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fax: +372 668 0954

e-mail: publications@epbe.ee

mail: Eesti Pank
Publications Division
Estonia pst 13
15095 Tallinn
Estonia

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SUMMARY

■ Macroeconomic and External Environment

Even though market participants had already for some time regarded Estonia as a future EU member state in their risk estimates, 1 May 2004 was still an important milestone, which marked the beginning of a new era in Estonian economy. Together with political integration the deepening of economic integration also gained a new impetus and meaning. **The increase in credibility that came along with the accession** was reflected in yet another decline in money market interest margins. The average spread between Estonian and euro area interest rates is below 30 basis points.

Global economic development in 2004 has generally supported Estonian macroeconomics and financial sector. Owing to improved external demand and consistently strong domestic demand, **sales revenue figures have been high and the profit growth rate has accelerated compared to previous years.** Households have benefited from that as well – the labour market has improved slowly but steadily, which is reflected in increasing employment. The positive outlook is also supported by improved corporate and household confidence estimates.

Although global economic growth indicators have improved significantly year-on-year, the economic recovery in Europe has remained comparatively modest. In that context, **no significant rise in interest rates is anticipated in the euro area in 2005.**

The main source of uncertainty in the external environment concerns the recovery of European economic growth rate. From the Estonian economy's point of view one might ask whether our domestic economy is competitive enough to benefit from the expected European economic recovery. Should European economic growth pick up more slowly than expected or should there be a decline, it might cast doubt on the future profitability of several recent investments.

■ Corporate Financial Behaviour and Risks

Corporate debt growth, which had peaked in the first half of 2003, has started to slow down. Similar developments have occurred also in most of the EU-15 Member States where declining interest margins have helped to improve corporate balance sheets while reducing their debt burden. Estonian companies have witnessed a clear trend of improved loan conditions leading to faster growth in domestic bank loans and leasing at the expense of foreign debt. While domestic debt has increased at an average rate of 25% in the past six months, foreign debt growth decreased to 9.0% in mid-2004. Along with domestic and foreign debt, foreign equity investments (particularly in the real estate and construction sector) have also largely increased.

The growth in (domestic) loan portfolio has remained faster than average in the past two years, mainly in the industries focused on internal demand (such as trade and real estate). Meanwhile, since the end of 2003 transport and communications companies have become clearly more active in attracting resources in the local market. However, these growth figures are statistically expanded by large loan projects of a few major corporations.

Loan interest rates that have promoted fast growth in domestic corporate debt have fallen significantly as a result of competition between banks. Estonian companies are predominantly small or medium-size in the European context, and generally higher interest margins are applied to them in developed European countries. Nevertheless, should competition between banks persist, further decline in loan interest rates in the confined Estonian market could be expected.

Regarding commercial real estate risks, the evaluation is more positive compared to the period six months ago since the expected increase in office space vacancies has not materialised at current economic activity. The development of retail space has shifted from large shopping centres to smaller spaces.

■ Financial Behaviour of Households and Their Risks

The **net position of households' financial assets and liabilities** has continued to deteriorate. Annual growth in **deposits**, which has steadily declined in the course of more than three years, took a slight upward trend in 2004. However, such developments cannot be explained by a change in households' behaviour; this rather indicates the lack of alternative saving opportunities against steady income growth. In recent years the main alternative savings instruments have been either "the piggy bank" (according to a survey by TNS Emor) or real estate investments. Even though real estate prices have risen strongly in recent years, in the future real estate investments might not provide better returns than financial investments (adjusted for risk or servicing costs). Deposit growth rate will mainly be affected by increased loan burden, savings into pension system pillars, and low interest rates.

Households' loan demand has been very strong in the past six months. **The annual growth rate of housing loans** remained close to 55% for almost two years, yet began to decline slowly but steadily as of May 2004 (owing to the higher base level), reaching to a level below 50% by the end of September. Interest rates on new housing loans continued to decline in 2004, stabilising at 4.2% in September. Thus, the difference with the respective euro area interest rate has diminished nearly two times this year, being currently by an estimated 70 to 80 basis points higher. In the **consumer credit** market the banks have to compete against hire purchase opportunities offered by retailers, therefore no major growth acceleration can be expected in this segment in the coming year.

Based on the banks' statistics on overdue loans, there have been no major obstructions in households' **loan servicing** so far. The housing loan portfolio stands out for comparatively good quality. However, compared to the Scandinavian countries, the loan burden of Estonian households regarding loan-servicing has already risen to a relatively high level, which might involve potential risks to macroeconomics as well as to financial stability. Even though no interest rate rise is expected in the near future, the comparatively high interest sensitivity of Estonian households (approximately 98% of housing loan contracts are based on a floating interest rate) should be taken into account in the longer run.

■ Banking Sector

Competition in the banking market has remained tough. In addition to Latvia's Parex Banka, the branch of German Vereins- und Westbank AG also entered the Estonian banking market. Since the growth in profits earned in the local banking and leasing market is showing signs of potential slowdown, Estonian banks have continued to look for opportunities to expand their operations to neighbouring markets so as to maintain **profitability**.

Even though the banks have been capable of managing declining margins, toughening competition in the domestic market indicates that income from interests and fee and commission income have become tenuous. As the decline in the price of external financing has been slowing down further interest expense reduction possibilities are running out despite an increase in the share of market-based resources as a result of growing confidence abroad. Therefore, should the margins continue to fall in the near future, it would lead to a decrease in the banks' ability to bear potential losses.

The capitalisation of the banks has remained at a high level – the capital adequacy ratios of consolidated groups have remained above 11%. Further rapid loan growth and difficulties with maintaining profitability due to declining interest margins might, however, drive the banks' capital buffers towards a minimum level. Nevertheless, banks' **loan quality indicators** have been high against favourable interest rate environment accompanied by rapid loan growth.

The banks competing for market shares against the backdrop of tough competition have financed robust **financing portfolio** growth by attracting market-based resources more extensively, which leads to a situation where liabilities are more dependent on foreign investors' attitude towards Estonian economic

development. In order to balance the situation, banks have opted for more flexible liquidity management by replacing bonds with deposits and reverse repos in liquid assets. In other words, these trends increase the vulnerability of the banking sector to interest and liquidity risks arising from the external environment, thus placing higher demands on the internal risk management of the banks.

■ Securities Market and Other Financial Intermediaries

Bond market developments are characterised by modest volumes of new issues and moderate secondary market turnover. Against the backdrop of declining non-resident bond issues the number of issues by local financial and private sector companies has increased.

Hand in hand with other fast-growing stock exchanges in the new EU Member States, **stock prices** have continued to rise on the Tallinn Stock Exchange (27% in the first nine months of 2004). Trading in securities was more active mainly in the months prior to the EU accession; after a moderate trading period in summer the stock exchange has again been setting new price and turnover records in autumn. As a result, the market value of tradable shares has grown to 44% of GDP in a year.

Further development of the securities market is affected by the ongoing integration with the Nordic and other Baltic markets and possible new stock and bond listings on the Tallinn Stock Exchange.

In line with a rather modest increase in the financial savings of the non-financial sector¹, the growth in **investment funds'** assets has slowed down. Higher returns arising from the rapid growth in the Central and Eastern European stock exchanges and the recovery in other markets have promoted interest in stock investments and more than doubled the assets of equity funds year-on-year. The assets of second pillar **pension system** funds, which have been increasing steadily, rose above the threshold of two billion kroons in September, while the number of subscribers increased to more than 400,000. Besides investments into the second pillar of the pension system, payments into supplementary funded pension funds form an increasing share in household savings, accounting for nearly 11% of household financial savings.

Positive developments in the **insurance market** arose from increased domestic demand, including the enlivened real estate market and successful car sales, as well as from the spread of voluntary pension insurance. By actively selling third-pillar pension system products the insurance companies tied to the banks have increased their market shares in the life insurance sector.

■ Payment Systems

According to the overseer, systemically important payment systems have been performing in line with the established requirements and no risks to financial stability have been detected in their functioning. In response to a proposal included into the previous assessment by the overseer of the payment systems, legislation regulating access to the interbank payment systems managed by Eesti Pank has been amended and made available to the public.

In 2004 there have been no major changes in the **payment environment** and thus the trends of previous years continued. The position of credit institutions operating in Estonia is strengthening in the daily lives of individuals. The network of bank offices and electronic payment channels has reached the level that meets the market demand. The popularity of direct debits is growing since the use of this payment method is easy and convenient.

The structure of Estonia's payment environment resembles that of the Nordic countries. As of the moment of accession to the European Union charges for domestic and cross-border euro-denominated transactions within the EU dropped for the payment originator.

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

■ Summary and Financial Stability Risks

The current situation of financial stability can be considered good, as improvement of the economic environment and good prospects for economic growth ensure that both companies and households are able to meet their loan commitments.

The **rate of households' loan growth** reached its peak in the middle of 2004, and from there on the growth rate is likely to decline. The strong confidence on the one hand, and the aggressive lending behaviour of banks on the other still continuously inject households optimism to borrow.

Although the speed of loan growth is reducing, and the current economic environment is supporting loan servicing, it is still appropriate, taking into account the risen debt burden, to consider the **possible risks**.

In the longer term, reducing loan growth could avert serious macroeconomic problems. Decreasing demand might endanger the growth prospects of companies, which in turn might bring along worsening of the labour market situation and finally also bigger solvency problems for loan customers. That gives even more reason to stress the importance of creating financial assets as buffers (especially bank deposits) to level off the possible future loan servicing difficulties.

Another longer-term risk is related to the situation, when banks enter more risky sectors with the view to preserve high profitability. This results in the danger that in case the economic environment proves to be worse than expected, the risk premium of higher-risk customer projects will turn out to be too low, and the necessary capital buffers will be underestimated.

In case the growth rate of loans does not retard and no substantial changes take place in the saving behaviour, the increasing volume of debt accompanied with growing servicing costs might hinder the growth of domestic demand in the future and thus reduce the growth potential of the economy.

I GLOBAL ECONOMY AND ESTONIAN ECONOMY

■ External Environment

Global Economic Cycle

The upturn in economic activity that had started in 2003 continued also in 2004 (see Figure 1.1). In the first quarter, **the year-on-year GDP growth** was the fastest in the past 15–20 years both in the United States and Japan (5.0% and 5.9%, respectively). The annual GDP growth in the euro area remained considerably slower (1.3%). In the second quarter, the soaring oil prices affected domestic demand in the United States and Japan unfavourably, thus slowing economic growth down to 4.8% and 4.2%, respectively. Meanwhile a moderate rise in economic activity continued in the euro area and the annual GDP growth rate stood at 2.0% in the second quarter. Certain slowdown in global economic growth has been forecast for the second half of 2004 and the next year¹.

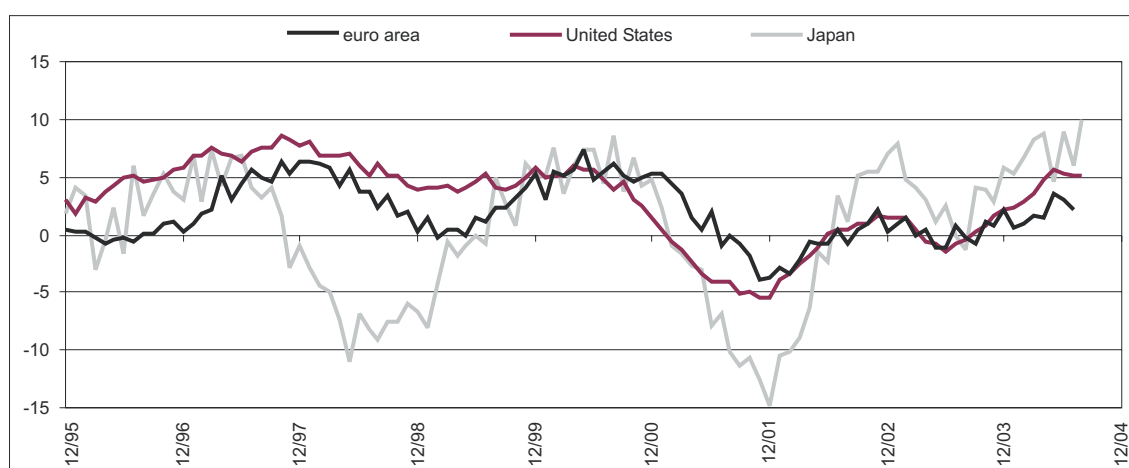


Figure 1.1. Annual growth in the industrial production of the euro area, the United States and Japan (%)

Source: EcoWin

Economic growth in the United States and Japan also led to **improvements in the labour market**. In the United States unemployment decreased from 5.7% in March to 5.4% in August whereas in Japan it fell from 5.0% in January-February to 4.8% in August. Due to structural problems (above all little mobility of the labour force) moderate economic growth did not have a positive impact on the labour market in the euro area – the unemployment rate remained stable at 9.0% April through August.

Budget deficit growth both in the United States and the euro area came to a halt in the summer of 2004. However, the deficit level remains very high (in excess of 3.0% of GDP in the United States and in the largest economies of the euro area) and there has been no clear turn for the better. The relatively fast economic growth in the United States has led to a sharp increase in the current account deficit, which rose to as much as 5.7% of GDP in the second quarter of 2004.

¹ Consensus Forecasts, September 2004.

Arising from fast-growing oil prices, **inflationary pressure** temporarily increased in the summer of 2004 – the annual rise in consumer prices stood at 3.3% in the United States, 2.5% in the euro area and 0.0% in Japan (see Figure 1.2). During the following months the pressure subsided somewhat since rising oil prices curbed consumption and did not allow companies to pass rising input prices on to customers. Due to the weakness of private consumption inflation is not expected to increase in the near future. In addition, the possible increase of key interest rates in several large economies puts the brakes on price rises.

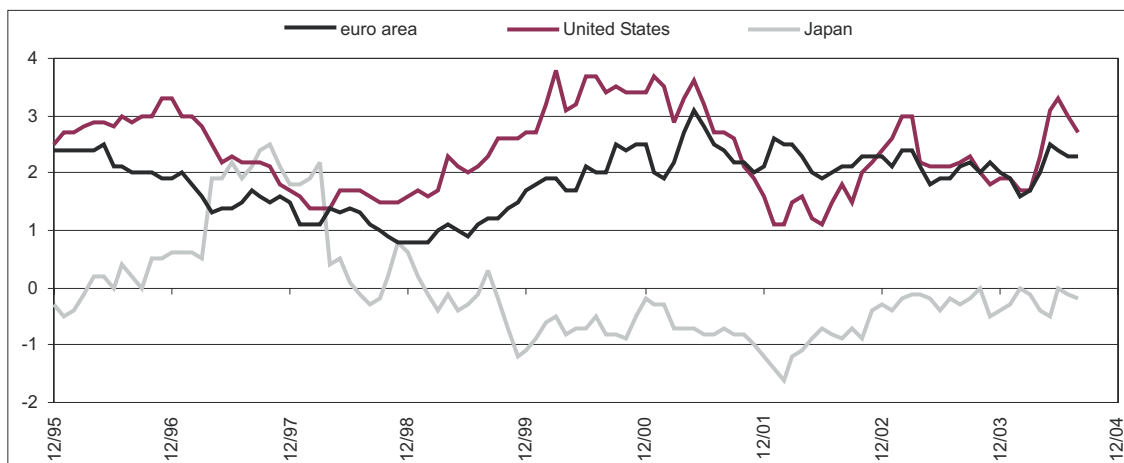


Figure 1.2. Consumer prices in the euro area, the United States and Japan (%)

Source: EcoWin

In Finland and Sweden, economic growth again outpaced that of the European average in the first half of 2004, amounting to 3.2% and 3.6%, respectively, in the second quarter. The growth in the Nordic countries was underpinned by increased external demand in the electronics as well as in timber industry. The central banks of Sweden and Finland are optimistic about future economic development – in their forecasts of autumn 2004 both corrected their economic growth outlook upwards for this as well as for the next year.

Despite brisk economic growth the situation in the **labour market** did not improve. In the second quarter the unemployment rate stood at slightly below 9% in Finland and slightly below 6% in Sweden. However, the confidence of households and their consumption readiness has remained relatively high in that context and domestic demand can still be considered an important growth factor.

Finland's and Sweden's **inflation rates** showed a considerable decline at the start of the year – mainly because of the base effect of energy prices. In Finland another contributing factor was the reduction of the excise duty on alcoholic products. Like elsewhere in Europe, high raw material prices have started to affect also Nordic consumer prices in the second half of 2004. The central banks predict a rise in consumer prices by 0.2% in Finland and by 0.5% in Sweden at the end of the year.

International Financial Markets

Stock markets were rather hectic in the second and third quarter of 2004². This was brought about by a turn towards slower economic growth (above all in the industrial sector) as well as by surging oil prices, which led to increased insecurity and a decline in the investors' willingness to take risks. The earlier trend of rising stock prices stopped and was replaced by trading within a limited range. All in all, the changes in the stock indices in the United States and the euro area remained modest: the S&P 500 index in the United States increased by 1% while the Eurobloc 300 index rose by 1.6% (see Figure 1.3). In Sweden the stock index increased by 4.9%, whereas the index in Finland fell by 11.5% as a result of a decline in the price of Nokia's shares.

² The survey covers the period from 31 March 2004 to 13 October 2004.

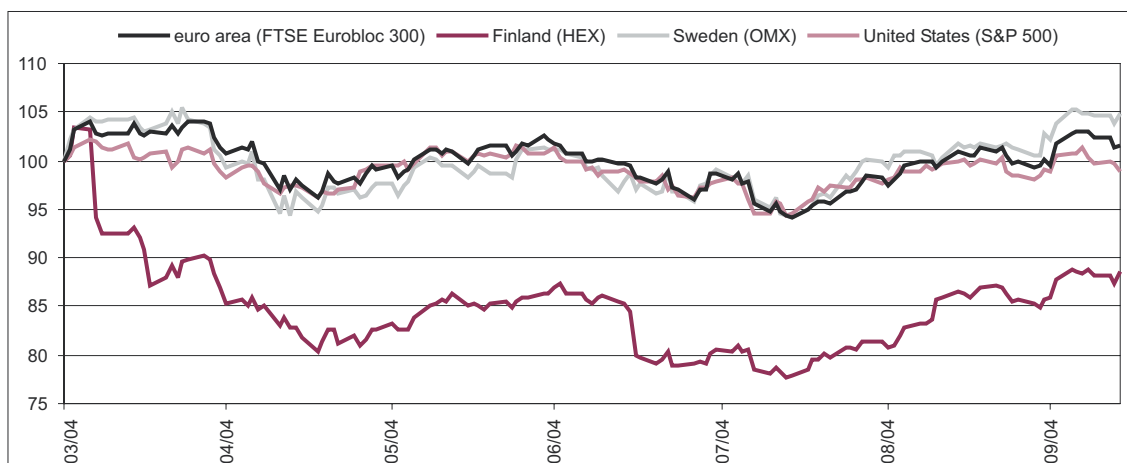


Figure 1.3. Stock indices in the euro area, Finland, Sweden and the United States (31 March 2004 = 100)

Source: EcoWin

In the money markets the dynamics of short-term and long-term interest rates was different. Because of fast economic growth inherent to the process of revival, several central banks (e.g. in New Zealand and the United Kingdom) continued to raise **key interest rates**. For the same reason the US central bank also embarked on raising the key interest rate, increasing it from 1.0% to 1.75%. In its September statement the US central bank estimated that the risks to economic growth and inflation are roughly equal while expressing the opinion that the shift towards more neutral monetary policy might continue at a moderate pace. At the beginning of April the Swedish central bank lowered its key interest rate from 2.5% to a level that matched that of the euro area, i.e. 2.0%. All in all, during the period under observation **3-month interest rates** rose by 78 basis points in the United States and by 19 basis points in the euro area while falling by 8 basis points in Sweden (see Figure 1.4).

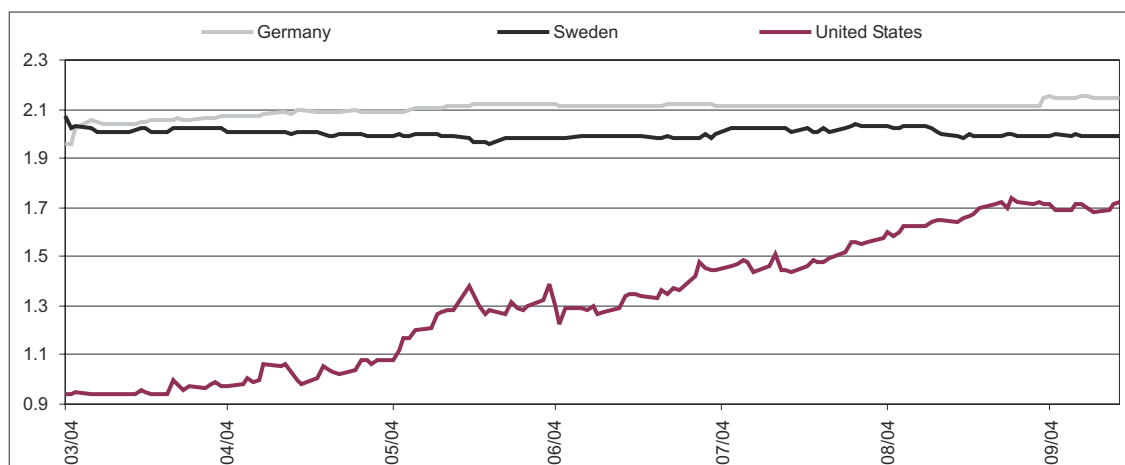


Figure 1.4. 3-month interest rates in Germany, Sweden and the United States (%)

Source: EcoWin

Long-term interest rates moved in both directions during the period. The period from the end of March to June was marked by a rise spurred by economic revival (see Figure 1.5). As of June, along with indications of weaker current economic indicators and future outlook, a downward trend dominated. All in all, the 10-year interest rate increased by 22 basis points in the United States, while small changes occurred in Sweden and the euro area.

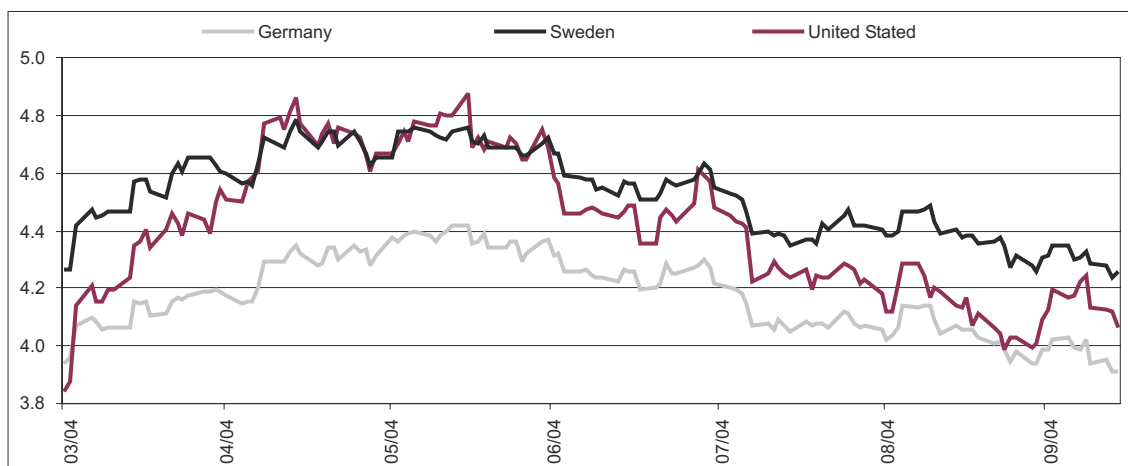


Figure 1.5. 10-year interest rates in Germany, Sweden and the United States (%)

Source: EcoWin

Currency markets were characterised by a lack of persistent direction in the exchange rate changes of the dollar against other main currencies. For investors the risks arising from the large US current account deficit were offset by the sustained position of the United States as the global economic leader. Therefore the exchange rate of the euro against the dollar stayed mostly within the range of 1.18–1.24 and changed very little all in all (see Figure 1.6). The stabilisation of global economic growth and deepening ambiguity regarding future growth outlook led to a gradual decline in the volatility of the currency markets.

The exchange rate of the Swedish krona strengthened by 2.2% against the euro during the given period. As of 2002 the EUR/SEK exchange rate has remained within a comparatively limited range (9.0–9.3) most of the time, above all due to close economic links between the euro area and Sweden and the increasing harmonisation of economic cycles.

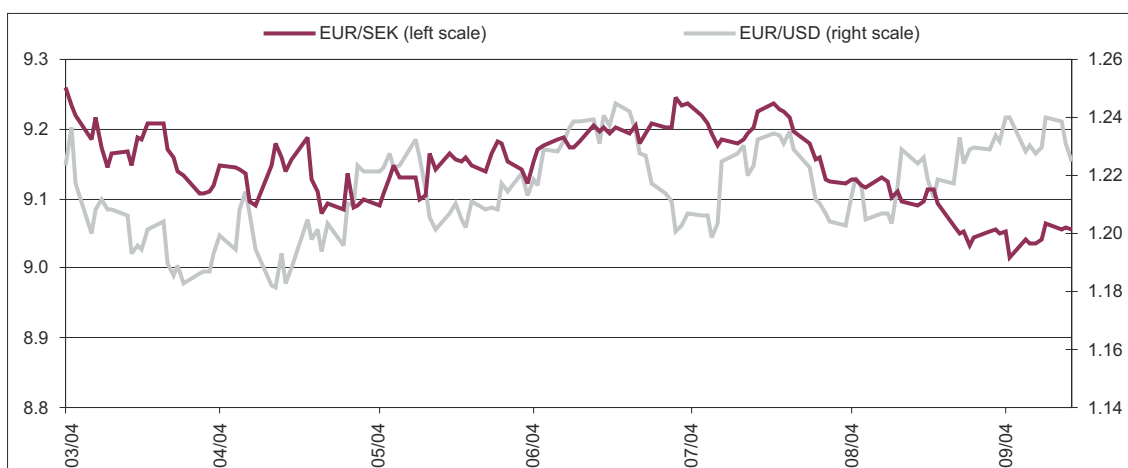


Figure 1.6. Exchange rate of the euro against the Swedish krona and the US dollar

Source: EcoWin

The developments in **the commodities market**, mainly the rise in oil prices, significantly affected the economy as well as the financial markets. From end-March to mid-October the price of crude oil soared more than 50%, rising above the level of 50 dollars per barrel in October. Thus, by the end of the period oil prices had turned out to be a major risk factor regarding both economic growth and inflation. According to the OECD, should the price of oil barrel remain near 50 dollars, it could slow global GDP growth down by

approximately 0.5 percentage points in 2005. Responding to increased insecurity and decline of the dollar, the upward trend of gold price resumed in the middle of June and rose close to record highs in recent years by the middle of October.

■ Estonian Economy and Macroeconomic Risks

Economic Growth, External Balance and Inflation

Against the background of more sustained global economic revival, Estonia's **economic growth rates** continued to stabilise on relatively high levels during the first six months of 2004. According to preliminary estimates, the GDP growth amounted to 6.3% in the first half of the year (see Figure 1.7). Thus the respective euro area indicator was outpaced by 4.7 percentage points, which implies that convergence continued at a comparatively fast rate (in 2003 the difference was 4.6 percentage points). Due to stronger economic growth in the main target markets the role of external demand as a source of economic growth has strengthened this year.

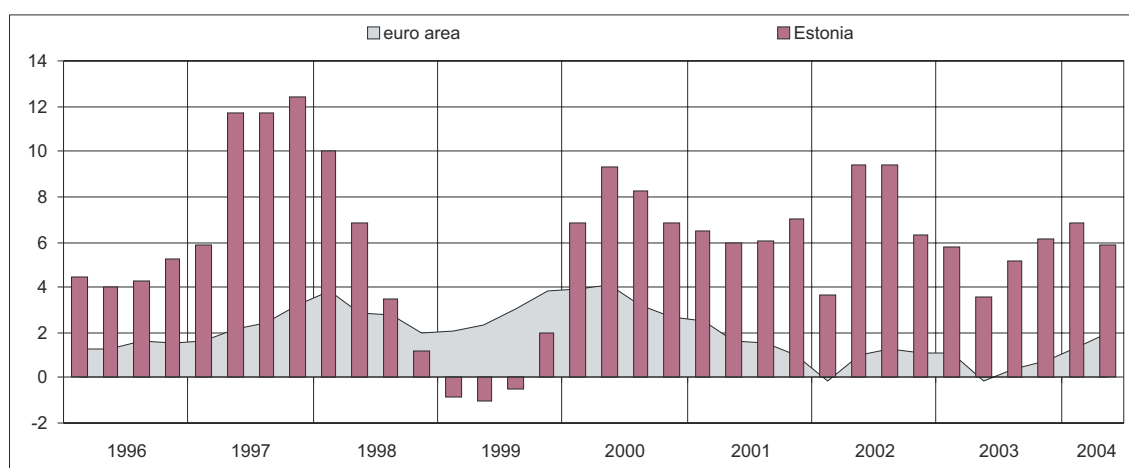


Figure 1.7. Real growth of GDP by quarters (%)

Sources: Statistical Office of Estonia; Eurostat

The growth rate of domestic demand slightly balanced in the first quarter of 2004 compared to last year's average. However, already in April the greater than average stocking of inventories prior to the accession to the European Union led to a temporary leap in import and consumption volumes. As a result, the nominal growth in domestic demand outpaced GDP growth by 6.1 percentage points in the second quarter and the comparative extensiveness of domestic demand increased again. As regards demand components, economic growth was most supported by the rise in investments and private consumption. The real growth in **private consumption** did not exceed GDP growth in the first half of the year and was even outpaced by the latter by 0.2 percentage points. But the growth in **investments** outpaced that of the GDP, which is reflected in the fact that the share of this component again increased to 33% of the second quarter GDP.

Although the surplus of services grew even further in the first six months of 2004, year-on-year, this was not sufficient to compensate for the increasing **trade deficit**. The goods and services deficit, i.e. the amount by which domestic demand exceeded the gross domestic product rose to 8.4% of GDP at the end of the second half-year. In addition to foreign trade, the growing income account deficit contributed to a rise in the **current account deficit** as well: the net income outflow accounted for 8.3% of GDP in the second quarter. All in all, the external balance deteriorated. In the second quarter the current account deficit amounted to more than 20% of GDP (14.9% of GDP as a four-quarter average; see Figure 1.8).

