

THE RISKS TO THE LOAN PORTFOLIO OF THE BANKS FROM THE REAL ESTATE MARKET HAVE INCREASED

The real estate market has caught the eye in recent years for its high levels of activity, but demand fell in the second half of 2022. Demand for loans also fell and fewer new housing loans were issued than before, though it remained at a similar level to before the pandemic. The volume and share of both loans to real estate companies and housing loans have however increased strongly in recent years in the loan portfolios of the banks. If the economy performs less well than expected, a large number of companies may feel obliged to phase down their activities and there may consequently be less demand for commercial property. Those real estate companies that are heavily leveraged could fall into difficulties as a result, as their profits are already under pressure because of the rapid rise in financing costs. Housing prices rising fast mean that a lot more housing loans than before are being issued with larger loan repayment burdens and longer maturities, which make borrowers more vulnerable to the economy deteriorating. This may then increase the loan losses of the banks, especially at some banks that have grown fast in recent years and have financed real estate companies. This all shows that the macro-prudential measures set by Eesti Pank remain justified and necessary.

TRANSACTION ACTIVITY IN THE COMMERCIAL REAL ESTATE MARKET IS WEAK BECAUSE CONFIDENCE IS LOW IN THE MARKET

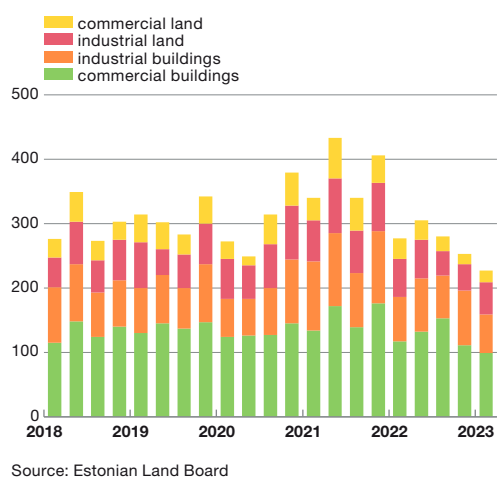
Greater uncertainty and more expensive financing have reduced transaction activity in the commercial real estate market.

The total value of transactions for commercial and production buildings and land was a third smaller in 2022 than it was in 2021 (see Figure 13). Transaction activity dropped particularly in the final quarter of last year and early this year, when very few new transactions were made. The return on commercial real estate elsewhere in Europe has risen by 0.25-1.5 percentage points on average, but it has remained flat in Estonia as market volumes have shrunk. Market participants find that the pressure on returns is upwards, like elsewhere in Europe.

Rent prices rose a little in 2022 for commercial property on the back of construction prices and financing costs increasing.

High inflation and widespread indexing of rental contracts to the consumer price index would have allowed landlords to raise prices sharply. Given the challenging economic climate where most other costs were rising very fast for tenants and demand for goods and services was falling, notably smaller rises in rental prices were often agreed. Rent prices for high-quality office space in the best locations rose by 3.3% on average in 2022, while rents for lower quality offices in less desirable locations and those in small towns rose by even less. Strong demand pushed the rents for industrial real estate

Figure 13. Number of transactions with real estate for commercial and industrial purposes



up a little faster, and contracts were signed and earlier ones extended with rents 5% higher than a year earlier. Rent prices for retail, where profits have been under pressure from falling consumption and rising labour costs, barely changed at all last year.

Although there was a lot of construction work and new rental space was added in 2022, the amount of unoccupied commercial real estate remained at its earlier low level

(see Figure 14). There may however be hidden vacancies for office space, as there is more space standing empty than is officially advertised to the market. Some businesses, such as startup companies, have faced redundancies and put expansion plans on hold. Demand may also fall over the long term as hybrid work and working from home become

