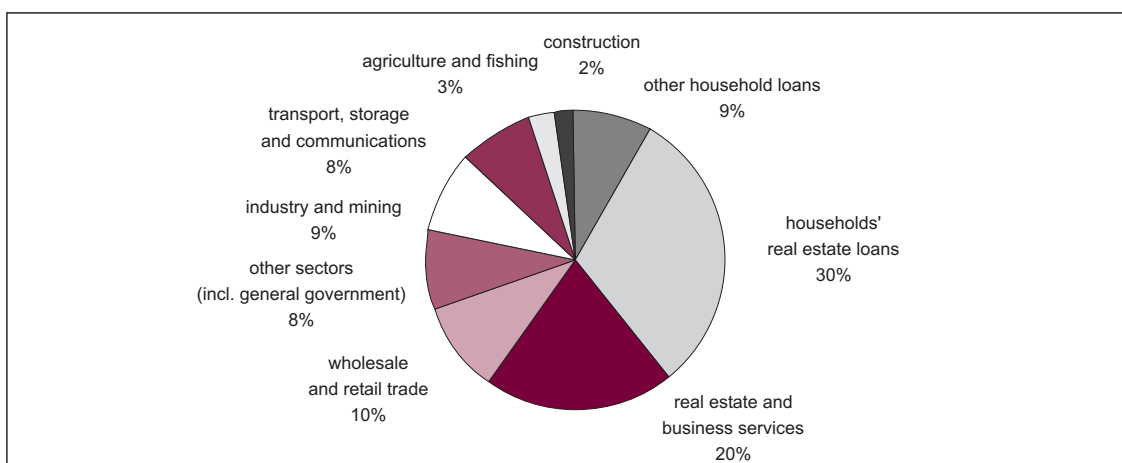


Figure 3.3. Financing by banks and leasing companies in Estonia (as at 30 September 2005)

² As of June 2005, leasing statistics includes in addition to the data of the members of the Estonian Leasing Association also the data of other leasing companies under the same group (Baltic Car Lease, Evison Group, Rentacar).

The share of mortgage in loan collaterals has continued growth also in the last two quarters – mortgage loans accounted for over 70% of all loans issued by banks at the end of the third quarter. Mortgage or pledge of building is used as a collateral for more than 83% of household loans; about 8% of outstanding loans (mainly study loans) are secured by guarantees (see Figure 3.4).

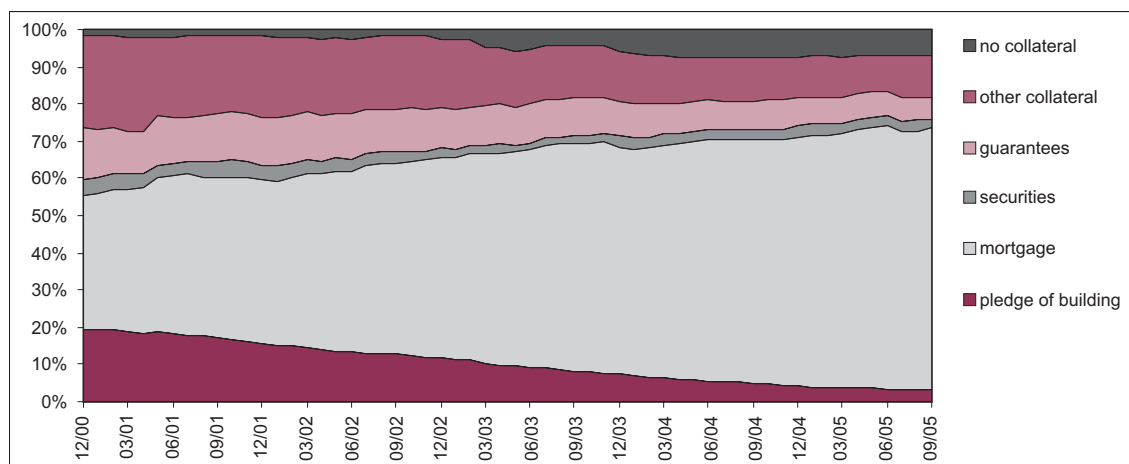


Figure 3.4. Loan collaterals by type

At the same time, the share of **loans without collateral** in the aggregate loan portfolio has decreased. At the end of September, unsecured loans constituted for less than 7% of the aggregate loan portfolio (see Figure 3.5) of which household loans accounted for the largest share (40%). At the end of the third quarter, banks classified 98.3% of all loans without collateral as “in order”; the respective indicator for household loans was 96.9%.

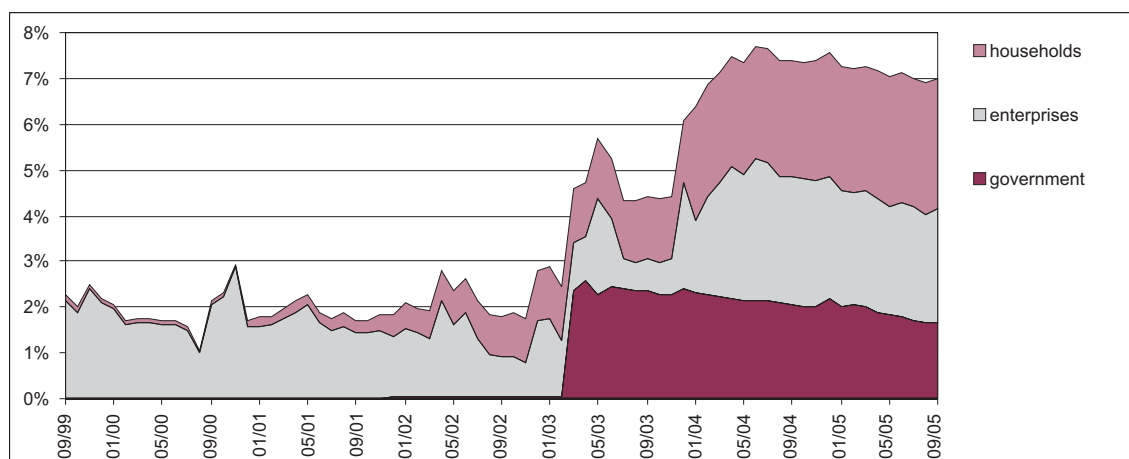


Figure 3.5. Share of loans without collateral in total domestic bank financing by sectors

Quality indicators of the banking sector’s loan portfolio have generally remained good under favourable economic environment, low key interest rates and rapidly growing loan portfolios. On a solo basis, the aggregate share of **loans overdue for more than 60 days** granted to the non-financial sector has remained below the annual moving average over the last two quarters until September. In September, the share of

loans overdue for more than 60 days increased to over 0.51% because of larger overdue loans among the loans granted to export-oriented companies. Loans issued to the industrial sector formed approximately 45% of the aggregate loans overdue for more than 60 days at the end of September. The share of such loans in other sectors has been rather stable on an aggregate basis, but the share of loan repayments overdue for a shorter period has started to grow again (see Figures 3.6 and 3.7).

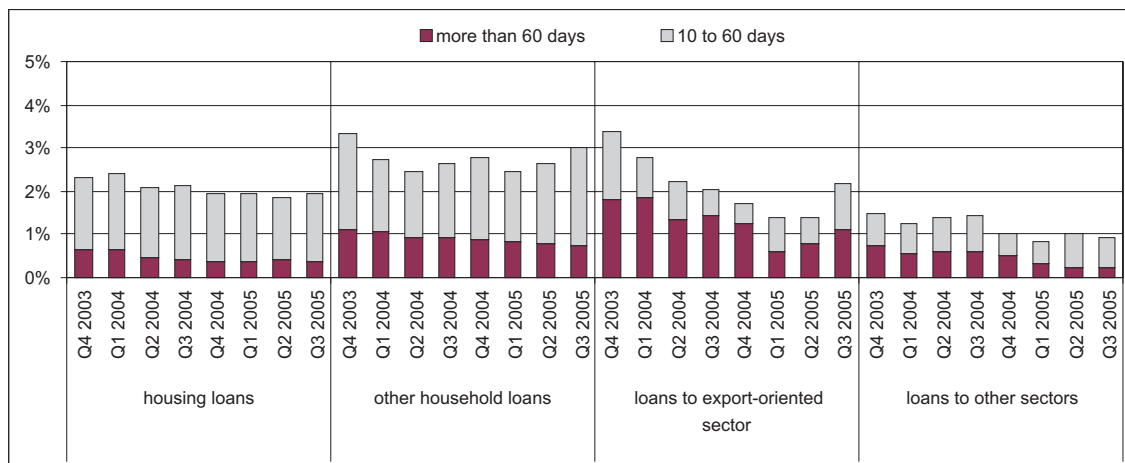


Figure 3.6. Overdue loans by economic sectors

* 3 months average

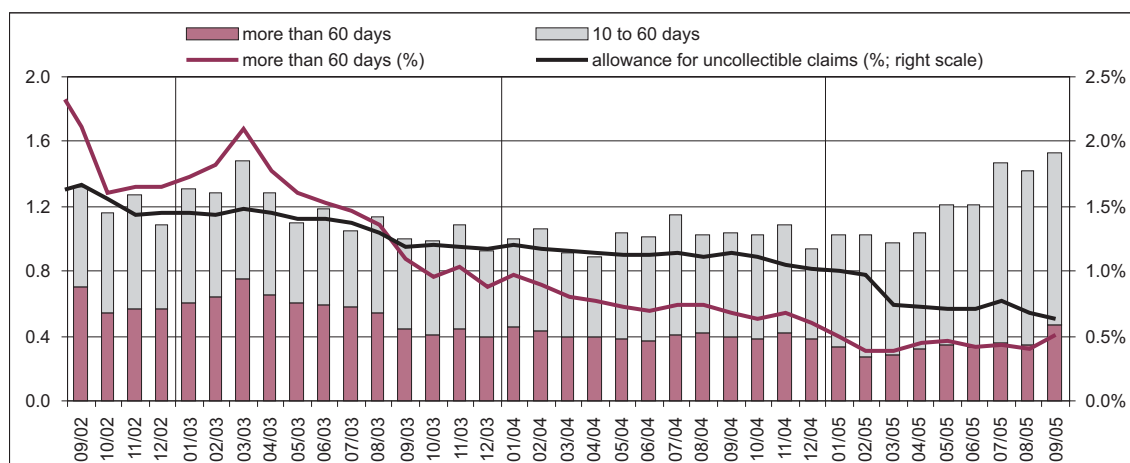


Figure 3.7. Volume of overdue loans (EEK bn; left scale) and share of overdue loans and allowance for uncollectible claims in banks' loan portfolio

The ratio of allowance for uncollectible claims, i.e. the ratio of banks' provisions for loan losses, to the total loan portfolio has decreased from 1.15% at the end of the third quarter of 2004 to 0.64% by the end of the third quarter of 2005. The decline in the provisioning ratio arises not only from better asset quality but also from changes in the provisioning principles³. At the end of September, the share of loan write-downs exceeded loans overdue for more than 60 days by 1.3 times on aggregate.

³ From 2005 onwards according to international financial reporting standards (IFRS/IAS) provisions for loan losses should be made only when there is objective evidence of loan impairment.

Aggregate indicators of banking groups have changed likewise. Rapid growth in loan portfolios (annual growth 49%) has expanded the aggregate portfolio of loans and leasing financing to almost 178 billion kroons. The ratio of allowance for uncollectible claims to the loan portfolio decreased on an aggregate basis from 1.3% at the end of the third quarter of 2004 to 0.8%.

As regards changes in **risk levels of loan portfolios**, earlier trends have continued over the past two quarters: the share of mortgage loans has grown, and the ratio of allowances for uncollectible claims to the total loan portfolio has decreased.

Thus, it is important that banks retained prudent conservative approach to assessing the future loan-servicing ability of borrowers despite competitive pressures. Moreover, for the sustainable operation of banks they should retain such approach also to assessing the potential future changes in the collaterals' market value (incl. real estate prices), as the real market value of the collateral should exceed the sum owed by the customer when customer's inability to service the loan might call for disposing the collateral.

■ Capital Adequacy

Fast loan growth reflects in a pickup in the annual growth of banks' **risk assets** to 30% by the end of the third quarter. The growth in banks' risk assets on a solo basis could have even been faster if financing of activities of other companies of the group through banks licensed in Estonia had not been diminished. The share of credit risk weighted balance sheet items increased to more than 90% in total risk assets on an aggregate basis (85% in September 2004). Credit risk weighted off-balance-sheet items accounted for 8.3% of the risk assets on an aggregate basis. Trading portfolios and risks related to foreign exchange positions formed only 2.2% of banks' risk assets at the end of September (7.3% at the end of the third quarter of 2004; see Figure 3.8).

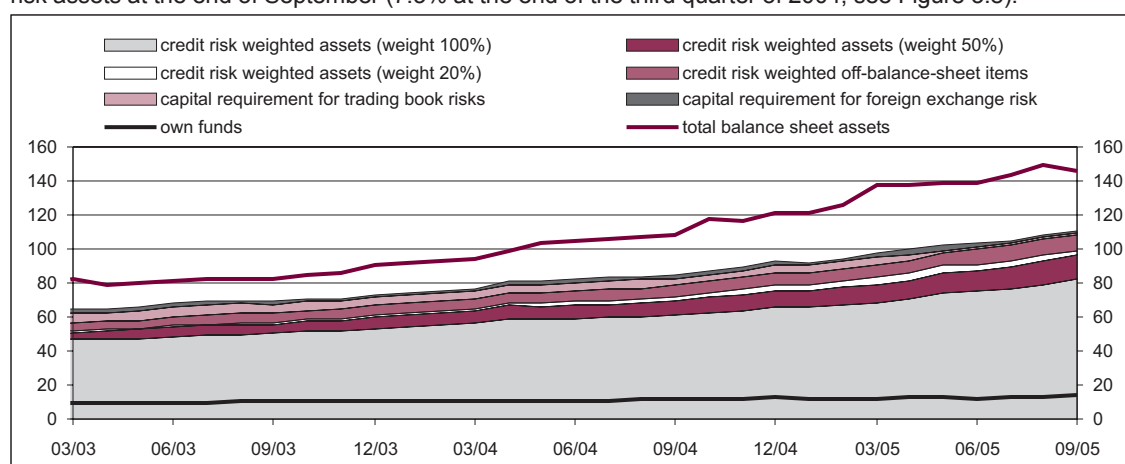


Figure 3.8. Structure of banking groups' risk weighted assets and own funds (EEK bn)

The 16% annual growth in banks' **own funds** mainly arose from retaining of profit under own funds⁴ as well as from additional subordinated liabilities. The volume of the net own funds was also affected by an increase in the amounts deducted from banks' gross own funds, as these are included in the own funds of banks' subsidiaries. On an aggregate basis, banks' net own funds reached 13.7 billion kroons by the end of the third quarter. Banks' aggregate capital adequacy ratio remained at a lower level than in 2004, reaching 12.4% at the end of September (the lowest capital adequacy ratio of a bank on a solo basis at the end of the third

⁴ The Financial Supervision Authority sent a letter to all banks in March 2005 asking them to retain freed capital in their own funds so as to guarantee sufficient capitalisation and sustainable operation also under conditions less favourable than today. Major banks did not pay dividends in 2005 and retained profit under own funds by including it in capital adequacy calculation.

quarter was 11.0%).

As regards banks' open **foreign exchange positions**, a major change occurred in September 2005 in the open EUR position. A large foreign exchange transaction between Hansapank and its parent bank resulted in a decrease in the open long EUR/EEK position from 40.5 billion to 16 billion kroons (see Figure 3.9) as Estonian banking sector aggregate.

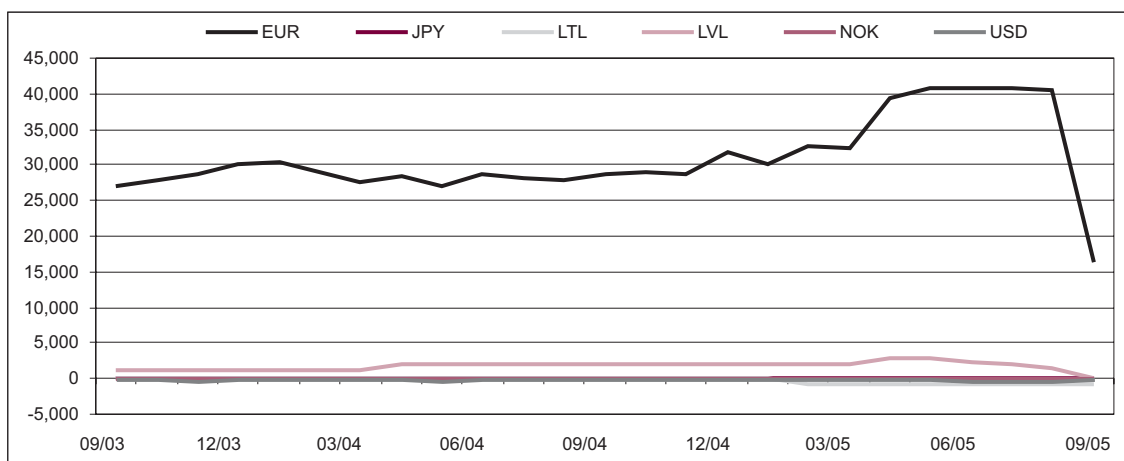


Figure 3.9. Open foreign exchange positions by currency (EEK m)

The rapid growth (higher than 41% annual growth) of **risk assets of banking groups** reflects also the fast growth of finance portfolios on other markets where subsidiaries of banks licensed in Estonia operate. Thus, the aggregate risk assets of banking groups are expected to exceed 180 billion kroons by the end of the third quarter of 2005. Credit risk weighted balance sheet items accounted for about 90% of the aggregate risk assets of banking groups at the end of the third quarter. The share of credit risk weighted off-balance-sheet items rose to 7.5% by the end of the third quarter, reaching close to the year-ago level. The share of risk arising from trading portfolios and foreign exchange positions diminished to below 3%.

The **own funds of banking groups** grew 34% to 20 billion kroons at the end of September. Banks' aggregate capital adequacy ratio on a consolidated basis was lower at the end of September (11.4%) than a year ago (12.0%; see Figure 3.10). Similarly to the solo indicator, the lowest capital adequacy ratio of a banking group was 11.0% at the end of the third quarter.