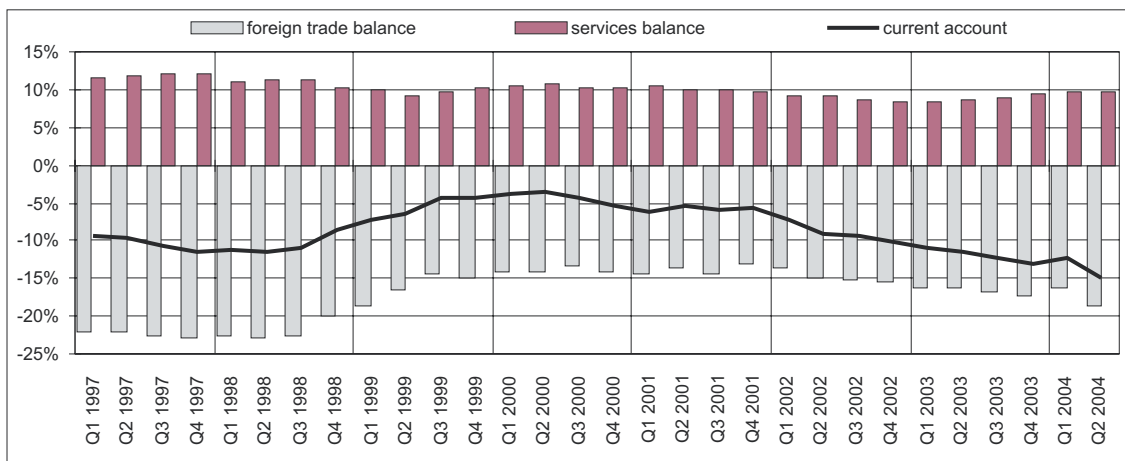


Figure 1.8. Foreign trade balance, services balance and current account balance in ratio to GDP (4-quarter average)

Estonia’s investment position deteriorated as well: compared to the end of 2003 Estonia’s **foreign debt** grew by nearly 5.0 percentage points (to 80% of GDP). From the viewpoint of balancing the economy, improvements in the savings-investment balance and reduction in the debt-boosting domestic demand growth will be of crucial importance in the near future.

After a period of record low inflation in 2003 due to declining external price pressures and comparatively few administrative price actions, **annual consumer price growth** started to gather pace in 2004, amounting to 4.0% in the third quarter (see Figure 1.9). The increase in the price level in April was a one-off event, which was brought about by the implementation of common customs tariffs set for the moment of EU accession as well as the harmonisation of fuel excise duties. Inflation was also spurred by rising oil prices in the world market in May and June.

Despite the acceleration in the annual inflation rate, there is no reason to talk about larger growth in inflationary pressures. Estonia’s core inflation³ rate remained consistently below the respective euro area indicator in the first nine months of the current year; meanwhile a decline has been conspicuous in the past few months.

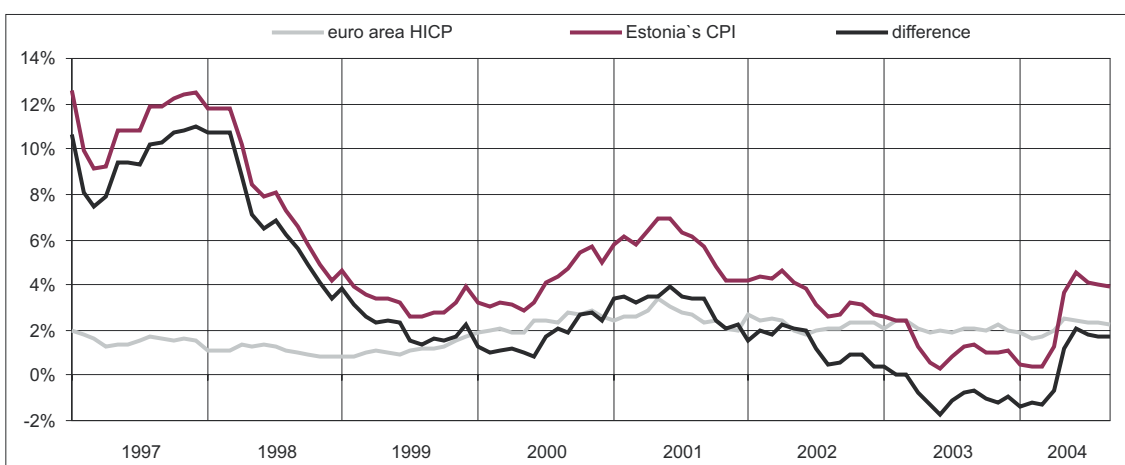


Figure 1.9. Annual growth of consumer prices in Estonia and the euro area

Sources: Statistical Office of Estonia; Eurostat

³ As regards the core inflation indicator, the Harmonised Index of Consumer Prices does not include food, alcohol, tobacco and energy.

Corporate Business Situation

Confidence

According to the estimates of the Estonian Institute of Economic Research, Estonian companies continued to be increasingly optimistic about the future also in 2004. The confidence indicators of all the monitored sectors have improved year-on-year (see Figure 1.10). The growth in the optimism of **trading companies** was the most clear-cut and was confirmed by the addition of new retail space. The increased number of foreign tourists visiting Estonia also underpinned growing optimism. The estimates of **construction companies** were clearly more optimistic in the first half of the year than they had been a year before, but remained at the last year's level in the third quarter.

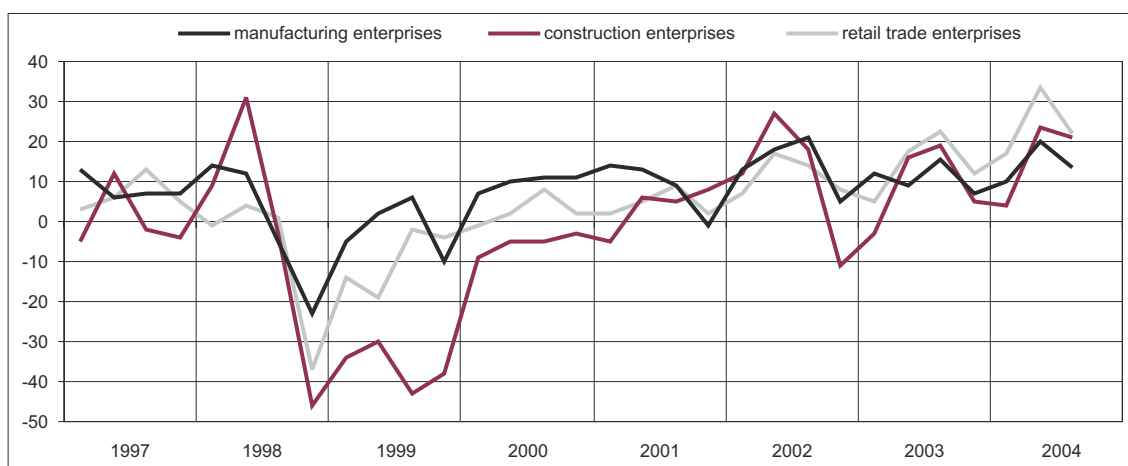


Figure 1.10. Confidence indicators of Estonian enterprises

Source: Estonian Institute of Economic Research

The improvement in the confidence of **manufacturing companies** is above all related to the impact of restored external demand (see Figure 1.11). In the months following the accession to the European Union a certain downward correction in the optimistic expectations of manufacturing has taken place.

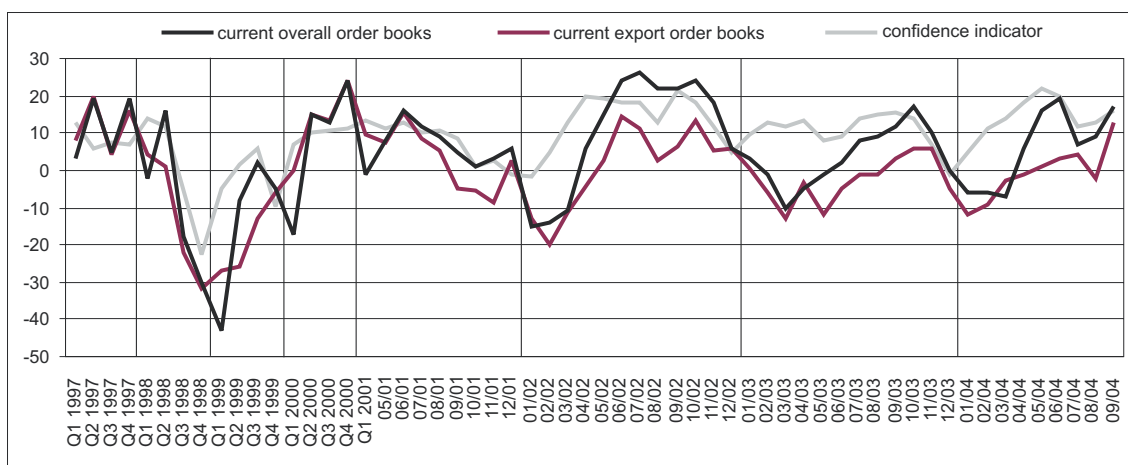


Figure 1.11. Production demand of manufacturing enterprises and confidence indicator

Source: Estonian Institute of Economic Research

Industrial Sales and Investments

As regards real indicators, **sales growth** in manufacturing accelerated in the first half of 2004 from 9.4% last year to 11.2% (see Figure 1.12). Fast growth was above all spurred by increased demand in the domestic market; meanwhile the rise in industrial exports has slowed down from 13.0% to 10.3%.



Figure 1.12. Production and sales indices of manufacturing

Source: Statistical Office of Estonia

Estonian **goods exports** also demonstrated a strong increase in the first six months of 2004 (16.0% in f.o.b.) in line with stronger economic growth in the main target markets. The development of exports has begun to even out this year also by components and different markets. While last year the main drivers of export growth were new and “untraditional” sectors (chemical, metal industries), then in the first half of 2004 the situation of traditional sectors (timber industry, dairy products) has considerably improved.

Corporate **investments** statistics shows that investments into the primary sector have decreased. However, investments into the secondary sector increased – both in manufacturing as well as in transport, storage and communications (see Figure 1.13). Capital investments into the traditionally significant branches for Estonia’s exports – timber, paper and furniture production – were smaller in 2003 compared to earlier periods.

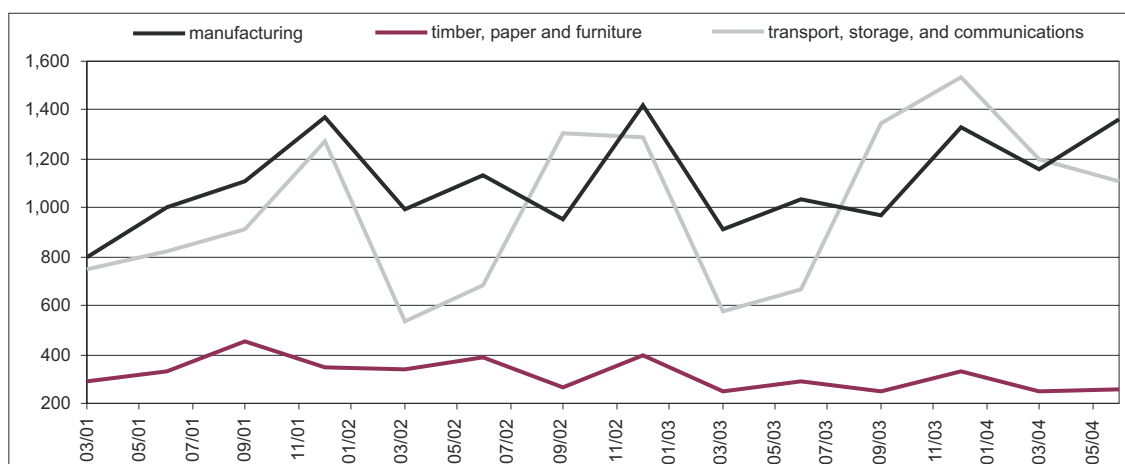


Figure 1.13. Investments in tangible fixed assets (EEK m)

Source: Statistical Office of Estonia

New Companies and Bankruptcies

The surge in the number of **bankruptcies** seen at the end of 2003 and at the beginning of 2004 stopped early in the second quarter (see Figure 1.14). Thus the nine-month cumulative number of bankruptcies (191) was in effect as high as in the same period in 2001 and 2002; meanwhile significantly more bankruptcies were registered this year than in the first nine months of 2003. By industries there were most bankruptcies in absolute terms in wholesale and retail trade sector in the first months of 2004. Relative to the total number of companies active in the respective industry, bankruptcies were somewhat more frequent than average in construction and manufacturing.

Economic revival and positive outlooks were reflected in the larger number of **new companies** added into the commercial register compared to recent years. Still more than half of the new companies were set up in the wholesale and retail trade sector. A comparatively strong growth has also continued in the real estate sector and other business services sector.

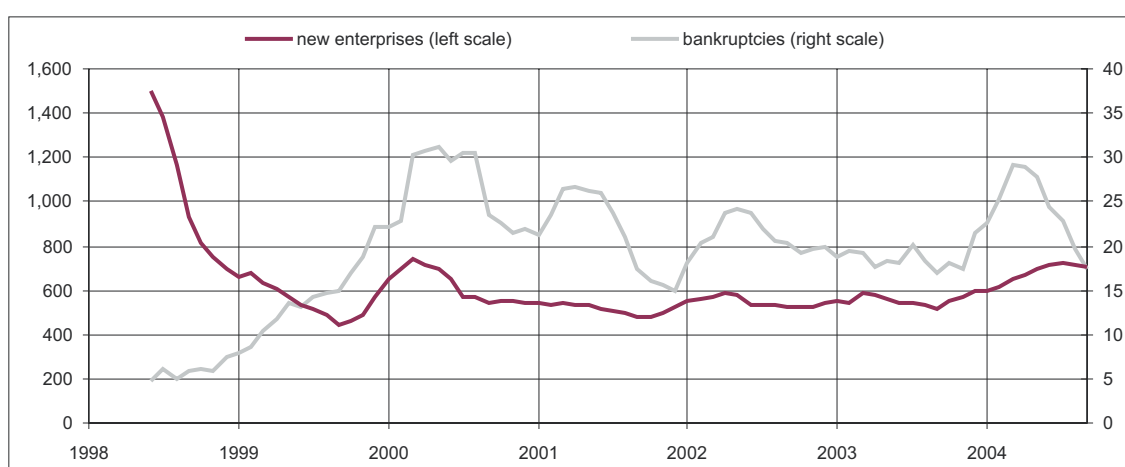


Figure 1.14. New enterprises entered in the commercial register within a month and bankrupt enterprises (6-month moving average)

Source: Estonian Enterprises Register

Corporate Profitability

Based on preliminary estimates, the profitability of the corporate sector has further improved in 2004. GDP data indicate a particularly strong improvement of corporate earnings in the second quarter of the year, exceeding also nominal GDP growth.

Economic Situation of Households

Labour Market

Positive trends in the labour market continued in the first half of 2004. The economic activity of the population and the employment rate increased slowly but steadily; unemployment decreased year-on-year (see Figure 1.15).

The number of the unemployed fell by an average of 5% while the **unemployment rate** declined by an average of 0.6 percentage points, year-on-year. According to Eurostat, Estonia's unemployment rate (harmonised and seasonally adjusted) fell below the respective average euro area indicator in July-August (to 8.8% in July and 8.7% in August).

Employment growth, though, has somewhat slowed down in 2004, amounting to 2.2% year-on-year in the first quarter and to 1.0% in the second quarter. The number of the employed increased by an average of 9,300 in six months. Measured in numbers, the growth was the fastest in manufacturing, construction and public administration, and declined most in real estate, renting and business activities, education and agriculture.

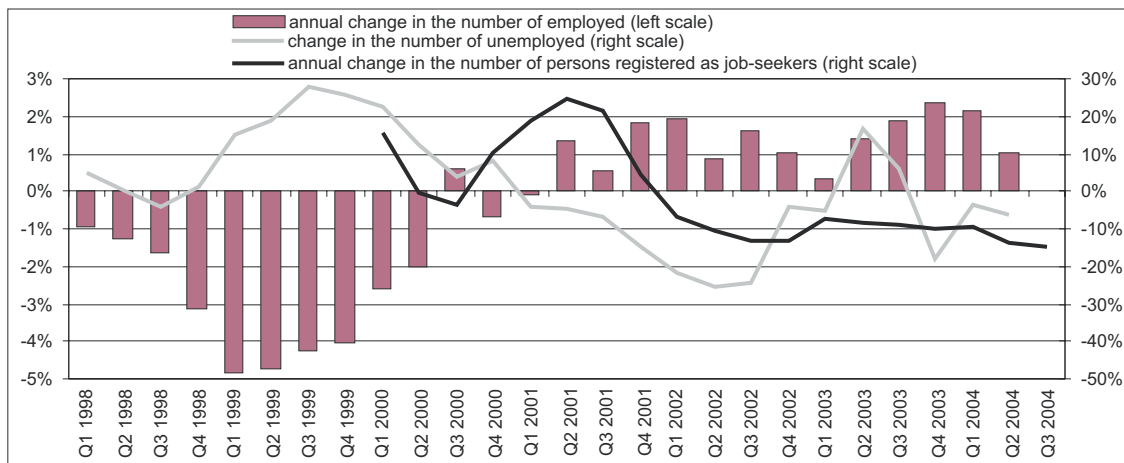
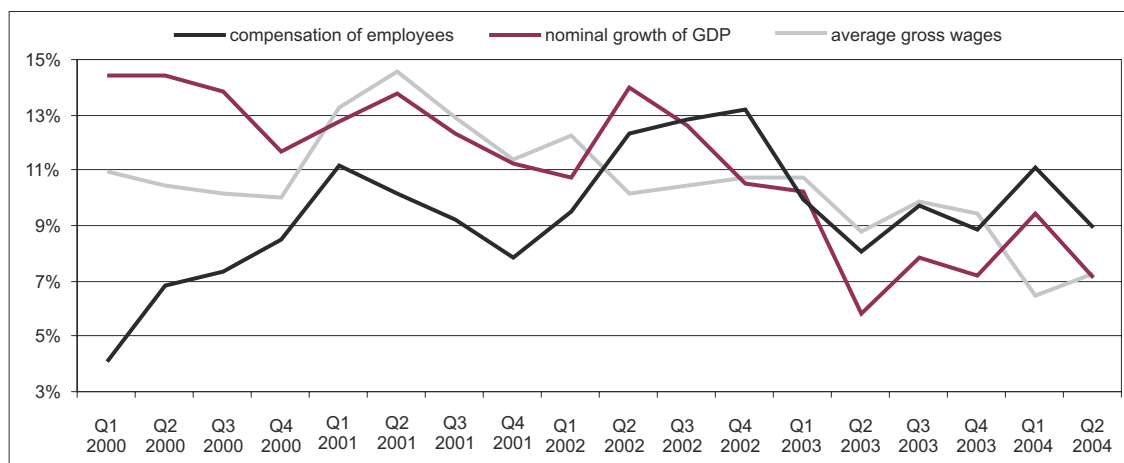


Figure 1.15. Annual change in the number of employed and unemployed persons and registered job-seekers

Source: Statistical Office of Estonia

Since the beginning of the year the growth in both nominal and real **wages** has slowed down (see Figure 1.16). In the first half of the year wage growth was the fastest in forestry as well as in the services sector. Meanwhile the wage growth in manufacturing remained slightly below 8.0% both in the first and second quarter of the year. As regards wage growth by owners, the slowdown appears to be the biggest in private companies, amounting to just 5.2%; pay rise in the offices, companies and organisations in state ownership did not show any signs of slowdown and the growth rate remained at nearly 10%.



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

Source: Statistical Office of Estonia

Faster growth in **labour costs** in 2003 during a period of cyclical slowdown in economic growth turned out to be a supplementary source of economic imbalance. Regrettably, the same trend continued also in the first half of 2004. Bringing the rate of wage growth in line with productivity developments is the key issue in the coming periods.

Confidence and Household Budget Surveys

The downward trend of the **household confidence indicator** that had started early in 2003 continued until May 2004 to turn positive after that (see Figure 1.17). The main reason behind insecurity was the deepening fear of inflation prior to the EU accession, yet which was dramatically reduced after joining the union and has receded by now. The households' fear of possible price rises turned out to be overblown and did not have a significant impact on the actual inflationary development.

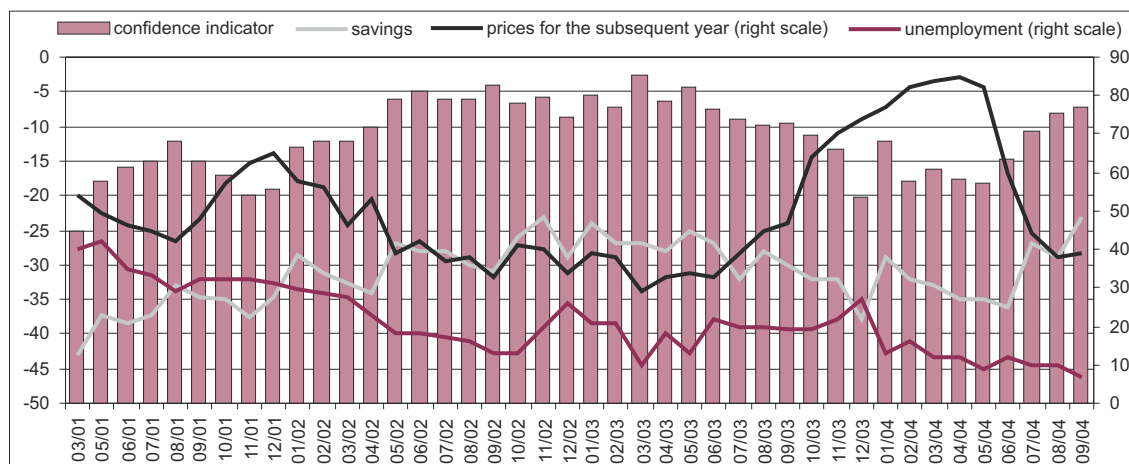


Figure 1.17. Consumer confidence indicators

Source: Estonian Institute of Economic Research

In 2004 the growth in confidence has also been underpinned by a lessened fear of becoming unemployed. The fear of unemployment reduced to its historical low in September. Since the third quarter households' estimates of their ability to save have significantly improved.

According to the estimates reflected in the consumer barometer of the Estonian Institute of Economic Research, households' **intentions to make major purchases and investments** (buying a car; buying, building or renovating a house or an apartment) were scaled down also in 2004 (see Figure 1.18). Neither do the results of the F-monitor survey carried out by TNS Emor in autumn indicate increased demand for durable goods (e.g. vehicles and real estate).

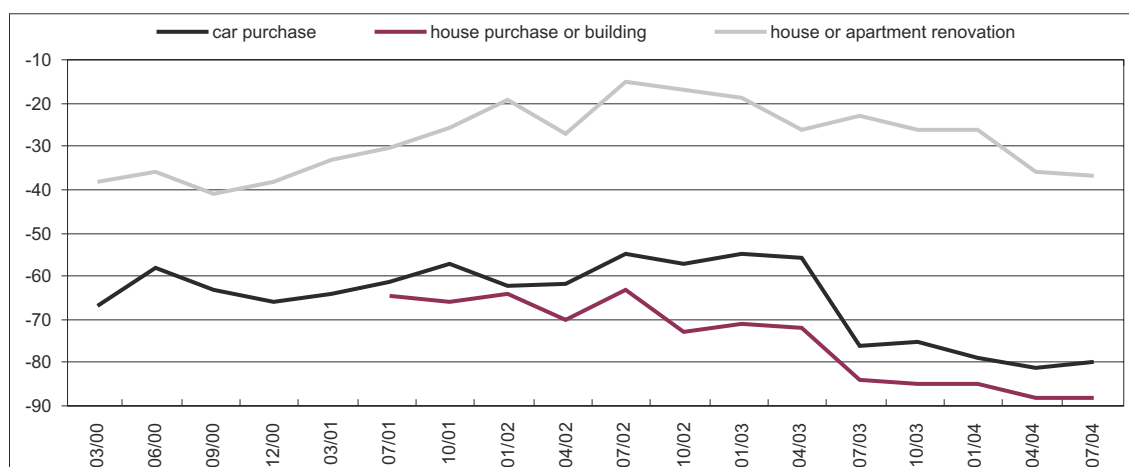


Figure 1.18. Households' cost estimates

Source: Estonian Institute of Economic Research

■ Structure of Financial Intermediation and Financial Deepening

The current structure of the Estonian financial sector mostly evolved at the end of the last decade, and in recent years major changes have been related to intermittently faster growth rates of different components of the financial sector (see Figure 1.19)

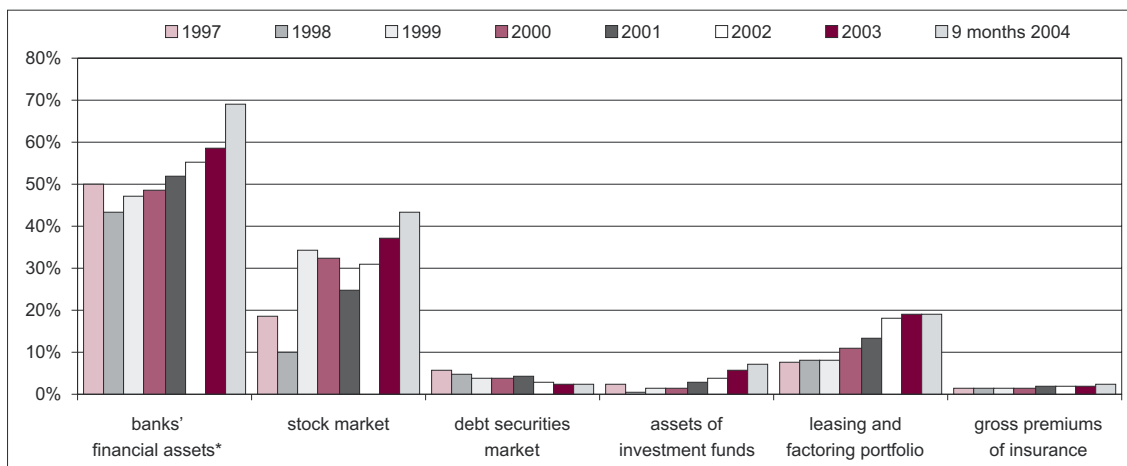


Figure 1.19. Structure of financial intermediaries (% of GDP)

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

The increase in the financial assets of banks has been based on consistently strong loan demand, whereas leasing portfolio developments have been characterised by a slowing growth rate (see Figure 1.20). On one hand, this is a strategic choice of the banks to make more extensive use of the loan portfolio shown in the banks' assets, while on the other hand it is also indicative of the consumers' preferences for different loan products.

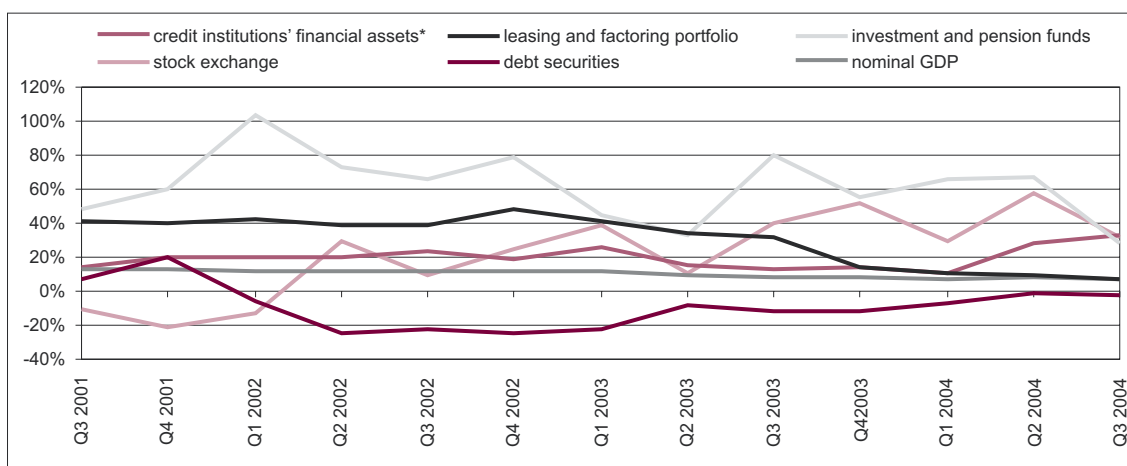


Figure 1.20. Difference in the annual growth of financial markets and nominal GDP

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

The rate of financial deepening of domestic financial assets in the banks has been considerably faster (triple growth in the nominal GDP) in the last year compared to the average historical trend (approximately 50% of the nominal GDP growth), but on the financial liabilities side the rate of deepening has essentially remained static.

Investment funds, which have grown the fastest in the past three years, have increased their volumes comparatively slowly this year, remaining at the same level with the annual growth rate of stock market capitalisation, which is based on the increase in stock prices (annual growth exceeded nominal GDP growth three times). Compared to the nominal economic growth, bond market capitalisation has been in consistent decline. Neither have there been any significant changes in the insurance market volumes where the rise in premiums steadily outpaces nominal economic growth as much as twice.

II FINANCIAL BEHAVIOUR OF COMPANIES AND HOUSEHOLDS AND THEIR RISKS

■ Companies

Financial Position and Saving

The net position of corporate financial assets and liabilities mediated by domestic banks and leasing companies has become even more negative due to strong credit growth (see Figure 2.1). At the end of September 2004 corporate financial liabilities to the domestic financial sector outpaced financial assets by more than 23 billion kroons. At the end of 2003 the gap was 17 billion kroons.



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

The slowdown in **deposit** growth that had started in the first half of 2003 took a turn in the second half of 2004 – growth rate had accelerated to 21% by the end of September. While growth dynamics partly reflects differences with the base level of the previous period, in the longer view also improved corporate results are reflected in the increase in deposits. During the nine months of 2004 domestic corporate deposits increased by 1.4 billion kroons, which marked the fastest growth rate compared to the respective periods in the past three years.

Continually unattractive **deposit interest rates** and fallen **interest fund yields** have reduced the share of time deposits¹ as well as investments into money market and interest funds. Companies prefer to invest into equity funds or keep their funds liquid as demand deposits (see Figure 2.2).

¹ Over 75% of corporate funds held in banks are demand deposits.