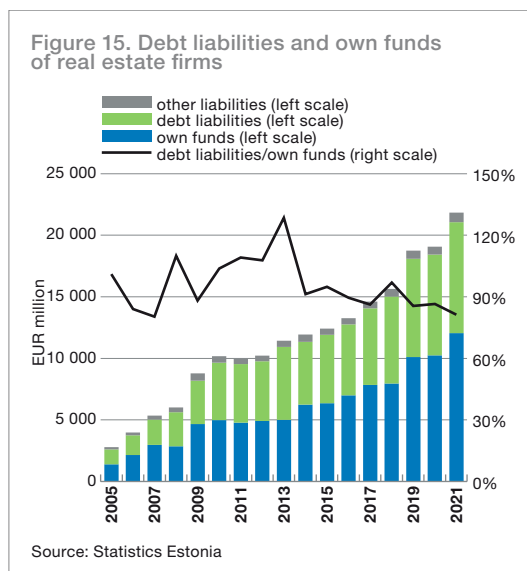
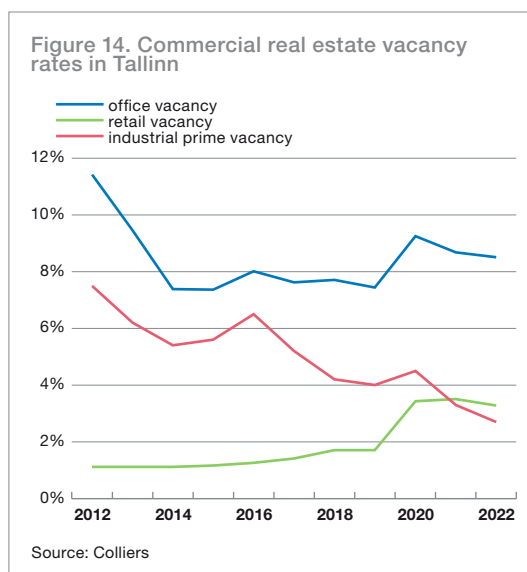
more common, and so the need for office space may be re-imagined and the number of permanent places for work reduced. There was no change in the average vacancy rate for retail space either. Occupation of space in large shopping centres was helped by the addition of new services and shops, but retail activity is still limited by tight competition and uncertainty among households about consumption. Vacancies for industrial and storage space declined because of strong demand even as new space was added, and the vacancy rate fell to a record low level of 2.7% by the end of 2022.

Weak economic growth moving forwards and declining corporate profitability could reduce demand for space in lower quality office buildings and for production space used by manufacturing companies that have lost export markets. Declining consumption also makes retail space vulnerable. As financing costs have shot up, real estate companies with weaker business plans could fall into difficulties if they lose tenants. Less new commercial real estate came on stream in 2022 though, and this may help maintain balance in the market between demand and supply and avoid the danger of there being a large amount of unoccupied space.

THE SOLVENCY OF REAL ESTATE COMPANIES IS MADE MORE VULNERABLE BY FALLING DEMAND AND RISING FINANCING COSTS

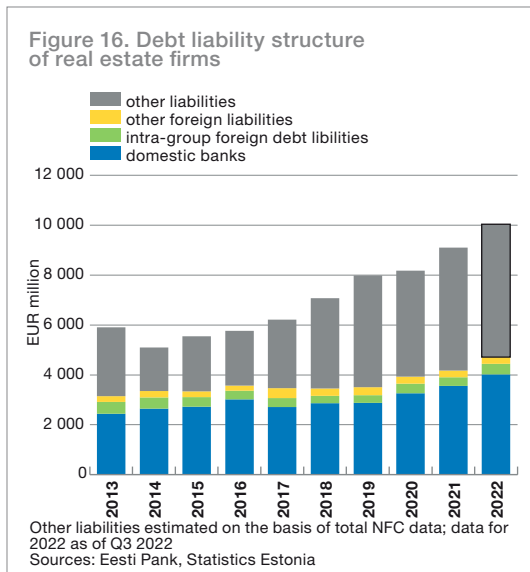
Real estate companies have not notably increased their leverage in recent years, but they are still more leveraged than companies in other sectors. The assets of real estate companies have grown strongly in recent years, but their debt liabilities have increased at around the same rate as equity, and leverage did not increase for the sector as a whole in 2019-2021 (see Figure 15). They are still quite heavily leveraged when compared to companies in other sectors though. Debt liabilities as a ratio to equity averaged 49% in 2019-2021 for the corporate sector as a whole, but for real estate companies they were 78%.

Real estate companies have in recent years increased their liabilities to the banks operating in Estonia and to companies in other



sectors. In the years before the pandemic, real estate companies funded the growth in their assets mainly from domestic non-bank sources, which are estimated to have mainly been companies in other sectors. The volume of loans issued by banks operating in Estonia has started to increase since 2020 though (see Figure 16). This has been encouraged by the desire of some banks, mainly small ones, to increase their market share. In total some 40% of the funding comes from banks operating in Estonia, a little over half from other companies³, and 7-9% from abroad, meaning that the performance of real estate companies in future may affect the banks operating in Estonia and firms funded by them in other sectors.

3 Real estate companies have also issued bonds to some degree, though their value is estimated to be very small.



The profits of real estate companies dropped a long way in the second half of 2022, mainly because costs rose fast. Sales revenues of real estate companies, like those of companies in other sectors, continued to increase in 2022, though the rate of increase slowed by more than it did for all companies on average. Costs rose significantly faster than revenues however, and so gross profits declined, especially in the final quarter of the year. The gross profit of the whole corporate sector was 26% larger in the second half of 2022 than it was a year earlier, but that of real estate companies was 27% smaller (see Figure 17). The fairly large degree of leverage meant that higher interest costs affected the profits of real estate companies more than those of other companies on average. The interest costs of real estate companies were 26% as a ratio to operating profit on average in 2019-2021, while in the corporate sector as a whole they were 15%. Interest costs increased sharply in 2022 as base interest rates rose. The average interest rate on the outstanding long-term loans to real estate companies from banks was 2.4% at the end of 2021, but it had doubled to 4.8% by February 2023. The rise in the base interest rates has not yet passed through in full to all loans, and so interest costs on loans will increase further. Like companies in other sectors though, real estate companies earned good profits in earlier years and have a fairly high level of liquidity, and so they have built up buffers that they can use to cope in more challenging times⁴.