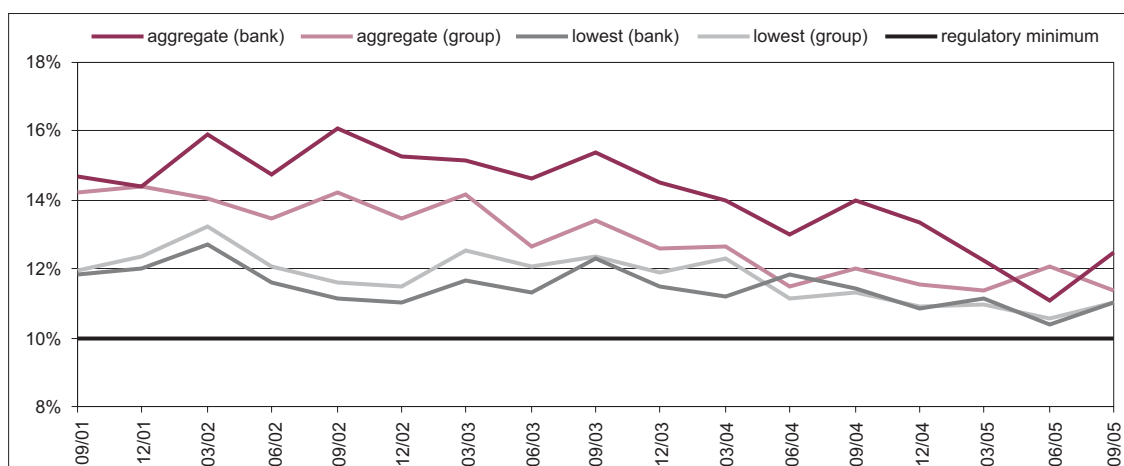


Figure 3.10. Capital adequacy

Upon the evaluation of banks' capital buffers the favourable economic environment and customers' rather good loan-servicing ability should be taken into account. The provisioning of banks' claims has decreased. Changes in the economic environment, however, may entail a growth in loan losses. Should banks increase the share of assets/operations with higher risk level in order to maintain profitability, it is important that the increase in risk level be appropriately reflected also in banks' capital buffers.

■ Liquidity

Funding of Banks

The accelerated growth of deposits and a temporary slowdown in financing growth supported the decline of the **financing-deposit ratio** in March and April, following a record high in February (see Figure 3.11). The growth of financing picked up in May and June and thus the indicator started to rise as well, reaching 1.48 in September. The need for **institutional foreign borrowing** has slightly decreased and its share in the liabilities fell to below 40%. This was caused by a rapid increase in deposits as well as the fact that non-resident subsidiaries of larger banking groups are now more often funded by parent banks based in the Nordic countries. Since changes in the ownership of Hansapank that attracted the majority of market-based funds, funding has now been mainly based on parent bank funding. Thus, slightly over half of non-resident institutional funding of the banking sector at the end of the third quarter was obtained from the parent banks based in the Nordic countries, whereas about six months earlier market-based funding accounted for nearly 60%.

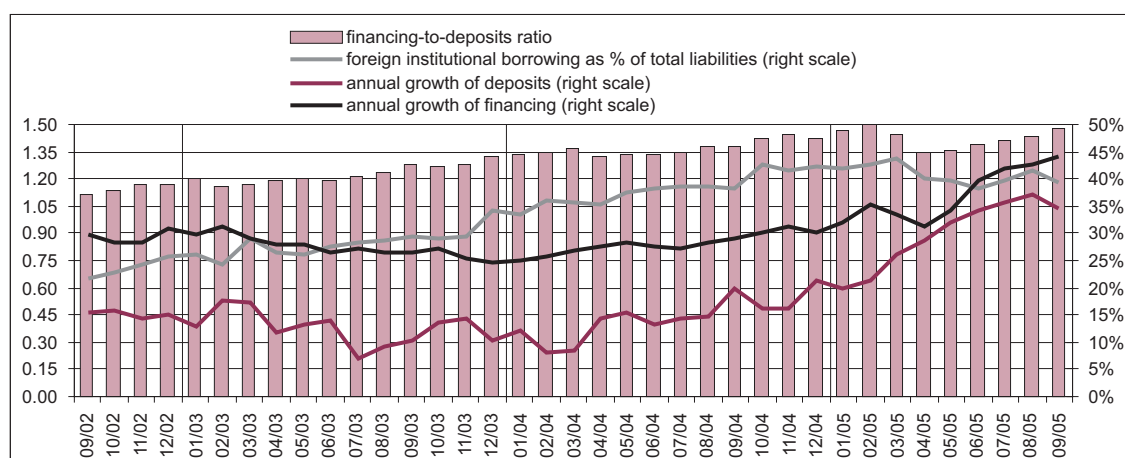


Figure 3.11. Financing-deposits ratio and share of foreign institutional borrowing in total liabilities

As the share of funds of parent banks, which are mainly short-term, has increased over the last six months, the **share of short-term liabilities in total liabilities** grew to over 80%. In September, the respective indicator fell again to below 80% due to the inclusion of subordinated liabilities and large long-term loans from the parent bank (see Figure 3.12). The structure of liabilities by instruments has been rather volatile over the last six months, mostly because of the above mentioned changes in the financing scheme.

In line with the EURIBOR, which is increasing in anticipation of the expected rise in the key interest rates in the euro area, the **average price of funding** has also increased in case of nearly all instruments (see Figure 3.13). A rise in the share of funding by the parent bank may also affect the funds price. It may

decrease due to different maturities of instruments, as the parent bank's funds are in most cases received with a shorter maturity and at a lower price than e.g. bonds. However, given the large share of customer deposits, a shift in the funding structure will evidently not influence the average price of funding of the banking sector significantly.

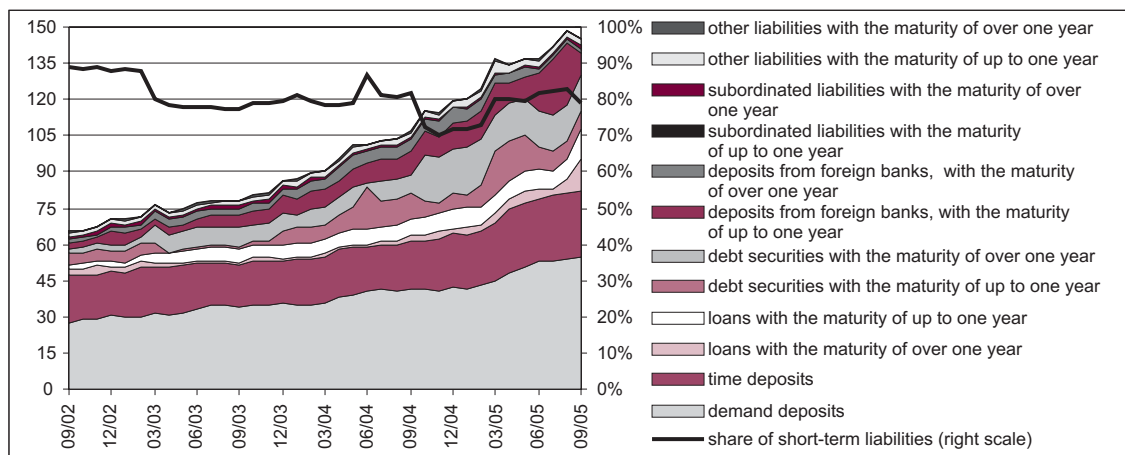


Figure 3.12. Structure of banks' liabilities (EEK bn)

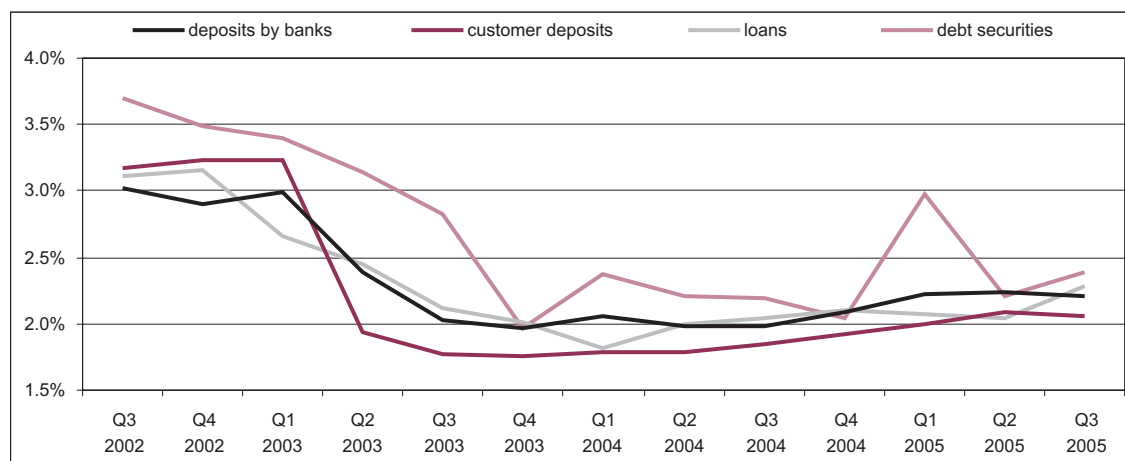


Figure 3.13. Weighted average interest rate on funds attracted by instruments

Liquid Assets

A decline in the interest income from interest-earning assets and less active inclusion of market-based funding have brought about a decrease in the share of **liquid assets**, which are generally low-yield instruments, by 6 percentage points to 19% of the total assets compared to the period six months ago. This indicator remains 2 percentage points below the average of the last three years (see Figure 3.14). Meanwhile, the liquidity of nearly all major banks has decreased which may be related to changes in liquidity management, whereas for smaller banks a rise in the share of liquid assets can be detected. The decrease of liquid assets in major banks might deepen even further, which might entail higher demands on banks' liquidity management and make banks more dependent on their parent banks and the market situation.

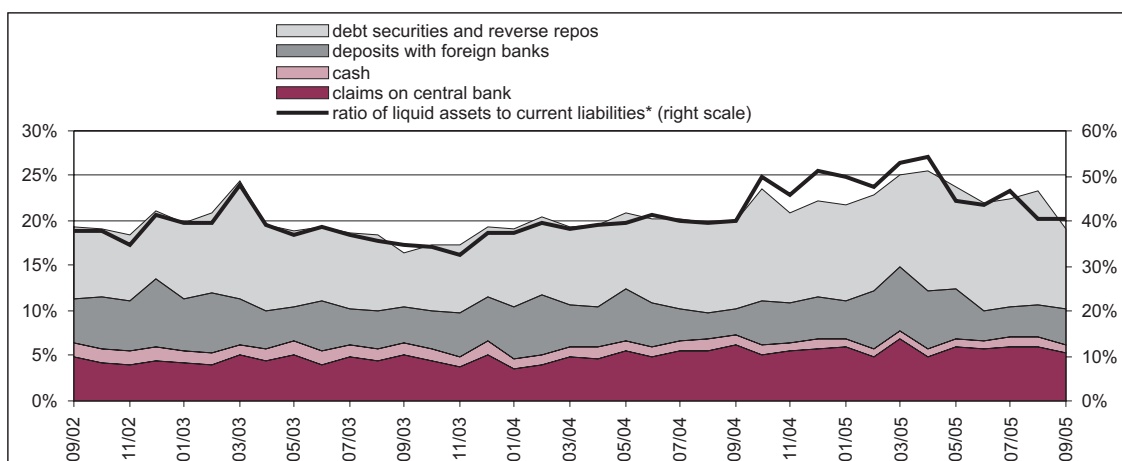


Figure 3.14. Share of liquid assets in total assets and current liabilities

* current liabilities – remaining maturity of up to one month

■ Efficiency and Profitability

Efficiency and Profitability of Banks on a Solo Basis

Asset utilisation⁵ of the banking sector, i.e. the ability to earn income, is going through a steady decrease due to rapidly growing interest-earning assets and the declining net interest margin (see Table 3.1). **Profit margin**⁶, i.e. the ability to earn profit from income, has increased due to improved cost efficiency, changes in the accounting of provisions and goodwill arising from the adoption of IFRS/IAS, as well as due to a slight rise in other operating income. Thus, **return on equity** of the banking sector rose by 2.7 percentage points to 22.3% in the third quarter, year-on-year. The level of return on equity of major banks has also levelled off.

Table 3.1. Banks' profitability on a solo basis

	2001	2002	2003	Q3 2004	2004	Q1 2005	Q2 2005	Q3 2005
Asset utilisation	11.4%	9.3%	7.9%	7.6%	7.4%	7.2%	7.2%	7.1%
Return on assets	2.66%	1.55%	1.70%	2.17%	2.14%	2.06%	2.08%	2.12%
Profit margin	23.4%	16.8%	21.7%	28.6%	28.8%	28.6%	28.8%	30.0%
Return on equity	20.7%	14.7%	14.1%	19.6%	20.0%	20.3%	21.4%	22.3%
Cost-to-income ratio	0.53	0.62	0.53	0.45	0.46	0.46	0.46	0.45

The share of **net interest income** in total income fell from 30% to 27%, year-on-year, owing to the fall in interest income and the rise in interest expenses. The decline in the interest income as a share of **interest-earning assets** slowed down in the last two quarters, which partly owes to the larger share of the loan portfolio that increased at the expense of a decrease in the share of liquid assets. Therefore, the fall in **net interest margin** and **spread** has also slowed down (see Figure 3.15). The rise in the interest expense as a share of **interest-bearing liabilities** that started in the last quarter of 2004 has remained slow but stable. The increased share of deposits did not decrease the average price of funding, as for larger banks deposits offer an alternative for the parent bank's funding at a comparable price.

⁵ Asset utilisation is calculated by dividing total income by total assets. Return on assets is calculated by dividing net profit by total assets.

⁶ Profit margin is calculated by dividing net profit by total income.

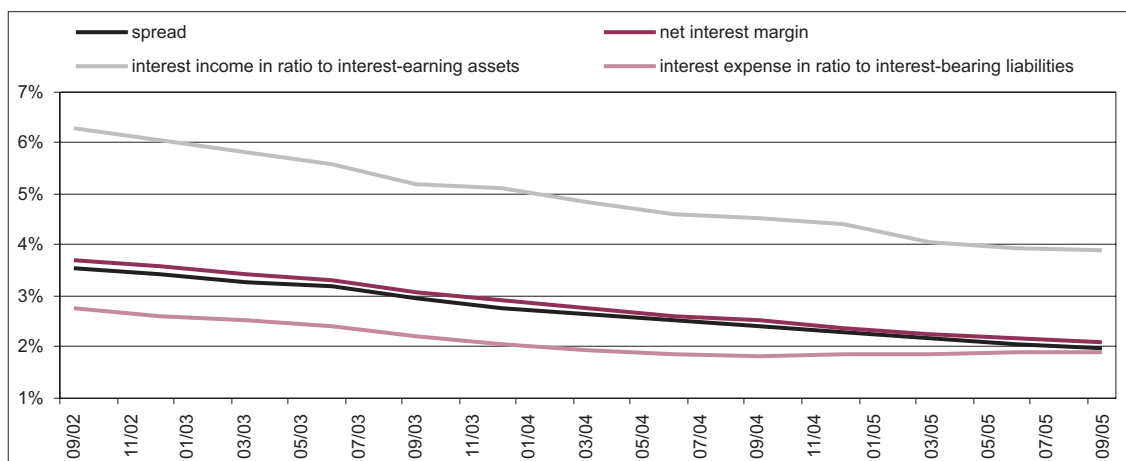


Figure 3.15. Net interest margin and spread on a solo basis

Net income on financial investments in subsidiaries accounted for about one tenth of the total four-quarter income of the banking sector, which shows no remarkable year-on-year change (see Figure 3.16). Net fee and commission income has remained around 14% of the total income from the beginning of 2004. In line with a decrease in asset utilisation, the ability to earn fee and commission income has also declined. This reflects banks' limited opportunities to raise fee and commission income under tight competitive pressures, even though their pricing is less transparent compared to e.g. interests.

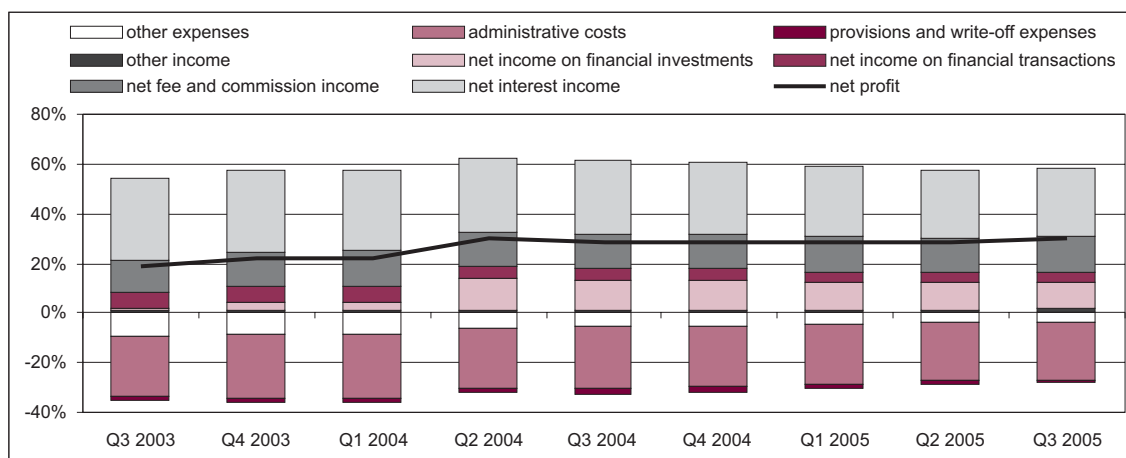


Figure 3.16. Income, expenses and net profit* on a solo basis (% of total income)

* All figures are four-quarter moving cumulative

A decrease in the write-offs of claims and off-balance-sheet liabilities contributed largely to the increase in profitability. This stemmed not only from better loan quality under favourable economic conditions, but also from changes in the accounting of provisions arising from the adoption of IFRS/IAS. Profitability was moreover boosted by a decrease of other costs. Cost-to-income ratio fell by 0.3 percentage points to 45.0% over four quarters. This was caused by the implementation of the above standards, which brought about a decrease in depreciation costs of goodwill, and control of administrative costs. Cost efficiency varies greatly across banks: in the third quarter, the median cost-to-income ratio was 58% (branches excluded), which indicates opportunities for an additional raise in the cost efficiency of the banking sector.