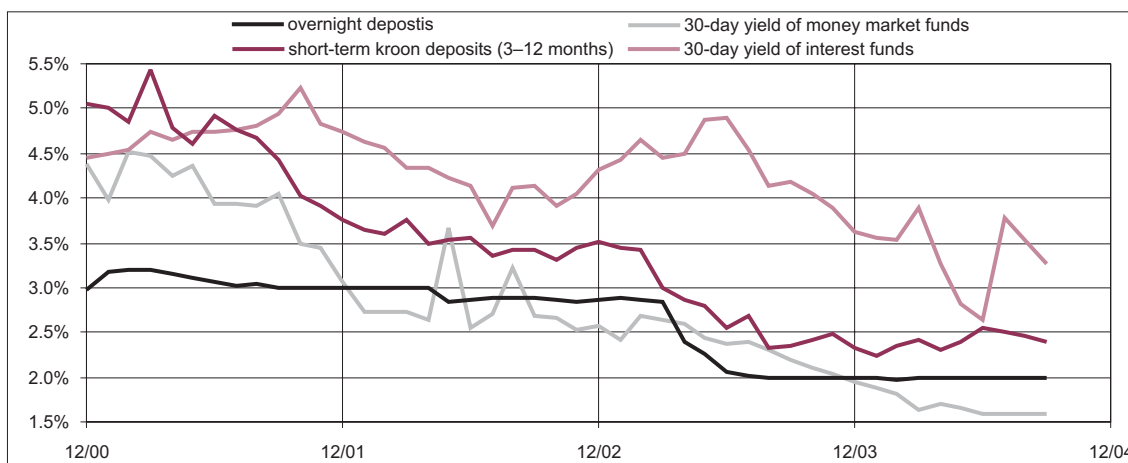


Figure 2.2. Interests on corporate short-term kroon deposits and average yields of money market and interest funds

Corporate Debt

The **growth** in corporate **debt**, which had remained at 20% from the second half of 2001 until the middle of 2003, has shown a downward trend since then, declining to 16% by the end of the first half of 2004 (see Figure 2.3). Financing through domestic bank loans and leasing facilities has grown considerably faster this year compared to the year before. The share of foreign borrowing was still consistently high at the end of June, accounting for 52% of corporate debt. Nearly half (more precisely 46%) of foreign borrowing accounted for intra-group loans.

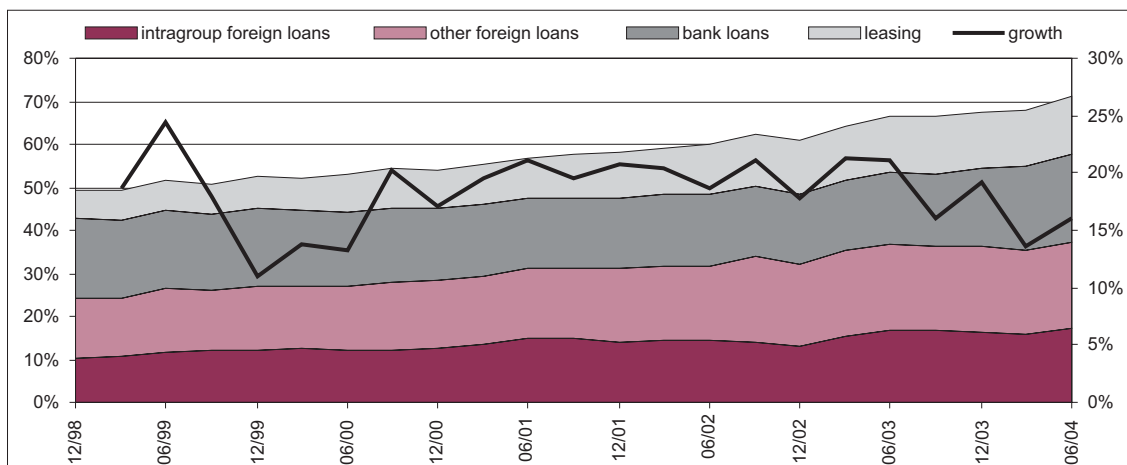


Figure 2.3. Corporate debt (% of GDP; left scale) and growth rate (right scale)

Besides rapidly increasing debt, also **foreign equity investments** have shown a robust growth (see Figure 2.4). Compared to domestic and foreign debt, the growth in the stock of foreign equity remained more modest while still being faster than that of the stock of foreign debt instruments.

By fields of activities, trading companies were the most active in attracting debt capital in the first half of 2004. However, **during that period foreign direct investments were attracted mostly into real estate and construction** (2.4 billion kroons) – this was one of the most robust increases in recent years. In the core activities the role of foreign direct investments in financing remains significant; for example, in manufacturing intra-group loans accounted for almost 50% of the growth in debt in the first half of the year.

However, the structure of corporate debt has not significantly changed as a result of these developments. Real estate sector financing is still predominantly based on domestic loan and leasing facilities (64% of the debt) while in other main industries foreign borrowing dominates (see Figure 2.5).

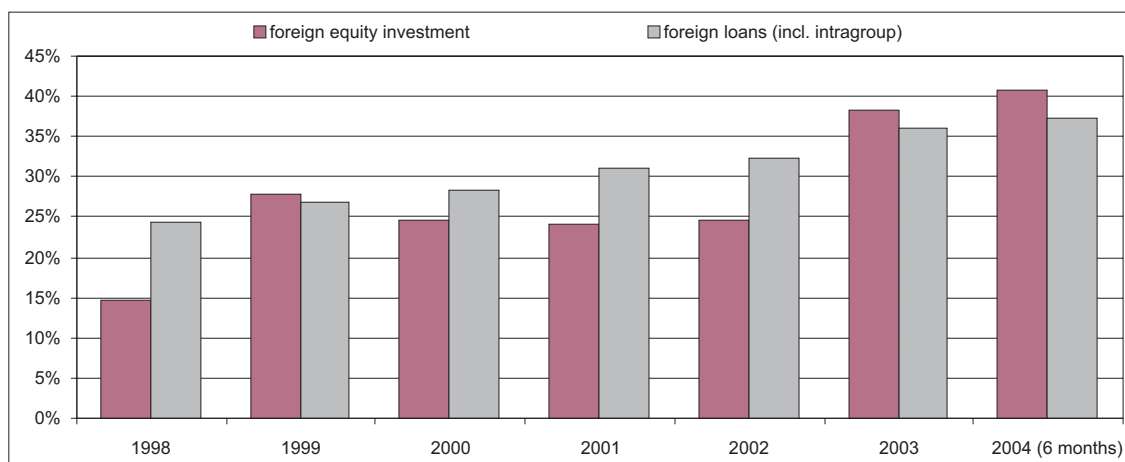


Figure 2.4. Foreign share in Estonian enterprises (% of GDP)

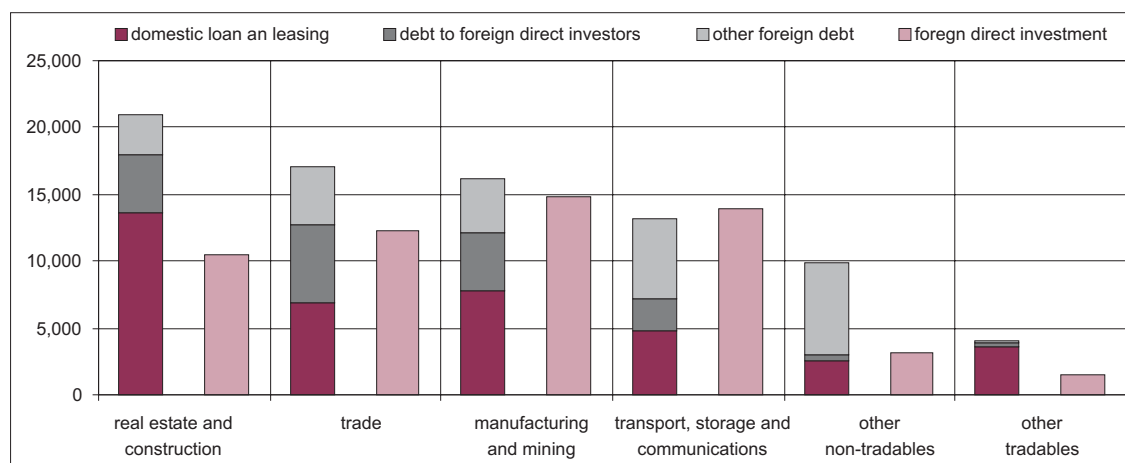


Figure 2.5. Structure of corporate financing as at 30 June 2004 (EEK m)

Debt Mediated by Domestic Financial Sector

By the end of the third quarter of 2004 **annual growth in domestic debt** mediated by the domestic banking and leasing sector reached the highest level in recent years (27%; see Figure 2.6). Even though most of it accounted for the financing of the transport sector, which has since the end of 2003 relied more on the domestic banking sector² and where annual growth reached 83% at the end of September, accelerated growth rate has been evident in all main industries in 2004.

In the debt instruments' structure a trend persists where the share of leasing is declining and that of bank loans is increasing. At the end of September over 60% of the domestic corporate debt had been financed with bank loans. The main underlying reason for the diminishing role of leasing is the change in the nature of loan products. It is more common to use leasing for investments into machinery and equipment, which is why the share of leasing in agriculture and manufacturing, for example, has remained unchanged (at 66% and 35%, respectively). The domestic securities market is still playing a modest role in attracting funds (see Chapter 4).

² At the end of 2003 a significant part of transport sector loans were refinanced with domestic bank loans.

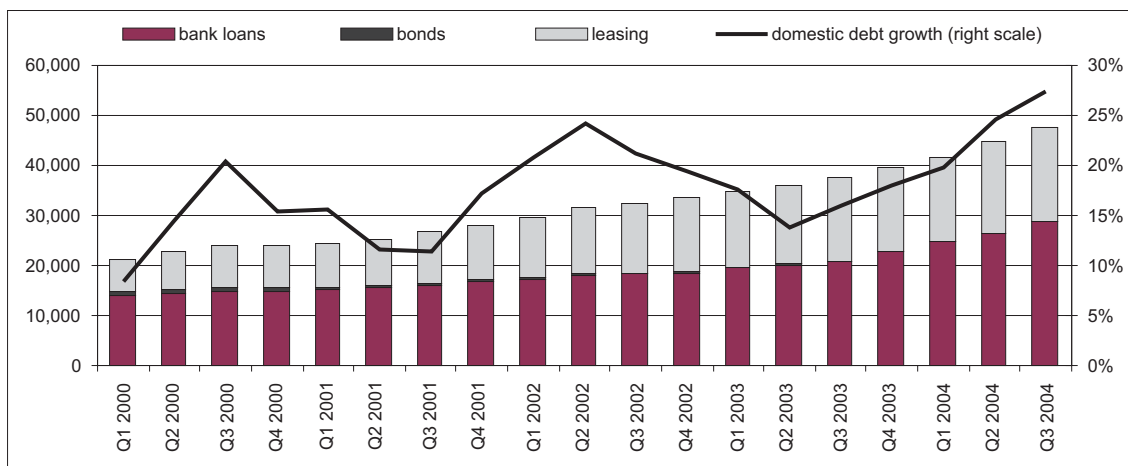


Figure 2.6. Domestic credit to corporate sector (EEK m; left scale) and debt growth (right scale)

The low level of interest rates has promoted large growth in corporate loans. Throughout 2004 the average interest rate on long-term corporate loans has remained at 5%, which marks a drop of almost one percentage point, year-on-year (see Figure 2.7). The favourable interest rate environment affects almost all industries. As a 9-month average, interest rates were higher than average in agricultural and fisheries companies; meanwhile, companies operating in transport, communications, real estate and other business activities borrowed money at lower interest rates. Given that in the EU context Estonian companies are predominantly small and medium-size to whom generally higher interest margins are applied, the established interest rate level in Estonia can partly be regarded too low.

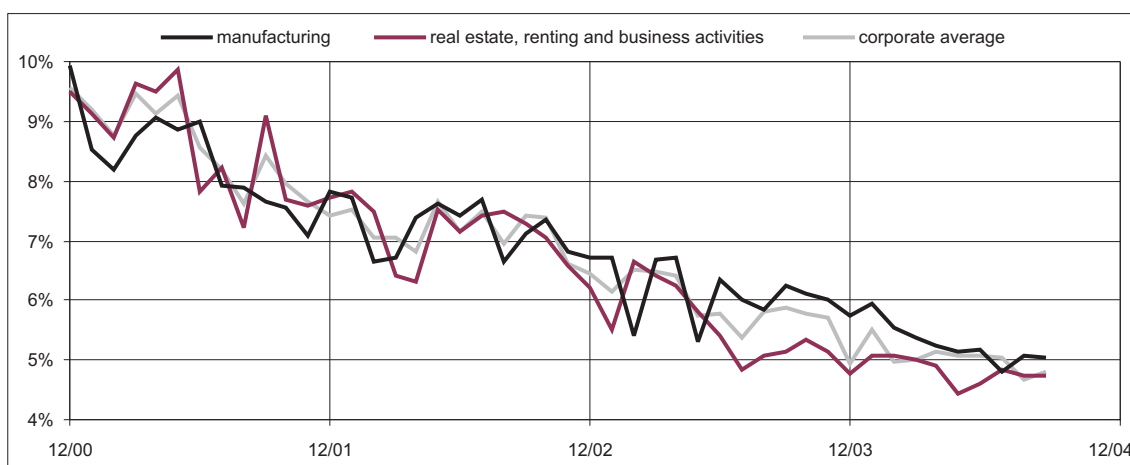


Figure 2.7. Long-term corporate interest rates

Households

Financial Position and Saving

The net position of households' financial assets and liabilities has continued to deteriorate in 2004 at an accelerating rate. Households' financial liabilities outweighed financial assets by more than 6 billion kroons at the end of September 2004 (see Figure 2.8). Since real estate purchases are the main factor behind the growth in financial liabilities, the wealth of households has obviously increased. However, weakening financial position adversely affects macro level external balance, and on the micro level the buffers safeguarding against possible setbacks are decreasing, which may threaten the loan servicing ability.

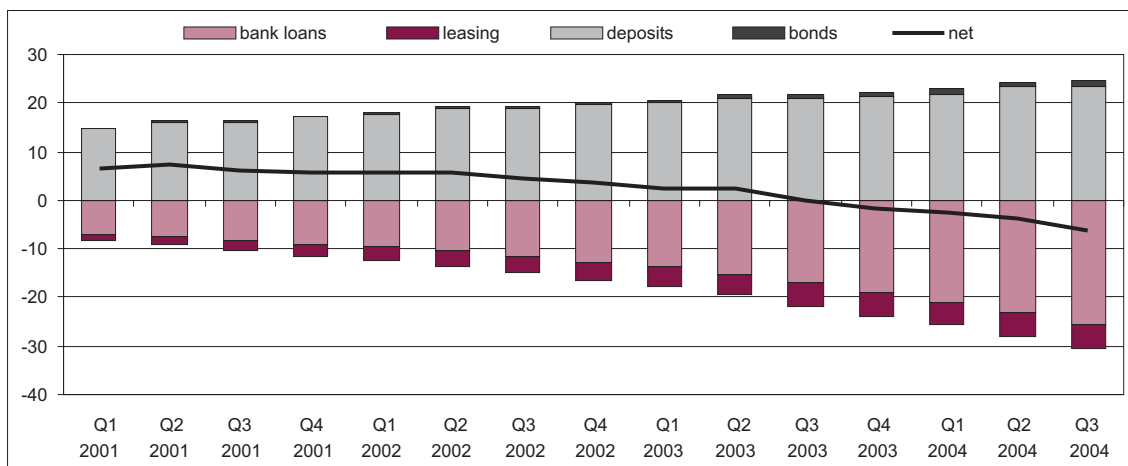


Figure 2.8. Financial assets and liabilities of households to domestic banks and leasing companies (EEK bn)

The downward trend in the **annual growth in deposits** emerged already in the middle of 2001 and reached its lowest level at the end of 2003 and the beginning of 2004. Although the deposit growth rate finally took a definite turn towards growth in the second half of 2004 (the annual growth rate reached 11.4% at the end of September), it has still remained modest (see Figure 2.9). Compared to other indicators of financial deepening, the ratio of household deposits to GDP has not significantly grown, remaining between 16–18% ever since mid-2001³.

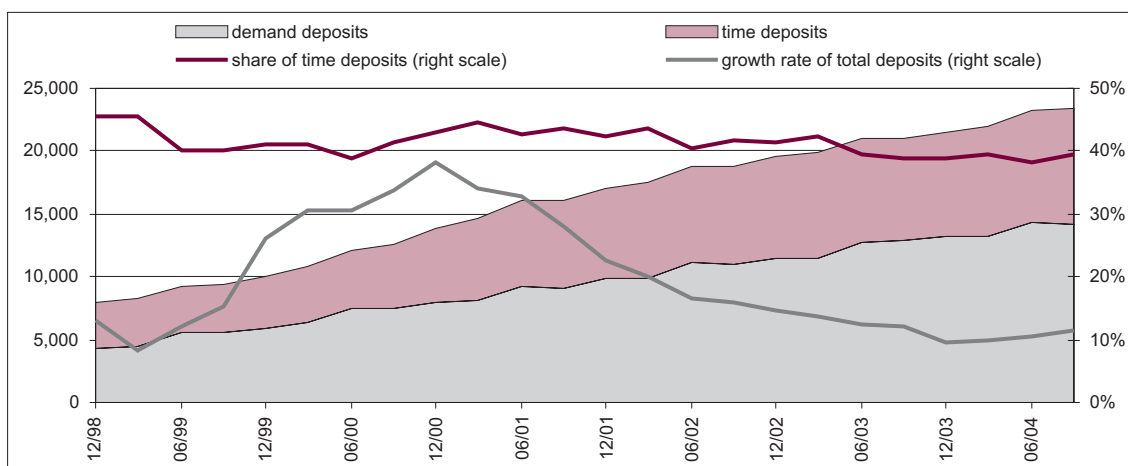


Figure 2.9. Household deposits in domestic banks (EEK m) and deposit growth

In the first nine months of 2004 the stock of deposits grew by 1.9 billion kroons (at the same time in 2003 the rise in stock was 1.3 billion kroons), meanwhile, it is noteworthy that demand and time deposits have increased almost equally. Most probably the conclusion made in the Financial Stability Review of May 2004 about scarce investment opportunities still holds true since deposit rates have remained unchanged on a low level since mid-2003. However, a study carried out by TNS Emor in the autumn of 2004 showed a sharp decline in preferences regarding time deposits, while the relative importance of “piggy bankers” has grown.

³ For comparison: at the end of 2003 household deposits accounted for 15% of GDP in Latvia and 35% in Finland (sources: Eurostat and central banks).

According to the same study, direct **investments into securities** are of interest to only a small part of the population – just 4% of all households hold listed or unlisted securities or investment fund units, and this indicator has remained almost unchanged in the past three years. Probably the main reason for such lack of interest is the residents' conviction that investments into real estate provide comparatively superior and more risk-free returns (see also background information *Return on Real Estate Used for Housing and Financial Assets*).

Arising from the successful launch of the pension reform, the **structure of households' financial assets** is changing in long-term perspective. Besides mandatory pension savings also voluntary pension savings have grown significantly in the past year – 11.5% of the working population had joined the III pillar of the pension system by the end of September 2003 (see Chapter 5.2) and the total volume of pension savings rose to 2.9 billion kroons. The growth in pension savings has outpaced that of households' time deposits in the first nine months of 2004, still falling behind the absolute rise in total deposits. At the end of September 2004 pension savings accounted for nearly 11% of households' financial savings (excl. bonds and shares). Should such saving trends continue, the share would reach 17–18% by the end of 2005.

In the context of increasing loan burden more attention should be paid to consistency of deposit growth and liquidity of household savings. Considering fast growing consumption and loan commitments there is no reason to assume that deposit growth would accelerate. While modest growth in household deposits does not have a critical impact from the viewpoint of the banks' liquidity management (except for more indirect impact through current account deficit and macroeconomic instability), then at an individual household level this forms a necessary buffer against problems that might occur in debt servicing.

Household Debt and Loan-Servicing Ability

Level and Growth of Debt

In 2004 households' loan demand has been stronger than ever. Underpinned by favourable loan conditions, the **volume of new loans** per month has been consistently growing. In the first nine months of 2003, the average volume of new loans granted to households was 800 million kroons per month; during the same period in 2004 loans worth an average of 1.2 billion kroons were granted each month. The loan and leasing stock of households exceeded 30 billion kroons at the end of September (see Figure 2.10).

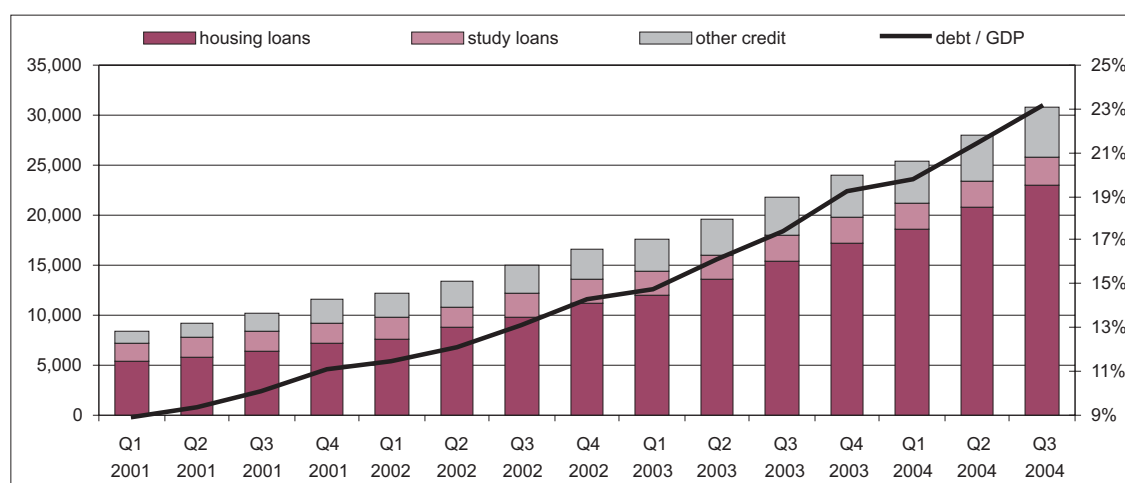


Figure 2.10. Domestic credit to the household sector (EEK m) and debt-to-GDP ratio (right scale)

In line with the estimate made in the Financial Stability Review in May 2004, the **rate of loan growth** started to slow down in the middle of 2004, stabilising by the end of September at a level last seen three years ago

(41.5%; see Figure 2.11). Since the base levels have risen, it is easy to forecast a slowdown in the loan growth rate also for the coming months. Assuming that nominal credit growth would remain comparable to that of 2004, households' loan growth would stay around 30% at the end of 2005, should current development trends continue.

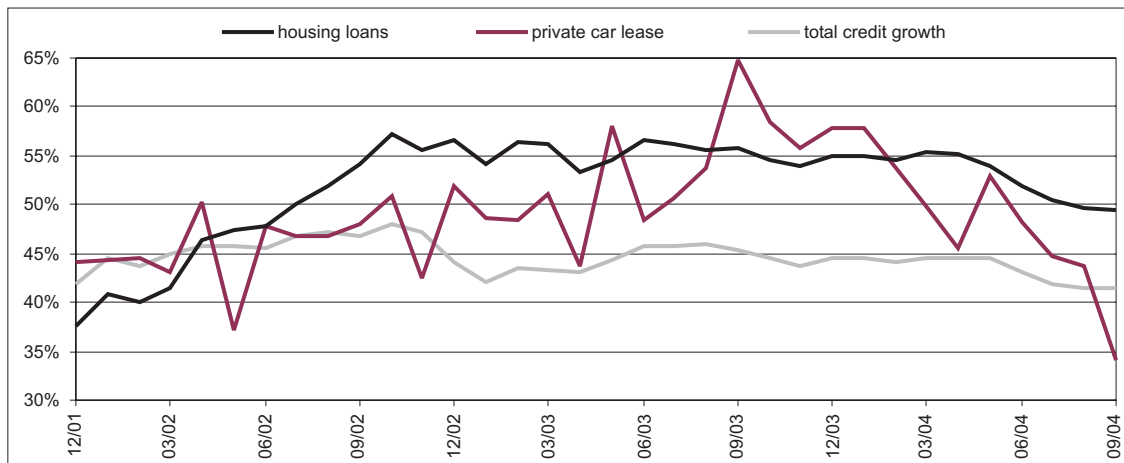


Figure 2.11. Annual growth of domestic credit to the household sector

Six months after completing last spring's Financial Stability Review it can be said that the role of the EU accession was probably overestimated when substantiating the strong demand for (housing) loans (this, however, does not apply to the rise in housing prices). Quick decisions regarding loan-financed housing purchases have above all been induced by favourable loan conditions and sustained income growth. Price rise fears/expectations associated with the EU accession are of secondary importance since no significant adjustments neither in housing demand nor supply have occurred after the accession.

Compared to the other Baltic states, Estonia's rate of loan growth remains more modest (see Figure 2.12). However, the ratio of household debt to GDP in Estonia, which reached 21.4% at the end of June, significantly exceeds the respective Latvian and Lithuanian indicators (see Figure 2.13). Still, compared to Finland and Sweden, Estonia's debt level is significantly smaller (two and three times, respectively).

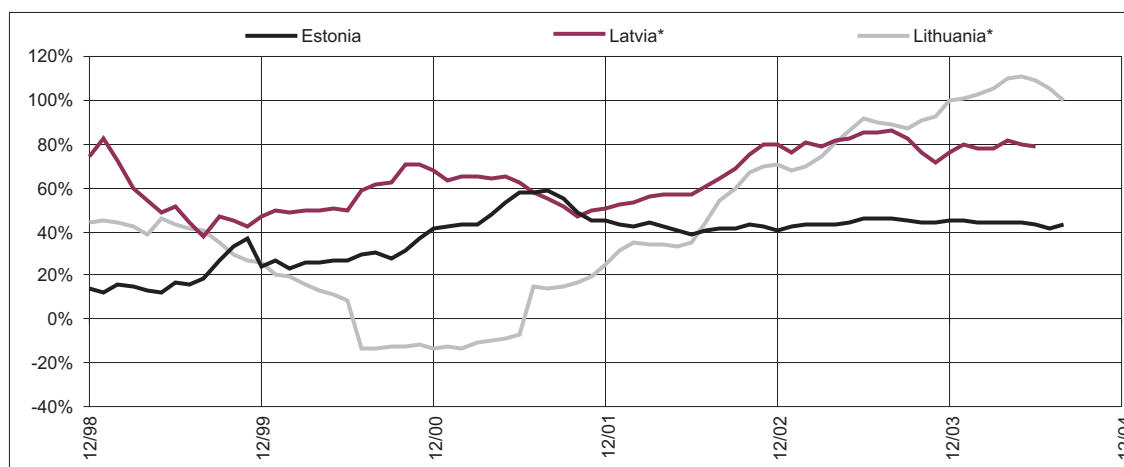


Figure 2.12. Annual growth of domestic credit to the household sector in the Baltic countries

Source: national central banks
* excl. leasing

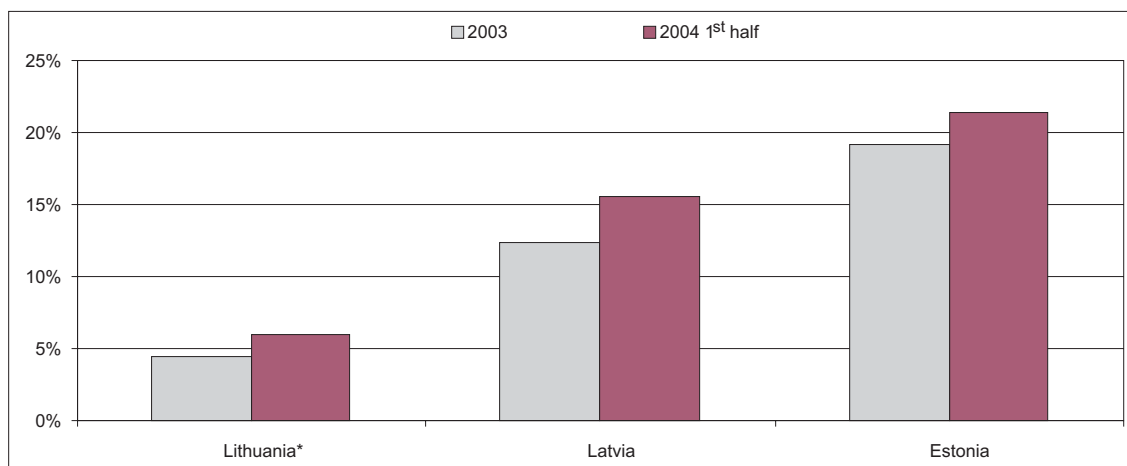


Figure 2.13. Household debt in the Baltic countries (% of GDP)

Source: national central banks

* excl. leasing

Housing Loans

The **debt structure** of Estonian households is quite similar to that of the Nordic countries. Loans taken for purchasing/renovating housing account for almost 75% of the loan stock of households. This is also the largest market share in the loan and leasing portfolio (housing loans accounted for 29.5% of the non-financial sector loan and leasing portfolio at the end of September 2004 and 26% a year before).

In the first nine months of 2004 the **volume of housing loans** grew by 6.7 billion kroons, amounting to 23 billion kroons at the end of September. The share of leasing financing upon purchasing housing has been steadily declining – at the end of September housing leasing accounted for 11% of total financing used for purchasing housing.

Based on the survey of financial behaviour carried out by TNS Emor in autumn 2004 and the information received from market participants, the number of **housing loan clients** has increased by approximately 10,000 families in a year. The share of families that have taken a housing loan/leasing in the total number of households remains below 13%. Therefore, increasing loan stock, which has risen by 7.6 billion kroons from September 2003, cannot just be explained by new clients. Assuming that the average value of new housing loans was 450,000 kroons in the past 12 months, nearly 40% of the growth in loan stock came from the existing clients who either replaced their loans with larger ones or increased loan amounts.

Assuming that the decisions to change housing are not made frequently in a short period⁴, it is safe to conclude that this is a one-off and temporary process, and therefore, in long-term perspective, the volume of housing loans can grow mainly at the expense of market newcomers. However, one cannot predict a steep rise in the loan volumes on the basis of a presumed income growth of the lower-income group families. Thus, there are a few arguments in the market structure to support restraining loan demand.

Consumer Loans

Consumer loans account for less than 17% of household debt (25% together with student loans), while 40% of the consumer loans comprise car leasing. It is the declining demand for car leasing that can be considered as the main factor contributing to the slowdown in the growth rate of consumer loans.

⁴ Similar situations from the aspect of loan supply are those where a higher real estate price enables to use sufficient self-financing for purchasing real estate in a higher price segment or increasing the amount of the valid loan contract. A simplified assumption does not consider the second option, which also involves renovation of the housing purchased.

Nevertheless, judging by the results of households' financial behaviour surveys (TNS Emor), purchasing consumer goods with additional financing appears to be regaining popularity. On the one hand, demand for such loan products is spurred by the need/interest to make improvements at home through purchasing household appliances; on the other hand the zero-interest hire purchase opportunities aggressively offered by shops promote consumption. However, in such cases the loan amounts are either non-existent (hire purchase with 0% interest) or very small and do not significantly affect the volume of the consumer loans/leasing portfolio. In the short run, the activeness of using deferred debit cards (e.g. EGO) issued by banks above all depends on the more favourable alternatives provided by shops.