The solvency of real estate companies is good overall, but the negative outlook for profitability given lower sales revenues and higher interest costs means it is likely to deteriorate. If the economy performs less well than expected, it should be noted that the banks operating in Estonia and other companies in the non-financial sector have lent substantially more to real estate companies in recent years. Payment difficulties at real estate companies would increase the loan losses of banks and could also affect the financial position of other companies.

THE SHARE OF LOANS TO REAL ESTATE COMPANIES IN THE LOAN PORTFOLIOS OF THE BANKS HAS INCREASED

Demand for loans in general fell at the end of last year and the start of this, but bank loans to real estate companies continued to show strong growth. The amount issued in new loans to real estate companies was more than a third more last year than it was in the previous year. The rate of growth in loans slowed at the end of the year, but there was still a relatively large amount issued in loans at the start of this year, at around a tenth more than at the same time a year earlier (see Figure 18). Growth has consequently been notably faster for loans to real estate companies than for long-term loans to other companies (see Figure 19), and so the concentration of loans to

⁴ It should be remembered though that real estate companies often estimate the assets on their balance sheet at fair value taken from the market value, and so their profits in earlier years have been boosted a lot by strong rises in the market value of real estate and the profit received from revaluing assets.

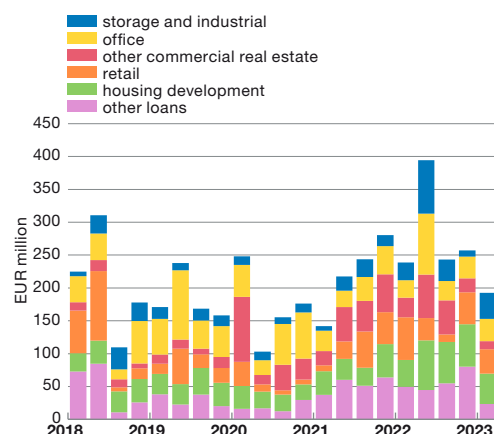
real estate companies in the portfolio of loans and leases from the banks has risen above 15%⁵. The real estate sectors in other Nordic countries also account for a relatively large share of the loan portfolio of the banks, and more so than in the European Union on average.

The main contributors to the amount of loans last year were storage and production buildings, and housing development projects financed by smaller banks. Loans for developing housing have increased as share of the portfolio of loans to real estate companies, but are still relatively small at 6%. Growth in them within the portfolio is limited by their relatively short maturities next to those of loans for other types of commercial real estate, and those maturities have shortened even further of late. The banks consider that financing housing projects is riskier than financing other segments, and so the price of loans for housing development is higher.

Part of the bank loans taken by real estate companies has been used for leveraging the investments of real estate funds. Public reports for the end of 2022 show that the value of the assets of real estate funds founded in Estonia totalled around 1.5 billion euros. The financial leverage of the funds generally remains at around 40-60%. A large part of the investments have been made in Latvia and Lithuania, and so they have in most cases been financed with loans from the Latvian and Lithuanian branches of Estonian banks. The value of such loans taken from banks in Estonia reached around 180 million euros at the end of 2022, which is some 5% of the portfolio of loans taken by real estate companies from the banks operating in Estonia.

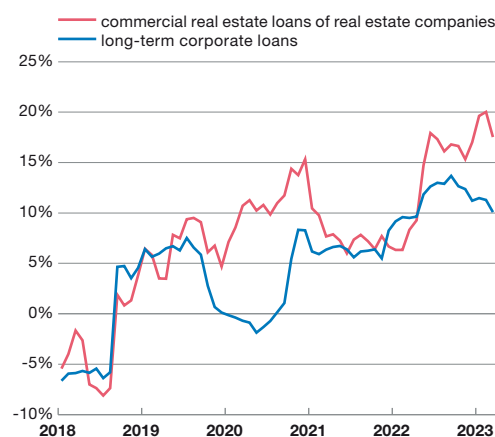
The growth in loans to real estate companies in recent years has above all come at smaller banks. The two largest banks held some 70% of the loans to real estate companies only three years ago, but by the end of last year that had dropped to around half. The strong growth in the portfolio of commercial real estate loans in recent years has occurred primarily at smaller banks, and so commercial real estate loans now make up a larger share of the loan portfolios at the smaller banks in some cases than they do at the bigger banks.