Further development of banks' profitability is affected by various contradictory factors. On the one hand, the economic outlook is expected to remain good, facilitating loan demand and loan quality as well as banks' income growth. A further decline in loan margins is unlikely, as their level is already low compared to the euro area loan margins. On the other hand, the rise in the euro area key interest rates would raise the EURIBOR and this, in turn, should restrain loan demand and banks' income growth. Moreover, the increase in key interest rates enables banks to postpone the rise in deposit interest and save on funding cost. The interests of loans with floating interest rate, which are dominant in banks' loan portfolio, would automatically rise. Further improvement of cost efficiency could increase banking sector profitability as well.

Efficiency and Profitability of Banks and Banking Groups on a Consolidated Basis⁷

Even though the income base has been strongly expanding, the consolidated **asset utilisation** of banks and banking groups has continued to decrease, similar to the solo indicators of the banking sector (see Table 3.2). Although **net interest rate margin** and **spread** declined further, the fall in **net interest income** was inhibited by increasing loans-to-assets ratio over the last two quarters. Unlike the solo indicator of the banking sector, banks and banking groups have been able to considerably enlarge the consolidated share of **net fee and commission income** in total income as well as in net interest income. This indicates the growth potential of the usage of banking services in Latvia and Lithuania. Thanks to the satisfactory quality of assets and changes in the accounting of provisions and goodwill arising from the adoption of IFRS/IAS, **profit margin** has also increased notably. Thus, consolidated **return on equity** of banks and banking groups has increased by 2.3 percentage points to 23.9%, year-on-year.

Table 3.2. Banks' and banking groups' profitability on a consolidated basis

	2001	2002	2003	Q3 2004	2004	Q1 2005	Q2 2005	Q3 2005
Asset utilisation	10.3%	9.1%	8.7%	8.7%	8.2%	8.0%	7.8%	7.7%
Return on assets	2.11%	2.12%	2.07%	2.15%	2.22%	2.15%	2.16%	2.18%
Profit margin	22.2%	24.6%	25.4%	26.7%	29.3%	29.5%	30.3%	31.3%
Return on equity	20.0%	20.3%	20.0%	21.6%	22.8%	22.8%	23.2%	23.9%
Cost-to-income ratio	0.61	0.61	0.52	0.50	0.50	0.49	0.48	0.47

⁷ Consolidated analysis of banks and banking groups includes credit institutions, which form a consolidation group, and their subsidiaries on a consolidated basis, one separate credit institution on a solo basis, and branches of foreign credit institutions operating in Estonia, except for return on equity, when branches of foreign credit institutions operating in Estonia are excluded.

IV SECURITIES AND MONEY MARKET

■ Money Market

The key interest rates in the euro area have remained at a low level ever since mid-2003. Thus, the money market interest rates in both the euro area and Estonia remained at a stable low level in 2004 and in the first six months of 2005.

Over the last six months, the **difference between the interest rates of short-term Estonian kroon loans and respective euro area interest rates** has decreased significantly, and so has the difference in interest quotations, which form the basis for forward difference. At the end of April, the difference between the money market interest rates in Estonia and the euro area was approximately 25–30 basis points, but by mid-October it had shrunk to 10–15 basis points (see Figure 4.1). This was due to a decrease in TALIBOR quotations and a slight rise in EURIBOR quotations in October in relation to an expected rise in interest rates.



Figure 4.1. Difference between money market interest rates in Estonia and in the euro area (in percentage points)

Participation in the exchange rate mechanism (ERM II) has been going smoothly for Estonia and no pressure on the exchange rates has occurred in the foreign exchange market. This reveals also in the steady decline of the difference between interest quotations (forward difference).

The **yield of the five-year Estonian Government Eurobond** has been moving in line with the yields of government bonds issued by other euro area countries. However, here too the difference between interest rates has declined compared to the euro area. The difference between the yields on Estonian Government Eurobonds and German bonds with comparable maturity remains below 10 basis points (14–16 basis points in the first half of 2005), and the difference with comparable Austrian government bonds is even lower. Money and bond market trends indicate that the confidence of international financial markets in the Estonian economy is very high and has even deepened further over the last six months. It also shows a modest secondary market of the Estonian Government Eurobonds (see Figure 4.2). The exceptionally high yield on the government bonds of Austria, whose credit rating (AAA) is much higher than Estonia's rating (A), indirectly reflects the foreign markets' inclination to carry on with capital exports to Estonia.

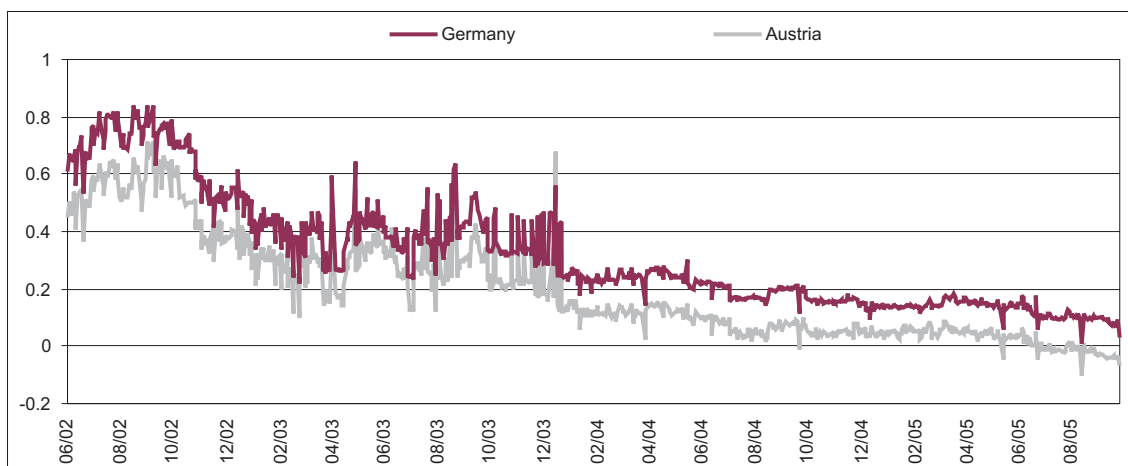


Figure 4.2. Yield difference between the Estonian Government Eurobonds and respective bonds in Austria and Germany (in percentage points)

The **turnover of derivate instruments** in Estonian kroons has held its steady course. The market of short-term loans in kroons amounted to an estimated 30% of the total money market turnover. Non-residents' transactions accounted for about 70% of the market. Swedish, Finnish and Latvian banks remained the most active market participants. The purchase-sale turnover in the central bank's forex window has been in balance also during the ERM II period, i.e. there has been no pressure for the exchange rate of the Estonian krown either to strengthen or to weaken.

The **turnover of derivatives in Estonian kroons** over the last six months has been slightly higher than in the previous quarters, amounting to approximately 34% of the total money market turnover. Non-residents' transactions accounted for about 50% of the turnover of derivatives. While the currency market has always been the most powerful and active part of the Estonian money market, over the last few years the share of derivatives in Estonian kroons in the money market turnover has been considerably declining due to lesser activity of non-residents. This trend reflects a rise in the reliability of the Estonian krown and a reduction in krown risk margins (see Figure 4.3).

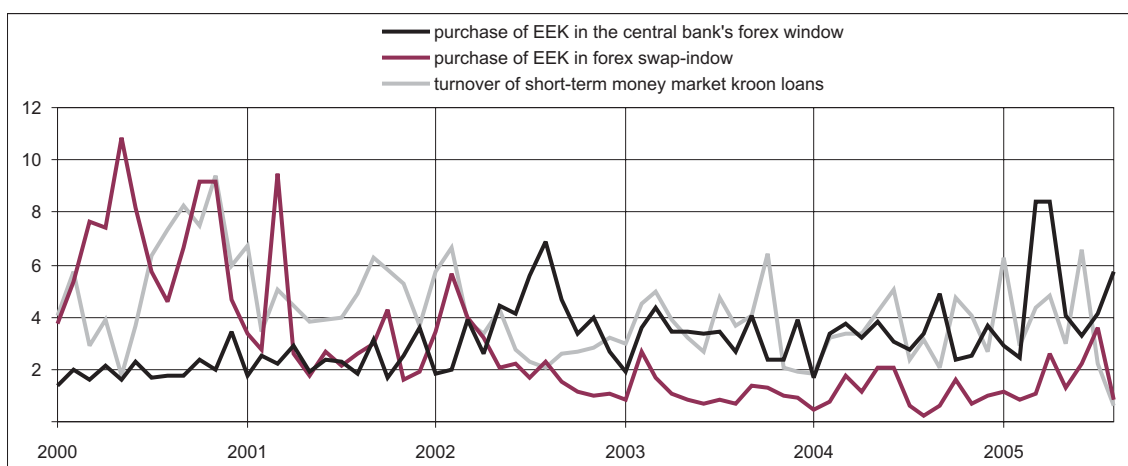


Figure 4.3. Supply of the Estonian krown liquidity in the Estonian money market (monthly turnover; EEK bn)

A change occurred in the currency risks of Hansapank in September, which means that Hansapank and Swedbank made a large foreign exchange swap in the amount of 1.7 billion euros (26.6 billion kroons),

where the EUR/EEK position in the respective amount was closed in Hansapank. The transaction resulted in a hike in the turnover of currency derivatives in September and the open net foreign exchange position of Hansapank (and of the entire financial sector) decreased significantly. Hansapank's long EUR/EEK position declined from 28.4 billion kroons at the end of August to 3.4 billion kroons by the end of September; Estonian credit institutions' long EUR/EEK position decreased from 40.5 billion to 16 billion kroons. The transaction caused no anomalies in quotations of the currency derivatives market.

The Estonian kroon liquidity environment has remained stable and there have been no major obstructions in kroon liquidity in the financial sector. The banks' settlement buffers with the central bank have consistently exceeded the mandatory daily minimum reserve and meeting the mandatory reserve requirement does not pose any difficulties for banks.

BACKGROUND INFORMATION

STRUCTURE OF THE ESTONIAN KROON MONEY MARKET

The Estonian kroon money market mainly consists of short-term (with the maturity of up to one year) kroon-denominated deposit and loan transactions and foreign exchange derivatives and swaps against the Estonian kroon¹ (see Figure 4.4). Transactions with short-term bonds in Estonian kroons are also carried out to a certain extent. However, the Estonian kroon bond market is mainly the primary market and the turnover of the secondary market remains low. Owing to the balanced budget principle and low government debt, there are no short-term kroon-denominated government bonds in Estonia, thus the government bond segment is absent in the Estonian money market. As the Estonian bond market is small, there is no repurchase transactions market either, and several other instruments common on the developed money markets are not traded with in Estonia.

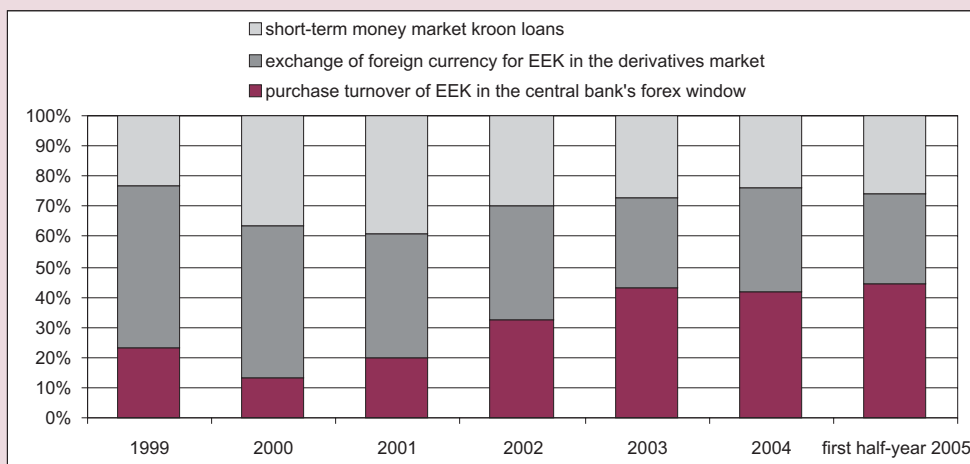


Figure 4.4. Estonian kroon money market by turnover

¹ See also the background information "Main Features of the Estonian Money Market" in the Financial Stability Review of November 2003.

The Estonian kroon money market is comparatively small and low in liquidity compared to the respective money market segments in the euro area countries. Because of the small size of the market and specific features of the currency board system local credit institutions cannot manage their liquidity only on the basis of short-term kroon loans from the local money market, and thus the liquidity of the Estonian credit institutions is mostly managed from outside Estonia. Consequently, the Estonian money market is a niche market, which is important for the non-resident and local non-banking institutions rather than the local financial sector. It is most vividly expressed when comparing the money market loans issued in euros by Estonian banks in the foreign markets and the money market loans issued in kroons by Estonian banks – the turnover of the former exceeds the latter by tens of times (see Figure 4.5).

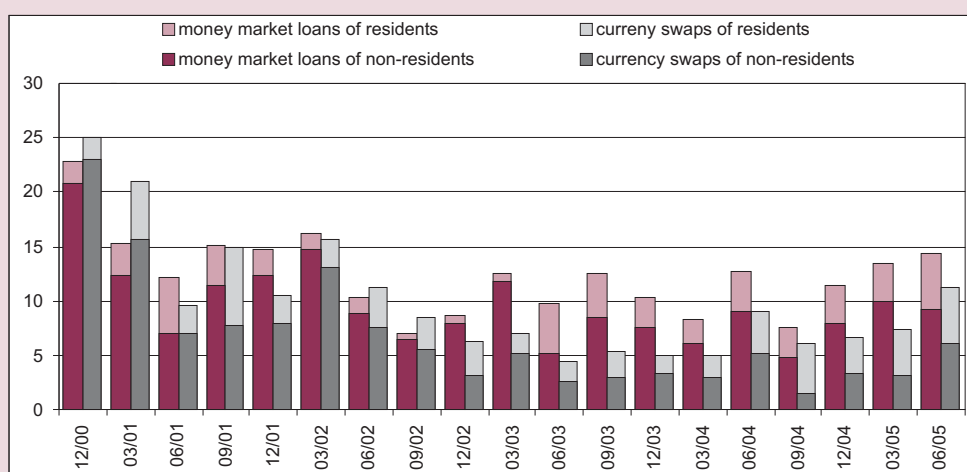


Figure 4.5. Turnover of Estonian kroon loans and derivatives (EEK bn)

The average monthly turnover of short-term kroon loans without collateral has been around 3.5 billion kroons over the last years, transactions with non-resident credit institutions account for 70% of that and transactions between resident credit institutions (mostly overnight deposits in the domestic settlement system) form 20%.

The motive for non-resident banks to operate in the Estonian kroon money market is particularly related to their customers' wish or need to cover the long-term foreign exchange position in the Estonian kroon. Such a wish may arise if a company has made large investments in Estonia and wants to increase the share of Estonian kroon liabilities in the balance sheet in order to avoid exchange rate fluctuations in accounting. The aspect of covering exchange rate risk is one of the reasons why the currency market has always been the most influential and active part of the Estonian money market. On the other hand, a major share of non-residents' derivatives in kroons is related to the US dollar, not the euro, which can evidently be associated with trading flows rather than covering the currency risk of investments.

Arising from Estonia's accession to the European Union and the expected accession to the euro area, the importance of the currency derivatives market as part of the money market has declined over the last years. This shows that there is less need to cover the currency risk, and the difference between the yields on the money market interest rates of the kroon and the euro. The average monthly turnover of derivatives in Estonian kroons (supply of the

kroon in the currency derivatives market) has been around 2.5–3 billion kroons over the last years. Derivatives have mainly involved exchanging foreign currency to Estonian kroons (over 90% of transactions); transactions with non-resident credit institutions have accounted for an estimated 45% in the past few years. Transactions of resident companies amounted to about 34% on average of the total turnover of the derivatives market. Most of the turnover of the Estonian kroon foreign exchange derivatives and swap market comes from risk-hedging transactions between the Estonian kroon and third currencies, particularly the US dollar, which local companies have recently begun using more actively in order to cover foreign trade related cash flows (see Figure 4.6).

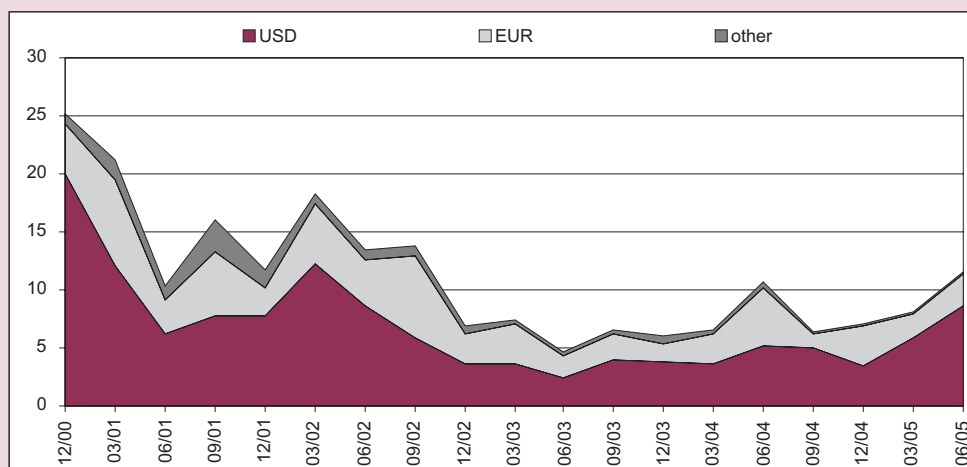


Figure 4.6. Sales of the Estonian kroon in the currency derivatives market by currencies (quarterly turnover; EEK bn)

Under the currency board system the central bank enables the local credit institutions unlimited purchase or sale of all primary currencies at the Estonian kroon exchange rate. This standing facility is called the **central bank's forex window**. Resident credit institutions mainly use the central bank's forex window for foreign exchange transactions and for managing short-term kroon liquidity, as there is no spread between the purchase and sales rates in transactions with the euro. The Estonian kroon purchase turnover in the forex window is on average 3–4 billion kroons a month and accounts for over a third of the turnover of the kroon supply transactions in the money market.