Loan Conditions

The average interest rate on new housing loans that had remained comparatively steady for almost a year fell sharply in June and stabilised at 4.2% in September (see Figure 2.14). While real interest rates remained stable in 2001–2003 owing to a consistent decline in the inflation rate, the temporary price rise associated with the EU accession led to a sudden decrease in ex post real interest rates.

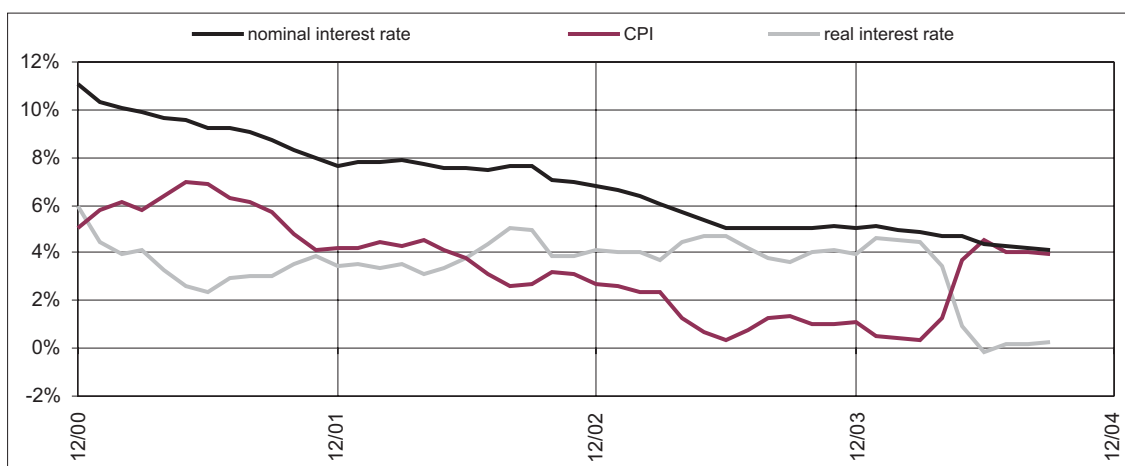


Figure 2.14. Nominal and real interest rates on housing loans and consumer price index

Interest rates on new loans are slightly more than 60–70 basis points higher in Estonia compared to the euro area average, whereas the difference in interest rates has, in effect, fallen twice in the past year (see Figure 2.15). However, compared to Finland, the housing loans granted in Estonia still carry an interest rate that is more than one percentage point higher.

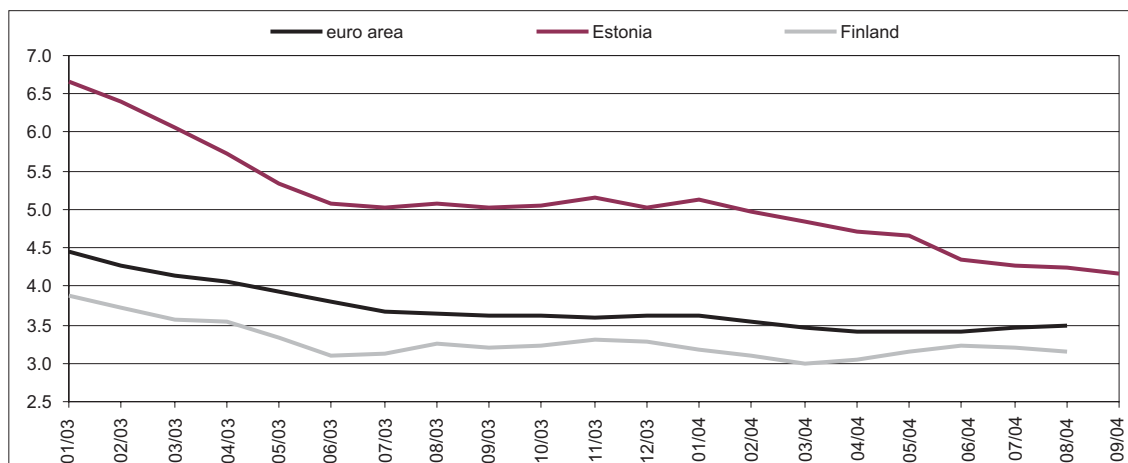


Figure 2.15. Interest rates on new housing loans in Estonia and the euro area (incl. Finland; %)

The pressure to broaden the customer base arising from stronger competition has contributed to improved availability of loan resources. In that aspect, besides the above-mentioned interest rate decline, longer housing loan **terms** could be mentioned as well. The **self-financing rate** of housing loans remained at previous levels until September. The LTV (loan-to-value) ratio was 70% (85% in case of more highly valued real estate). The impact on the portfolio's LTV of replacement products launched onto the market by the banks after KredEx's guarantee limit ran out greatly depends on how much the target group would expand compared to the respective terms set by KredEx. Along with the rise in housing prices **the minimum income requirement** has become a less important limitation. Whether a loan is accepted or not rather depends on whether the cash flow of the potential client is sufficient for covering loan-servicing costs.

State policy and support systems. In the context of rapid housing loans growth KredEx's active work at issuing guarantees is also worth mentioning. However, the growth rate of loans backed by KredEx's guarantee was slower than the overall growth in the Estonian housing loans market, which is why KredEx's share in the turnover of all new loans fell to 18.5% at the end of 2003⁵. Since the beginning of its operations until the end of 2003 KredEx had guaranteed housing loans worth 3.5 billion kroons. While guarantees have been paid only a few times during KredEx's existence, housing loan guarantees have increased in KredEx's income structure (in 2003, 33% of the income came from guaranteeing housing loans; in 2002 the respective indicator was 26%).

In a situation where the market itself is ready to provide lower self-financing under the same conditions, the role of KredEx in the Estonian housing market appears to begin decreasing. The government's proposal to increase the limit of issuing guarantees stipulated by the law only in a "substantiated" amount and the decision to apply more conservative underlying principles upon developing KredEx's guarantee products⁶ indicates similar developments as well.

New loan clients led to an increase in the income tax refunded from the state budget to 161 million kroons in 2003. Owing to declining loan interest rates, the average interest refund dropped to 3,500 kroons per housing loan. The share of income tax refunds in the total interest paid to banks and leasing companies by households (incl. consumption loans) amounted to 10% in 2003, while a year before it stood at 9%.

Households' Loan-Servicing Ability

Rapid growth in households' loan stock in 2004 has also led to a significant increase in **interest payments** – for the first time ever the loan and leasing interests paid by households passed the threshold of 500 million kroons on a quarterly basis. However, in the context of stable income growth, households' **interest burden** has not significantly increased, having risen by just 0.13 percentage points to 2.5% by September from the end of last year. Compared to the respective average in the Nordic countries (except Finland) and in the euro area, Estonian households on average spend twice as little of their income on loan interest payments (see Figure 2.16). At the same time, the ratio of debt to disposable income in the Scandinavian countries is as much as three to five times bigger than in Estonia, which indicates that the loan-servicing cost in Estonia might be comparatively high already now.

An analysis of the developments at the individual household level is more informative and pertinent to the content than the aggregate indicators of the households sector. A survey carried out in the autumn of 2004 by TNS Emor showed that the **loan-servicing cost** in most of the families that had taken loans "remains within reasonable limits" – on average approximately 18% of a family's monthly income goes for loan and interest payments. In 23% of the families with financial liabilities loan-servicing costs rise above 29% of the family's net income. In the context of such loan servicing to net income ratio low-income families, where a significantly larger part of the family's budget goes for loan repayment, appear to be more problematic.

⁵ KredEx's 2003 annual report. Since these calculations do not include leasing statistics, the share might have been even smaller.

⁶ At the end of September 2004, the 700 million kroon limit stipulated by the law for issuing guarantees expired. In the middle of October the government approved the draft amendment to the Support of Enterprise and State Loan Guarantees Act, which will, after Riigikogu passes it, increase KredEx's guarantee limit to 950 million kroons (the supply of housing loans extended with lower self-financing with KredEx's support could thus increase to 4.75 billion kroons).

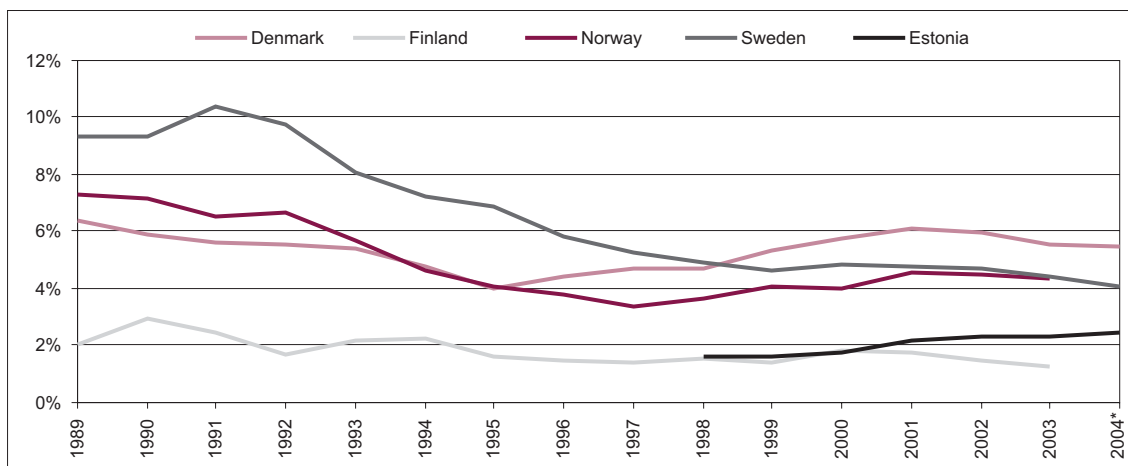


Figure 2.16. Households' interest ratio (interest expenditure divided by disposable income) in the Nordic countries and Estonia

Source: national central banks
* latest available data

The European Central Bank reckons in its estimates of the credit risks of European households that the most critical trends of the past year involve the large share of loans with floating interest rate, declining margins and the rise in the LTV ratio of new housing loans. The currently well-capitalised banks might face more serious problems should unemployment increase, housing prices fall and interest rates rise all at the same time.

BACKGROUND INFORMATION

RETURN ON REAL ESTATE USED FOR HOUSING AND FINANCIAL ASSETS

The high activity in the housing market, the decline in the net position of households' financial assets and liabilities, and record issuance of housing loans indicate that households are replacing financial savings with investments into housing (see Figure 2.17) and actively attract loan resources for that.

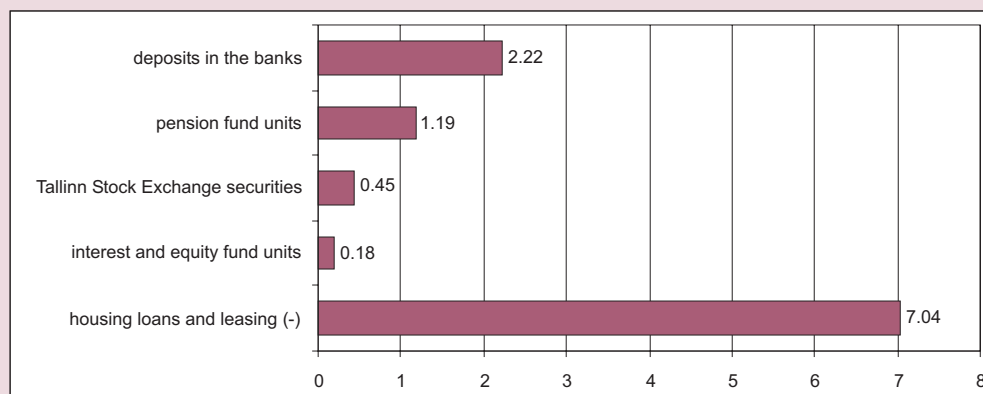


Figure 2.17. Changes in households' financial assets, housing loans and leasing portfolio from 2Q/2003 to 2Q/2004 (EEK bn)

Sources: Statistical Office of Estonia, Eesti Pank

Since the real estate used for housing purposes has provided comparatively **high return** in the past five years⁷ (see Figure 2.18) and credit availability has improved, households' behaviour can be considered completely reasonable. However, upon making investment decisions, besides the return also the risks involved are considered, i.e. **return volatility**, and, depending on the willingness to risk, an investment with the appropriate return to risk ratio is chosen. Therefore, the current brief analysis aims to compare the risk-adjusted realised return on the real estate used for housing purposes and financial assets in the period of 1999–2004⁸.

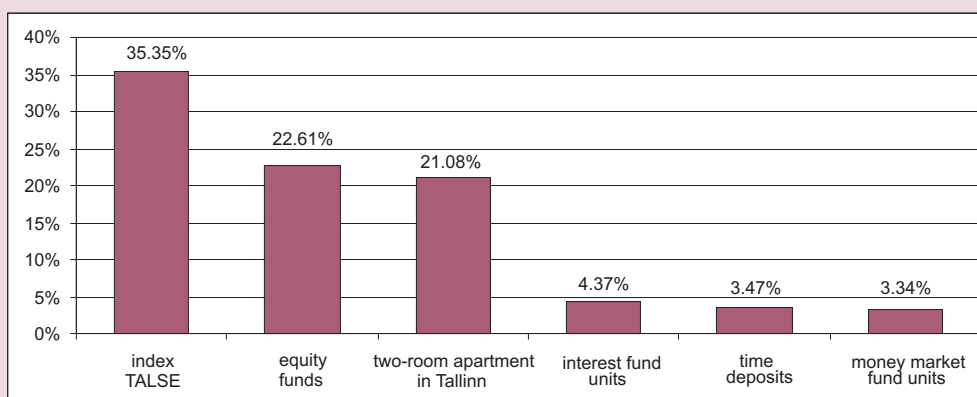


Figure 2.18. Average nominal yields of residential real estate and financial assets during 1999–2004

Sources: Statistical Office of Estonia, Eesti Pank

One of the options to compare investments is to use the **Sharpe ratio**. This is calculated by dividing the difference between the average returns on the studied asset and a risk-free investment, i.e. the part exceeding risk-free investment, by return volatility, i.e. standard deviation. Thus, the Sharpe ratio shows gain from risk-taking per one risk unit.

The Sharpe ratios calculated on the returns on a two-room apartment in Tallinn in a satisfactory condition and financial assets (see Table 2.1)⁹ show that units in interest funds, whose yields are low but stable, compared to shares and housing investments, have carried the highest risk premium on average in the past five years. The securities listed on the Tallinn Stock Exchange have the second best return-to-risk ratio, while a two-room apartment in Tallinn and equity fund shares do not fall far behind.

Table 2.1. Indicators for risk and yield of residential real estate and financial assets during 1999–2004

	Average yield	Standard deviation	Sharpe ratio
Two-room apartment in Tallinn	21.08%	0.175	1.004
Tallinn Stock Exchange index TALSE	35.35%	0.292	1.092
Equity fund units	22.61%	0.192	0.999
Interest fund units	4.37%	0.007	1.271
Money market fund units	3.34%	0.011	-0.115

⁷ The return on the real estate used for housing purposes has been calculated on the basis of transaction prices, which only include capital gain and do not consider possible rental income or implicit rent saved by an owner-occupier.

⁸ In order to get substantial results the period under observation should cover at least one full economic cycle, which cannot be assumed about the given time period.

⁹ In the absence of kroon-denominated government bonds, term deposits are considered risk-free investments.

When interpreting the Sharpe ratios one has to bear in mind that already realised returns are used, which is why it is not advisable to use the results when making future-oriented investment decisions. For example, the growth in housing prices has partly been a price-adjustment process characteristic to a transition economy. Taking into consideration the fact that the prices of apartments in new apartment blocks exceed the prices of apartments in good condition in older houses in Tallinn by barely a third, one can conclude that the depreciation-adjusted replacement value of the latter has been achieved with today's price level, which is why the prices might not continue to grow at the same rate.

Besides, one also has to consider that there are other significant differences between real estate and financial investments, apart from return and risk. Unlike with financial assets, with real estate one has to take into account depreciation, which gradually reduces the market value of the investment. Secondly, real estate transactions are characterised by low liquidity, which arises from the fact that each object is unique and it is not a market of uniform merchandise, which is why the selling process is considerably more complicated and longer than with securities. This means that it might not always be possible to sell an asset when the need emerges. In addition, with real estate one has to take into account higher transaction and administrative costs. All these factors add risk to real estate investments, which the analysis above did not consider.

Effective or actual return on investments is also affected by different taxation treatment. Provided that property purchases are financed with loans and acquired for personal use or for the closest relatives, Estonia's tax laws provide for deduction of loan or leasing interest from taxable income, which increases the effective return on real estate investments financed through loan or leasing and motivates households to acquire real estate with loan or leasing financing. No income tax is applied to income on transferring real estate, if the taxpayers used the property as their permanent or main residence prior to selling it. However, income tax is applied to income on selling securities. The factors above raise the effective return on the real estate used as housing.

All in all, one can say that upon comparing the return-to-risk ratio of the real estate used for housing purposes and that of different financial assets based on the Sharpe ratio in 1999–2004, a securities portfolio including the securities listed on the Tallinn Stock Exchange and a two-room apartment in Tallinn in a satisfactory condition can be considered equivalent investments. Thus, purchasing a house or an apartment as an investment was not necessarily the best alternative judging by the average risk premium of that period. A major factor behind the growth in housing prices has been the one-off structural adjustment of prices, which has presumably ended by now. Therefore, households' future-oriented investment decisions based on realised real estate returns may turn out to be too optimistic.

PRICE LEVEL OF REAL ESTATE AND ECONOMIC GROWTH

The active work that the banks have been doing upon financing transactions in the housing market has raised a question as to whether the growth in real estate prices or the established price level might pose a threat to the banks' loan portfolio. The fact that apartment prices in Tallinn's "dormitory districts" have risen by 10–15% in the past year does not provide an answer to the question as to whether the rise has been extensive or whether it is a real estate bubble. In order to find the answer, one has to relate the established price level to residents' income and compare the growth rates of both indicators. Regrettably, structural changes inherent to a transition economy make evaluation difficult – the price structure has been significantly different from that of developed countries and the rate at which the prices

of products and services have risen after the monetary reform has been very different. The situation is similar regarding the prices of different types of real estate; faster growth in some segments may rather be a structural adjustment and thus make it difficult to differentiate it from market deviation.

When evaluating long-term price rise, an important background factor is the convergence of the Estonian economy towards the average EU level. However, it is very difficult to define the average EU real estate price level and, therefore, for the sake of simplicity, one might opt for the Finnish price and income level along with the price structure (incl. real estate prices) as the long-term growth target. The comparison of the key Estonian and Finnish nominal indicators showed that the difference in income in 2003 was about fivefold and the difference in consumer prices was more than twofold. Meanwhile, in the real estate sector the price difference of a square meter was 4.2 times between the capital cities and 2.8 times outside the capital cities¹⁰ (see Table 2.2). Thus, an Estonian resident spends a larger part of his/her income/salary for buying one square meter of real estate than his/her northern neighbour. At the same time, real estate is sooner a non-tradable sector commodity and, compared to car or food prices, it is more affected by nominal income level.

Table 2.2. Difference between Estonian and Finnish nominal indicators

	1997	2000	2003	2006	2010	2020
Nominal GDP per capita	7.7	6.3	4.9	4.3	3.6	2.3
Average wages	8.8	7.2	5.8	5.0	4.2	2.6
Price level by consumer basket	2.8	2.5	2.4	2.3	2.1	1.8
Real estate price in capital	5.1	6.7	4.2	3.6	3.0	2.0
Real estate price outside the capital	4.8	6.1	2.8	2.5	2.3	2.0

In the past eight years the price of real estate in Tallinn used for housing purposes has risen by more than 2.5 times and the average wages in Estonia has grown nearly three times. The difference in these rates is rather a structural adjustment than a deviation: the indicators with the biggest relative difference with Finland should also advance faster. Based on the CPI growth of 3.9% corresponding to an economic growth rate (real GDP growth) of 5% calculated according to long-term unification in the price level and assuming that the share of wages in the GDP does not change, Estonia's nominal GDP per capita and wages should increase more than four times by 2020 and consumer prices should rise nearly twice. Assuming that Finland's inflation rate is 2% and economic growth 2.5%, the difference in income will shrink to 2.3 times and in price level to 1.8 times.

With real estate prices it is more difficult to work out forward-looking price growth and several assumptions have to be made in the evaluation process. In the past five years the ratio of the price of a square meter of a housing in Helsinki to the average wages in Finland has been 0.85 on average. The respective indicator for Tallinn was 1.24 in 2003 (see Figure 2.19). Assuming that by 2020 the respective Estonian indicator should also be 0.85, the real estate prices in Tallinn would in the meantime grow three times, i.e. by slightly more than 6% a year.¹¹ Although the indicator outpaces consumer price growth, it falls behind the average wage growth as well as nominal economic growth and also the increase in corporate profits, should the GDP structure remain the same.

¹⁰ Apartments in the city district of Õismäe have been chosen for the price level in Tallinn (they characterise best the average of the centre and the outskirts) while Tartu serves as the price level outside the capital.

¹¹ Since the average number of square meters in a Finnish home is 40% bigger than that in Estonia, then unification in the size of housing is a prerequisite for such price growth.

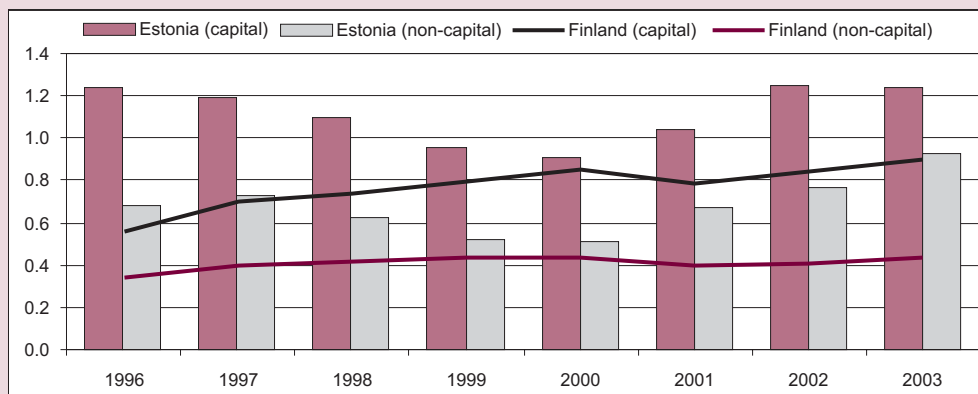


Figure 2.19. Ratio of average price of m^2 and average wages

However, given the fact that the quality of housing in Tallinn is inferior to that in Helsinki, or in other words, if we add renovation costs to the current price level in Tallinn (an estimated 3,000 kroons per square meter), the annual price growth in the period under observation is about 4.5% (i.e. slightly higher than the consumer price rise). Besides, the number of residents in Tallinn is smaller and owing to lower concentration the real estate prices should be lower in Tallinn than in Helsinki at the same income level. Thus, the real estate price increase is difficult to estimate, but it will probably remain between consumer price and income growth. Price growth greatly depends on structural changes: the smaller the structural changes, the closer the increase should remain to the income growth level.

As indicated before, after the post-monetary reform period the average wages in Estonia has not been sufficient for buying one square meter of housing at Õismäe, for example.¹² The historically rather high price level has partly been caused by the transition economy phenomenon in which the aggregate cost of building a new house or an apartment has been higher than the price for purchasing and renovating an old housing (i.e. the depreciation-adjusted replacement cost). Since 2002 such price structure phenomenon does not apply to Tallinn any more and the addition of new housings has a restraining effect on real estate price rise. Meanwhile, it still applies to real estate outside Tallinn and therefore these price levels are not easily comparable.

Real estate price change analysis makes use of the comparison between the cost of average housing and average wages, i.e. the affordability ratio (average housing price / average annual wages). The respective ratios in Tallinn and Helsinki have in both cases been in the range of 4.5–5¹³ (see Figure 2.20) since 2002. Although the fact that loan terms have lengthened has raised the affordability ratio, such a level is considered to be comparatively high in international comparison – the normal level should be below 4. Therefore, in medium-term perspective the increase in real estate prices (both in Tallinn and Helsinki) should rather be slower than income growth. In case of an opposite development the achieved price level should be regarded as overpriced or even a real estate bubble.

To conclude with, the price level of real estate in Tallinn used for housing was among the historical highs at the end of 2003. Should developments similar to earlier years, when real estate price rise outpaced that of income, continue in the current and following years, the price

¹² A “rule of thumb” real estate agents apply is that monthly wages should buy one square meter of housing.

¹³ The average size of housing in Estonia is 54 m^2 and in Finland 77 m^2 . The average wages in Tallinn exceeds the average indicator in Estonia by 20% and a similar ratio has also been applied to Finland.

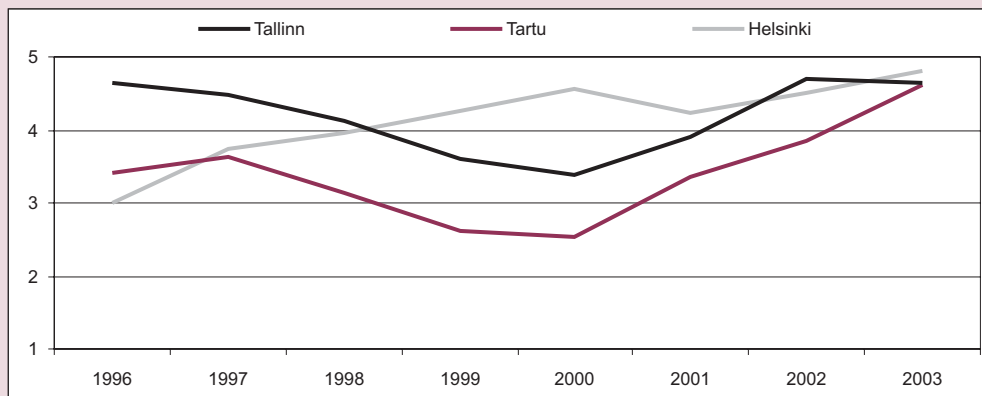


Figure 2.20. Ratio of average housing price and average annual wages

level of the real estate used for housing purposes might rise unreasonably high, which will have an adverse effect on economic growth (e.g. labour mobility is reduced, higher loan-servicing costs suppress consumption and through that economic growth, etc.) as well as on the development of the real estate market (market liquidity decreases, a price drop cannot be excluded).

III

BANKING SECTOR STABILITY AND RISKS

■ Strategic Development in the Banking Market

Competition in the Estonian banking market has remained tough. The six licensed credit institutions already operating in the Estonian market¹ and two subsidiaries got an addition in June when Vereins- and Westbank AG, which had financed Estonian companies already before, received a license from the Financial Supervision Authority to open a branch. Accession to the European Union quite expectedly led to a situation where foreign cross-border banking service providers registered themselves in Estonia: by the end of the third quarter the Financial Supervision Authority had registered more than 45 respective applications.

The local Estonian banking market witnessed active struggle for market shares both in the second and third quarter of 2004. At the same time, the credit institutions operating in Estonia have continued to seek opportunities for expanding their **operations in foreign markets**. In September Hansapank announced about concluding an agreement in Moscow to buy the Kvest Bank. The enforcement of the deal depends on approvals from Russian central bank and the Estonian Financial Supervision Authority.

■ Capital Adequacy

The aggregate capital adequacy ratio of the credit institutions operating in Estonia rather showed a downward trend (see Figure 3.1) in the first half of the year on a solo basis, amounting to 12.8% by the end of July. However, developments have differed across banks and the inclusion of profits approved by an auditor in the own funds lifted the aggregate capital adequacy ratio to 14.2% in August. By the end of September the consolidated ratio had dropped to 14.0% due to increasing credit portfolios (Tier 1 capital adequacy ratio being 13.3%).

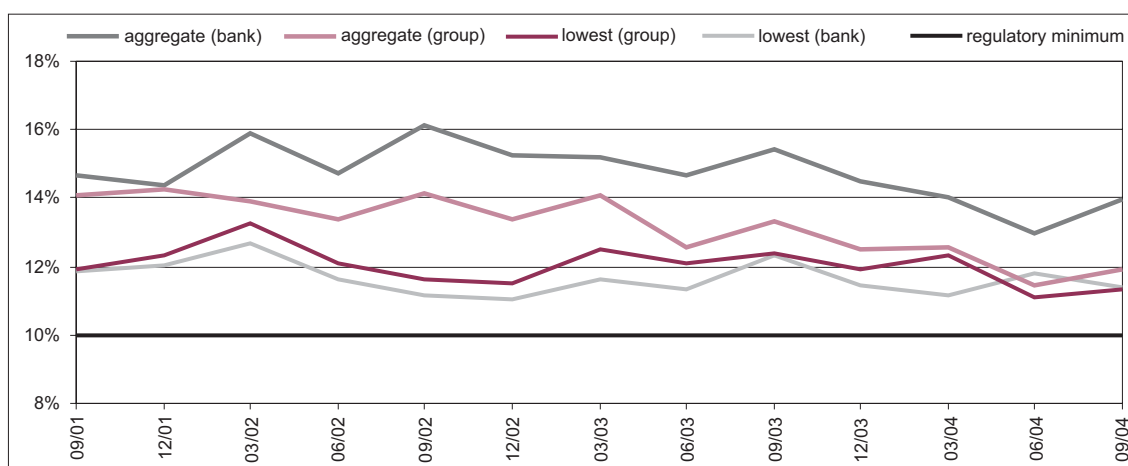


Figure 3.1. Capital adequacy

The annual increase in the banks' risk assets again accelerated on a solo basis in the summer period. In September the annual growth rate of the banks' **risk assets** was 23%, which increased the consolidated risk assets to 85 billion kroons by the end of the month. As of May the EU enlargement has in some cases enabled to apply lower risk weights to claims to the residents of the new member states.

¹ As of June, the business name of AS Preatoni Pank is AS SBM Pank.

The risk assets of the banking groups had grown to 128 billion kroons by the end of the third quarter (annual growth 26%; see Figure 3.2). The aggregate capital adequacy ratio of the banking groups² increased again to 11.9% (Tier 1 capital adequacy ratio being 11.4%) in the third quarter since strong profits included in the own funds offset the impact of growing risk assets.

The capital adequacy ratios of all credit institutions licensed in Estonia have remained above the level of 11% both on a solo and the consolidated basis in current year.