Figure 18. New bank loans granted quarterly to real estate firms



Source: Eesti Pank

Figure 19. Loan growth of real estate companies and that of other non-financial companies



Source: Eesti Pank

Rising base interest rates have rapidly lifted the average interest rate on commercial real estate loans, though the interest margins have mainly remained stable. The average interest margin for loans granted only for developing housing, on which the average interest rate is higher than that on loans for commercial real estate, has come down a little since base interest rates started to rise (see Figure 20).

Estimating the riskiness of loans issued to real estate companies from the ratio of loans issued to the market value of the property given as collateral indicates that the banks have acted fairly conservatively in financing transactions. The loan-to-value ratio (LTV) of more than half of

⁵ The share of loans and the loan portfolio issued to companies in other sectors for buying real estate or for construction work has remained at 7-8%.

the loans granted for construction investment or financing cash flow projects was below 50% as at the end of 2022 (see Figure 21). It should be remembered though when calculating the credit risk of loans for commercial real estate that the claims are often backed by several different collaterals that may in turn be being used to cover more than one claim, and the market value data used for collateral here do not reflect this.

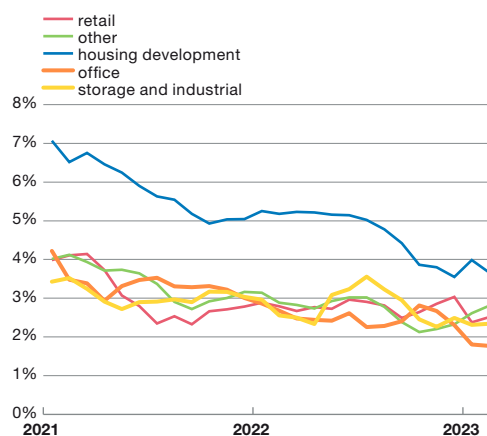
THE HOUSING MARKET CALMED DOWN

Demand for housing declined in autumn 2022, and there were fewer transactions. Uncertainty combined with the rising cost of living and rising interest rates to make people less confident in their long-term decisions, and so they either decided against making purchases or pushed them back into a more distant future. The number of transactions with apartments started to fall for Estonia as a whole from September last year (see Figure 22). There were around a fifth fewer transactions with apartments between September 2022 and March 2023 than there were in the same months before the pandemic, and the decline was even larger when measured against the intervening years. There were signs in March though that activity could be returning to the market after its slump. The number of transactions in March was still below that of the previous two years, but it was similar to the number from 2019.

Although demand was down in the housing market, it should be remembered that the previous two years saw an extraordinary amount of activity. Rapid growth in household incomes increased demand, as did accumulated savings, money withdrawn from the second pension pillar, good access to loans, and low interest rates on loans. Interest in buying recovered after the pandemic but it took time for new projects to come to market, meaning that demand exceeded supply and the shortage in the market pushed prices up.

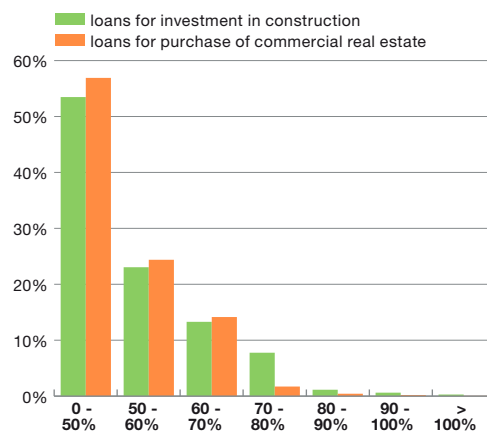
An increase in the supply of housing has helped to reduce price pressures. Strong interest in purchasing until the third quarter of 2022 gave real estate developers confidence and new projects came steadily to the market. The construction market had fairly well stabilised by the autumn and supply difficulties had been resolved, but the cooler demand made developers put new projects

Figure 20. Average interest margins of commercial real estate loans



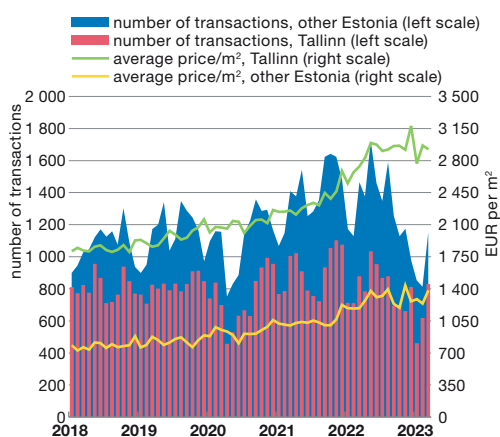
Source: Eesti Pank

Figure 21. Distribution of LTVs in the commercial real estate loan portfolio



Source: Anacredit

Figure 22. Number of transactions with apartments and the average price



Source: Estonian Land Board

on hold. Even as interest in buying has declined, so the number of sales offers has increased over the past seven months, and as at March this year the real estate website KV.ee had some 50% more adverts for apartments on sale in Tallinn than it did a year earlier.