■ Bond Market

The domestic bond market has significantly revived in the expansive environment. The turnover of the **primary bond market** grew 45% from October 2004 to September 2005 (see Figure 4.7). Bond market capitalisation rose 64%, year-on-year, and reached 4.7 billion kroons, i.e. 3% of GDP at the end of September. The market expanded because of an 87% growth in the volume of resident companies' bond emissions, and the volume of bond emissions of the non-financial sector companies multiplied a few times. At the same time, the volume of bonds issued by non-residents fell by nearly a quarter. Even though the volume of bonds issued by credit institutions grew over 25%, the growth of the entire market still outpaced that and the stock of the volume of banks' bonds amounted to 36% of the bond market capitalisation.

Market trends and favourable interest rate environment have facilitated issuance of bonds with a longer maturity. The volume of bonds with the maturity of up to one year has increased 13%, but their share in the total volume of bonds issued over the year has fallen by 20 percentage points to 63%. The volume of short-term bonds declined, whereas the volume of bonds with the maturity of up to three months decreased over three times. However, issuance of bonds with the maturity of three to twelve months rose by a third. The volume of the primary market of bonds with the maturity of over one year doubled. Thus, bonds with the maturity of one to three years accounted for 10% and bonds with the maturity of over three years for 27% of the total volume of issues over the past year. Against the backdrop of low interest rates, bond interest rates are also following a downward trend.

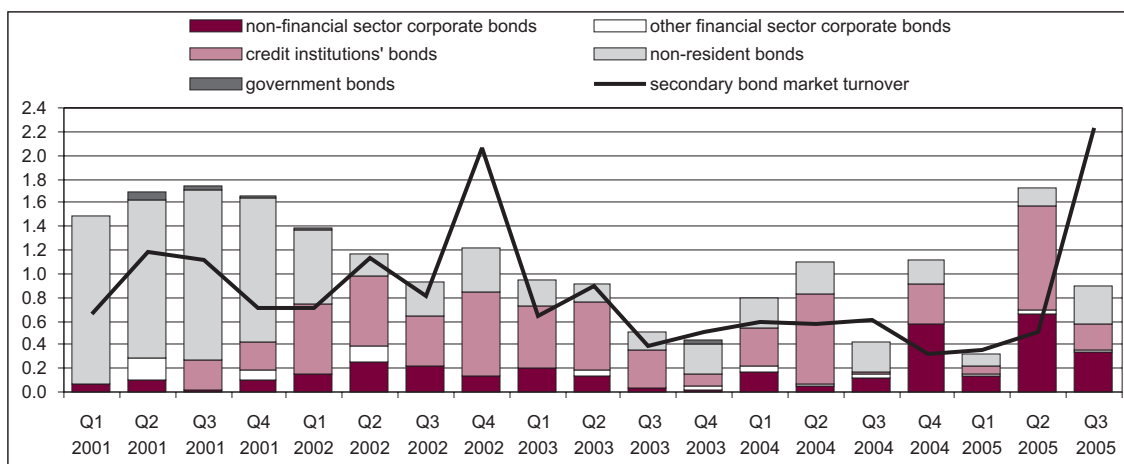


Figure 4.7. Volume of quarterly issued bonds and secondary bond market turnover (EEK bn)

Thanks to the growing primary bond market, the **secondary bond market** revived as well, increasing to over 50% as the sum of four consecutive quarters by the end of the third quarter (see Figure 4.8). The daily turnover increased from 8.8 million kroons to 13.3 billion kroons as the sum of four consecutive quarters. The secondary debt securities market was particularly active in September 2005 when the daily turnover of nearly 63 million kroons almost reached the record level of 2002. The most liquid bonds in September for their turnover were those of Kesko Oyj and Sampo Pank. On a yearly basis, most transactions were carried out with bonds issued by non-residents, whereas bonds issued on the Estonian market account for 47% of the total turnover, bonds registered in the Latvian Central Depository for 9%, and those registered in the

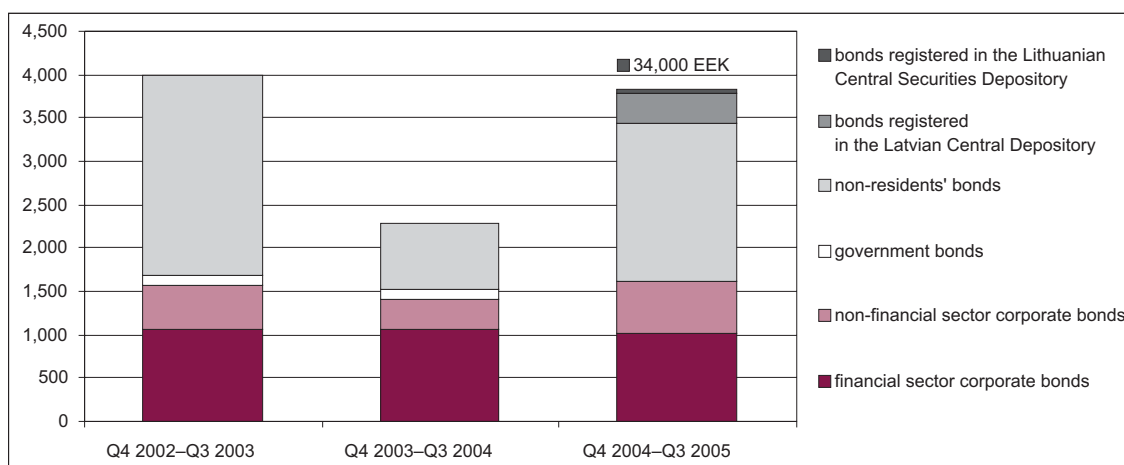


Figure 4.8. Structure of secondary bond market turnover (EEK m)

Lithuanian Central Securities Depository for 1% (for an overview of the development of infrastructures of the Baltic securities market, see Chapter VI “Assessment by the Overseer of Payment Systems”). Though the nominal volume of trading with bonds of the financial sector remained almost the same, year-on-year, their share in the total secondary market turnover has dropped to a quarter, given the growth of the entire market.

The share of residents among bond investors fell from 92% in 2004 to 77% at the end of September 2005. The share of non-residents rose as a result of investments of foreign banks in the Estonian bond market, of which they owned 11% at the end of the third quarter. Companies accounted for 50%, investment funds for 28% and the social security fund for 10% of local investors at the end of September. General government, households and credit institutions accounted for the rest.

Two more debt securities added to the bonds of companies listed on the stock exchange² after the end of March 2005: bonds of SBM Pank were listed in July and bonds of LHV Ilmarise Kinnisvaraportfell in October. Consequently, at the end of October 2005 the market value of bonds of seven companies listed on the Tallinn Stock Exchange reached 0.5 billion, i.e. a tenth of the total bond market volume. Year-on-year, the turnover of the bonds listed turned upward at the end of the third quarter as the sum of four consecutive quarters, the average daily turnover over that period reaching nearly 0.8 million kroons.

■ Stock Market

Stock markets of Central and Eastern European countries and Russia followed a strong upward trend from spring 2005 to early October (see Figure 4.9). Share prices increased due to the growth potential of these countries, declining risk margins, as well as a low level of key interest rates and a rise in raw material prices. Correction, specific to the fast growth of Eastern European and Russian markets, took place in October. This stemmed from investors' wish to realise profits, and also from an expected future rise in the key interest rates in developed economic areas. However, share prices in these countries started to pick up in late October. From January to autumn 2005³, the highest rise (nearly 70%) occurred on the Lithuanian stock exchange, followed by Russian and Estonian stock exchanges with 58% and 51%, respectively. Indices of

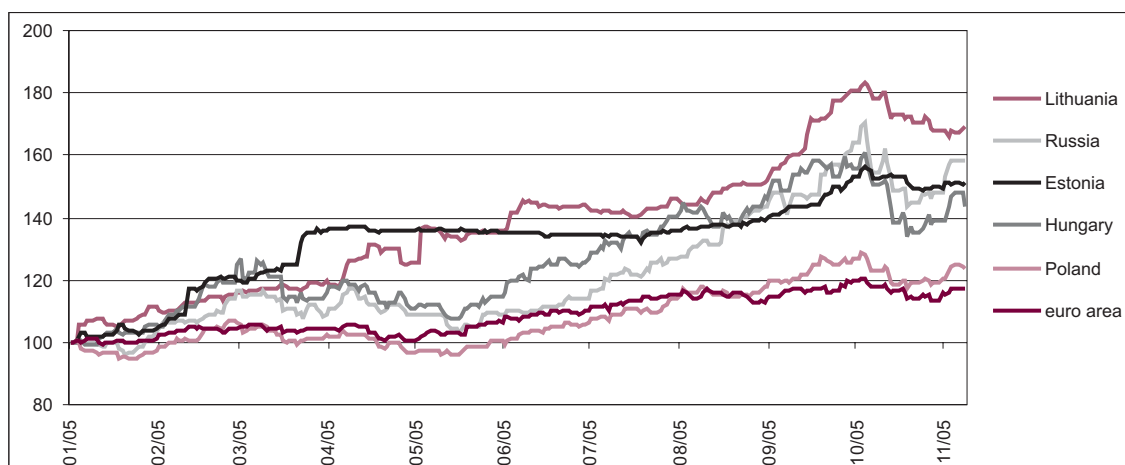


Figure 4.9. Dynamics of stock exchange indices of the new EU Member States, the euro area and Russia (points; 01/01/2005 = 100)

Source: EcoWin AB

² Baltika, Eesti Post, Fenniger, Sampo Pank, and Tallinna Sadam.

³ Until 8 November 2005.

the Polish stock market have most closely followed trends of euro area indices, but have increased more than the latter (24%). Hungarian and Czech stock market developments remained in between the above market trends (Russia and the Baltic countries, on one hand, and Poland on the other). Analysts remain positive about further rise in the Central and Eastern European as well as Russian markets, considering the expected economic growth of those regions, possible euro area accession for some countries in the coming years, and future EU enlargement (Bulgaria, Romania, Croatia).

The trends on the Tallinn Stock Exchange in 2005 have been affected by contradictory factors. The market enlivened significantly in spring due to trading with Hansapank's shares when its strategic owner Swedbank made a takeover bid. This resulted in the leading company of the Tallinn Stock Exchange eventually leaving the exchange at the end of June. The shares of Hansapank were deleted from the list. At the same time, primary issuance of shares took place on the Tallinn Stock Exchange again over several years. As of 1 June, the stock exchange primary list includes the shares of Tallinna Vesi, a public utility company, at market value of 4.5 billion kroons, and as of 28 June the shares of Starman, a telecommunications company, at market value of 0.8 billion kroons.⁴

Consequently, **stock exchange capitalisation** rose to a record 99.3 billion kroons by the end of June, but declined a month later by two thirds to 32.6 billion kroons due to Hansapank's delisting from the stock exchange (see Figure 4.10). The market value of companies listed on the Tallinn Stock Exchange started to increase again in August and reached 36.8 billion kroons, i.e. 24% of GDP, by the end of the third quarter. According to 2003 data of other EU Member States, this indicator shows that after the leading company's delisting from the stock exchange Estonia has fallen behind Cyprus and Malta who are the leading countries among new EU Member States.⁵

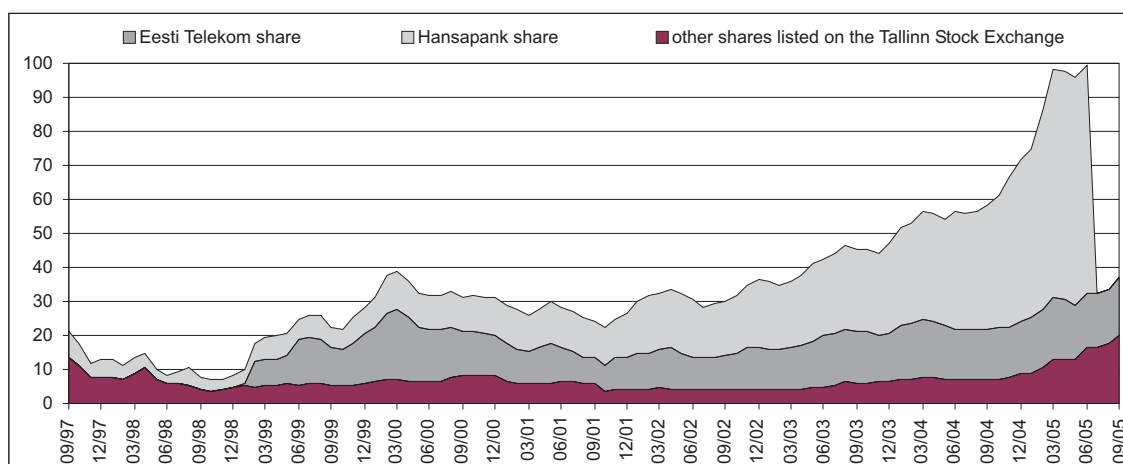


Figure 4.10. Market capitalisation of shares listed on the Tallinn Stock Exchange (end of month; EEK bn)

The **stock index TALSE**⁶ achieved its record level on 4 October 2005 at 700 points (see Figure 4.11) owing to the takeover bid for Hansapank and listing of shares of new companies on the Tallinn Stock Exchange. By late September the annual growth of the index came to 90% and after that TALSE underwent a correction (about 5%) specific to very fast growth.

⁴ Market values as at 31 October 2005.

⁵ Source: European Central Bank, "Banking Structures in the New Member States", January 2005.

⁶ As of 3 October 2005, OMX harmonised the index name structure for all OMX exchanges, including in Tallinn. The new name of the Tallinn Stock Exchange index (TALSE) is OMX Tallinn (OMXT).

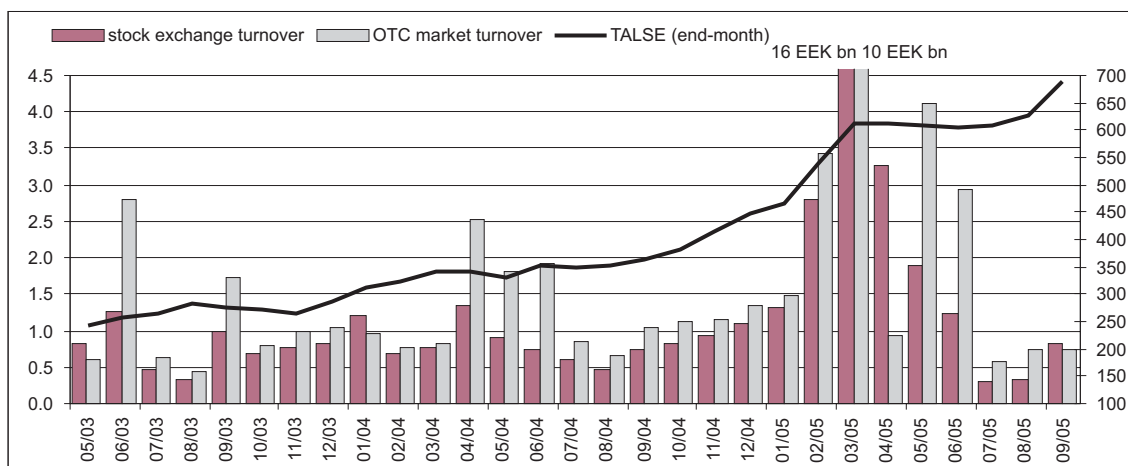


Figure 4.11. Stock turnover on the Tallinn Stock Exchange and OTC market (EEK bn; left scale) and Tallinn Stock Exchange index TALSE (points; right scale)

After Hansapank's takeover transactions, the **average daily turnover** of stock exchange transactions exceeded 101 million kroons in the second quarter, outpacing the annual average level more than twice⁷. The main driving force of stock exchange growth was Hansapank's share – respective transactions amounted to 53% of the stock exchange turnover. Most liquid securities in the given period included the shares of Eesti Telekom and Tallinna Vesi, which accounted for 24% and 13%, respectively, of the total turnover. Trading in the third quarter was rather modest as usual in the summer period with the daily turnover reaching 22 million kroons. September accounted for a major share of the turnover when trading with shares picked up again and the average daily turnover reached about 38 million kroons. 83% of the stock exchange turnover in the third quarter accounted for transactions with the shares of three companies: Eesti Telekom (36%), Tallinna Vesi (26%), and Baltika (22%).

After the takeover of Hansapank the **share of non-residents' investments** increased to its all-time high in spring 2005, i.e. to 84% of the total stock exchange capitalisation, and shrank then to 59% of the market value of the listed companies by the end of the third quarter (see Figure 4.12). Thus, Estonian investors had the largest share (41% of the total capitalisation) at the end of September. That of Swedish investors, who

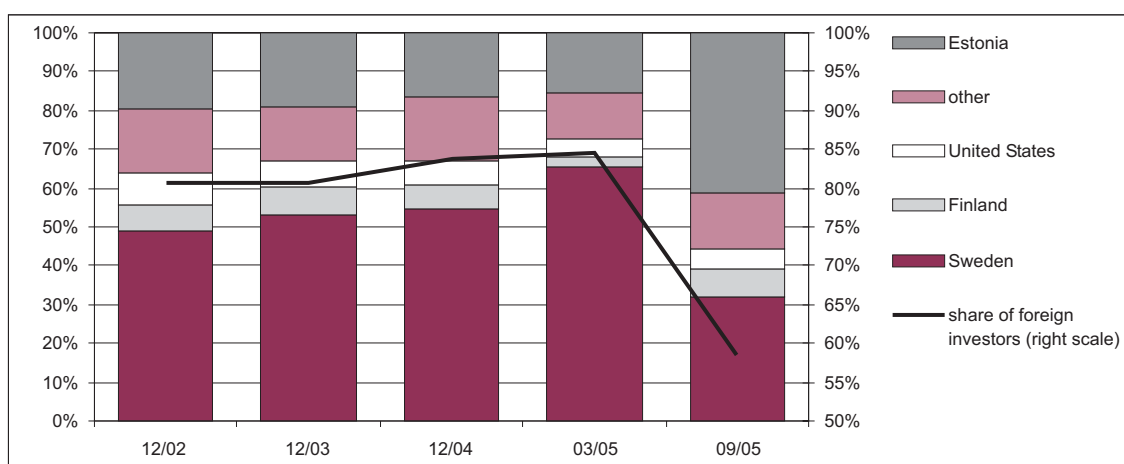


Figure 4.12. Structure of investors by residency (%; left scale) and share of foreign investors (%; right scale) of shares listed on the Tallinn Stock Exchange

⁷ Average daily turnover from July 2004 to June 2005 (February to April 2005 excluded) was 47.5 million kroons.

previously had had the largest share as investors in Hansapank, decreased to 32% now. Resident investors were predominantly financial and non-financial sector companies that controlled listed shares with the value of 13.5 billion kroons, i.e. 37% of the total stock exchange capitalisation. Retail investors held 1.5 billion kroons worth share holdings, reaching 4% of the total value of listed shares. The share of pension funds has slightly risen but only accounted for 0.6% of the total capitalisation.