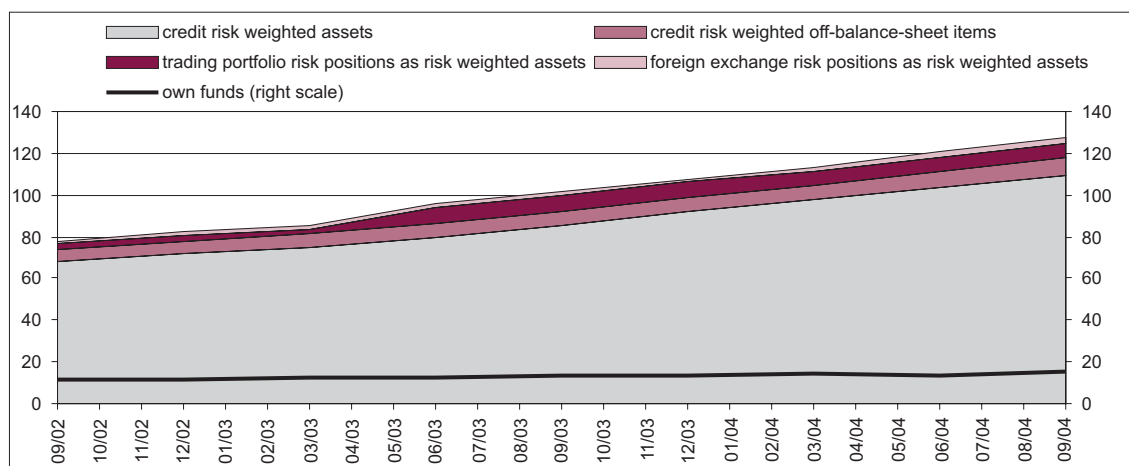


Figure 3.2. Structure of bank groups' risk assets and own funds (EEK bn)

■ Quality of Assets

As seen also from the developments in the risk assets above, **rapid growth in the loan portfolios of banks** continued both in the second and third quarter (see Figure 3.3.) on a solo as well as on the consolidated basis. In September bank loans grew by 41%², year-on-year, on a solo basis, while the consolidated loans and leasing portfolio of the banking groups grew by more than 34% in four quarters.

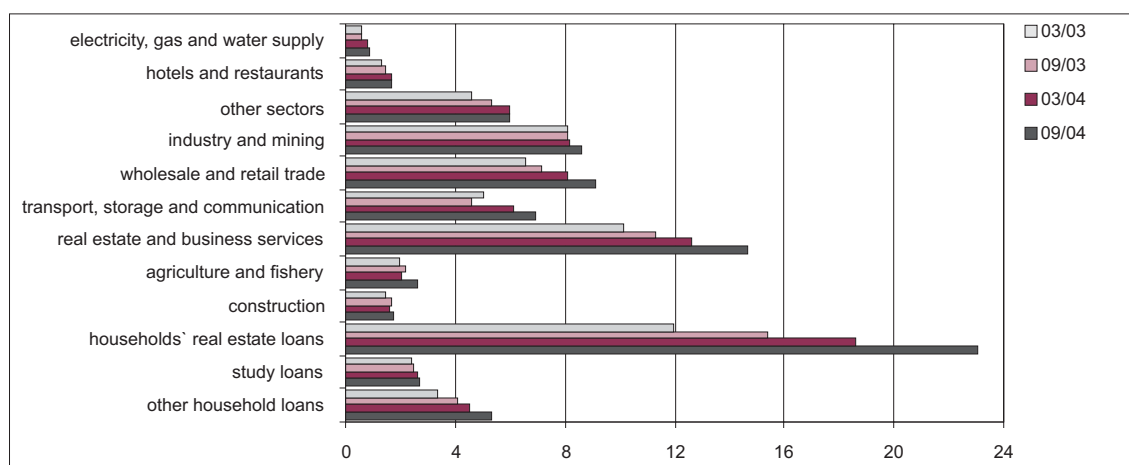


Figure 3.3. Total loan, leasing and factoring portfolio by sectors and purpose of loans (EEK bn)

² Aggregate ratio data of five banking groups.

³ The estimate includes six credit institutions and one branch in the 2003 comparison period and three branches in 2004.

Rapid growth in the housing loans portfolio is also reflected in the structure of **loan collateral**s (see Figure 3.4). In a year the share of mortgage-backed loans in the consolidated portfolio⁴ has grown by 5 percentage points, i.e. to two thirds. At the end of September overdrafts and consumption loans of individuals accounted for nearly a third of all outstanding unsecured credits.

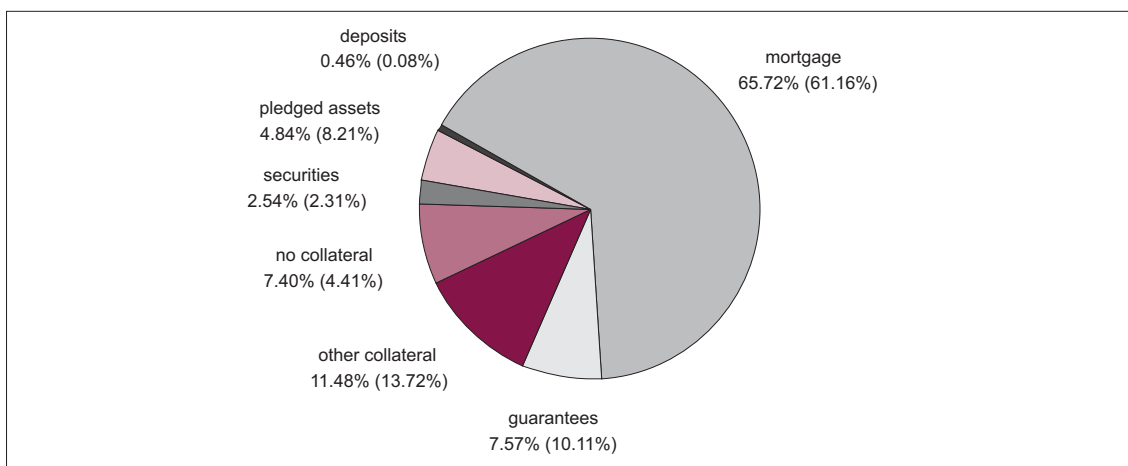


Figure 3.4. Loan collaterals by type at the end of September 2004 (in brackets at the end of September 2003)

On a consolidated basis the quality indicators of the banks' loan portfolios have so far not shown a deterioration trend in the context of rapid loan growth. On a solo basis the share of **loans overdue for more than 60 days** granted to the non-financial sector had declined to 0.7% by the end of the third quarter, which was 0.1 percentage points below the annual moving average (see Figure 3.5). At the end of September the share of **allowance for uncollectible claims** accounted for 1.2% of the consolidated loan portfolio, which is the average of the past 12 months.

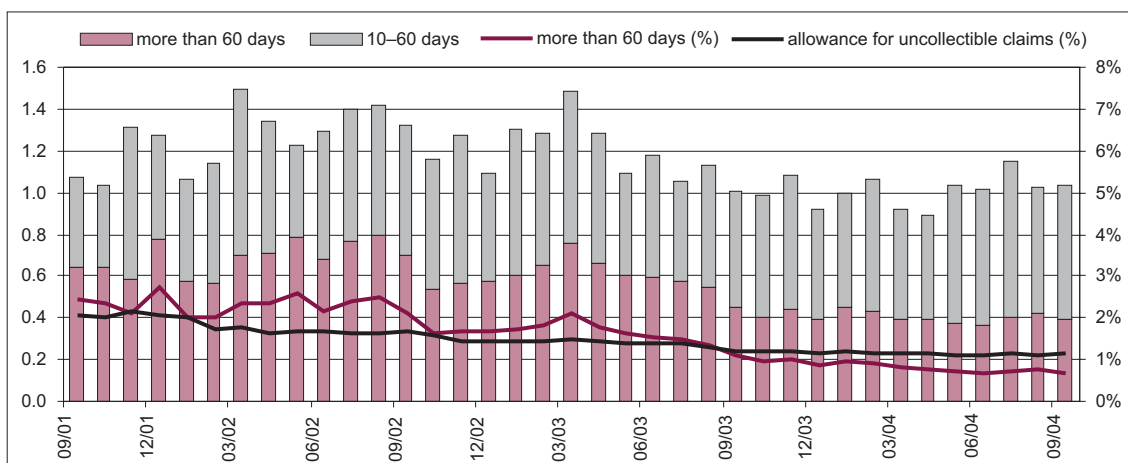


Figure 3.5. Volume of overdue loans (EEK bn; left scale) and the share of overdue loans and allowance for uncollectible claims in banks' loan portfolio (right scale)

The data on overdue loans in the aggregate portfolio of the credit institutions operating in Estonia indicates that in the housing loans portfolio the share of loans overdue for more than 60 days has continued to decline (see Figure 3.6). Here the rapid growth in the housing loans portfolio should be taken into account. The share of corporate loans overdue for more than 60 days has been consistently the largest among loans granted to export-oriented companies; these are mostly loans to manufacturing companies.

⁴ Solo basis.

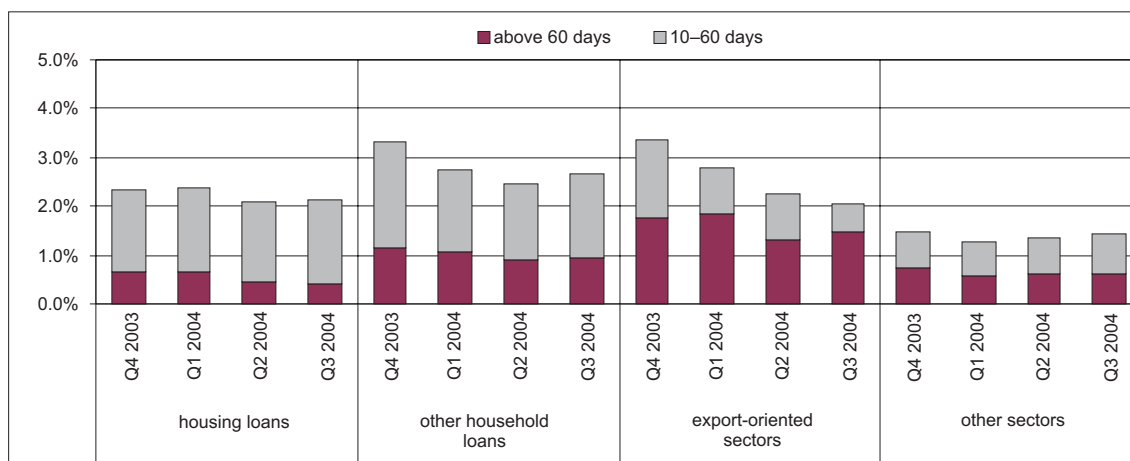


Figure 3.6. Share of overdue loans by sectors*

* 3-month average

Tightening competition has led to a decline in risk margins also in riskier customer segments. Still, as a 3rd quarter average, the median interest rate of the housing loans issued in a month remained 0.6 percentage points lower than the interest rate of the 25% of the loans with the highest interest rates.

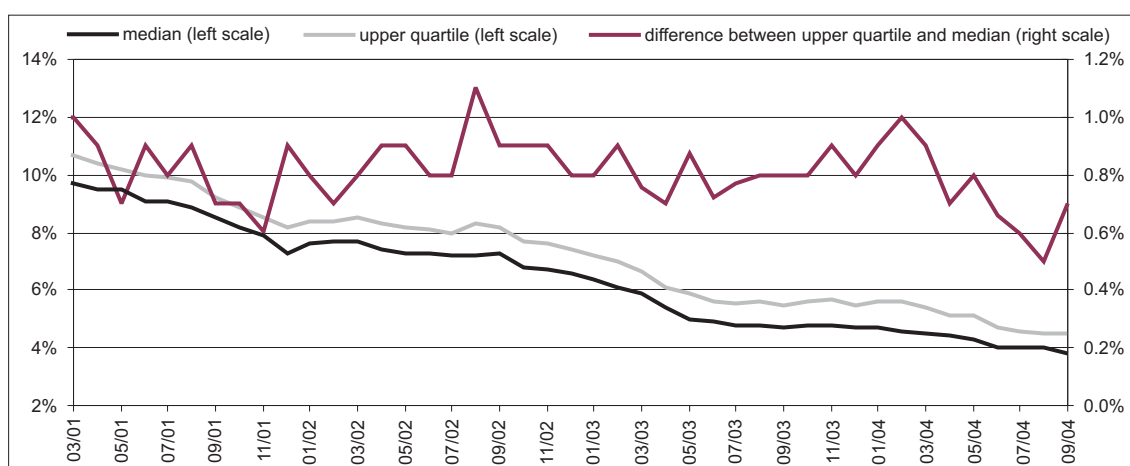


Figure 3.7. Housing loans: median interest, upper quartile (left scale), and difference between upper quartile and median (right scale)

The volume of **guarantees** extended by the banks has continued to grow at a somewhat slower rate than financing. At the end of September around one third of all the guarantees had been issued to the construction sector. In half-year comparison, the share of guarantees given to transport and communications companies has somewhat increased.

Efficiency and Profitability

Solo Profitability of Banks

Robust loan portfolio growth and a slowdown in a decrease in margins have created favourable conditions for the growth in banks' profitability. However, rising net loan write-down expenses and rising administrative costs along with more modest growth in the net income on financial transactions has curbed the impact of these factors on the operating profit.

The banks earned 2.32 billion kroons in profit as the sum of four consecutive quarters, which is as much as 75% higher than the outcome for the same period a year ago (1.32 billion kroons; see Figure 3.8). Such record profits are the result of dividend income earned in the second quarter from the last year's profits of subsidiaries.

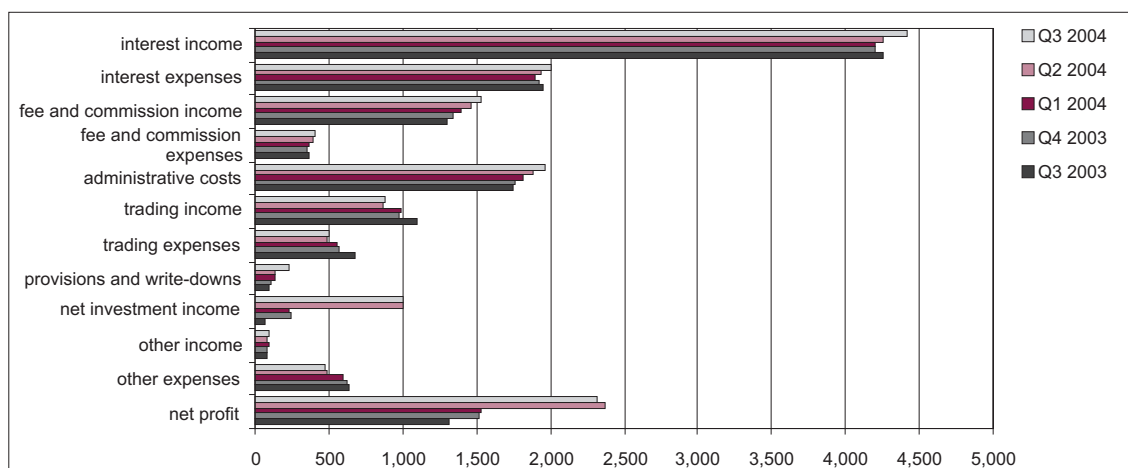


Figure 3.8. Solo annual profit of banks (sum of 4 consecutive quarters; EEK m)

The downward trend in interest income to interest-bearing assets ratio has steepened since the second half of 2003, but the banks have been capable of successfully managing this development during the past six months (see Table 3.1). Along with robust growth in the income base, it has underpinned interest income. On the other hand, the income earned on liquid assets continues to decrease, which can be explained by the relative decline in the share of liquid assets as well as the change in the structure of liquidity buffers.

Table 3.1. Key revenue and expenditure items (solo)

	2001	2002	Q3 2003	2003	Q1 2004	Q2 2004	Q3 2004
Net interest income	2,182.4	2,370.5	2,300.1	2,280.7	2,300.4	2,323.8	2,406.1
Net fee and commission income	779.7	869.2	939.2	986.5	1,023.7	1,077.3	1,116.5
Administrative costs	-1,583.9	-1,757.8	-1,748.4	-1,764.8	-1,815.5	-1,881.0	-1,965.7
STRUCTURAL PROFIT	1,378.3	1,481.9	1,491.0	1,502.5	1,508.5	1,520.1	1,557.0
Provisions and write-downs	-84.4	-136.5	-99.8	-101.8	-131.4	-135.5	-236.3
Net trading income	443.2	359.5	428.6	404.2	421.2	385.2	375.6
Other operating income (net)	-128.1	-142.1	-119.9	-114.4	-83.5	-82.0	-71.2
OPERATING PROFIT	1,608.9	1,562.8	1,699.8	1,690.6	1,714.9	1,687.8	1,625.1
Other items net	74.5	-409.6	-380.8	-177.9	-189.5	684.1	693.7
TOTAL NET PROFIT	1,683.4	1,153.2	1,319.0	1,512.6	1,525.4	2,371.9	2,318.9

However, interest cost reduction possibilities have narrowed further, which has, quite expectedly, led to a slowdown in the reduction of interest costs on interest-bearing liabilities in the second half of 2004. This applies to costs related to the facilities involved through loans, bonds and demand deposits.

In parallel to improved net interest income, an increasingly larger part of income is earned as **fee and commission income**; however, this has not been sufficient for increasing the operating profit. Arising from an upturn in credit write-downs/write-offs and administrative costs, the operating profit has decreased. Net income on financial transactions, which has remained modest in the past six months because of the instability of the financial markets, has not supported the operating profit either.

Quite expectedly the net loan write-down/write-off expenses calculated as a three-month average has increased more than three times from the extraordinarily low levels of last year, but still remains small compared to the loan portfolio (0.4%). At the same time, the volume of loan write-offs as well as recovered loans has grown. On the one hand, due to the rise in the volume of claims and a possible increase in the share of riskier clients in the customer base, an increase in loan losses can be expected also in the future. On the other hand, expected improvements in economic environment create favourable prerequisites for increased income in non-financial sector earnings and loan-servicing capacities (see also Chapter 2 *Financial Behaviour of Companies and Households and Their Risks*).

The return on equity and assets has significantly increased due to the dividend income earned in the second quarter (see Table 3.2). For the same reason the cost-income ratio has decreased considerably.

Table 3.2. Key profitability indicators

	2001	2002	Q3 2003	2003	Q1 2004	Q2 2004	Q3 2004
Return on equity	20.71%	14.69%	12.61%	14.15%	13.81%	20.83%	19.51%
Return on assets	2.66%	1.55%	1.56%	1.70%	1.63%	2.38%	2.17%
Cost-income ratio	53.26%	61.58%	55.78%	53.01%	52.94%	44.93%	45.34%
Net interest margin	3.89%	3.59%	3.08%	2.91%	2.78%	2.62%	2.52%
Spread	3.69%	3.44%	2.94%	2.78%	2.66%	2.52%	2.43%

According to the banks, depending on the competition situation, a further decline in interest margins can be expected in short-term, which would continue to pressure the banks' profitability.

Profitability of Leasing Companies

The profit of leasing companies have continued to grow, amounting to 861 million kroons as the sum of four consecutive quarters, which outpaces the result for the same period a year ago by nearly a fifth. Such growth is the result of a significant decline in the losses from writing down claims, which have shown a downward trend since the beginning of 2004.

Net interest income, which has a clear impact on the profitability of leasing companies, has been growing at a slower rate since the beginning of the year and even turned downwards in the third quarter (see Figure 3.9), despite lower interest costs. A decline in the net fee and commission income that became evident in the last quarter of 2003 has also accelerated, while administrative costs have continued to rise. The profit of leasing companies is largely affected by the integration of leasing operations into banks, which leads to shrinking portfolio volumes and income on the one hand, and lower losses from writing down claims on the other hand.

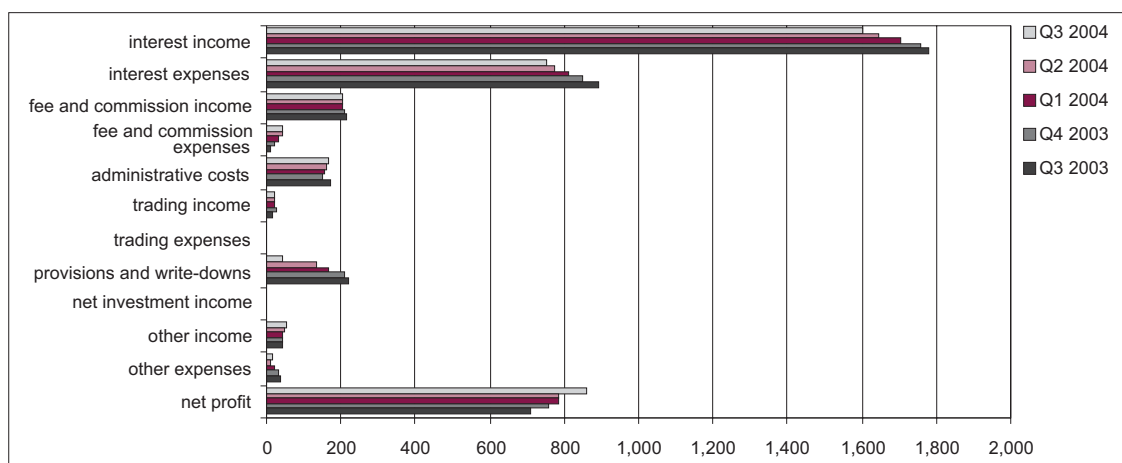


Figure 3.9. Annual profit of leasing companies (sum of 4 consecutive quarters; EEK m)

Consolidated Profitability

Banking groups earned 3.3 billion kroons in profits as the sum of four consecutive quarters, which outpaces the respective figure for the same period a year ago by one fourth. In the second half of 2003 the rise in consolidated profit slowed down, but since the second quarter of 2004 the growth rate of the consolidated profit of the banking groups has picked up again.

Profit was mainly shaped by interest income (see Table 3.3), whose developments reflect successful management of income on interest earning assets, which have led to a faster growth in **net interest income**, despite halting decline in interest costs. Fee and commission income continues to outpace interest income, even though there were signs of a slowdown. Since price changes, unlike interest income, have a stronger impact on fee and commission income, the effects resulting from competitive pressure can be suspected.

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

	2001	2002	Q3 2003	2003	Q1 2004	Q2 2004	Q3 2004
Net interest income	3,700.2	4,392.4	4,529.8	4,586.9	4,671.8	4,797.3	4,997.4
Net fee and commission income	1,361.5	1,657.1	1,920.2	2,006.9	2,087.0	2,183.4	2,266.6
Net income on insurance	68.0	61.9	37.9	27.1	32.1	52.0	64.6
Administrative costs	-2,668.7	-3,234.5	-3,149.3	-3,170.2	-3,231.6	-3,317.3	-3,409.4
STRUCTURAL PROFIT	2,461.1	2,876.8	3,338.7	3,450.7	3,559.2	3,715.4	3,919.1
Provisions and write-downs	-284.6	-207.9	-520.4	-554.1	-543.0	-493.2	-497.3
Net trading income	688.2	612.9	759.5	730.4	782.1	729.2	741.8
Other operating income net	-45.4	-85.4	-65.3	-92.6	-68.5	-79.4	-60.3
OPERATING PROFIT	2,819.3	3,196.4	3,512.5	3,534.4	3,729.9	3,872.0	4,103.3
Other items net	-897.1	-877.1	-851.3	-837.1	-836.9	-736.5	-759.8
TOTAL NET PROFIT	1,922.2	2,319.3	2,661.1	2,697.2	2,893.1	3,135.4	3,343.5

Contrary to the solo results of the banks, losses from writing down claims have been smaller on the consolidated basis, year-on-year. On the other hand, the upturn in administrative costs has continued since the beginning of 2004. However, coupled with more modest income on financial transactions arising from the instability of the financial markets, this has not significantly hampered the rise in operating profit.

Even though the net interest margin highlights successful management of declining interest income on the banking side, the indicator continues to slide fast in leasing operations (see Table 3.4). Underpinned by strong profits, the banking groups have, despite robust growth in financing, managed to increase return on assets that had remained stable for a long time. The same applies to **return on equity**, which has received additional support from optimising capital. The cost-income ratio of the banking groups continues a steady decline on the back of strong income and improvements in the cost efficiency of the subsidiaries in the neighbouring markets.

Table 3.4. Key profitability indicators (on group basis)

	2001	2002	Q3 2003	2003	Q1 2004	Q2 2004	Q3 2004
Net interest margin (leasing)	11.0%	9.2%	8.1%	7.8%	7.5%	7.2%	6.9%
Net interest margin (banking)	3.8%	4.0%	3.3%	3.1%	3.0%	2.9%	2.9%
Return on assets	2.2%	2.2%	2.2%	2.2%	2.2%	2.3%	2.3%
Return on equity	20.2%	20.5%	20.7%	20.1%	20.6%	21.4%	21.7%
Spread	4.7%	4.6%	4.1%	3.9%	3.8%	3.7%	3.5%
Cost-income ratio	60.8%	60.7%	52.5%	52.0%	51.0%	50.8%	49.8%

Liquidity

A change in the Euribor's downward trend serves as the first signal indicating withdrawal of the favourable effects of the expansive external environment. Nevertheless, banks are enjoying the fruits of a rise in their ratings in last spring, which has quite expectedly led to a certain decline in the price of external financing. This has enabled to offset the higher price of the liabilities resulting from the increased share of market-based resources. The banks' confidence in the consistent inflow of foreign resources and successful attraction of market-based resources is illustrated by the fact that despite the rise in Euribor the interest rates on kroon loans have continuously been lowered.

Financing of Banks

Following two years of rapid growth the rate of **external financing** has not slowed down after December 2003 (see Figure 3.10). Annual growth in foreign borrowing has risen to over 85% as the average of the past six months, which increased the share of institutional external financing to 38% of all liabilities in September.

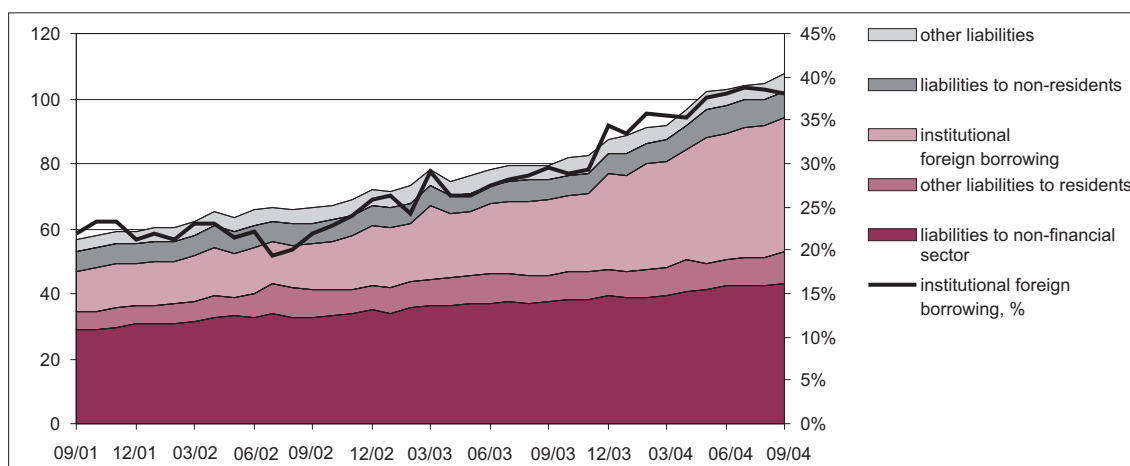


Figure 3.10. Banks' liabilities (EEK bn; left scale) and share of institutional foreign borrowing (right scale)

As at September, nearly a half of the growth in foreign borrowing accounted for the parent banks. Compared to the situation six months ago, a certain decline in the share of parent banks' financing in banks' foreign loans has arisen from faster growth in the assets of banks, which involve more market-based resources than others. This has also been affected by the favourable impact of rising ratings on the price of financing.

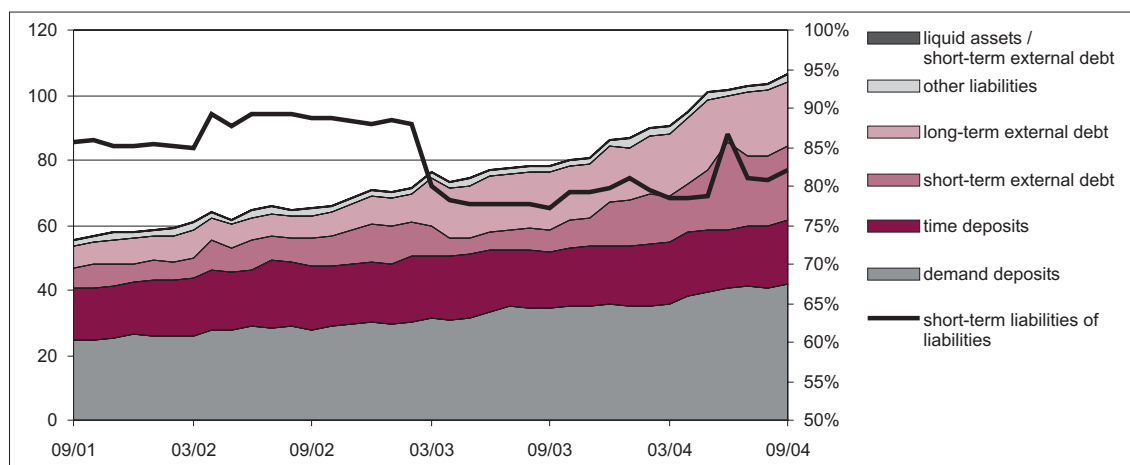


Figure 3.11. Banks' liabilities by residual maturity (EEK bn)

In line with active attraction of short-term external resources, the share of long-term liabilities of resident banks has dropped below a half (46%) of all foreign loans (see Figure 3.11). Meanwhile, extensive attraction of long-term resources in October should return the share of long-term resources to the level of March this year. In September highly liquid assets covered 82% of short-term external liabilities, whereas last year's average stood at 174%.

Even though deposit growth has shown an increase in the last six months (see also Chapter 2 *Financial Behaviour of Companies and Households and Their Risks*), financing continued to outpace deposits, which led to a constant widening of the financing-deposits gap (see Figure 3.12). At the end of September the financing portfolio of the banks and leasing companies exceeded the resources deposited in the banks by 36%.