As demand to buy faded, so the real estate prices that have shot up very fast in recent years came down. This has particularly affected apartment prices in the secondary market (see Figure 23), which in March were around 10% below their peak of 2022 in Tallinn, and 6% down elsewhere in Estonia. There is no sign though of prices for new apartments falling. Those prices have partly been supported by non-price benefits.

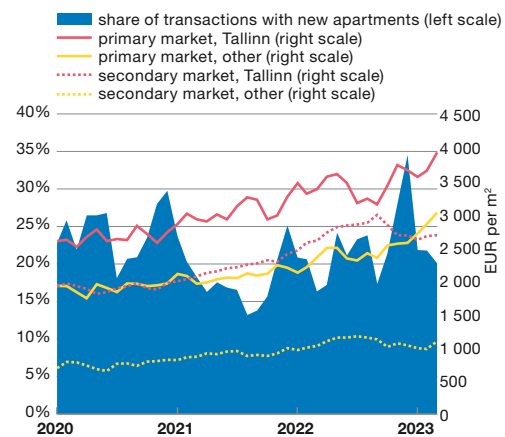
The drop in sales of new apartments was notably smaller than that in sales of apartments on the secondary market. There was a substantial drop in the number of transactions in the secondary market from September 2022. There were around a third fewer transactions for apartments in the secondary market between September 2022 and March 2023 than there were a year earlier, but the number of transactions for new apartments fell by only 11% in the same period⁶. Transaction activity has mainly been maintained for new apartments because the final contracts for sales are only signed when the apartment is finally ready. This means that a lot of purchase decisions that were made earlier have been finally completed.

Prices for housing rose overall in 2022 much faster than household incomes despite demand falling, and so the affordability of real estate declined. Data from Statistics Estonia show that real estate prices rose by around 22% last year, which was well above the euro area average of 7%. The Eesti Pank models used to estimate over or undervaluation in the real estate market show that housing prices were on average overvalued by 10-15% (see Figure 24).

THE NUMBER OF HOUSING LOAN BORROWERS WITH A LARGE LOAN REPAYMENT BURDEN INCREASED

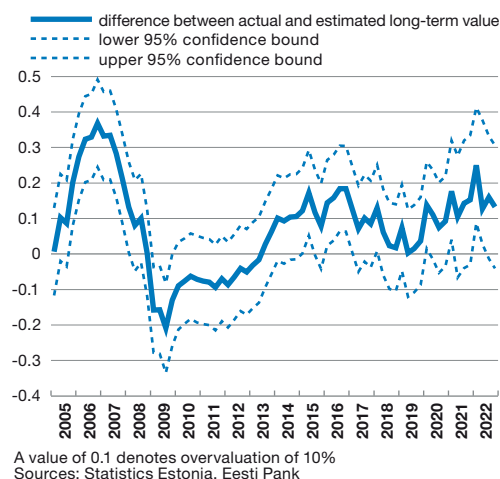
Although fewer housing loans were issued at the end of last year and the start of this

Figure 23. Average price of apartments and the share of new apartments



Source: Estonian Land Board

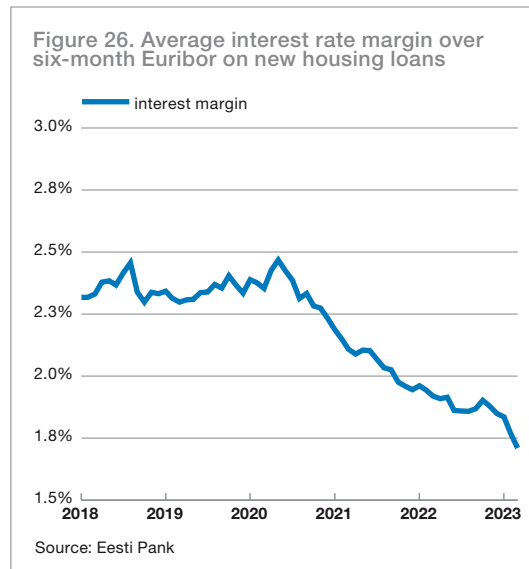
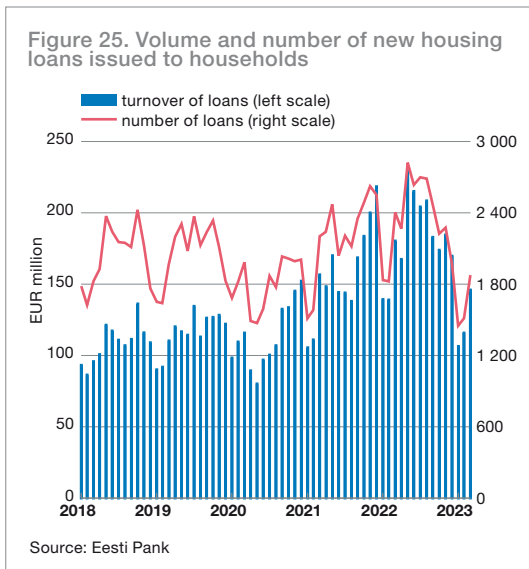
Figure 24. Over or undervaluation of the housing market from the baseline model of Eesti Pank