V OTHER FINANCIAL MARKETS

■ Investment Funds

Since the end of March 2005, the **yield** of investment funds has been affected mainly by the rapid growth of developing markets, which has been boosted by foreign investment inflow, decreased risk premiums and an increase in commodity prices (see Figure 5.1). The development of East-European and Russian markets during the past half-year as profitable investment regions brought about a rise in the yield of equity funds registered in Estonia to 52% on average by the end of September as the sum of four consecutive quarters. However, the average yield of these funds fell in October as a result of investors withdrawing profit, the expectations of a rise in key interest rates, and a robust increase in stock prices. Market experts consider the decline to be short-term and based on emotions. Expectations of an increase in the key interest rates of major industrial regions are probably also the cause for the rise in money market fund yields, which reached 1.9% by the end of September – the record high of the last 21 months.

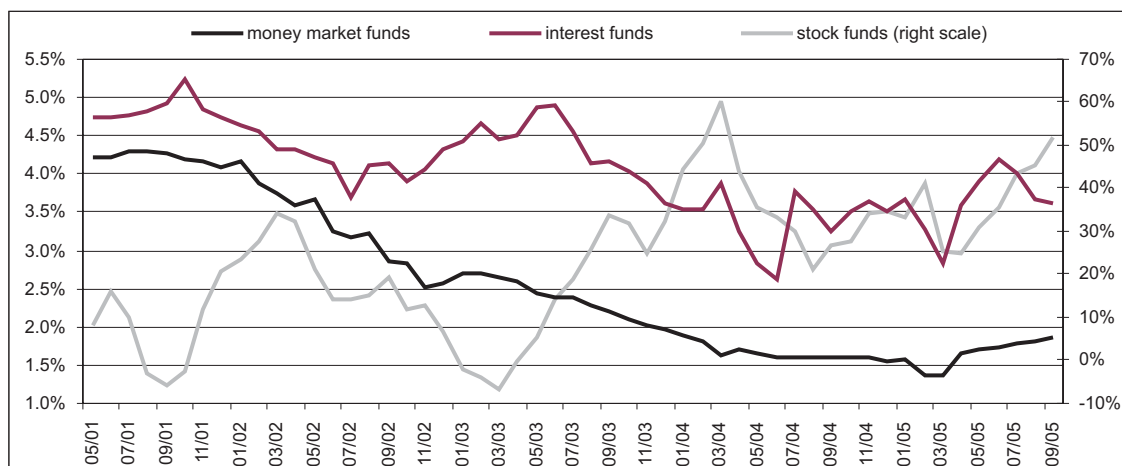


Figure 5.1. Average yield of investment funds (%)

As a result of all the above, the **growth of investment fund assets**, which had lasted for several years, accelerated substantially, reaching almost 80% by the end of September, year-on-year (see Figure 5.2). Because investors prefer riskier but more profitable equity investments instead of the shares of money market funds, which provide more stable yield and higher liquidity, investment fund assets increased mainly due to the manifold growth in the volume of equity fund assets. The volume grew from 2 billion kroons at the end of September 2004 to 7.1 billion kroons at the end of September 2005. Compared to equity funds, the merely 23% annual growth of interest fund assets has been considerably slower and the volume of money market fund assets has decreased almost 10%. Taking into account the capitalisation of funds, 60% of equity investors were residents, almost half (48%) of which being private persons, at the end of September 2005.

The **share of foreign assets in the volume of fund assets**, which has been growing since 2003, reached nearly 75% by the end of the third quarter of 2005 (see Figure 5.3). 67% of foreign assets were invested in the EU markets (see Figure 5.4). Due to the oil price rise and the decrease of risk premiums, the largest investment growth was observed in the markets of Russia and the new EU Member States, providing a yield much higher than average. The markets of Poland, Lithuania and Hungary were especially popular. The total volume of instruments issued in the Estonian equity, bond and investment fund market amounted to 12% (1.9 billion kroons) of the assets of the investment and pension funds registered in Estonia. This

marks an increase of more than a third compared to the end of March 2005, which includes a 50% growth of investments in domestic shares and units, reaching 335 million kroons by the end of September.

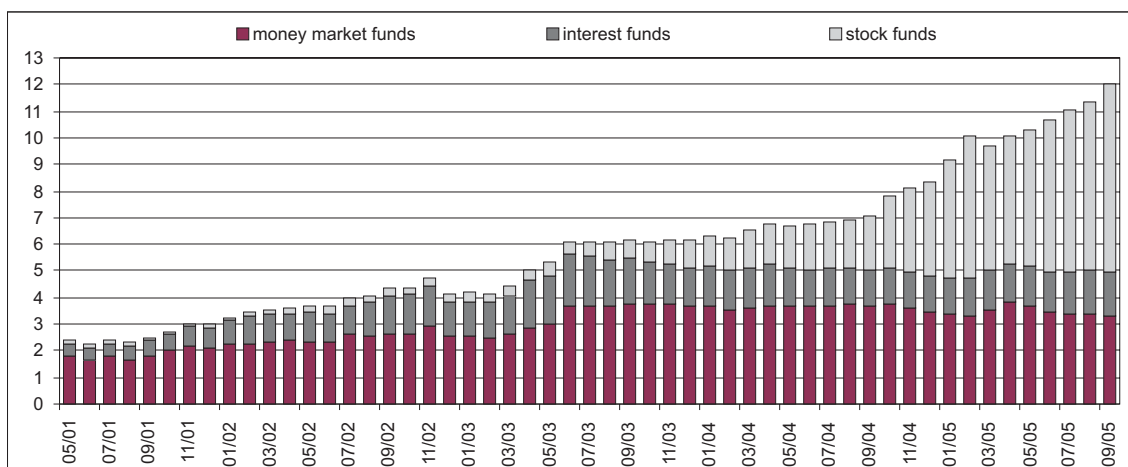


Figure 5.2. Volume of investment fund assets (EEK bn)

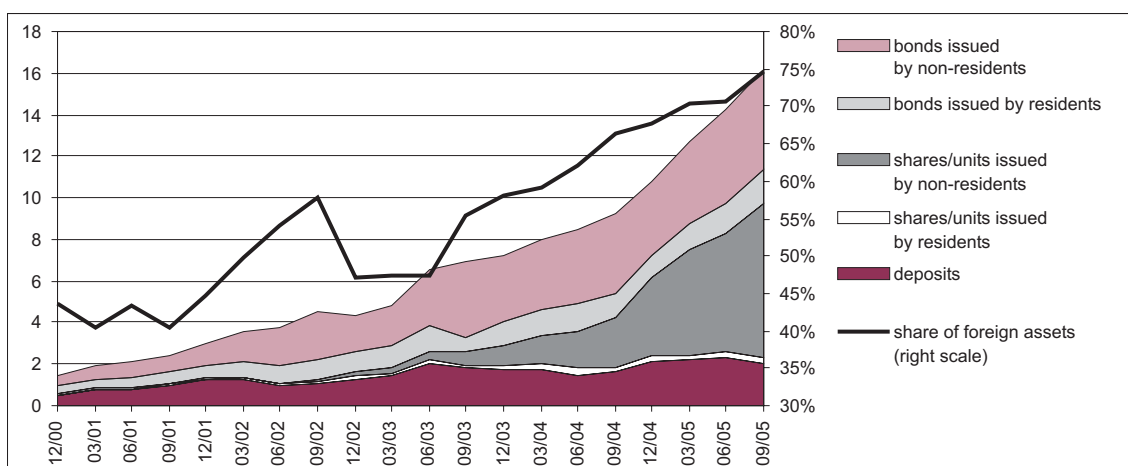


Figure 5.3. Structure of investment and pensions fund assets (EEK bn; left scale) and share of foreign assets

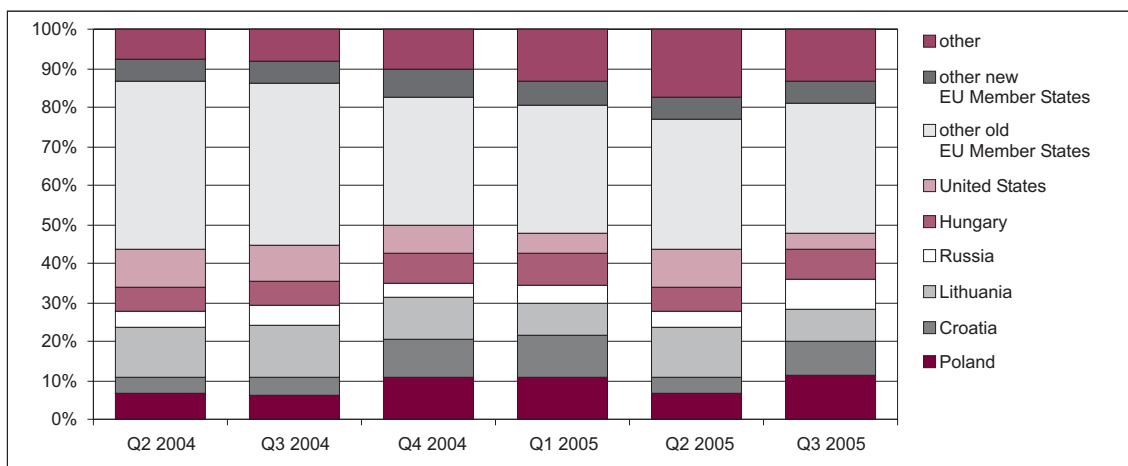


Figure 5.4. Foreign investments of investment and pension funds by residency (as at end of period; %)

■ Pension Funds and Insurance

By the end of October 2005, 475,400 people had joined the second pillar of the pension system, which accounts for 78% of the employed (73% in May 2005).

The volume of the second pillar funds grew to 4.2 billion kroons by the end of September 2005. As the monthly growth has been faster than projected at the beginning of the year, the total volume of pension funds exceeded the expected annual volume already at the end of the third quarter. Should the growth rate of pension funds maintain its fast pace also in the last quarter, the total volume of pension funds might reach about 4.8 billion kroons by the end of the year. Next year, the growth in the volume of the second pillar pension funds is expected to double. While until now the volume has increased mainly due to the payments of new subscribers, in the future the growth of funds will mainly depend on the wage growth of current subscribers (see Figure 5.5).

By the end of October, nearly 85,000 persons (14% of the employed) had joined the third pillar and its total volume was 1.4 billion kroons. The breakdown of third pillar funds and insurance is changing. While the volume of the third pillar funds amounted to 15% of the total volume of the third pillar by the end of September 2003, its share had risen to 24% in September 2005.

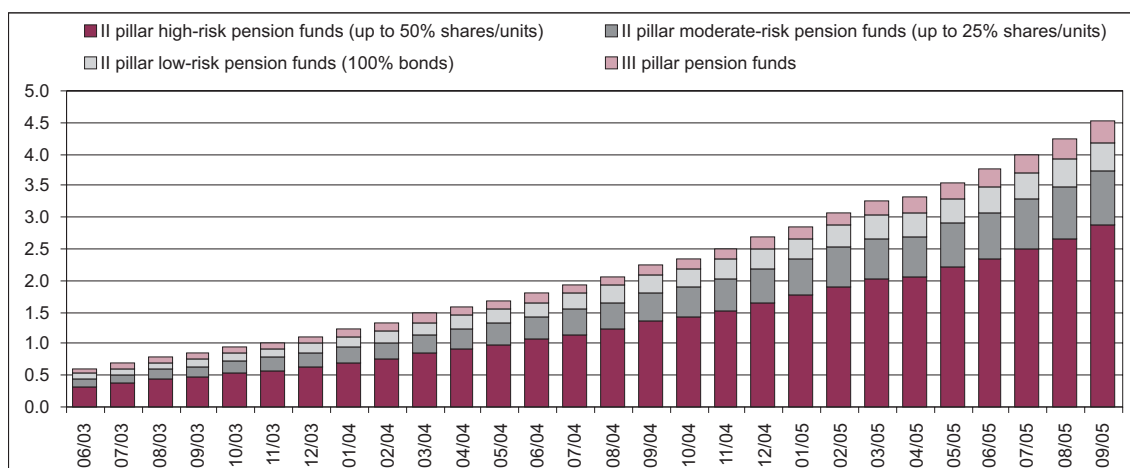


Figure 5.5. Volume of pension fund assets (EEK bn)

Pension Fund Assets

87% of the assets in the second pillar pension fund assets had been placed in foreign markets by the third quarter of 2005; the share of units and shares has grown notably, year-on-year (see Figure 5.6). This stems from consumers' preference for higher risk funds and stronger growth of these funds. The structure of the third pillar pension fund assets reflects similar changes – the share of assets invested in foreign markets has grown (while at the end of the third quarter 2004, 73.5% of assets were invested in foreign markets, in the third quarter of 2005 the respective indicator stood at 83.7%) and so has the share of units and shares (see Figure 5.7).

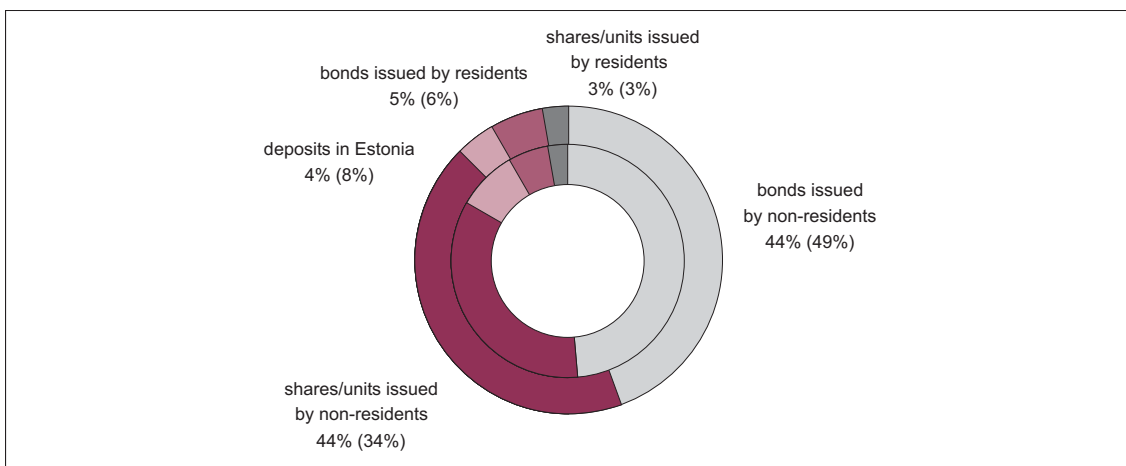


Figure 5.6. Structure of II pillar pension fund assets as at 30 September 2005 (position on 30 September 2004 indicated in brackets)

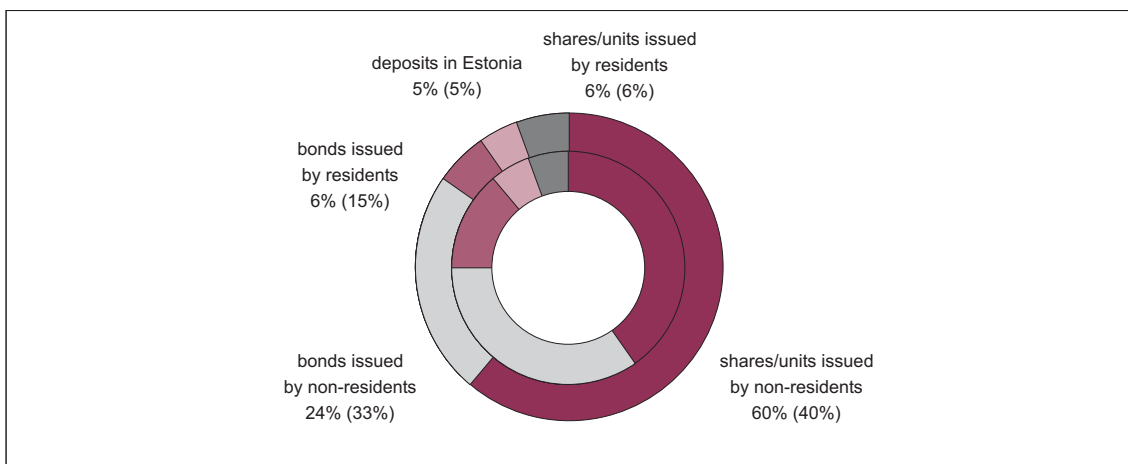


Figure 5.7. Structure of III pillar pension fund assets as at 30 September 2005 (position on 30 September 2004 indicated in brackets)

Yield of Pension Funds

Pension fund volumes grew faster than expected as a result of remarkably high yield of these funds (see Figure 5.8). Among the second pillar pension funds, higher risk funds that may invest up to 50% of the resources in shares delivered the highest yield, whereas funds that invest 100% in bonds had the lowest yield. While in previous years the differences in the yields of the second pillar funds have been relatively stable, in the last months the differences in the yields of funds with different risk level have started to grow. Looking at the Sharpe's ratio¹ in case of different fund types (high, medium, low-risk), the indicator of high-risk funds is still better. However, taking future risks into account, it might not continue this way.