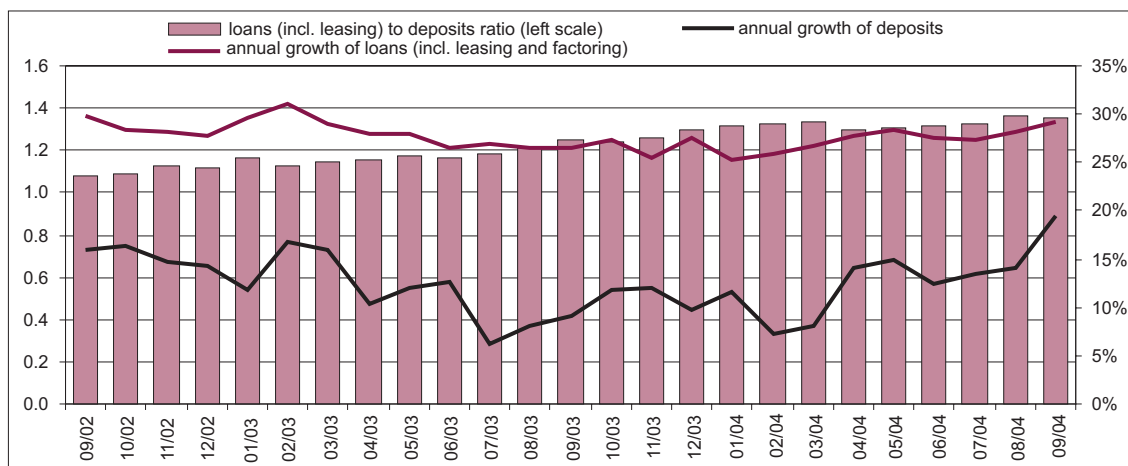


Figure 3.12. Loans to deposits ratio and dynamics

Liquid Assets

The share of the broad liquidity aggregate in current liabilities has continued a decline that started early in 2003, amounting to 43% as an average of the past three quarters. Such development is the result of the declining share of liquid claims. Greater volatility of current liabilities has had its impact as well, which results from the banks' financing schemes, which are more based on loans and securities and less on deposits. The sudden increase in liquid assets in May (by more than 3 percentage points) resulted from extensive attraction of resources by all banks; meanwhile the funds received were temporarily channelled into deposits kept with foreign banks. In June the liquid assets to current liabilities ratio was reduced to the 47% level.

Besides the declining share of liquid claims in the banks' assets, the **structure of liquid assets** is changing as well. The content of the liquidity reserve continues to shift towards deposits and reverse repos held with foreign banks. The share of deposits and reverse repos has grown at the expense of short-term bonds as well as other short-term assets. Thus, along with reducing the share of liquid assets in total assets, the share of highly liquid assets is increased in liquid claims. These developments have arisen from the banks' efforts to optimise liquidity management so as to offset the effects from more volatile liabilities arising from changes in the financing schemes.

The net positions of claims and liabilities pursue the trend of lengthening, owing mainly to an increase in assets with maturities of over 5 years (see Figure 3.13). This is related to a robust growth in long-term loans, above all housing loans. On the liabilities side, the deepening of the net position of up to 3-month claims and liabilities has been brought about the increase in short-term debt instruments at the expense of demand deposits. Meanwhile the negative net position of claims and liabilities on demand has remained stable, reflecting the decline of the share of liquid claims in the assets.

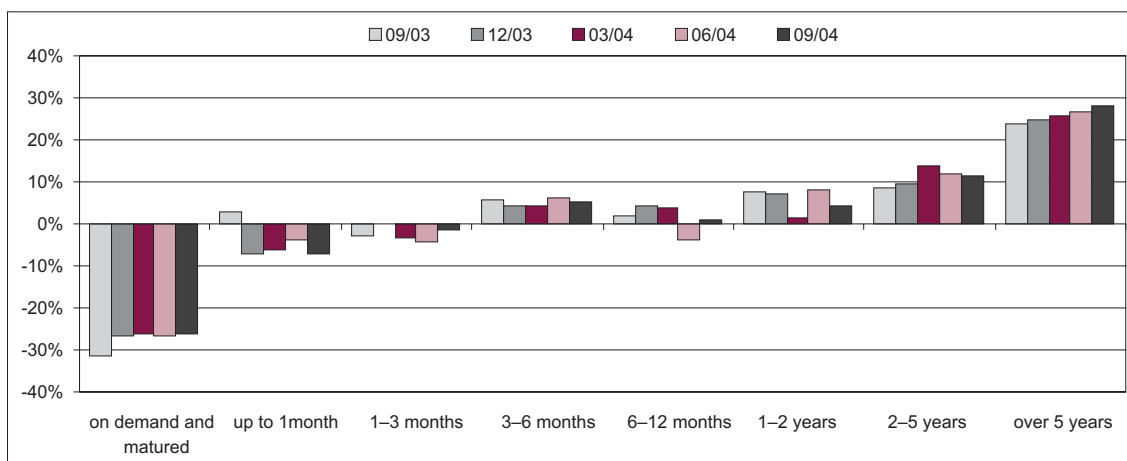


Figure 3.13. Banks' net liquidity position by residual maturity (% of assets)

BACKGROUND INFORMATION

EVALUATION OF THE STABILITY OF THE BANKING SECTOR ON THE BASIS OF FINANCIAL SOUNDNESS INDICATORS

A whole range of different financial indicators has been proposed to evaluate the stability of financial systems. To measure the financial strength and sustainability of the banking sector either micro or macro level data are applied respectively. The former mainly target the balance sheet indicators of a bank (bad loans, liquidity, capital adequacy, etc.) while the latter involve information reflecting the overall risk level of the economic environment (GDP growth, external debt, etc.). Both approaches are justified from the theoretical point of view since both internal instability of a financial system as well as manifestation of unfavourable effects of the economic environment can be regarded as sources of financial crises.

Estonia's economy is small and open. The monetary system follows the principles of the currency board, and the government and the central bank only have quite limited facilities to influence the economic environment. The environment described above is strongly affected by external factors as manifested through the cycles of the world economy, especially of Europe's economy. This is further exacerbated by the fact that Estonia's financial sector and the economy as a whole are extremely open to foreign capital flows. For example, foreign loans account for 40% of the liabilities of the Estonian banking sector, which is why domestic macroeconomic indicators might not reflect risks to the financial sector to the full.

Following from the above, the present short analysis is based on banks' internal indicators with the aim of highlighting the sources of risk, which most affect the banks' vulnerability to external factors. The banks' internal financial indicators are above all affected by supervisory and regulative measures, which is why monitoring and evaluating these indicators is inevitable so as to secure financial stability.

The indicators based on banking indicators can be divided into the following groups: (1) liquidity; (2) credit risk; (3) market risk, and (4) capitalisation.

Under **liquidity indicators**, this analysis reviews the share of liquid assets, overnight loans and financing by foreign banks as well as the share of public sector deposits in a bank's

liabilities. On the one hand, liquidity indicators reflect a bank's readiness to face possible liquidity strains; on the other hand, they show reliance on price-sensitive (interbank money market) or administrative liquidity sources (public sector deposits). The substantial weight of the latter in a bank's resources may indicate either the bank's weak capability to attract resources from the market or indirect financial support from the government. Meanwhile attracting price-sensitive loan resources (external financing) to finance operations involves a significant interest risk, which is, in turn, affected by the sentiment prevailing in the money markets as well as the country's credibility rating.

Credit risk indicators include the share of bad loans and an estimate of risk margin both in the inter-bank loan market as well as in the households' real estate loans and corporate credit segments. The difference between the median interest of the loan turnover and the interest of the upper quarter of the loan turnover with the highest interest rates is implemented as risk margin estimate.

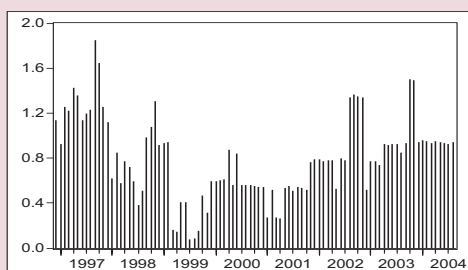
Market risk is measured on the basis of the share of loans collateralized with price-sensitive assets (shares and real estate) and the share of tradable stock portfolio in a bank's balance sheet.

The evaluation of capitalisation is based on the difference between the real capital adequacy indicator of the banks and the required minimum level (10%), i.e. the voluntary capital buffer.

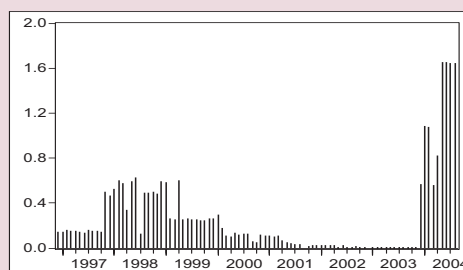
Among the liquidity indicators shown on the first line of diagrams, the high share of foreign loans, which in 2004 has risen many times above the average in the period under observation, indicates the most clear-cut sign of risk. Even though a certain rise in the share of foreign borrowing occurred during the 1997–1998 crisis period, it remained significantly weaker than at present. The use of overnight loans and public deposits as a liquidity buffer stayed behind in the pre-crisis period of 1997–1998, and currently these resources are being substituted by liquidity support from parent banks. However, in recent years liquid assets have shown a downward trend, though not to the level of the crisis periods of the past.

Figure 3.14. Selected risk indicators of the banking sector in December 1996 to August 2004 (standard deviation multiple weighted by banks' total assets on the vertical axis)

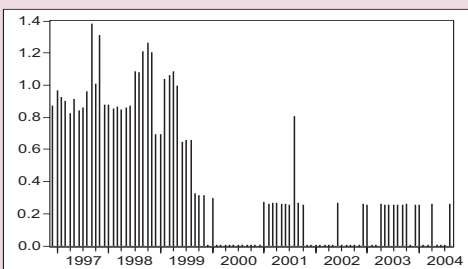
LIQUIDITY INDICATORS



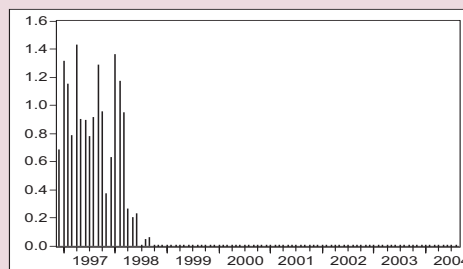
Reciprocal value of liquid assets



Foreign borrowing

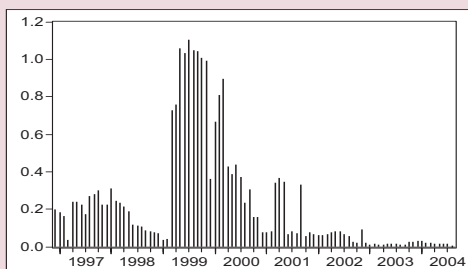


Public sector deposits

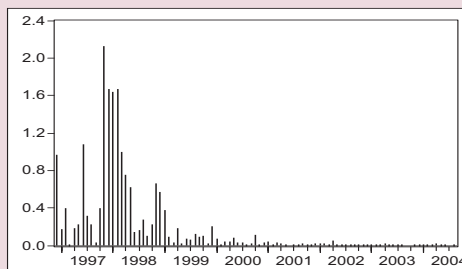


Overnight loans

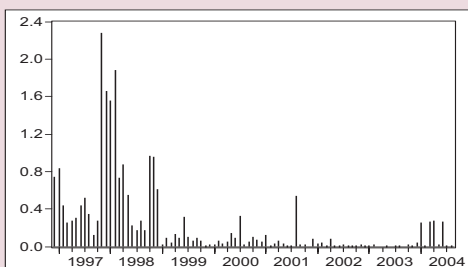
CREDIT RISK INDICATORS



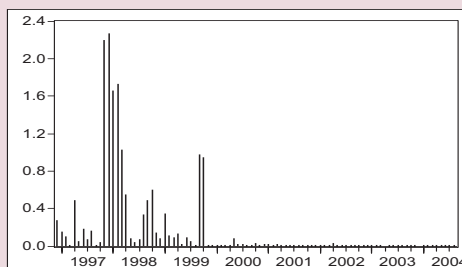
Overdue loans



Risk premium housing

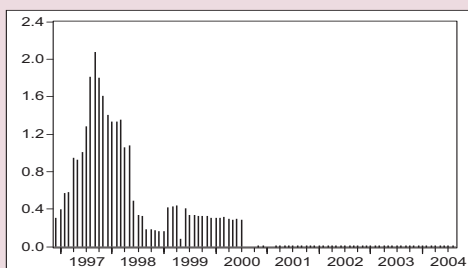


Risk premium companies

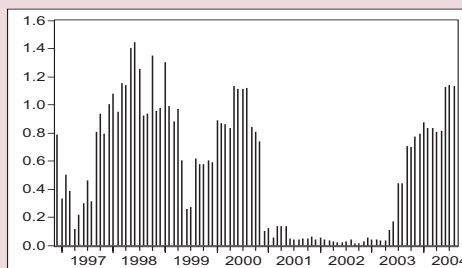


Risk premium interbank loan market

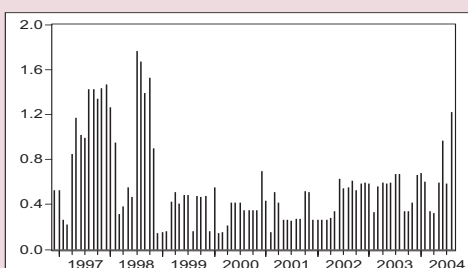
MARKET RISK INDICATORS AND CAPITALISATION



Stock portfolio



Asset-backed loans



Reciprocal value of capital adequacy

The credit risk indicators on the middle line of diagrams clearly outline the 1997–1998 crisis period and the following recession. Currently all the given credit risk indicators show the lowest historical level. A somewhat more extensive fluctuation can only be seen in the risk premiums of corporate loans.

As regards market risk indicators, the relative importance of stock portfolio risks has clearly been left behind in the period of past stock market boom. Meanwhile, the risks related to

asset-backed loans have significantly grown in recent years. Such development is obviously related to the ongoing boom in real estate loans.

In addition, the capital adequacy buffer that has remained on a relatively stable level since the end of 1998 has in the course of optimising capital costs gradually taken a more risk-prone direction. Compared to the worst of times the level can still be considered satisfactory.

All in all, a certain growth in risk tolerance can be seen regarding liquidity, openness to market risks, and capitalisation. Nevertheless, the indicators point to successful credit risk management. Previous crises have, however, shown that the realisation of credit risks occurs with a delay, which is why one cannot draw significant conclusions based on early indicators of credit risk.

IV. SECURITIES AND MONEY MARKET

■ Money Market

Euro area interest rates have remained at a low level ever since the middle of 2003. Therefore also Estonia's **short-term kroon interest rates** have been very low throughout 2004 (see Figure 4.1).

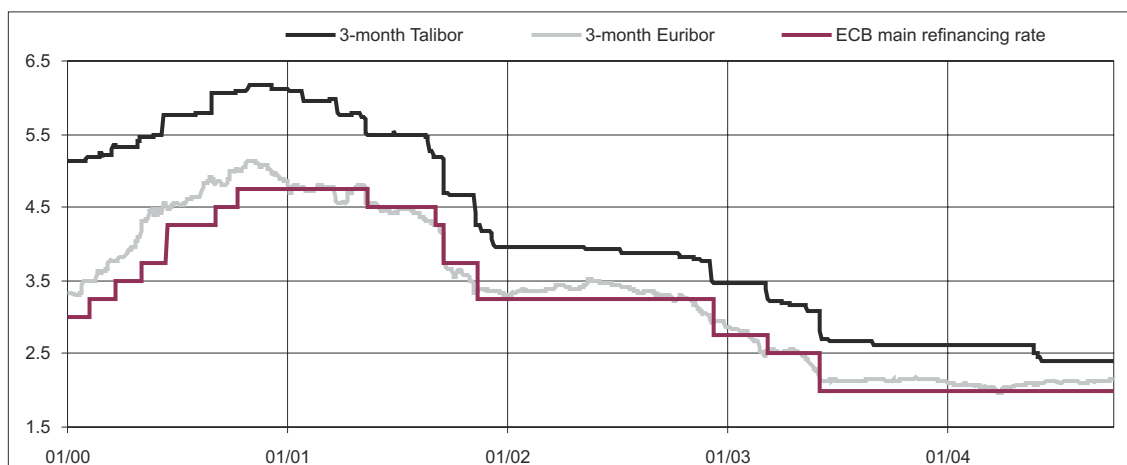


Figure 4.1. Money market interest rates of the Estonian kroon and the euro (%)

At the end of May and beginning of June 2004 the effective **spread between euro area interest rates** and short-term Estonian kroon interest rates decreased significantly (approximately by 25 basis points), and so did the difference in interest quotations which forms the basis for forward difference (see Figure 4.2). While in the spring of 2004 the difference between the money market interest rates in Estonia and the euro area was approximately 53–55 basis points, by mid-October the difference had shrunk to 25–29 basis points.



Figure 4.2. Difference between money market interest rates of the Estonian kroon and the euro (percentage points)

It is possible that such developments reflect market players' belated response to Estonia's accession to the EU. Moreover, it cannot be excluded that they anticipated the positive effects of Estonia's joining the ERM II¹. Leaving aside the impact of increased credibility resulting from becoming a member of the European Union,

¹ Estonia joined the European exchange rate mechanism (ERM II) on 28 June 2004.

other shifts in the spread between Talibor and Euribor during the past six months have above all reflected the dynamics of Euribor against the background of slowly changing Talibor quotations.

Movements in the yield of the five-year eurobond issued by the Estonian government in international markets have been in line with the yields of the bonds issued by the euro area governments. However, here too the spread between interest rates compared to the euro area has declined by five basis points in the second half of 2004. The yield of Estonian eurobonds exceeds that of German bonds with comparable maturity by 18–20 basis points, while the difference with comparable Austrian bonds is just 9–10 basis points. Therefore, market participants consider also Estonia’s long-term credibility to be very high.

The turnover of FX derivative transactions in the Estonian money market has been somewhat bigger in the past six months compared to the same time a year ago. Most of the turnover in the Estonian kroon futures and swap market – approximately 83% – comes from risk-hedging transactions between the Estonian kroon and third currencies (mainly the US dollar). Thus, for non-bank kroon liquidity management the money market remains more important than the FX swap market, at least as far as the turnover is concerned. The purchase-sales 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 kroon either to strengthen or to weaken (see Figure 4.3).

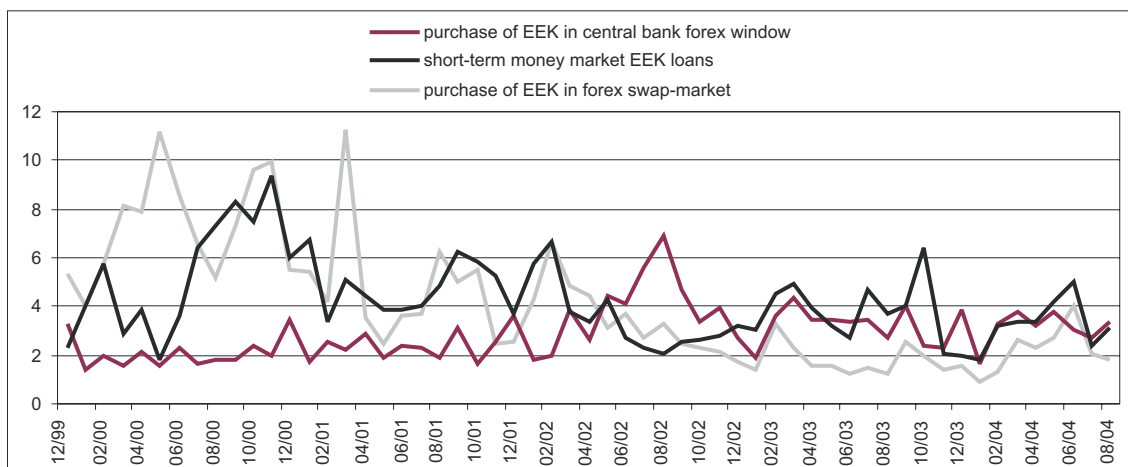


Figure 4.3. Supply of the Estonian kroon liquidity in Estonian money markets (quarterly turnover; EEK bn)

The Estonian kroon money market is comparatively low in liquidity compared to the respective money market segments in the member states of the euro area and the liquidity management of Estonian banks is mostly carried out in international markets. Therefore the transactions of non-residents play an important role in the Estonian money market (see Figure 4.4). In the past year residents have accounted for nearly

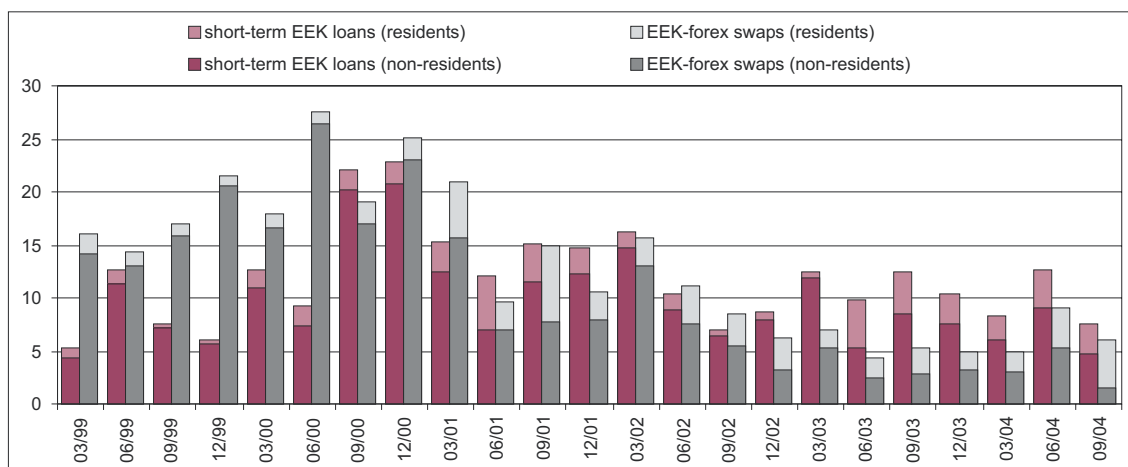


Figure 4.4. Turnover of EEK loans vs turnover of EEK-forex swap transactions (EEK bn)

one third of **short-term kroon loans** and 40–50% of foreign currency swaps. The most active participants in the short-term kroon loans markets have quite expectedly been Finnish, Estonian and Swedish banks. Non-resident credit institutions participate in the market of short-term loans in Estonian kroons mainly through risk-hedging transactions carried out on behalf of their clients.

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 been considerably larger than the mandatory daily minimum reserve and meeting the mandatory reserve requirement does not pose any difficulties for the banks.

■ Bond Market

The turnover of the bond market was more modest, compared to the same period of 2003 (see Figure 4.5). **The volume of bonds issued in the primary market** continued to decline, amounting to 38% and bringing the market capitalisation again down to 2.9 billion kroons (2.2% of GDP) by the end of September 2004, despite an increase in the meantime. The reason behind market contraction is the decline in the value of bonds issued by non-residents. Meanwhile, the value of bonds issued by local financial and private sector companies has increased. The volume of bonds issued by banks has increased by nearly 25% in the past six months, accounting for almost a half of the bond market capitalisation by the end of September.

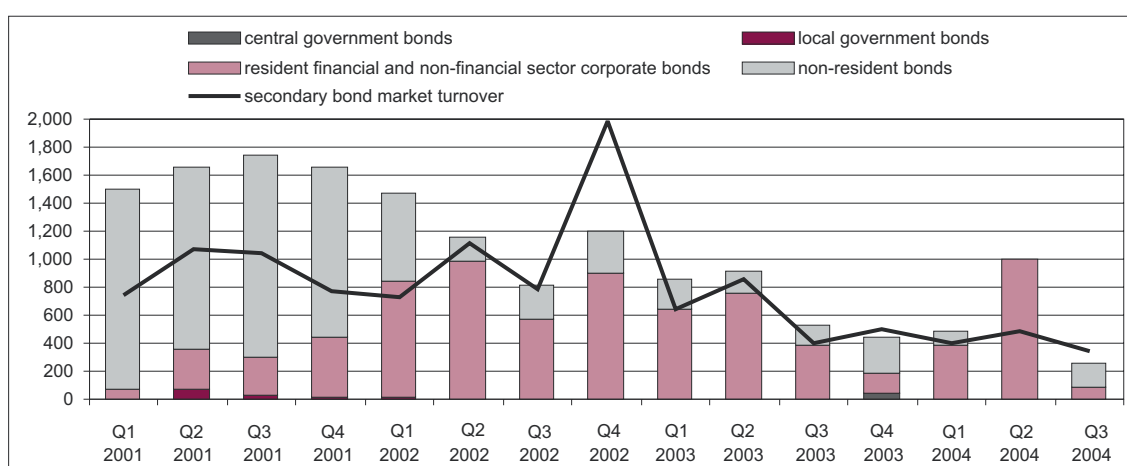


Figure 4.5. Volume of quarterly issued bonds and secondary bond market turnover (EEK m)

Even though issuers used the bond market primarily for flexible attraction of short-term capital, the share of long-term bonds has slightly increased. Approximately 80% of the bonds issued mature in less than a year; nearly 15% of these were with a maturity up to three months.

A large share of bonds are bought for holding, therefore bond trading in the **secondary market** was moderate (see Figure 4.6). Along with the contraction of the primary market in the past year, the secondary market turnover fell as well, amounting to an average of 6.5 million kroons per day.

In 2003 **bonds** were again **listed** on the Tallinn Stock Exchange. By the end of the third quarter of 2004 bonds issued by four companies with a market value of 422 million kroons, i.e. 14% of the total value of the bond market, had been listed on the stock exchange. Listed bonds are mainly purchased for holding, therefore the turnover of these instruments on the stock exchange has remained comparatively small: the average daily turnover in 2004 has been approximately 450,000 kroons. The structure of investors placing capital into bonds has not changed. Bonds in a few companies should be added to the stock exchange list in the near future, which might make the so far sluggish trading somewhat brisker as a result of higher yields.

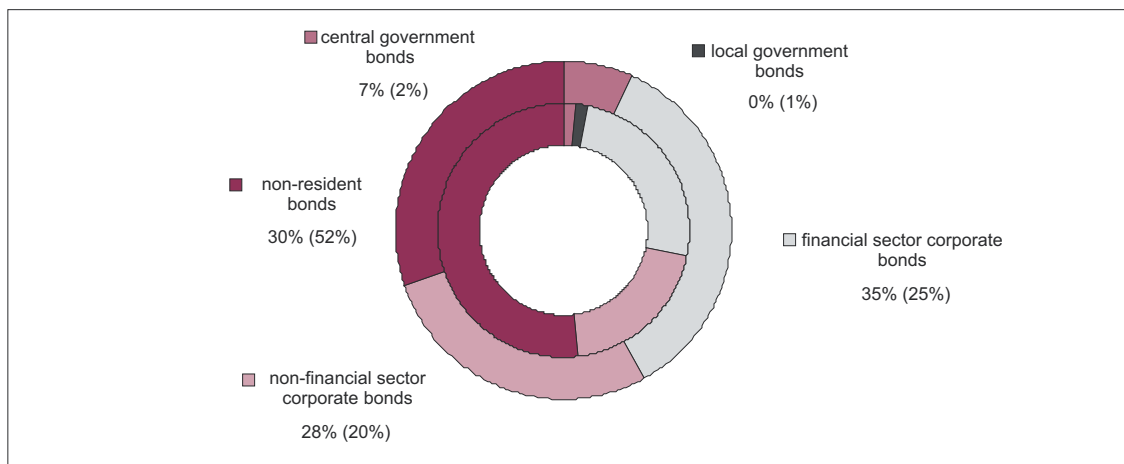


Figure 4.6. Structure of secondary bond market turnover from October 2003 to September 2004 (October 2002-September 2003 structure in brackets)

Stock Market

The Central and Eastern European stock markets that began to rise again at the beginning of 2004 have taken a major leap in the first nine months of the year, especially compared to the markets in developed countries. The rise in Central and Eastern European stock markets has been recently particularly fast also in global comparison. While the growth rate of euro area stock indices has remained under 5%² since the beginning of the year, the stock exchanges in Latvia, Hungary and the Czech Republic have increased by over 30%, and in Estonia and Lithuania by 27% and 28%, respectively (see Figure 4.7).

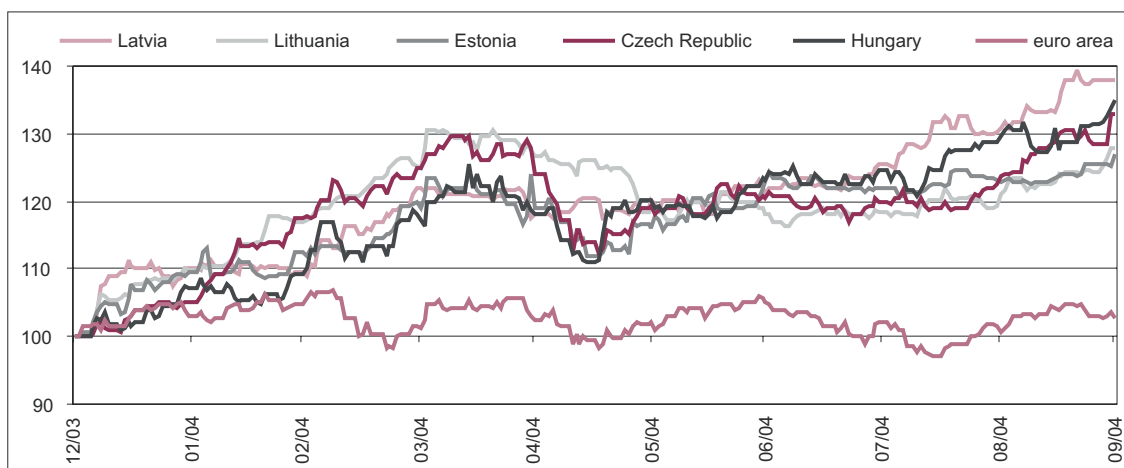


Figure 4.7. Dynamics of stock exchange indices of the new EU Member States and the euro area (31 December 2003 = 100)

Source: EcoWin AB

Even though there was a certain correction in the spring of 2004, the growth rate of the Tallinn Stock Exchange index **TALSE** has remained unchanged compared to the level of 2003 (see Figure 4.8). By the end of September index TALSE had grown by 363 points and was 33% higher, compared to the same time of 2003. As a result of such developments the market value of the companies listed on the stock exchange increased by 10.9 billion kroons in the first nine months of 2004. **Stock market capitalisation** rose to 58 billion kroons, i.e. to 44% of GDP (40% in September 2003).

² E.g. the FTSE Euro 100 index has grown 3%.