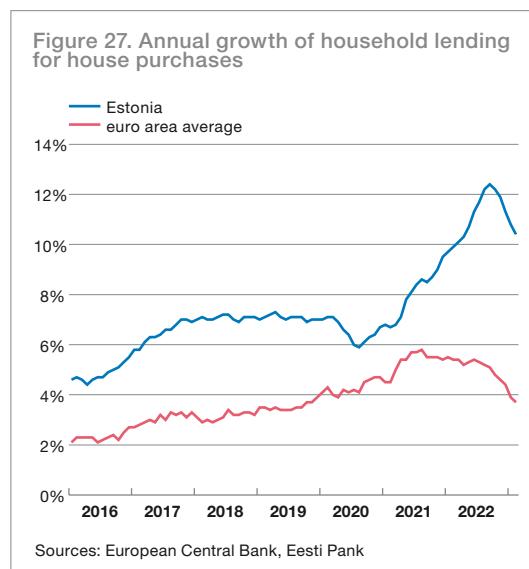
A value of 0.1 denotes overvaluation of 10%
Sources: Statistics Estonia, Eesti Pank

year than previously, the yearly growth in the housing loan portfolio of the banks remains strong. Substantially fewer housing loans were issued at the start of this year than a year earlier, but the number was still similar to what it was before the pandemic (see Figure 25). Special offers from the banks and a fall in interest margins (see Figure 26) show that competition remains tight and there is a lot of supply in the loan market. The portfolio of housing loans was around 10% larger by the end of March than it was a year earlier, which is about three times the average growth in the other countries of the European Union (see Figure 27). The fast growth boosted the share of housing loans in the portfolio of loans and leases of the banks to 44%.

⁶ This has also affected the statistics for the average prices of apartments, where the share of transactions with new apartments is large as the number of transactions drops in the secondary market, and the average price for apartments has risen sharply in some months.

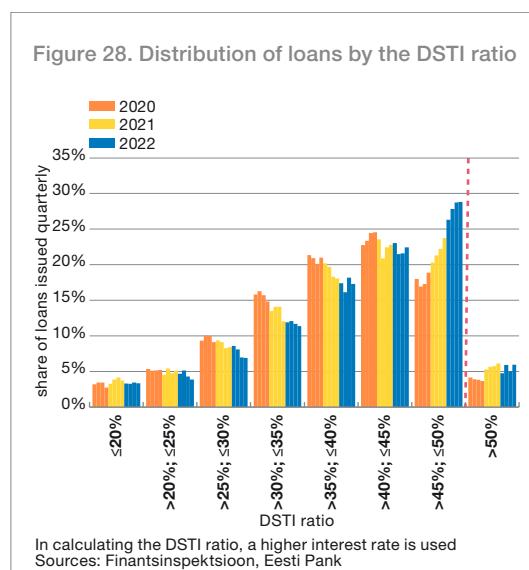


The rapid rise in housing prices in recent years caused the average amount borrowed and the loan repayment burden to increase. The average amount borrowed was almost a quarter as much again in February this year as it was three years ago. There was a notable increase in 2022 in the share of new housing loans where the loan repayments remain just below the limit set by Eesti Pank of 50% of the net income of the borrower, given the possible rise in interest rates (see Figure 28). There has also been an increase in the share of loans issued with the maximum maturity of 30 years. The increasing number of housing loans that are close to the loan repayments limit and the maximum maturity indicate that the profile of the new borrowers is riskier than the average. The loan-to-value (LTV) ratio has fallen a little though, which could indicate that savings are being used more, or that there has been an increase in purchases of second real estate properties (see Figure 29).



THE ADDITION OF BORROWERS WITH LARGER LOAN PAYMENT BURDENS COULD MEAN THE BANKS FACE LARGER LOAN LOSSES IN FUTURE

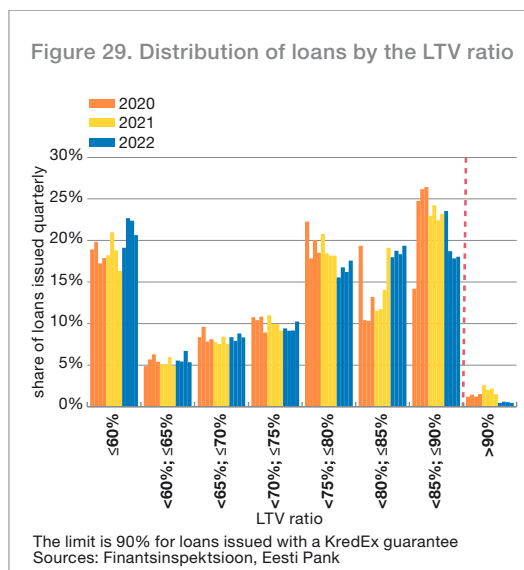
It is expected though that the selling period for real estate will be extended in future rather than that prices will drop sharply. The lack of strong pressure to sell argues in favour of this. The developers on the supply side are mostly strong and well capitalised and will be able to cope with longer selling periods. If the economy develops as Eesti Pank forecasts, there will be fewer



households in the near future that are forced to sell assets because of payment difficulties. Prices for real estate may be expected to fall a little in future, as the lack of activity in the market means that sellers who are prepared to meet buyers halfway have more chance of completing transactions.