¹ The Sharpe ratio is used to characterise how well the return of an asset compensates the investor for the risk taken. When comparing two assets each with return $\langle R \rangle$ against the same benchmark with return R_f , the asset with the higher Sharpe ratio gives more return for the same risk. Investors are often advised to pick investments with high Sharpe ratios.

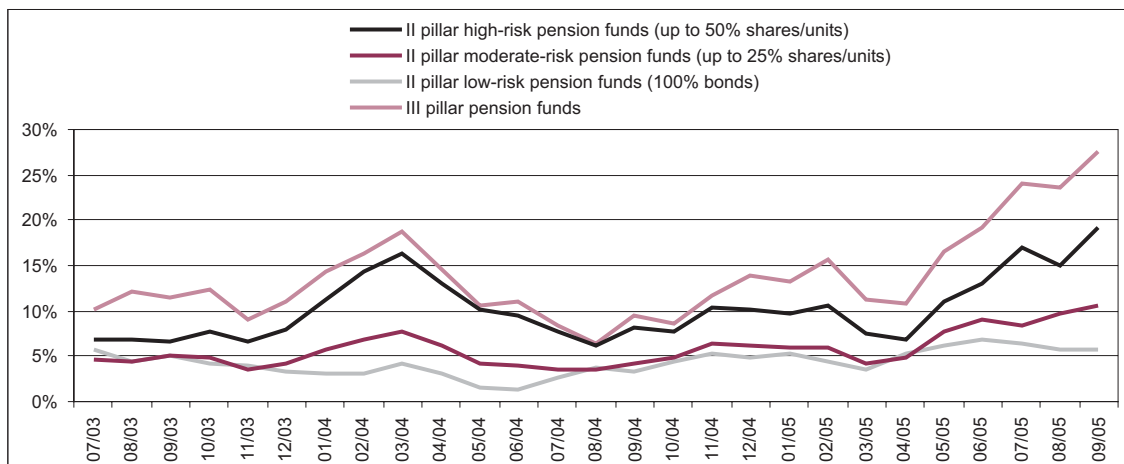


Figure 5.8. Average yield of pension funds as at end of month (%)

Insurance Companies

Institutional Changes

The QBE Insurance Group announced on 17 December 2004 that it had signed a contract to purchase Nordicum Kindlustuse Eesti AS from the Tryg Vesta Group. As of 20 April 2005, the new name of the insurance company is QBE Kindlustuse Eesti AS. QBE is Australia's largest and one of the world's 25 biggest insurance and reinsurance companies. The annual volume of its insurance premiums is over 5 billion euros and it has over 7,000 employees worldwide.

Life Insurance

The growth rate of the **life insurance market** has increased over the last year (i.e. the fourth quarter of 2004 and the first three quarters of 2005) compared to the previous year, reaching 49.2% (40.8% the year before). Growth accelerated in the second quarter, probably due to faster growth in the volume of housing loans issued. Year-on-year, life insurance companies collected gross premiums for the total of 1.1 billion kroons.

The volume of gross premiums grew the most in unit-linked life insurance and particularly on account of capital saving insurance. While in 2004 gross premiums of unit-linked life insurance amounted to 30.3% of the total gross premiums collected, in 2005 this indicator was 48%. At the same time, the share of capital saving insurance decreased from 51.8% to 38.9%. The gross premiums of unit-linked life insurance increased due to third pillar pension system products, which belong to the category of unit-linked life insurance (see Figure 5.9).

The market share of life insurance companies has remained relatively stable. However, life insurance companies that are subsidiaries of banks have increased their market share and that of other life insurance companies has declined over the last year.

The volume of investments of life insurance companies was 2.03 billion kroons at the end of the second quarter of 2005, which accounted for 69% of the balance sheet of life insurance companies. The companies differ very little as to their investment structure – they all have invested mostly in bonds and other fixed-income securities. With the first two quarters of 2005, the share of this type of investment has somewhat declined and that of deposits of credit institutions has grown. These two types of investments form almost 75% of the total investment volume of life insurance companies. While in 2004 the share of higher risk investments – shares and other securities – grew in investment portfolios, in 2005 the share of this type of

investments has remained the same, which indicates that insurance companies have started to prefer lower risk investments despite the favourable conditions on the stock markets (see Figure 5.10).

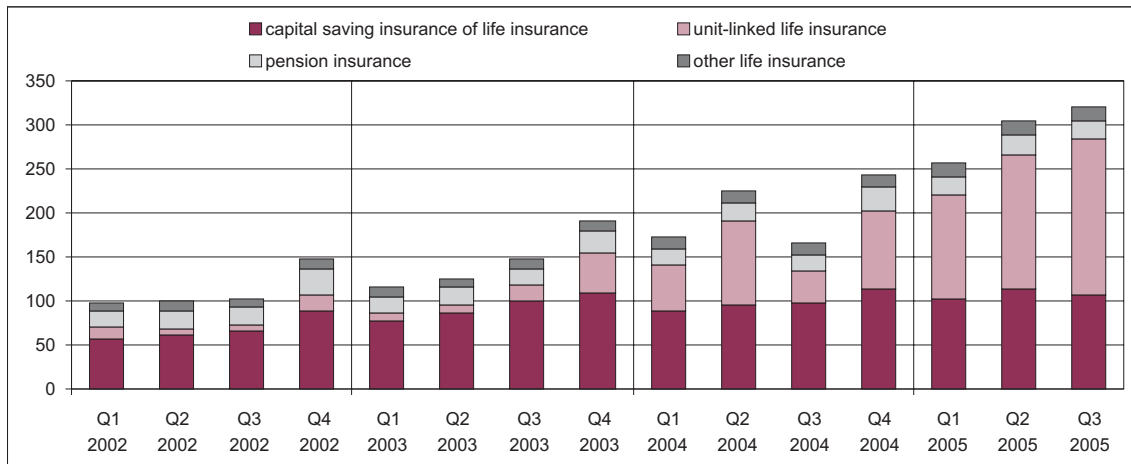


Figure 5.9. Gross premiums collected by life insurance companies (EEK m)

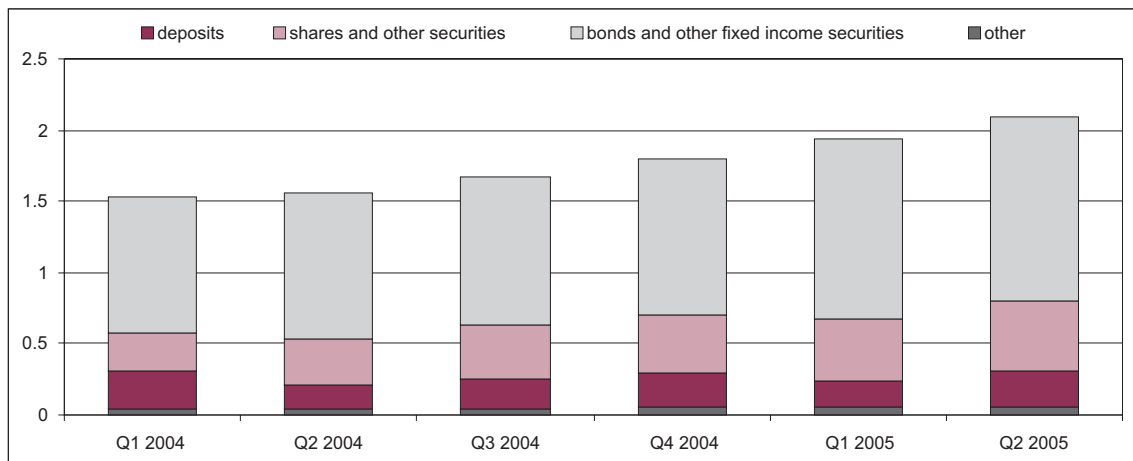


Figure 5.10. Investment structure of life insurance companies (EEK bn)

Non-life Insurance

The development of the **non-life insurance market** has remained stable over the last year and the market shares of insurance companies have remained practically unchanged, year-on-year.

Gross premiums collected by non-life insurance companies have increased 13.5%, year-on-year, whereas the growth of gross premiums has slowed down compared to the 18.4% rise in 2004. Supported by the continuously favourable economic environment for housing loans and car leasing, the sale of insurance premiums for property and motor vehicle insurance to private persons grew the most, year-on-year (27.9% and 18.9%, respectively; see Figure 5.11).

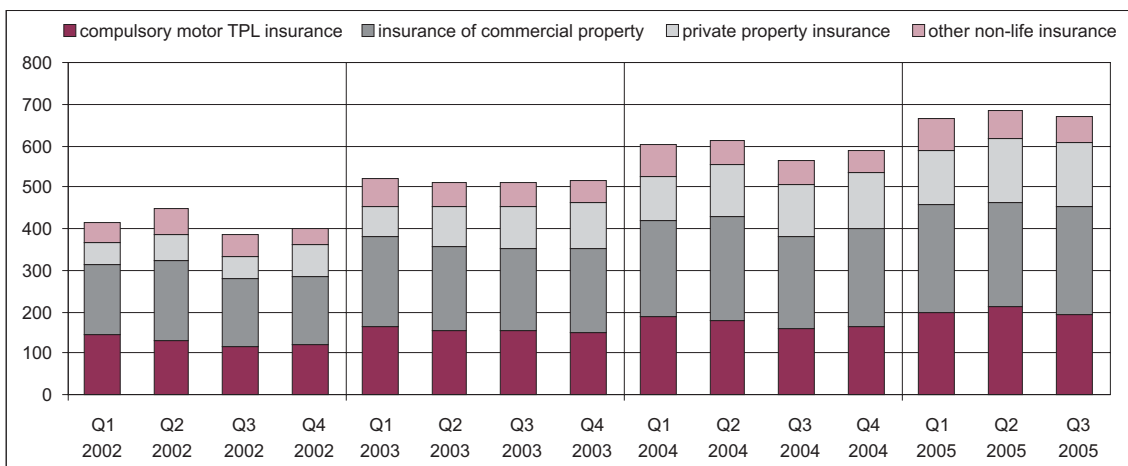


Figure 5.11. Gross premiums collected by non-life insurance companies (EEK m)

The investment volume of non-life insurance companies was 2.4 billion kroons at the end of second quarter 2005, which accounted for 84% of the balance sheet. The investment structure of non-life insurance companies varies greatly. In larger companies, majority of investments are in bonds and other fixed securities, while in smaller companies funds have been placed in deposits held in credit institutions. The average investment return was 3.1% in the first two quarters of 2005, which is somewhat less compared to the previous year (3.7%). At the same time, the investment yields vary across insurance companies: the yield of non-life insurance companies with higher risk investment strategies has been larger than that of the insurance companies preferring conservative investment strategies (yields range within 8.32% and -8.3%). In general, about 64% of the investments of non-life insurance companies were placed in lower risk bonds and other fixed-income securities in the second quarter 2005 (see Figure 5.12).

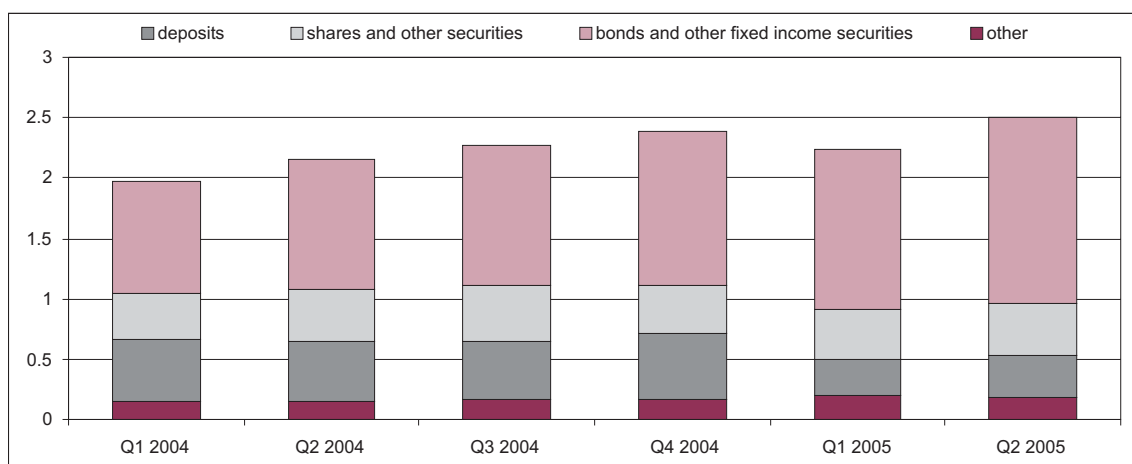


Figure 5.12. Investment structure of non-life insurance companies (EEK bn)

VI PAYMENT SYSTEMS

■ Settlement System of Interbank Payments

The number of payments settled through the **Real-Time Gross Settlement System (RTGS)** has been going up at a generally stable rate in recent years – by nearly 30% per year, except in April 2004 when a one-off anomaly occurred (see Figure 6.1). This arose from problems one system participant had with using the Designated Time Net Settlement System (DNS), thus settling around 5,000 extra payments through the RTGS. On average, between the fourth quarter of 2004 and the end of the third quarter of 2005, 181 payments per day were settled through the RTGS, 76% of which accounted for customer payments.

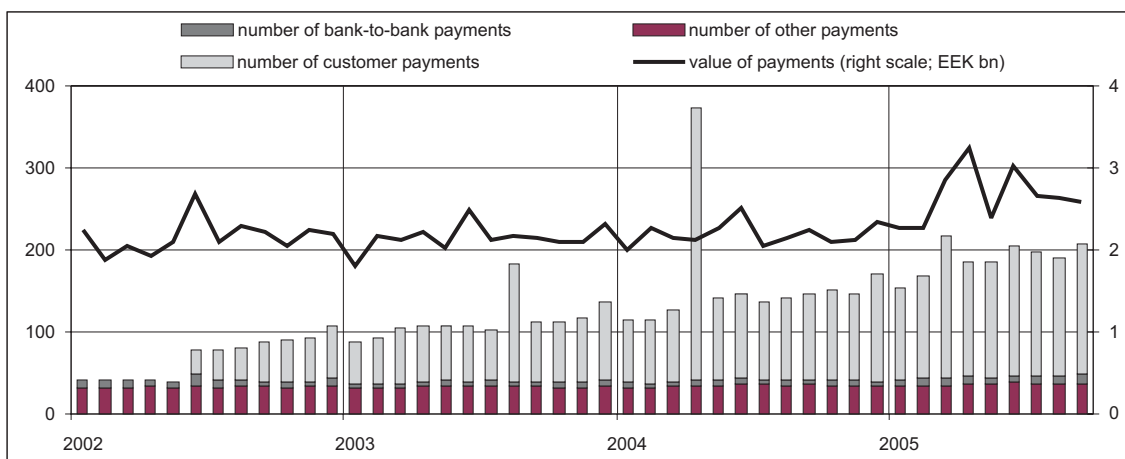


Figure 6.1. Number of payments processed per day in the RTGS system and their average daily value per month

The most significant change of the past year occurred in the average daily value of the RTGS, which increased 19% to 2.5 billion kroons a day after having remained stable at 2.1 billion kroons for a long time. The average daily value increased on the strength of a rise in the average value of interbank payments, customer payments as well as currency transactions conducted with the central bank (by 67%, 22% and 36%, respectively). Most of the value (approximately 60%) still accounted for banks' DNS collateral account transactions.

In the **DNS**, an average of 67,000 payments per day with a value of around 800 million kroons were settled from the fourth quarter of 2004 to the end of the third quarter of 2005 (see Figure 6.2). In the given period, the growth in payments slowed down to 2% from 6% in the period before. Meanwhile the growth in the average daily value of payments accelerated to 19% from 12%. As a result, the average size of a payment settled through the DNS grew 16%, amounting to approximately 12,000 kroons.

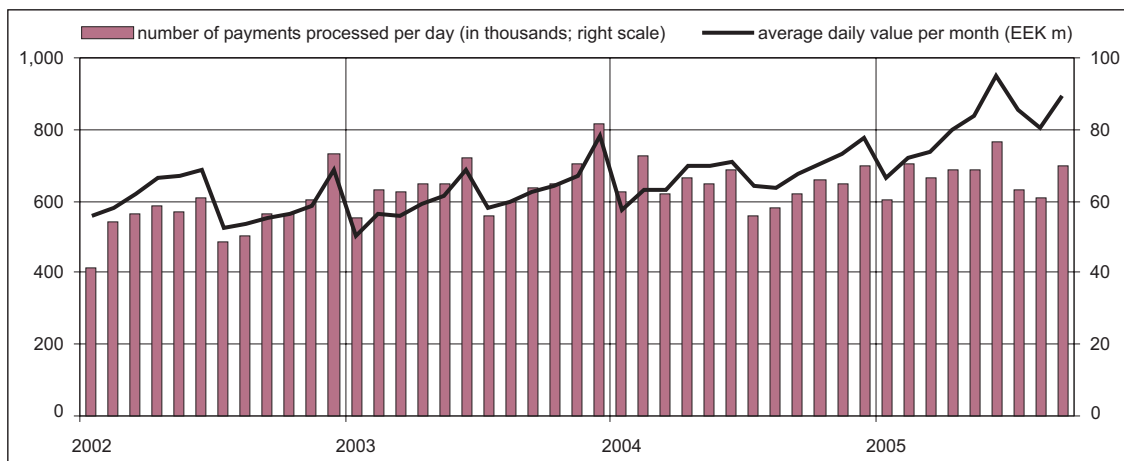


Figure 6.2. Number of payments processed per day in the DNS and their average daily value per month

■ Payment Intermediation

Payment Environment

The development of the payment environment has been stable, following the trends of recent years. Both the number of the points of sale (POS) accepting bank cards¹ and that of Internet banking contracts grew 17% per year. The number of POS accepting mobile payments increased at a slightly slower pace of 16% (see Figure 6.3). The number of Internet banking contracts amounted to over a million at the end of the third quarter of 2005, but the growth in the number of new subscribers slowed down by 9 percentage points during the year (from 26% to 17%). There were no major changes in the development of the infrastructure of post offices, bank offices, and ATMs.