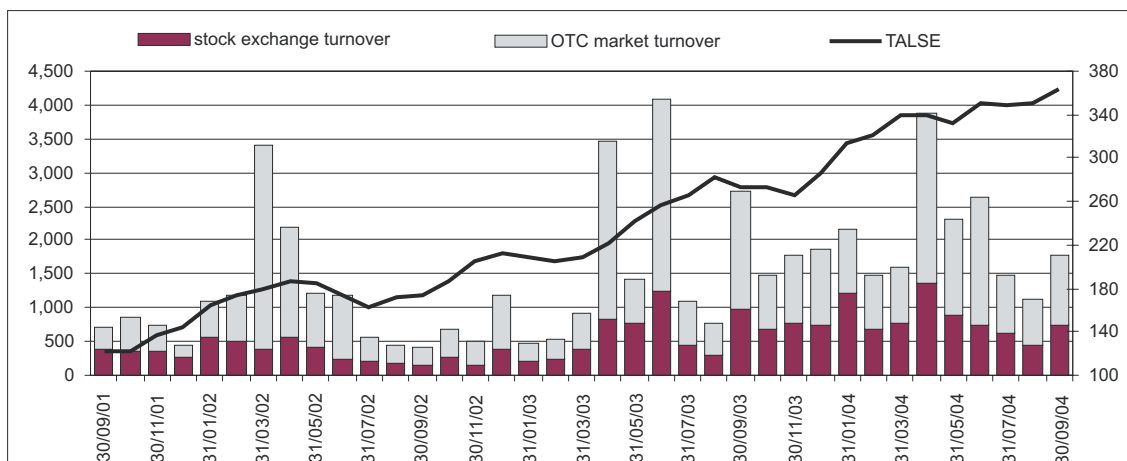


Figure 4.8. Monthly stock turnover on the Tallinn Stock Exchange and OTC market (EEK m; left scale) and Tallinn Stock Exchange index TALSE (points; right scale)

Increased market activity was particularly noticeable in the four months prior to the EU accession, when the **average daily turnover** reached 45 million kroons. Trading was most active in April, when the daily turnover amounted to 57 million kroons. In the summer months, stock market activity was traditionally more moderate, which dropped the average daily turnover to 35 million kroons in 2004. Thanks to new stock price records in September and October, the Tallinn Stock Exchange got over a standstill by the end of October. 96% of the stock market turnover came from trading in the shares of two companies: 71% accounted for the trade in the shares of Hansapank and 22% for the shares in Eesti Telekom. The price rise of Hansapank's shares is the result of the positive attitude of investors – successful bond issue serves as an example of that. Since September trading in the third largest listed stock, Norma, has become more active. At the end of June, Estiko left the stock exchange. Some companies have declared their intention to enter the stock exchange at the beginning of 2005.

The share of non-resident investors in the stock market capitalisation rose to 83% by the end of September. Resident investors were predominantly financial and non-financial sector companies that controlled listed shares with the value of 8 billion kroons, i.e. 14% of the total stock exchange turnover. Retail investors held 1.8 billion kroons worth share holdings, i.e. 3.1% of the total value of listed shares. Since the second half of 2003, mandatory pension funds have invested into stocks; meanwhile their share has not risen above 0.5% of the total capitalisation of the local stock market.

Concerning the integration of the Nordic and Baltic stock markets, mainly the aspects related to unifying the trading environment have been implemented in the past six months. In April the Tallinn Stock Exchange together with the stock exchanges in Riga and Helsinki became a member of the alliance between the Nordic and Baltic stock exchanges – NOREX³. In September the co-operation progressed to adopting a common trading environment SAXESS (see also background information *Securities Market Infrastructures in Estonia against the Background of Integration with the European Union*). By adopting a common trading system the stock exchanges hope to lower investment barriers by simplifying access of the investors interested in the three Baltic markets and reduce differences between Estonian, Latvian and Lithuanian markets. In order to integrate the Baltic markets the Baltic list was extended to all the shares quoted in the main lists of Estonian, Latvian and Lithuanian stock exchanges as of 1 July 2004, and a common index BALTIX is calculated⁴. As at 30 June 2004 the market value of the Baltic list was 5.09 billion euros (79.64 billion kroons). In addition to the common trading system, which Lithuania is to adopt later, trading rules between Estonia, Latvia and Lithuania have been unified.

³ Among other things the rules and regulations of the Tallinn Stock Exchange have been updated in line with NOREX membership rules that regulate the use of the trading system, requirements set for the members of the stock exchange and brokers operating in the stock exchange as well as trading activities.

⁴ The BALTIX index is a capitalisation weighted chain-linked total return index that was launched on 27 September 2004. The index is calculated once a day, using the official closing prices of all the shares quoted in the main lists of the stock exchanges in Riga, Tallinn and Vilnius. The weight of each security in the index is limited to 10%. Weight limitations are applied quarterly in the course of balancing by either decreasing or increasing the volume of shares included in the index. Of the shares quoted on the Tallinn Stock Exchange, Hansapank and Eesti Telekom carry a weight of 10% in the fourth quarter of 2004.

BACKGROUND INFORMATION

SECURITIES MARKET INFRASTRUCTURES IN ESTONIA AGAINST THE BACKGROUND OF INTEGRATION WITH THE EUROPEAN UNION

For securities trading and settlement of claims and obligations arising from that, countries have traditionally developed domestic infrastructures that have coincided with the currency area. It is so in Estonia and in other countries and was the case also prior to the adoption of the euro in the member states of the Economic and Monetary Union. Compared to the securities market infrastructure in the United States, the securities settlement systems in the European Union are more fragmented and inefficient due to their historical background. However, ineffective (i.e. costly and complex) securities trading and settlement obstruct the execution of financial transactions. Thus, the European Union has set the aim to establish an integrated and efficient capital market with safe and efficient securities settlement systems offering reasonably priced services as a part of that market. **The issue is important for Eesti Pank since one of its main tasks is to implement monetary policy and strengthen financial stability⁵.**

The development of the securities market and its infrastructure in the years following Estonia's restoration of independence has been affected by the following factors:

- The government's conservative fiscal policy and borrowing, which has resulted in modest issuing of government bonds that would create a basis for a broad-based securities market⁶;
- The currency board system – Eesti Pank does not conduct active monetary policy and banks' liquidity management is carried out through international financial structures;
- Since local resources have been more expensive compared to foreign one, foreign direct investments and loans have played an important role in financing Estonia's economy as an alternative to issuing securities (bonds);
- Banking-based financing of the economy (households/companies);
- Ongoing integration of financial markets and their infrastructures in the Nordic and Baltic countries, which above all includes consolidation⁷.

The securities market infrastructures used in Estonia are as follows: the only regulated secondary market in Estonia – the Tallinn Stock Exchange, the registrar of the common electronic central securities register – the Estonian Central Register of Securities (ECRS), and international central securities depositories (ICSDs) used for conducting central bank transactions.

The Tallinn Stock Exchange and the ECRS operate as a part of OMX; the largest securities market operator and owner in Northern Europe. OMX consists of two divisions: OMX Exchanges that controls stock exchanges in Stockholm, Helsinki, Tallinn, Riga and Vilnius and depositories in Finland, Estonia and Latvia, i.e. 80% of the securities market in the Nordic and Baltic countries; and OMX Technology, whose main task is to develop, sell and manage technologies needed for the business operations of the stock exchange, depository and settlements within the group as well as for other financial markets.

OMX seeks to implement developments towards a common securities market covering the Nordic and Baltic states step-by-step, starting with unifying the trading environment used by the stock exchanges and then, through common rules, the option to join the settlement systems,

⁵ See Financial Stability Review by Eesti Pank, November 2003, 61–64, and the Annual Report of Eesti Pank for 2003, 57–59.

⁶ Estonia has the lowest public debt in the European Union: at the end of 2002 the ratio of public debt to GDP in Estonia was 5.8%. In other new Member States the respective indicator ranged from 15.2% (Latvia) to 66.4% (Malta). (ECB. Bond markets and long-term interest rates in EU accession countries. October 2003.)

⁷ Consolidation involves mergers and acquisitions, outsourcing, alliances and joint ventures, and describes the process of concentration in the service providing industry. Consolidation is a key concept for the integration; it may help to reduce the cost of trading, clearing and settlement by making use of scale economies and network externalities. (Padua-Schioppa, T. Clearing and settlement of securities: A European perspective. September 2001).

etc., moving on to a fully integrated Nordic and Baltic securities market infrastructure. On 27 September 2004 the stock exchanges in Tallinn, Riga and Helsinki adopted the **common trading system SAXESS**, which was already in use in the stock exchanges in Stockholm, Oslo, Copenhagen and Reykjavik (belonging to the alliance of Nordic and Baltic stock exchanges, NOREX) and will also be used by the Vilnius Stock Exchange as of 2005.

If necessary for liquidity purposes the securities settlement systems managed by the **ICSDs**, Euroclear Bank and Clearstream International, are used in collateralised operations with the central bank. Since the Estonian market lacks bonds eligible for central bank collateral, the commercial banks can sell high-quality foreign securities held with ICSDs in order to obtain liquidity from Eesti Pank⁸. According to an assessment carried out by the European System of Central Banks, the infrastructure used in Estonia for transactions with the central bank is a suitable starting point for developing an environment that would comply with the requirements set by the Eurosystem for the use of securities settlement systems in monetary policy transactions of the Eurosystem. In the first stage an intraday liquidity instrument will be introduced, and as a result commercial banks can, in addition to selling, also repurchase eligible securities from the central bank.

Role of Eesti Pank as the Overseer of Securities Settlement Systems

Being the central bank of Estonia it is important for Eesti Pank that the country's financial system was characterised by stability, efficient monetary policy and smooth currency circulation. From the securities settlement infrastructure point of view, this means that:

- monetary policy transactions are proceeded effectively and safely;
- capital market infrastructures operating in the country do not threaten financial stability, which also means that securities settlement systems do not obstruct the smooth functioning of payment systems.

Thus, operations with ICSDs as well as the domestic infrastructure, i.e. the operation of the Tallinn Stock Exchange and securities settlement system managed by the ECRS must function efficiently, safely and smoothly.

For that reason, the central bank oversees the securities settlement system, which includes the following activities:

- Collection of statistics about systems and system operators – the central bank needs information to gain an overview of the breadth and importance of the systems and instruments;
- Defining of systemically important systems and identifying possible threats and risks of those systems to financial stability⁹ – i.e. the systems are assessed against international standards (minimum requirements)¹⁰;
- As a member of the European System of Central Banks, imposing minimum requirements for securities settlement systems used for conducting monetary policy transactions¹¹.

In 2003 Eesti Pank in co-operation with the European System of Central Banks assessed the compliance of the securities systems used in transactions with the central bank against the Eurosystem standards. The summary has been published in the annual report of Eesti Pank for 2003.

⁸ Besides that credit institutions can increase liquidity by borrowing money on the interbank money market or by selling currency to Eesti Pank.

⁹ Potential risks to the securities settlement systems are described in the Financial Stability Review, November 2003, 63–64.

¹⁰ CPSS-IOSCO Recommendations for securities settlement systems; ESCB and the third-level Committee of European Securities Regulators (CESR) have elaborated standards for the securities settlement systems, namely Standards for Securities Clearing and Settlement Systems in the European Union. Methodology for the assessment against those standards is currently under elaboration.

¹¹ In 1998 the European System of Central Banks elaborated securities settlement standards that are used for conducting monetary policy transactions in the euro area, namely Standards for the use of EU Securities Settlement Systems in ESCB credit operations.

V OTHER FINANCIAL MARKETS

■ Investment Funds

Arising from consistently low money market interest rates and spurred by delayed interest rise expectations the **yields** of money market and interest funds declined in the first three quarters of 2004. Growth in the assets of investment funds that had started in the second half of 2003 continued to slow down hand in hand with a rather modest increase in the total savings of the non-financial sector (see Figures 5.1 and 5.2). Because of soaring real estate prices companies and households alike preferred real estate investments offering higher yields. Households' savings behaviour was also affected by payments into the pension insurance system.

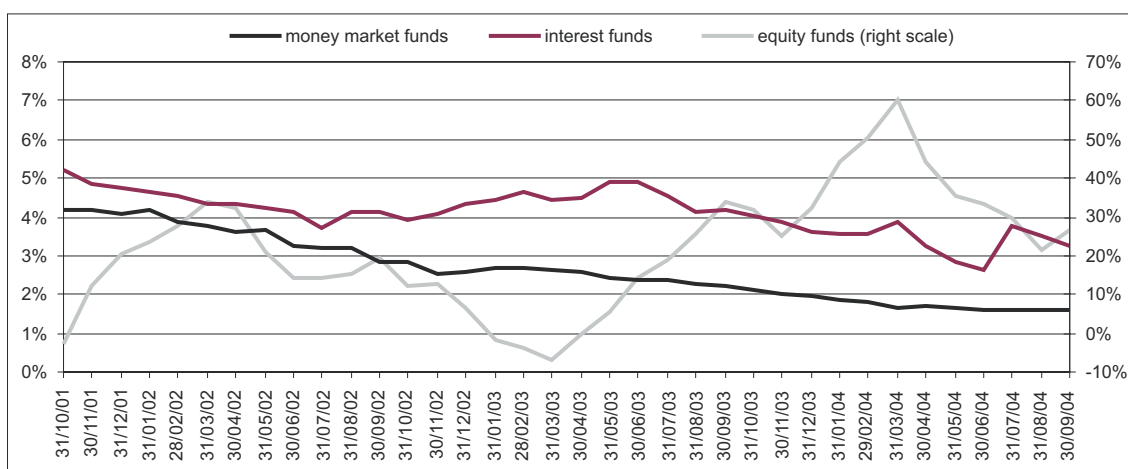


Figure 5.1. Average yield of investment funds

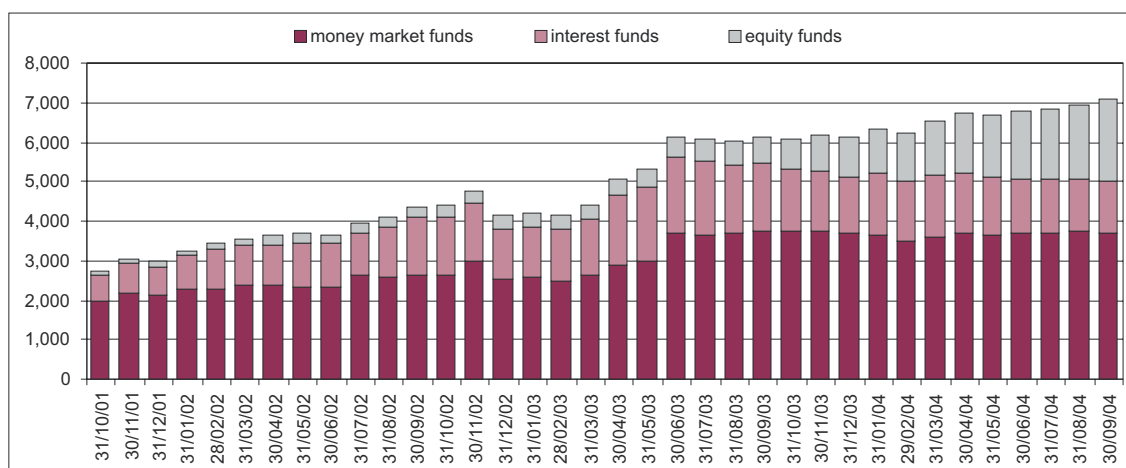


Figure 5.2. Volume of investment funds' assets (EEK m)

Units in more liquid **money market funds** that offer more stable yields still account for a major part of the volumes of investment funds. Until mid-2003 **interest funds** also posted substantial rises, but afterwards the fast growth that continued in the stock exchanges in Central and Eastern European countries and the recovery in world stock markets increased the yields of **stock funds** and spurred interest in stock investments. An evidence of such developments is the decline in the assets of interest funds and multiple

growth in the assets of stock funds, which reached two billion kroons. With another billion kroons added since the beginning of 2004 stock funds outpace interest funds 1.5 times in volume.

Since September 2003 **the share of foreign assets** in the assets of funds has increased, amounting to 62% in September 2004 (see Figure 5.3). The funds channelled 73% of foreign assets into the securities markets of the European Union, meanwhile investments into the United States and other markets outside the European Union have increased (see Figure 5.4). Fund managers are positive about further rises in the markets, in particular in stock markets, of the new EU member states. This in turn might further increase the share of investments into these markets in the future. Investments in domestic stock and bond markets and domestically issued units of investment funds amounted to 1.69 billion kroons at the end of September, i.e. 20% of the assets of the funds.

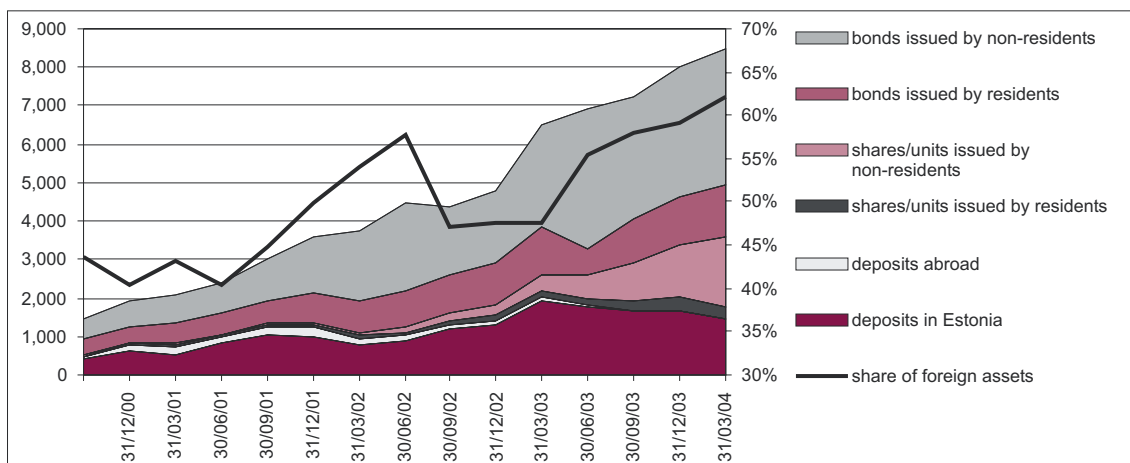


Figure 5.3. Structure of investment and pension funds' assets (EEK m; left scale) and share of foreign assets (%; right scale)

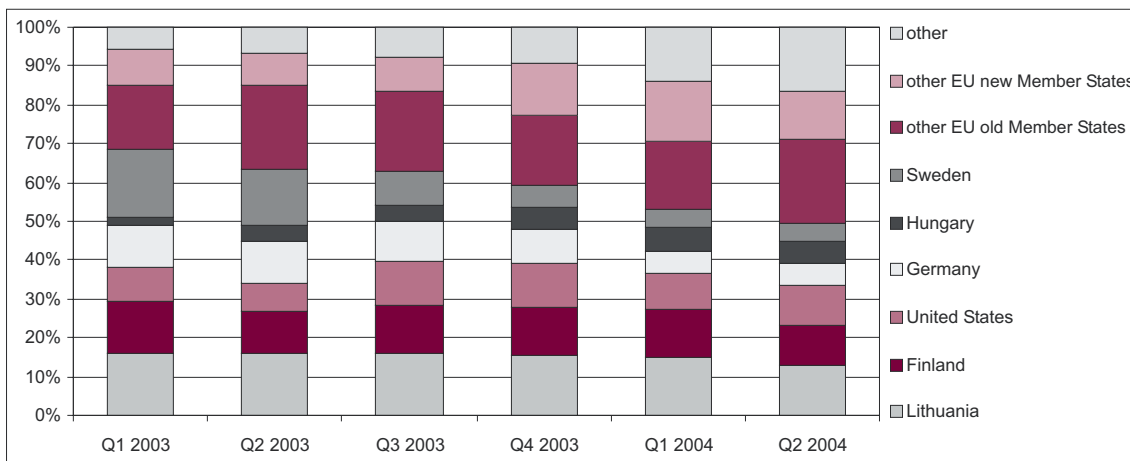


Figure 5.4. Foreign investments of investment and pension funds by residency

■ Pension Funds and Insurance

The number of people who had joined **the second pillar of the pension system** rose above 400,000 in the third week of September (in September 2003 the level of 300,000 was passed) while the assets of the funds crossed the threshold of two billion kroons (see Figure 5.5). By the end of October, when the fourth wave of subscriptions ended, the total number of subscribers rose above 423,000, which means that 71% of the employed (64% of the labour force) would make payments into the system at the beginning of 2005.

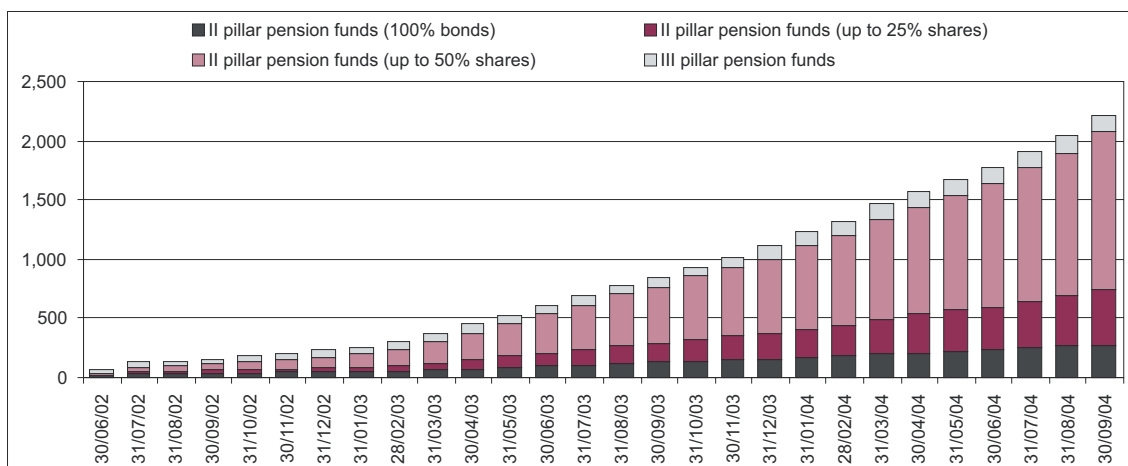


Figure 5.5. Value of pension funds' assets (EEK m)

According to the data released by Pensionikeskus (Pension Centre), subscription activity was spread more evenly over the period compared to earlier subscription periods and further on increasing activity of changing fund choices can be expected. Given the average monthly growth in second pillar pension funds, which has been 130 million kroons, the volume is expected to rise to some 2.5 billion kroons, i.e. 1.9% of GDP by the end of 2004. Since monthly payments into second pillar pension funds are predicted to rise to 160–200 million kroons by the year 2005, the 3.0 billion kroon level will be exceeded in the spring of 2005 and the threshold of 4.0 billion kroons at the end of 2005.

80% of the assets in the second pillar pension funds have been placed into the most liquid foreign markets and the volume of local stocks stands at just 104 million kroons (see Figure 5.6). Given also the insignificant share of pension funds among the investors into the Estonian stock market, the contribution of second pillar pension funds upon supporting price rises in the local stock market appears to be modest.

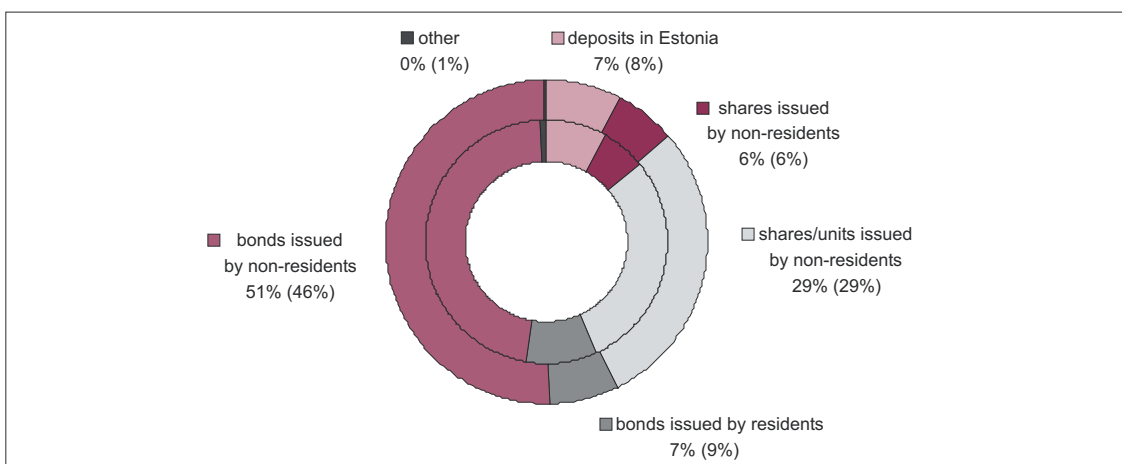


Figure 5.6. Structure of II pillar pension funds' assets as at 30 June 2004 (position on 31 December 2003 indicated in brackets)

At the end of the third quarter of 2004 the number of subscribers to **the third pillar of the pension system** was nearly 68,400, i.e. 11.5% of the labour force. The assets amounted to nearly 870 million kroons of which the insurance contracts reserve accounted for 725 million kroons, i.e. 83%¹.

¹ Source: Pensionikeskus.

Even though third pillar investments have mostly taken the form of insurance contracts, the share of funds in voluntary pension insurance investments has increased from 11% to 17% in the past six months, boosting the assets of third-pillar funds to 140 million kroons by the end of September. The investments of third-pillar funds into foreign markets have increased from 53% to 70% in six months (see Figure 5.7). Investments into foreign markets have primarily been carried out at the expense of domestic low-yield deposits and to a lesser extent at the expense of bonds and stocks issued by local companies. Therefore the total volume of stocks, units and bonds issued by residents was very modest at the end of June, amounting to 33 million kroons.

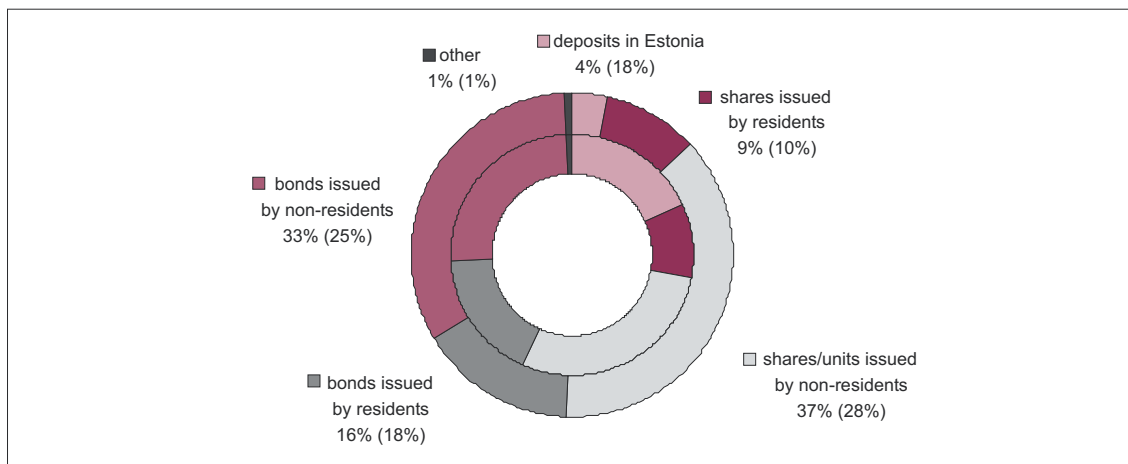


Figure 5.7. Structure of III pillar pension funds' assets as at 30 June 2004 (position on 31 December 2003 indicated in brackets)

Insurance Companies

The increasing domestic demand and the spread of voluntary pension insurance have continued to accelerate the development of the insurance market. The pace of **life insurance market** growth has accelerated in the past year compared to the year before, reaching an average of 40% (21% at the same time in 2003). The growth was the fastest in the second quarter of 2004, amounting to 50%, year-on-year (see Figure 5.8). Insurance companies collected 750 million kroons in gross premiums, which is 41% more compared to the same period in 2003. The total volume was mainly boosted by premiums collected under unit-linked life insurance contracts, which also included third-pillar pension system products sold in the course of active marketing campaigns. Consequently, insurance companies related to banks have increased their market share most.

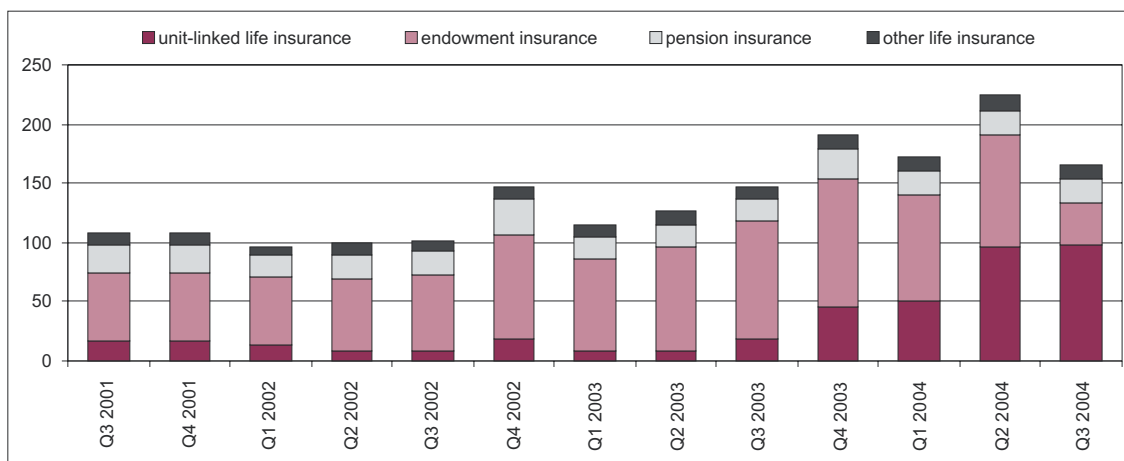


Figure 5.8. Gross premiums collected by life insurance companies (EEK m)

Life insurance liabilities to the policy holders/insurants amounted to 1.6 billion kroons at the end of June 2004 (approximately 6% of households' financial assets²), around a half of which were insurance reserves of supplementary funded pension.

A certain redistribution of market shares continued in the **non-life insurance** market. Non-life insurance companies collected 2.3 billion kroons in gross premiums in the past year, which is 22% more year-on-year (the growth was 18% in the same period of 2003; see Figure 5.9). The growth in premiums collected arises from successful car sales as well as from the fact that the real estate market has become more active.