Eesti Pank forecasts that the growth in housing loans will continue at a moderately fast rate in the coming years. The growth in housing loans depends on a recovery of confidence among households and on their financial position. The strong labour market and continuing growth in wages will help make housing more affordable, but higher base interest rates and general inflation falling more slowly than expected may limit the ability to take new housing loans. Housing loans are, however, generally taken by households with an income above the average, which are able to save more and which are affected less by higher interest rates and the limits set by Eesti Pank. Those factors give grounds to think that relatively fast growth may return to housing loans in the medium term despite the current lull in the real estate market.

The limits set by Eesti Pank on housing loans⁷ have helped to restrain the credit and real



estate market though the share of vulnerable borrowers has increased even so. Credit continuing to grow and real estate prices remaining relatively high in relation to incomes could see that share increase further. Demand remaining strong for housing and loans could also increase imbalances in the housing market. Borrowers with large loan repayment burdens are more vulnerable if the economy should deteriorate, and the loan losses of the banks could then increase.

⁷ [The limits set by Eesti Pank for housing loans.](#)

Box 2: The riskiness of loans secured by real estate and risk weights

Risk weights should adequately reflect the riskiness of loans

Loans secured by real estate are a large part of the loan portfolio of the banks. The capital requirements calculated for such loans are however notably smaller than those for corporate loans and consumer loans. This is because mortgage loans generally have lower losses because the collateral for them is better and the payment behaviour of borrowers is generally better with housing loans. A sharp deterioration in the economy raises the danger though that losses on loans backed by real estate could increase substantially, making it necessary for the banks to have sufficient own funds to cover any possible losses.

It is of primary importance when assessing the riskiness of loans backed by real estate to make clear how probable any future loan losses may be, given the risks in the economic environment and earlier payment delays and loan losses. It is also important to estimate whether the loan has sufficient collateral and whether any fall in real estate prices would cause a risk and how large that would be. These two factors are the main basis for estimating whether the risk weights that are used in calculating risk-weighted assets and that set the amount of own funds required are sufficient, given the risks faced.

It is important for financial stability and macroprudential supervision that the risk weights take adequate account of systemic risks possibly being realised. The banks can calculate their risk

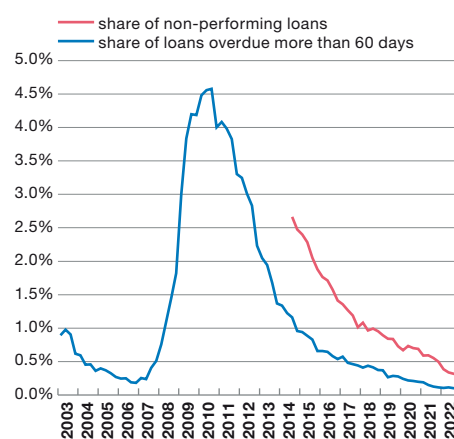
weights using the standard approach, which applies an equal risk weight of 35% to housing loans across the European Union, or they can use an internal ratings based (IRB) approach that is more sensitive to risks in the economic environment, and which uses models based largely on past experience to estimate future losses. The two largest banks in Estonia currently use internal models with permission from the supervisory authority.

Eesti Pank introduced a risk weight floor in September 2019 of 15% for the mortgage loans of banks that use internal ratings. It can also make the risk weights for loans backed by residential or commercial real estate stricter for banks that use the standard measure, or set higher thresholds for factors affecting the risk weights for the IRB banks⁸. The need for this is assessed once a year.

The share of housing loans overdue and the losses coming from them have declined in recent years

That non-performing loans are a small part of the housing loan portfolio of the banks operating in Estonia reflects how favourable the economic environment has been. The share of non-performing loans (NPL) fell by more than two percentage points over the past eight years to only 0.3% of all the housing loans of the banks at the end of 2022 (see Figure B2.1). Non-performing loans have been at record low levels in the past decade. In the previous economic crisis, 4.5% of housing loans in the whole Estonian banking sector were overdue by more than 60 days, but at the end of 2022 only 0.1% of the housing loan portfolio was overdue. And claims backed by residential real estate have so far been very modest, at an aggregate of 1.4 million euros in Estonia in 2022, or 0.01% of those exposures.