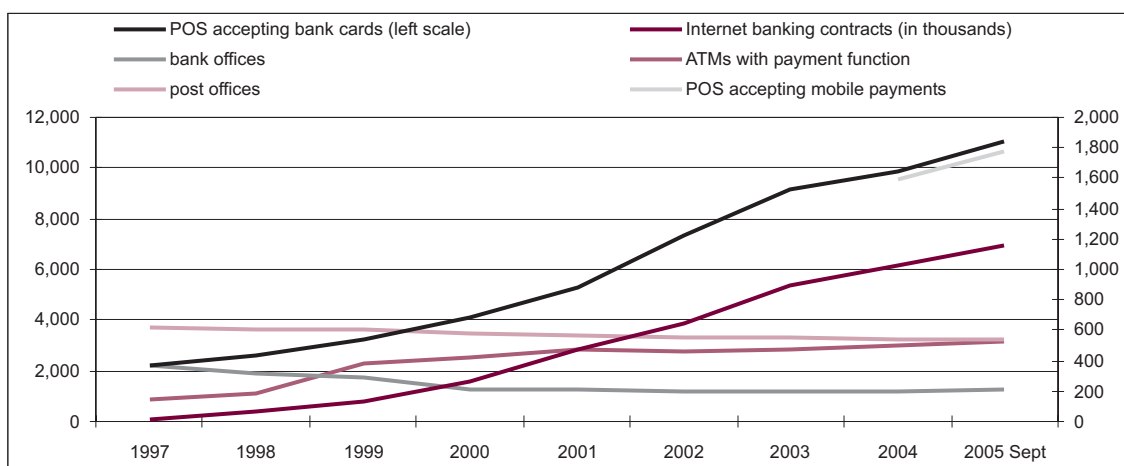


Figure 6.3. Retail payment channels in Estonia (as at end of period)

¹ Points of sale of one retailer with different offices (addresses) are regarded as different points of sale.

As for the means of receiving income, according to a study of payment habits and preferences carried out by TNS Emor in September 2005², earnings on a bank account are increasingly preferred to cash (see Figure 6.4). This in turn promotes making card payments for purchases as well as making regular payments through electronic payment channels. 60% of households made card payments for daily purchases while 81% of households made regular payments through banks (incl. 75% via electronic channels). During the past year, 6-7% of households (some 35,000–40,000 families) have ceased to pay just in cash. Those receiving income in cash as well as those paying in cash are mainly pensioners, people living in the countryside, people with lower income/position, and self-employed people (particularly sole proprietors).

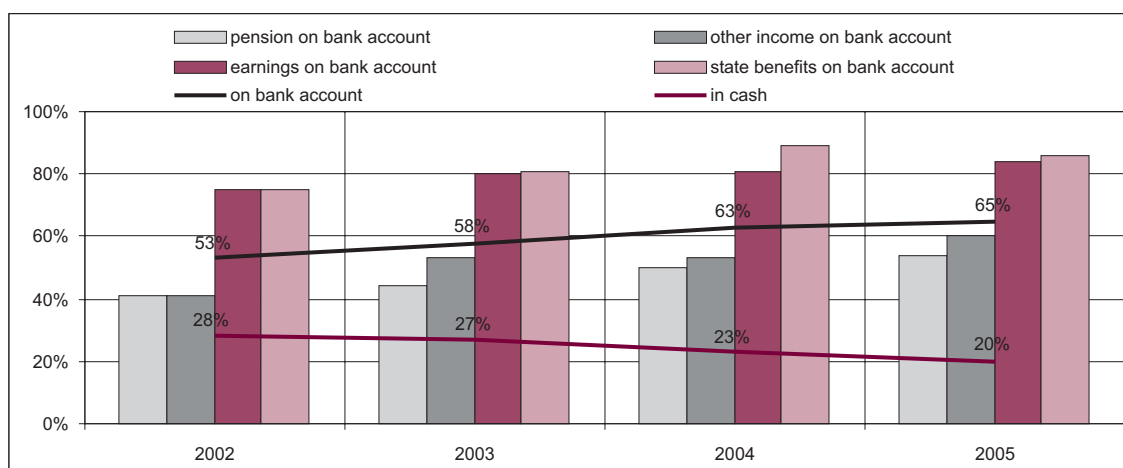


Figure 6.4. Means of income of Estonian residents aged 18 years and older during 2002–2005 (% of income receivers)

Source: TNS Emor; F-monitor 2005

According to the study, payment cards and electronic payment channels (Internet banking) have consistently the greatest growth potential. The usage of electronic payment channels may increase mainly due to more active use by the existing users and to a somewhat lesser extent through the addition of new users (i.e. there are more families that intend to use electronic payment channels more frequently in the future and fewer families that want to use these for the first time).

Payments via Credit Institutions

The number of payments initiated with payment cards and credit orders has grown year-on-year, but at an increasingly slower pace (see Figure 6.5). As to the most frequently used means of payment, the biggest year-on-year rise was in card payments (33%), which increased by more than five million transactions (to 21.6 million transactions) with growth rate remaining at the level of the previous period. The number of Internet banking credit orders went up 25% (by two million transactions), but the growth rate slowed down by 4 percentage points (from 29% to 25%). The growth in the number of direct debits has remained at 20%. Although the number of paper-based payment transactions has been declining over the last years, their use has again slightly accelerated, growing 4% year-on-year. Such a turn might stem from changes in collecting payment statistics³ as well as from the growing share of the elderly in the structure of banking customers. The use of telebank credit orders has declined too.

² The respondents were aged 18 and older.

³ Loan repayments are partly reflected under paper-based credit orders and partly under direct debit.

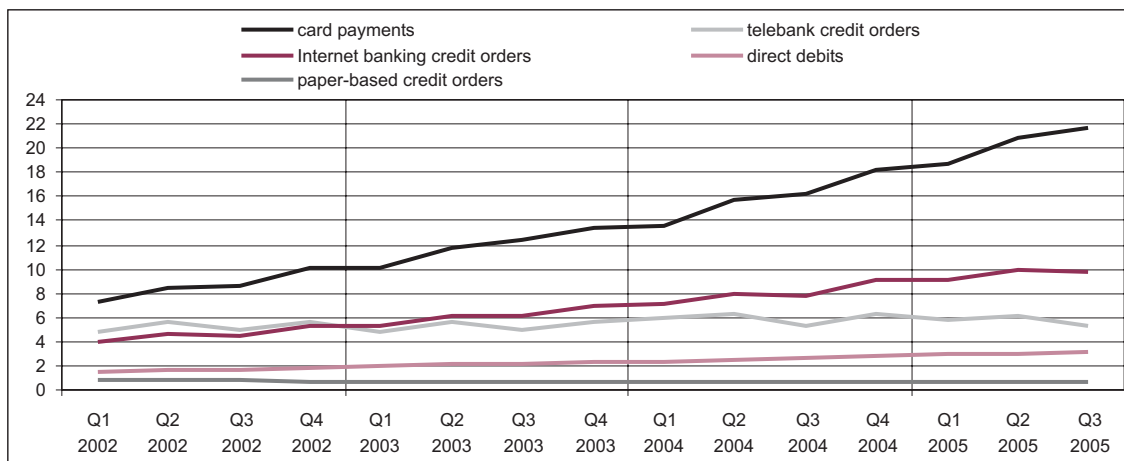


Figure 6.5. Widely used payment instruments in Estonia by number of payments (millions)

According to the study by TNS Emor, regular payments⁴ are mainly made through banks and particularly by using electronic means of payment⁵. A breakthrough between payments via banks compared to other payment options⁶ occurred in 2002 when more than half of regular payments were made through banks for the first time (see Figure 6.6). It is noteworthy that even pensioners who have for years preferred to pay in cash have increasingly started to make regular payments through banks with credit orders.

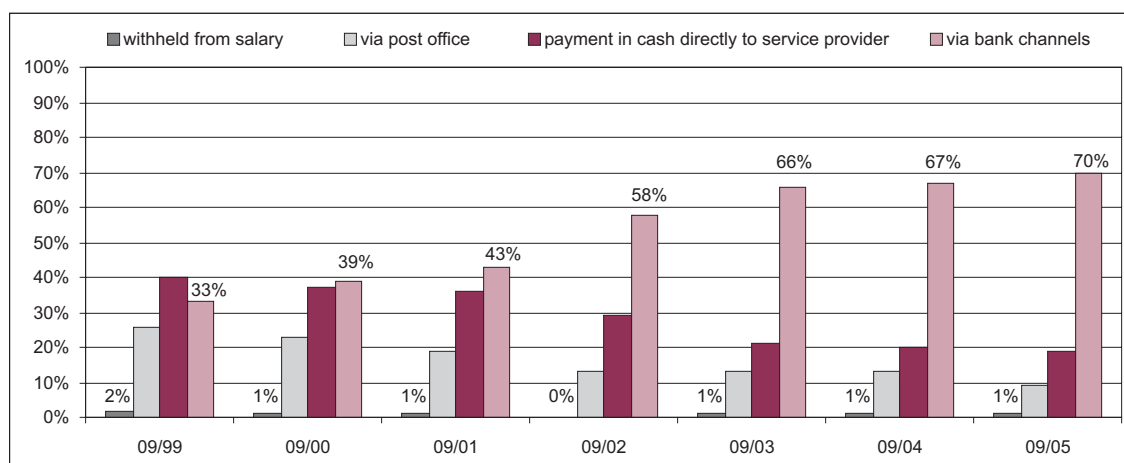


Figure 6.6. Regular payments via bank and other channels (% of all wide-spread regular payments made by households)

Source: TNS Emor; F-monitor 2005

As to the means of payment offered by banks, the most popular means to make regular payments⁷ are direct debit and/or standing order (used by 55% of households and accounting for 31% of all payments). The next in line are Internet banking payments⁸ (37% of households and 27% of all payments). The number

⁴ Payments made regularly (at least once a month) for utilities, satellite and cable TV, electricity, gas, phone and insurance as well as loan repayments etc.

⁵ Standing order or direct debit, ATMs, Internet banking, card payments.

⁶ Payment in cash directly to service provider or via post office or withheld from salary.

⁷ Except when paying for utilities, gas and insurance.

⁸ Internet banking credit orders are not used for loan, leasing or hire purchase payments.

of customers using the post office as a payment intermediation provider has again started to fall and nearly 10% of households has abandoned using that service. Meanwhile the share of households making Internet banking payments has grown on account of that. The use of telephone-bank credit orders is fading away (only 1% of households currently use this mean of payment).

Based on preferences, standing orders and direct debit have had the greatest growth potential for several consecutive years; 6% of the households not currently using these means of payment would prefer to make use thereof.

Use of Payment Cards

By the end of the third quarter of 2005, approximately 1.4 million payment cards had been issued in Estonia. 82% of those were debit cards (1.1 million cards) and 18% credit cards (255,000 cards). The total number of payment cards increased more than 8%. The growth in the number of credit cards (14%) outpaced that of debit cards (7%), year-on-year. This was well expected since an average of 84% of the Estonian residents have a debit card while just every fifth holds a credit card. Slightly more than 80% of debit card holders and more than half of credit card holders (60%) make active use of their cards.

The share of passive payment cards has remained at the level of the previous period (21%). There were 693 actively used debit cards and 112 credit cards per thousand residents (see Figure 6.7). In the given year, the number of POS accepting payment cards grew faster than in the year before (by 17% and 3%, respectively).

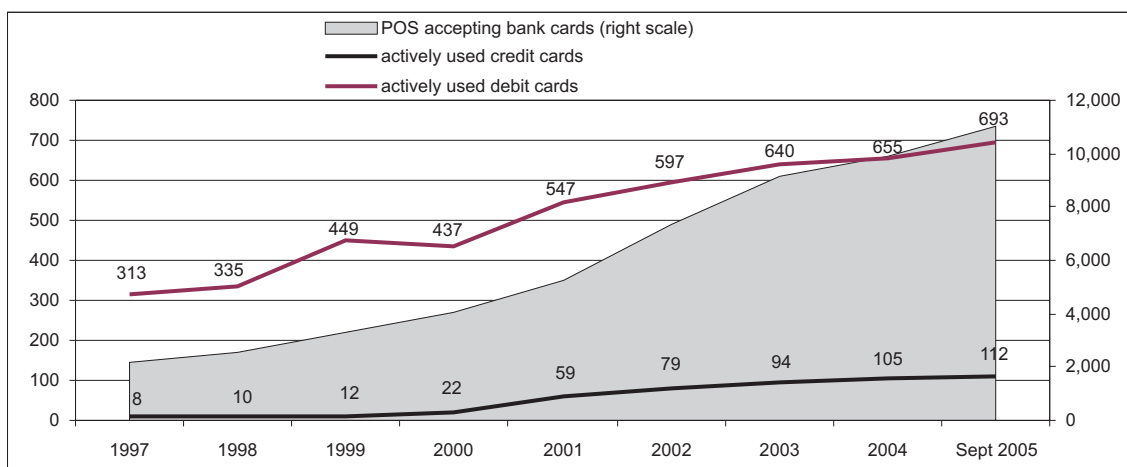


Figure 6.7. Number of payment cards in Estonia per thousand residents and number of POS terminals accepting payment cards at end of year

TNS Emor has mapped the means of payment used when paying for purchases and has concluded that the popularity of card payments is increasing. Three quarters (76%) of income earners who receive their income on a bank account make card payments more or less frequently and just about a quarter (23%) of them pay only in cash for their daily purchases. The share of families using payment cards is consistently growing – 60% of households make card payments for daily purchases (53% a year ago) and 44% for major purchases (40% a year ago). Convenience and the possibility to use payment cards at many merchants have been pointed out as the main reasons for usage. Further growth in card payments will, however, be rather based on more active use of the existing cards.

■ Assessment by the Overseer of Payment Systems

In conclusion, it can be said that the payment systems operating in Estonia witnessed no such cases that would have posed a threat to the country's financial stability in the period from the fourth quarter of 2004 to the third quarter of 2005.

The launch of an interbank Settlement System of Ordinary Payments (ESTA) as of 3 October 2005 can be regarded as the most significant change in the **systemically important settlement systems** in Estonia (RTGS and DNS) during the past year. ESTA is an updated version of the DNS used so far, allowing faster interbank settlements, longer operating time of the system and greater efficiency without an increase in the risks to financial stability. Moreover, the settlement system developments⁹ contribute to boosting competition in the banking market since it expands the opportunities of small banks and ensures meeting market demand also in the future. It would be expedient to implement also an interbank direct debit service to further tighten competition between banks.

Regardless of the fact that the functionality and operating principles of the settlement systems described above have been built so that the possibilities for different risks to materialise have been brought to a minimum, some operational problems occurred in the past year (see Figure 6.8). Namely, technical failures are usually a source of operational risk. However, the problems that occurred did not affect financial stability.

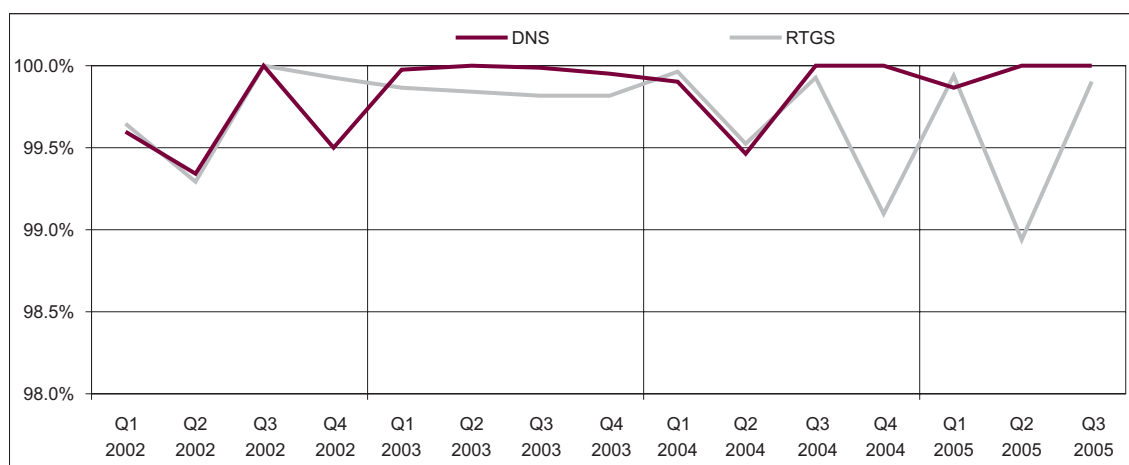


Figure 6.8. Availability of interbank settlement systems

The causes of failures were analysed and the malfunctions caused by information system failures were eliminated. Procedures were changed and the settlement systems were improved to hedge risks. In order to reduce operational risk, internal contingency principles were elaborated within the framework of the technical specifications of the settlement system. In addition, contingency situation scenarios were drawn up which are to be tested once a year together with system participants. **However, from the aspect of risk management it is crucial that in case of a failure in one settlement system another settlement system could be used at any time.**

As to the changes that occurred in **important settlement systems** (the securities settlement system and the card payment settlement system) over the year, the following should be outlined.

⁹ For a detailed description of the settlement systems managed by Eesti Pank see <http://www.eestipank.info/pub/en/majandus/finantskeskkond/maksesysteem/arveldus.html>.

- 1) Establishment of links between the Estonian Central Register of Securities and Lithuania's securities depository in March 2005 (a respective link with Latvia exists as of January 1997). As a result, the Baltic States can more or less be regarded as a single securities market and this has substantially simplified the entrance of Estonian investors to Latvian and Lithuanian securities markets and increased investment opportunities. Hopefully, in the future such opportunities will also expand in the Nordic direction, which in turn would create a single Nordic and Baltic investment environment.
- 2) Bringing nearly all POS terminals¹⁰ in line with the EMV standard at the initiative of Pankade Kaardikeskus (Card Centre of Banks). As a result, transactions with smart cards have become considerably safer (copying card information has become more complicated). It is planned to bring all payment cards and cash registers in line with the EMV standard to enhance the safety of the card transactions environment.

BACKGROUND INFORMATION

PERFORMANCE OF THE ROLE OF PAYMENT SYSTEMS OVERSIGHT IN DIFFERENT COUNTRIES

Financial sector infrastructures – settlement systems of payments and financial instruments (securities) – may be either channels or sources of transmission of systemic risk. A smooth and efficient functioning of such systems is absolutely inevitable for the secure and stable operation of the consolidating markets. Therefore, over the last decades more attention than ever has been paid to systemic risk prevention on the international financial markets and in discussions, and hence one of the crucial tasks of central banks has emerged – **payment systems¹¹ oversight**.