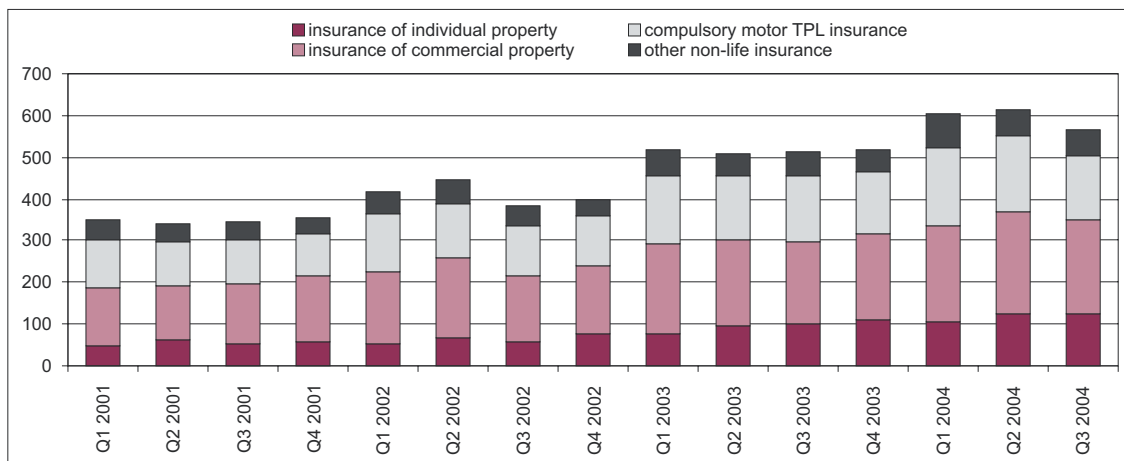


Figure 5.9. Gross premiums collected by non-life insurance companies (EEK m)

² Households' financial assets include deposits, units of pension funds and life insurance.

VI PAYMENT SYSTEMS

■ Settlement System of Interbank Payments

In the second and third quarter of 2004, an average of 180 payments per day were settled in the **Real Time Gross Settlement System (RTGS)** (see Figure 6.1). The number of payments increased 53% year-on-year. The main reason behind the rise in RTGS payments were customer payments (77% growth), which accounted for 76% of all real-time payments.

The average RTGS turnover in the given period was 2.2 billion kroons per day. Most of the turnover (62%) accounted for payments related to the collateral account of the designated time net settlement system. The turnover of payments settled through RTGS grew by 4% year-on-year.

The average value of customer payments settled through RTGS in the second and third quarter of 2004 stood at 2.1 million kroons, having reduced by 31% in a year.

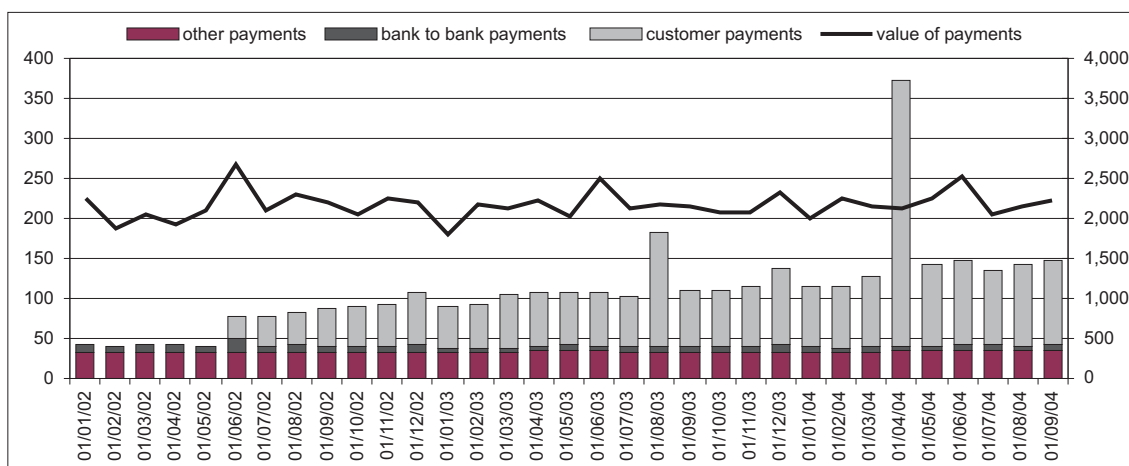


Figure 6.1. Daily volume (left scale) and value (EEK m; right scale) of payments processed in the RTGS System (monthly average)

In the **Designated Time Net Settlement System (DNS)** an average of 63,000 payments a day were settled in the second and third quarter of 2004 (see Figure 6.2). The number of payments diminished by 1%,

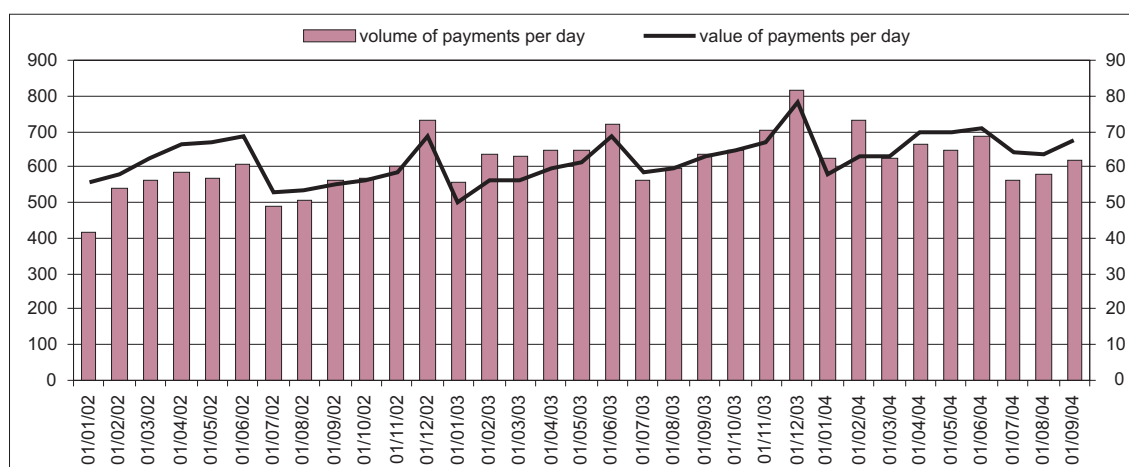


Figure 6.2. Daily volume (thousands; right scale) and value (EEK m; left scale) of payments processed in the DNS System (monthly average)

year-on-year. The average daily sum settled through DNS in the given period was 676 million kroons. DNS turnover increased 10% year-on-year. The average value of a DNS payment in the given period was 10,800 kroons, having grown 11% in a year.

■ Payment Intermediation

Payment Environment

In 2004 there were no major changes in the payment environment and thus the trends of previous years continued.

Similarly to earlier periods, the position of credit institutions operating in Estonia is strengthening in the daily lives of individuals. **Receipt of income as well as making payments through credit institutions has increased** (see Figure 6.3). The use of cash has reached a level where the share of those receiving income in cash and those who prefer to continue receiving cash income is levelling (14% of wage earners received pay in cash in 2004 and 11% of those would prefer such a method also in the future¹). Income receipt and payments are related. A person whose wages are paid into an account most likely also makes payments using non-cash payment methods.

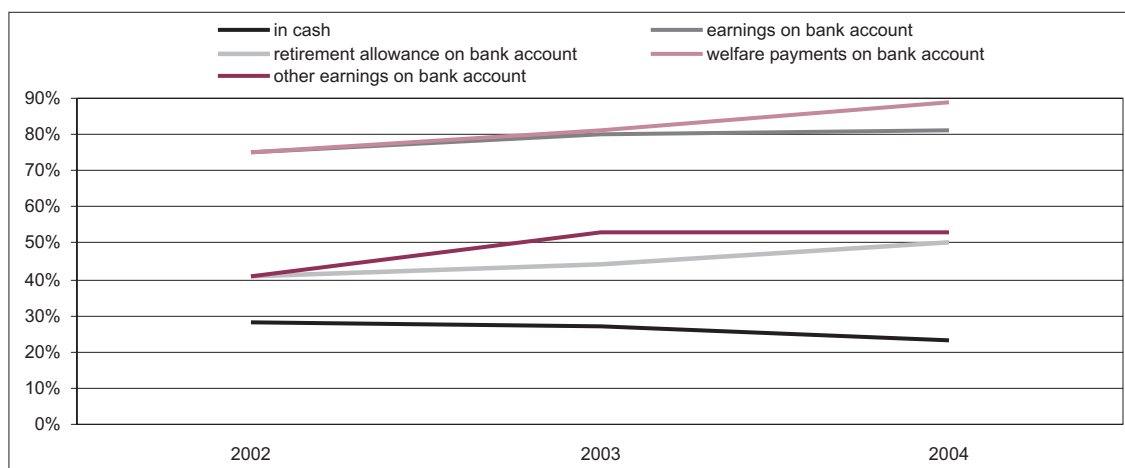


Figure 6.3. Means of earnings between 2002 and 2004

Source: TNS Emor

The payment environment in Estonia is mainly electronic and the number of less efficient channels, such as bank offices and post offices, has remained at the same level for the last four years or has even dropped slightly² (see Figure 6.4). It is safe to conclude that the network of bank offices and electronic payment channels³ developed for satisfactory servicing of bank customers has reached the level that meets the market demand.

As regards electronic payment channels, largest growth occurred in the number of subscribers for the **Internet banking** service, i.e. 11% (see Figure 6.4). The growth rate was slower compared to the previous two years when the number of subscribers increased by more than a third. The use of the Internet banking service for payment transactions depends on the level of computerisation and Internet connection availability. The growth in the number of **ATMs and points of sale accepting card payments** (4% and 3%, respectively) is related to the opening of new shopping and service centres.

¹ Research on payment habits and preferences by TNS Emor, September 2004.

² According to the data of Eesti Post.

³ Internet banking, ATMs and points of sale.

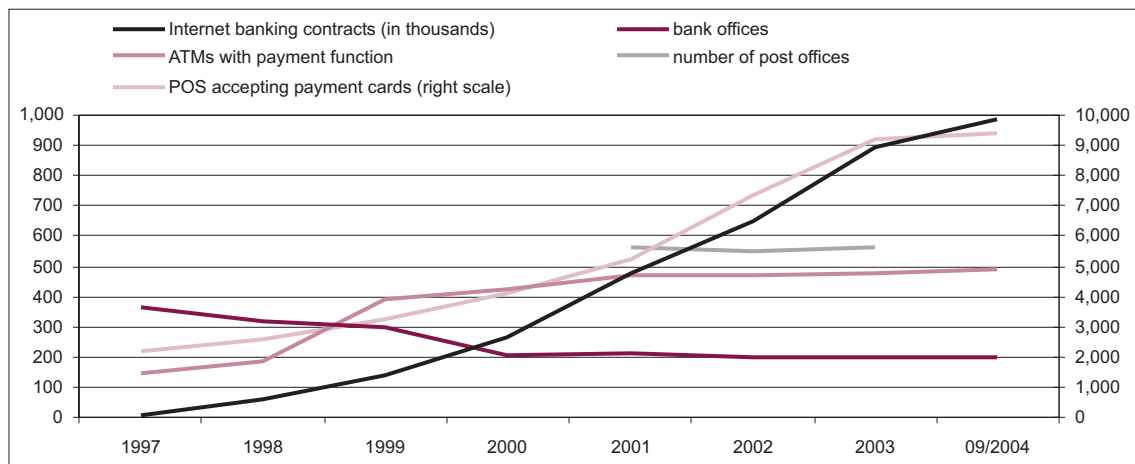


Figure 6.4. Bank channels for retail payments in Estonia (end-of-period figures)

1,525 points of sale accept **mobile phone payments** for goods and services; this number increased by 205 from May through September 2004. In Estonia there are 52,000 customers using the mobile payment service⁴. Individuals make up to 4,500 mobile payments per month between themselves, and the turnover of their transactions stands at 1.2 million kroons. Individuals make less active use of mobile phones when paying to merchants; hence the average number of such payments is 600 transactions per month⁵.

As for the number of ATMs (per million inhabitants), the leading countries among the new Member States are Slovenia (551) and Cyprus (494) while Estonia (468) ranks third (see Figure 6.5). The respective aggregate euro area indicators are higher than those of the new member states.

Adjusted for the nominal GDP per capita and based on the respective Estonian indicator, the sum of money withdrawn from ATMs in the euro area and Slovenia is 25 euros on average, in Cyprus 34 euros and in Estonia 51 euros; in Latvia the respective figure stands at 103 euros and in Lithuania at 80 euros. In the euro area, there are on average 20 ATM withdrawals per person per year, whereas the respective indicators in Slovenia are 26, in Cyprus 8 and in Estonia 34.

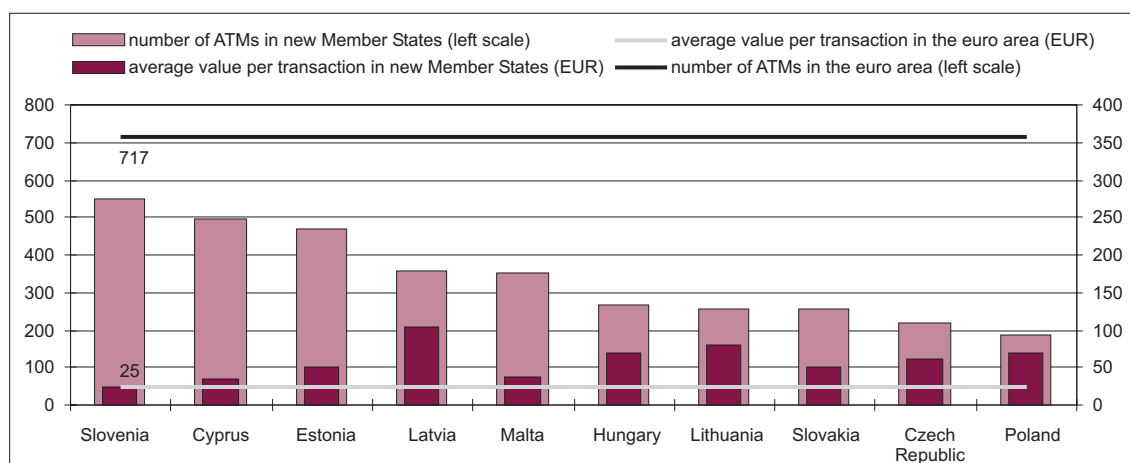


Figure 6.5. Number of ATMs and average value per transaction per million inhabitants in the new Member States and the euro area (adjusted with nominal GDP per capita; EUR) at the end of 2002

Source: ECB

⁴ The leading mobile communications operator EMT has the total of 349,600 contractual clients, which indicates that there is room for growth in the mobile payments service sector.

⁵ According to BNS, 14 October 2004.

The number of points of sale accepting payment cards per million inhabitants in Estonia (5,395) is smaller than the respective average indicator in the new Member States (6,851) as well as in the euro area (13,320) (see Figure 6.6).

When analysing the number of points of sale as well as the average value of card payments a relationship with tourism as well as with people's payment habits can be noted. For example, Malta and Cyprus are countries that make a living out of tourism and have multiple accommodation facilities, which is also reflected in the great number of points of sale in these countries (see Figure 6.6). It is customary to use a payment card to settle the hotel bill. Adjusted for the nominal GDP per capita and based on the respective Estonian indicator, the average value of a card transaction in the euro area is 13 euros. In Hungary, where card payment facilities are scarce and such transactions are made infrequently but when paying for expensive goods and services, the respective indicator is 70 euros. The average number of card transactions per resident is 13 in the new Member States and 25 in Estonia. In Estonia payment cards are used in order to pay for low-value purchases – the average value of a transaction is 21 euros, while the average in the new Member States is 31 euros⁶.

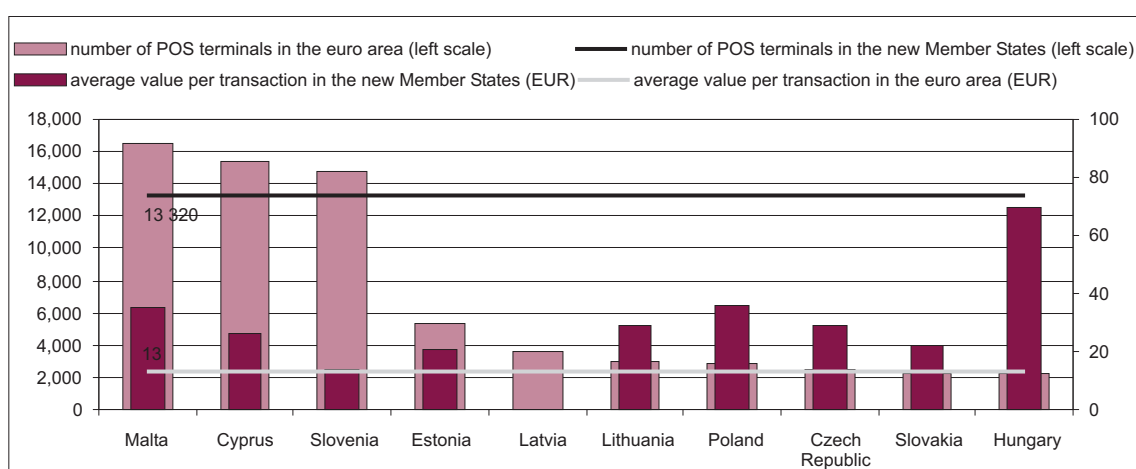


Figure 6.6. Number of POS per million inhabitants and average value per card payment in the new Member States and the euro area (adjusted with nominal GDP per capita; EUR) at the end of 2002

Source: ECB

Payments via Credit Institutions

Estonia is famed for the extensive use of electronic payment methods and in the given period no significant changes occurred in people's payment habits (see Figure 6.7). Consistently fewer payments were made through the telebank and by paper-based credit orders in bank offices. One of the reasons behind the decline in the number of telebank credit orders is the higher price compared to that of the Internet banking services⁷, which is why small companies that used to be telebank clients have given it up and joined a more cheaply priced Internet bank. At the end of September 2004, credit institutions had 988,000 Internet banking contracts with customers. The popularity of direct debits is increasing and further development thereof depends on the establishment of a common direct debit based functioning scheme between credit institutions.

As far as non-cash payment methods are concerned, Estonia does not really resemble any other new Member State⁸. In Hungary, for example, the relative importance of direct debit is bigger than in Estonia

⁶ Due to different data-collecting methods the data gathered by the European Central Bank may in some parts be incomparable.

⁷ One-off telebanking subscription is a fee-charging service and there is a monthly fee, which is calculated per account. Charges for credit orders are based on the price list. Subscription to the Internet bank and account maintenance is free of charge while charges for credit orders are based on the price list.

⁸ The structure of non-cash payment methods in Estonia resembles that of Finland and Sweden where mainly payment cards and credit orders are used (Financial Stability Review, May 2004).

(22% in Hungary and 8% in Estonia) and that of card payments two times smaller (22% in Hungary and 44% in Estonia; see Figure 6.8). We differ from Slovenia by the fact that cheques are not used in Estonia. In the euro area the structure of non-cash payment methods is the following: credit orders 28%, direct debits 25%, card payments 32%, and cheques 14%.

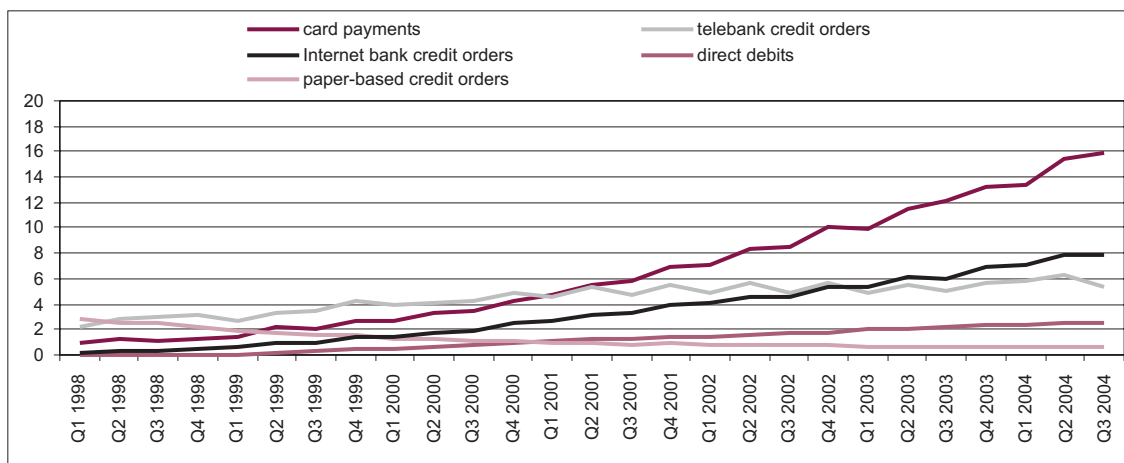


Figure 6.7. Widely used payment instruments in Estonia by number of payments (millions)

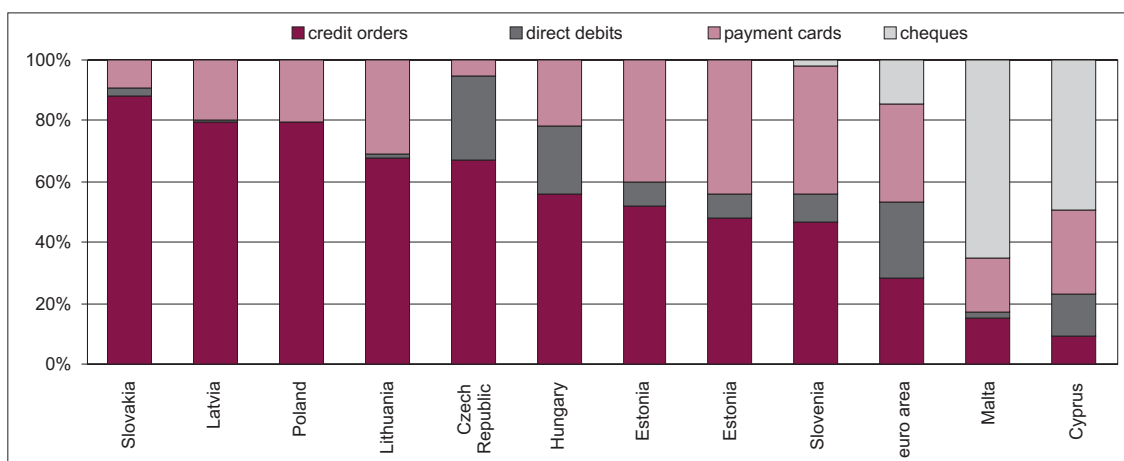


Figure 6.8. Share of non-cash payment instruments in the total number of non-cash payments in the new Member States and the euro area at the end of 2002

Source: ECB

Use of Payment Cards

By the end of the third quarter the credit institutions operating in Estonia had issued 1.3 million payment cards (1.2 million in March). The share of passive payment cards grew consistently, accounting for 23% of the cards issued. In the second as well as the third quarter about 20,000 debit cards and 20,000 credit cards were issued per quarter. During that period the share of credit cards grew from 17% to 19%. Every fifth resident on average held a credit card while every tenth made active use of it.

The number of actively used payment cards per 1,000 Estonian residents was 744; 643 of these were debit and 101 credit cards (see Figure 6.9). In 2004 credit cards were still issued at a stable rate. Compared to September 2003, the number of credit cards increased by 43%; meanwhile the number of actively used credit cards increased by 11%.

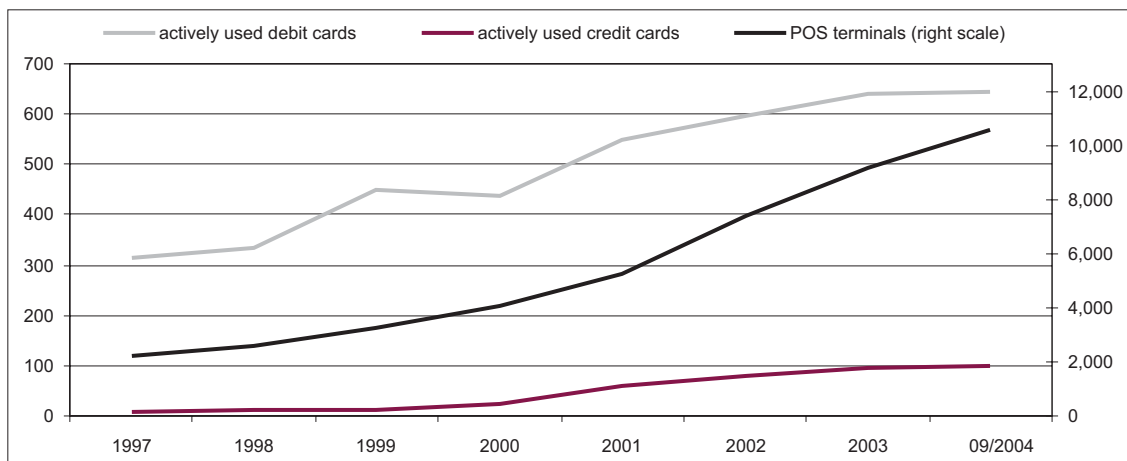


Figure 6.9. Number of payment cards in Estonia (left scale) per thousand inhabitants and number of POS terminals (right scale) at the end of year

BACKGROUND INFORMATION

CHARGES FOR PAYMENTS IN EURO WITHIN THE EUROPEAN UNION

In the European Union, charges for the payments in euro made within the EU are regulated by the regulation adopted in 2001⁹, which establishes rules for euro-denominated payments up to EUR 12,500. According to the regulation, charges for domestic and cross-border euro-denominated transactions within the EU must be equal. It has been planned to extend the scope of the regulation to euro-denominated payments up to EUR 50,000 with effect from 1 January 2006. The regulation also applies to cross-border payments made in the currencies of the Member States that have notified the Commission of their decision to extend the scope of regulation to their currencies. Such a currency is, for example, the Swedish krona.

The regulation is only applied to such cross-border payments within the EU that satisfy the following requirements:

- The sum of payment is up to EUR 12,500;
- The paying bank and the beneficiary's bank are both located in a European Union Member State;
- On the credit order, the beneficiary can be identified by the International Bank Account Number (IBAN) and by the Bank Identifier Code (BIC) of the beneficiary's bank;
- The IBAN of the beneficiary's account and the BIC of the beneficiary's bank indicate one and the same Member State;
- The payer and the beneficiary cover the costs of the money transfer;
- The payment is equipped with an explanation.

If at least one of the requirements above has not been met, the payment does not fall into the category to which the regulation is applied and in that case the charge for the payment may differ from the charge for euro-denominated domestic payments.

⁹ Regulation No 2560/2001 of the European Parliament and of the Council as of 19 December 2001 on cross-border payments in euro.

Results of the Enactment of the Regulation in Estonia

By the moment of accession to the European Union the commercial banks operating in Estonia had unified their charges for euro-denominated domestic and cross-border payments within the EU. Besides, in major commercial banks the charge for payments subject to that regulation is considerably smaller than the **charge for cross-border payments** in any other currencies. For example, the charge for a euro-denominated payment inside the EU in the three largest commercial banks is 30 kroons.

As of the moment of accession to the EU charges for euro-denominated domestic and cross-border payments inside the EU became cheaper for the originator of the payment. The beneficiary of the payment must upon receipt of the payment accept a charge based on the bank's price list in the range of 85 to 100 kroons.

DIRECT DEBITS

Direct Debit Schemes in Estonia

As a result of promoting electronic payment methods in Estonia in recent years, bank customers have started to make more extensive use of direct debits¹⁰. The main reasons behind the rapidly growing popularity of direct debits (see Figure 6.7) are **convenience and simplicity** of using these. Besides, direct debits are free of charge for the payer, while the payee gets an opportunity to manage cash flows more accurately and simplify payment information processing.

Currently there are two different direct debit schemes in use in Estonia: the **intra**bank direct debit scheme and the **inter**bank direct debit scheme (see Figures 6.10 and 6.11).

Intrabank direct debit scheme

1. A contract is made between the payer, the payee and the payer's/payee's bank.
2. The payee sends a payment claim to the payer's/payee's bank and an invoice to the payer.
3. The payer's/payee's bank debits the account of the payer and credits the account of the payee.
4. The payer's/payee's bank forwards debiting results to the payee.

Interbank direct debit scheme

1. A contract is made between the payer, the payee and the payer's bank.
2. The payee sends a payment claim to the payer's bank and an invoice to the payer.
3. The payer's bank debits the account of the payer.
4. The payer's bank sends a credit order to the payee's bank to credit the account of the payee.
5. The payee's bank credits the account of the payee.
6. The payer's bank forwards debiting results to the payee.

Besides the schemes described above, an additional option is used both with interbank and intra

¹⁰ Direct debit is a three-party agreement under which the payer gives the payer's bank the right to debit money from the payer's account to the extent of the sum indicated on the invoice submitted by the payee.

¹¹ Payment information includes payment claim and/or debiting results.

In conclusion it can be said that there is **no single functioning scheme** in the direct debit services market.

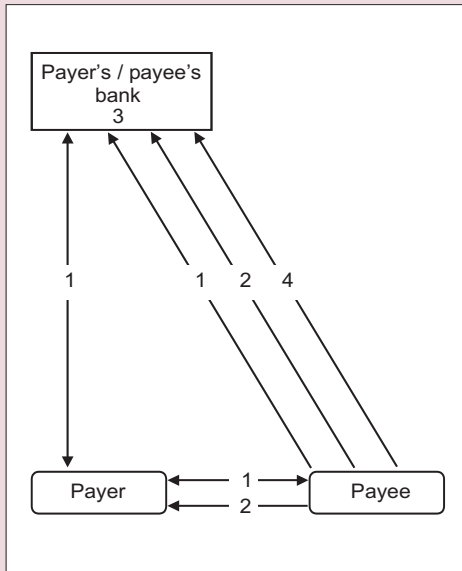


Figure 6.10. Intra-bank direct debit scheme

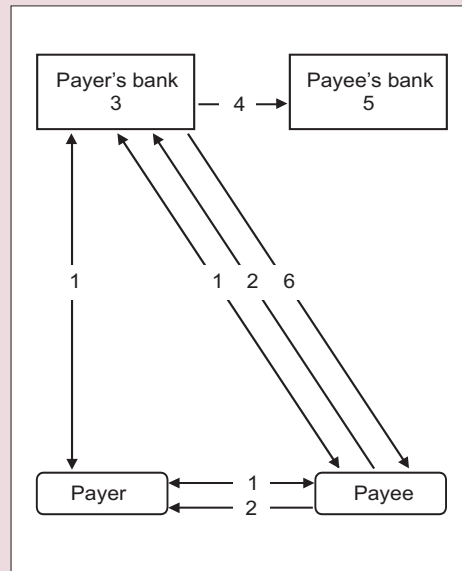


Figure 6.11. Inter-bank direct debit scheme