Similar to other actions required to ensure financial stability, payment systems oversight is an ongoing process where, at first, a relevant policy is formulated (see Figure 6.9). Arising from the policy, the market and the systems are monitored and assessed, and, if appropriate, various measures are employed to intervene in the functioning of the systems. Then the process begins anew, the difference lying in the correction of the relevant policy at the beginning of the process cycle based on market needs and the general economic development.

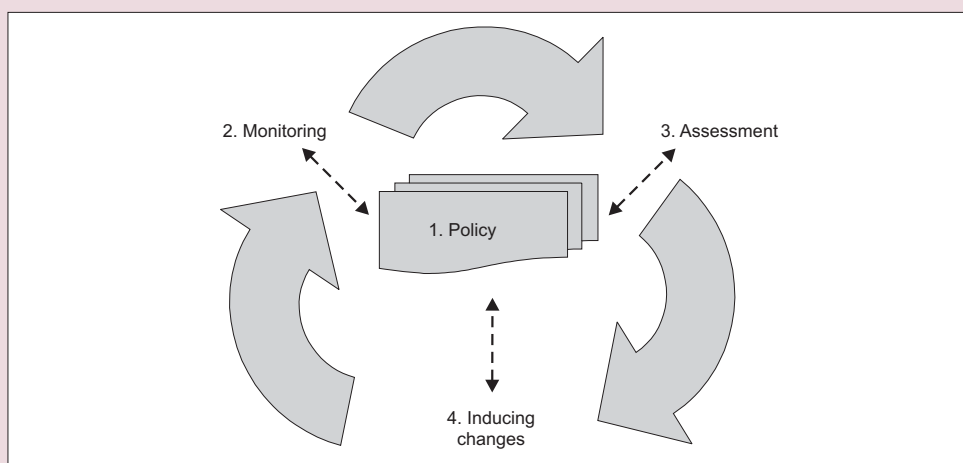


Figure 6.9. Process of payment systems oversight

¹⁰ A terminal capable of reading from a memory chip in a card data necessary for making a card payment.

¹¹ The present background information looks at payment systems as both the settlement systems of payments and financial instruments as well as the systems for making various payments (e.g. card payments) and payment methods (e.g. Internet banking or credit orders initiated otherwise).

According to theoretical sources¹², the **ultimate goals of the payment systems oversight are economic development and financial stability**. The sub-goals to be achieved are as follows:

- efficient, secure and stable payment systems;
- prevention of market abuse (consumer protection, prevention of money laundering, etc.);
- development of payment services and extension of the scope of their use; and
- avoiding of excessive regulatory burden on market participants.

The tasks of the overseer to achieve the goals include:

- elaboration of principles and regulations;
- establishment of guidelines, definition of (international) standards for the system and assessment of compliance with standards;
- enhancement and coordination of development; and
- ensuring of the system functioning.

The aim of this background information is to analyse the arrangement of the payment systems oversight across countries. The focus is on the EU Member States as Estonia is an EU country. In addition, the survey covers several non-EU countries, including G-10 countries¹³ as major participants in the international discussions, establishing good practices in the given field. The conclusions of the survey are based on theoretical and other public sources, and the results of the questionnaire carried out among central banks¹⁴.

Role of the overseer and legal basis of payment systems oversight

The responses of the survey showed that only one central bank is not involved in the payment systems oversight. In all other countries the role is performed at minimum at an informal level. Consequently, the legal basis for the oversight by central banks varies from those enacted by law (legislation on payment intermediation or central bank laws) to contractual relationships between the payment systems overseer and the system manager and/or operator. The primary sources of the legislative level are legislation on payment intermediation and securities markets, central bank laws and the statutes of central banks, where, as a rule, the payment systems oversight is included in the context of ensuring financial stability or smooth currency circulation. Various combinations of legal bases occur (e.g. in the case of systems managed by central banks, oversight is carried out at a non-formal level, whereas for other systems cooperation agreements are concluded at a formal level). The analysis of the said group of countries also shows the following conclusions:

- the higher the living standard in the given country, the more formal is the role of the payment systems oversight of the central bank and the more regulated its activities are (moderate dependence);

¹² Banca d'Italia 1997; BIS 2004; Bossone, Cirasino 2001; Heller 2004; Humprey, Keppler, Montes-Negret 1997.

¹³ Australia and Norway from outside the EU and the US, Japan, Canada and Switzerland from G-10.

¹⁴ 83% of the central banks responded to the questionnaire, including all the central banks of the countries that acceded in 2004, 80% of the central banks of the EU-15 countries and 67% of the central banks of the non-EU G-10 countries.

- the more economic freedom the country enjoys (as for components of economic freedom indices, the focus lies on banking and financial sector and market regulations)¹⁵, the less formal is the central bank's role as a payment systems overseer, and the less frequently the role is established by law (strong dependence).

Apart from national law, the central banks' role as an overseer is also based on international standards and good practices outlined in the following table (see Table 6.1).

Table 6.1. Legal basis of payment systems oversight

Scope of application	Legislation, standards and good practice	
	Payment and settlement systems	Securities settlement systems
International	BIS Lamfalussy Report (1990)	BIS-IOSCO Recommendations for securities settlement systems (2001)
	BIS Core principles for Systemically Important Payment Systems (2001)	BIS-IOSCO Recommendations for Central Counterparties (2004)
	BIS Policy issues for central banks in retail payments (2003)	
	BIS Report on Oversight of payment and settlement systems (2005)	
European Union	EU Consolidated version of the Treaty on European Union and of the Treaty establishing the European Community (2002)	
	EMI Minimum common features of domestic payment systems (1994)	ESCB-CESR Standards for Securities Clearing and Settlement in the European Union (2004)
	ECB Oversight standards for euro retail payment systems (2003)	
	Memorandum of Understanding on cooperation between payment systems overseers and banking supervisors in Stage Three of Economic and Monetary Union (2002, amended 2004)	
European Economic and Monetary Union	ECB The role of the Eurosystem in the field of payment systems oversight (2000, amendment in progress)	EMI Standards for the use of EU Securities Settlement Systems in ESCB Credit operations (1998)
Domestic	Laws on payment circulation, acts of central banks, statutes of central banks, memoranda of understanding	Laws on securities market, memoranda of understanding

Objectives of oversight

The objectives of the payment systems oversight as defined by the central banks are well in line with those set out in the theoretical framework (see Figure 6.10). It means that the **efficiency, stability and reliability of the payment systems and their smooth functioning along with the goal of risk minimisation in the field of the payment systems oversight are the objectives of most central banks**. Moreover, competitiveness of the financial system is underlined in the case of G-10 countries, which may be considered characteristic of developed societies. As for the new EU Member States, interestingly enough, consumer protection stands out, which generally is not a central banks' priority, but which has evidently received more attention in the course of accession negotiations and stricter consumer protection requirements in the EU than was common earlier in those countries. The central banks surveyed also mentioned other goals, such as facilitating the monetary policy transmission mechanism, which, among others, is a goal of the European System of Central Banks for the payment systems¹⁶, and equal access to the systems.

¹⁵ Data of the Heritage Foundation and the Fraser Institute were used.

¹⁶ The goals of the ESCB in the field of the payment systems are maintaining systemic stability, ensuring efficiency of payment systems, maintaining public confidence in payments/instruments and currency, and protecting the monetary policy transmission mechanism

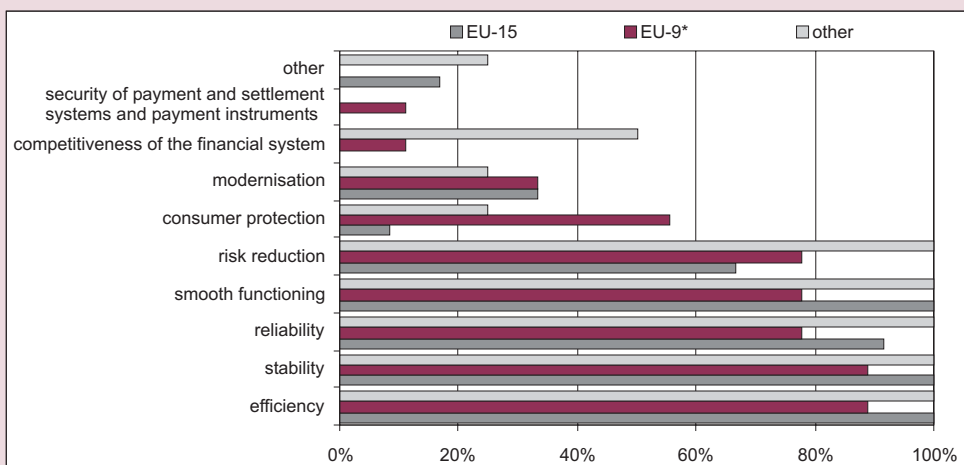


Figure 6.10. Objectives of oversight in different groups of countries as a share in the respective group

* EU-9 comprises new EU Member States, except Estonia

Instruments and activities of oversight

The **instruments of oversight** are “soft instruments” in most cases, for instance **policy dialogue, monitoring and analysis** (see Figure 6.11). However, nearly half of the central banks also use licensing and regulation, and several countries perform on-site inspection of the systems, which is normally common to institutional supervision. Direct service provision and system governance are rather widespread as well. Other instruments also include assessment of compliance of the systems with international standards and imposing sanctions arising from the law.

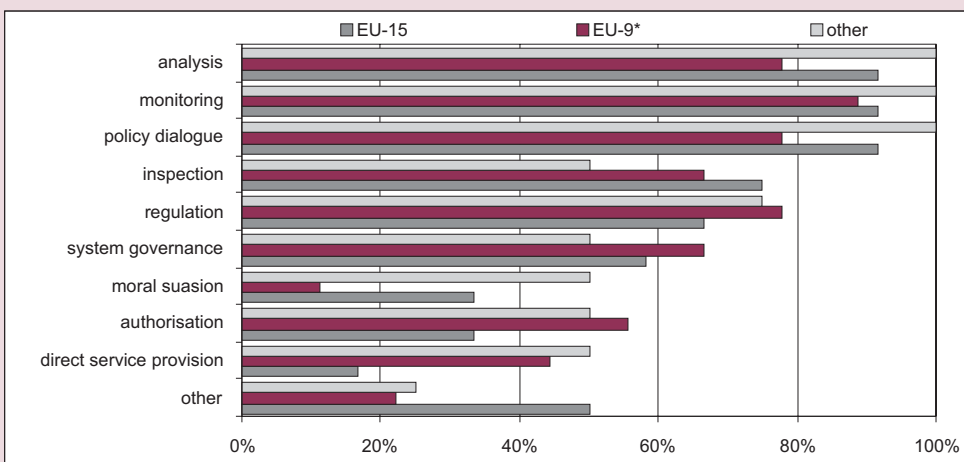


Figure 6.11. Instruments of oversight in different groups of countries as a share in the respective group

* EU-9 comprises new EU Member States, except Estonia

As for the activities of oversight, the focus is on risk management and risk prevention (largely so in G-10 countries), namely crisis management and routine activities that involve daily monitoring of the systems as well as reduction of risk probability (see Figure 6.12). Research and development form an integral part of central bank activities and other actions for updating the payment systems in accordance with the economic development. Both the instruments and activities of oversight contain systems assessment by the central bank and making recommendations to the system operator concerning the respective system development needs.

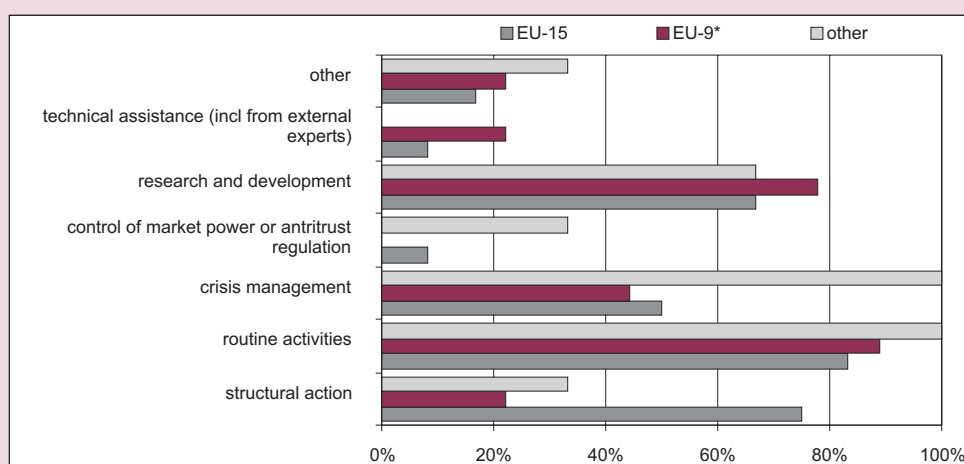


Figure 6.12. Types of oversight activities in different groups of countries as a share in the respective group

* EU-9 comprises new EU Member States, except Estonia

Scope of oversight and areas of interest

Based on international principles and national practices, the payment systems oversight focuses on (by types of payment systems and by their importance for the financial system) **systemically important payment systems** that include both payment and securities settlement systems (see Figure 6.13). Other systems applied in payment intermediation and widely used by companies and households (e.g. card payment systems) are generally monitored according to their scope of use. The focus, however, lies on aspects different from those essential for systemically important payment systems (e.g. security of payment methods, prevention of fraud). The system components monitored in the course of the oversight are mostly the same across countries. These include technical infrastructures, system participants and payment instruments and services. Among other fields that are of interest to the overseers, the legislative infrastructure (system rules) should be mentioned.

Risk management was outlined in many occasions in the survey as one of the areas of interest to overseers. In addition, **free access to the systems, information transparency**, and **development and viability of the system**, i.e. continuous functioning and efficiency in payments settlement, were brought out (see Figure 6.14). As to other fields, also system availability, governance, payment services and products, and security requirements for innovative payment methods for the prevention of fraud and the like were mentioned.

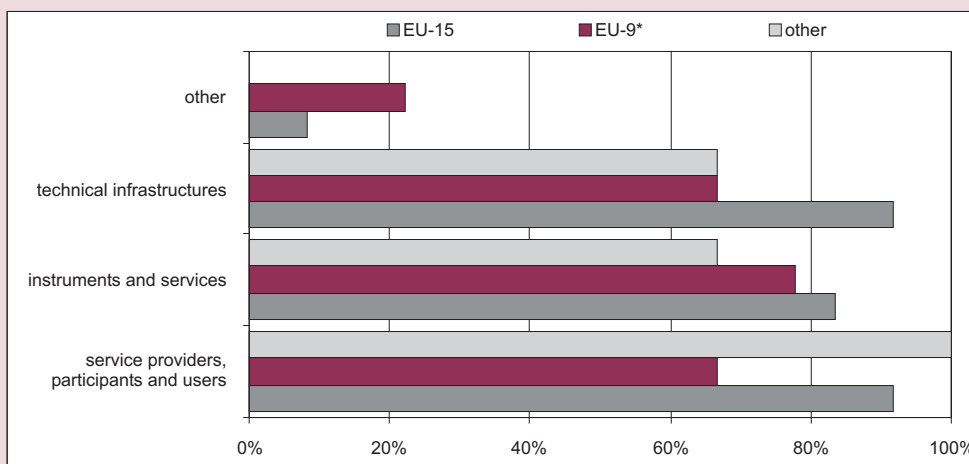


Figure 6.13. Scope of oversight in different groups of countries as a share in the respective group

* EU-9 comprises new EU Member States, except Estonia

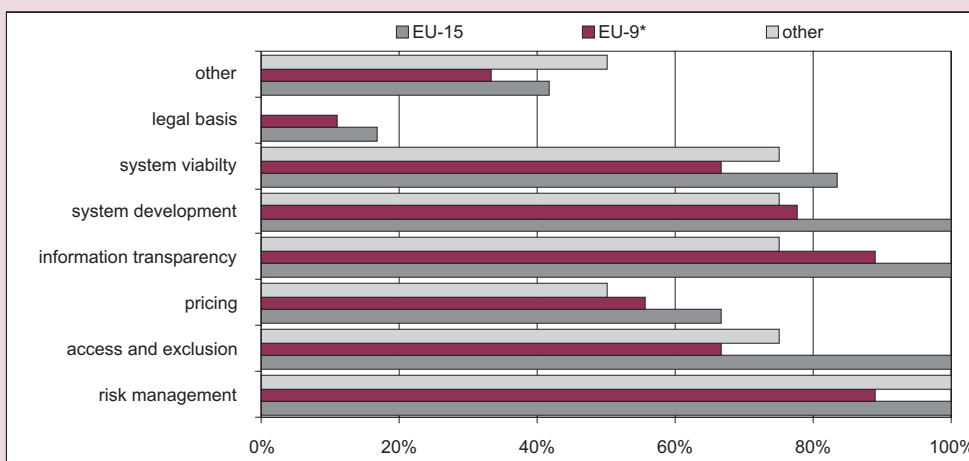


Figure 6.14. Areas of interest relevant to oversight in different groups of countries as a share in the respective group

* EU-9 comprises new EU Member States, except Estonia

To conclude, the **payment systems oversight is a task essential for central banks to secure financial stability**. The main objectives of the payment systems oversight include efficiency, stability, reliability and smooth functioning of the payment systems as well as reduction of risk probability. The higher the living standard in the country, the more formal is the oversight and the more regulated the central bank’s activities are in the given field. However, the more economic freedom the country enjoys, the less formal the bank’s role as the overseer is, and the less frequently this role is established by law.

The most common oversight instruments comprise policy dialogue, system monitoring and the analysis of the monitoring results, which is the so-called market-oriented approach. Another group is formed by the central banks that, in addition to the above-mentioned instruments,

favour intervention and thus use licensing, regulation and on-site inspection of the systems. The oversight activities most frequently used include risk management procedures. The payment systems oversight concentrates on payment systems that are systemically important for the financial system, including the oversight of the payments and securities settlement systems. Among the specific areas both technical and legal infrastructures are monitored, as well as payment instruments and services and system participants.