Figure B2.1. Share of non-performing loans in the housing loan portfolio



Sources: Finantsinspeksioon, Eesti Pank

It is important to consider future risks when assessing the ability to pay. Good quality of loans for the past decade has allowed the banks that use internal models to put lower estimates on the possible risks coming from loans. Risk assessments are largely backward looking, with the danger that risk weights in a rapidly changing environment may not fully allow for risks being realised more than expected. The current low level of non-performing loans still reflects the good economic circumstances in Estonia in previous years. There has however been a deterioration in the environment that affects how able households are to pay, as prices and interest rates have risen and the outlook for growth in the economy is weaker (see *The solvency of companies and households as interest rates rise*).

It should also be considered when assessing the need for capital that the rate of growth in housing loans accelerated strongly in 2021-2022 and that the household sector as a whole will have to cope with a larger loan payment burden in future. If the economy should turn sharply downwards, the banks would face larger loan losses. Households have in the past two years taken larger loans than before relative to their incomes, meaning the average debt service-to-income (DSTI) ratio has risen, while the average maturity has lengthened, and so the profile of such borrowers becoming more risky may increase the future risk of insolvency.

⁸ Article 124 of Regulation (EU) No 575/2013 allows the authorities in member states to raise the risk weight for mortgage loans of credit institutions using the standard approach, and Article 164 allows them to set higher minimum values for the loss given default (LGD) of banks using the IRB approach.

Housing loans are covered by real estate collateral

The backing by mortgages of housing loans issued by banks in Estonia is currently relatively good. The rapid rise in real estate prices has increased the value of the collateral, and has helped reduce the average LTV of the portfolio for the banking sector as a whole. The level of collateral and the dynamics of the loan portfolio differ between banks. The banks that have been in the market for a longer time, including the two IRB banks, have a larger share of loans with lower LTV, since loans issued earlier have been repaid to a larger extent, while the value of the collateral has increased (see Figure B2.2). The banks that have grown faster in recent years have relatively more loans in their portfolios that have an LTV above 80%.

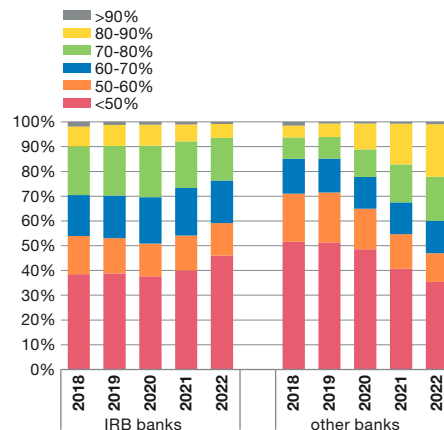
The current average LTV in the housing loan portfolio of the banks, which was estimated at around 60% at the end of 2022, is an important factor helping restrain credit risk, but it should be remembered when assessing the collateral of the loan portfolio that housing prices in Estonia have risen notably faster than household incomes. The Eesti Pank model shows the overvaluation of the housing market increased to 10-15% in 2022. The better coverage of the loans in the housing loan portfolios of the banks in Estonia means though that they are clearly better protected against a fall in real estate prices than they were in 2008-2009.

Risk weights for housing loans and the need to extend the minimum requirements

The fall over several years in the weighted average risk weight of loans backed by residential real estate at the IRB banks operating in Estonia went into reverse in the second half of 2020 and stabilised in 2022 at a little below the risk weight floor of 15% set by Eesti Pank (see Figure B2.3).

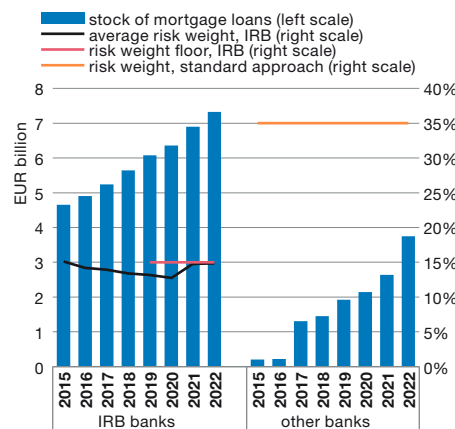
The systemic risk that led to the introduction of the requirement in 2019 has not declined in recent years and there remains the danger that the risk weights based on internal models may not sufficiently account for the possibility of systemic risks being realised, and so it remains justified to keep applying the current 15% average risk weight minimum requirement. The risk weight floor helps to prevent any undue reduction in the amount of own funds held by banks to cover risks. The IRB banks account for a substantial share of the market for loans backed by residential real estate, and so is important for the smooth functioning of the financial system to ensure that those banks are sufficiently capitalised.

Figure B2.2. Distribution of the mortgage loan stock by the LTV ratio



Source: Eesti Pank

Figure B2.3. Stock and weighted average risk weight of retail mortgage loans



Sources: Finantsinspeksioon, Eesti Pank

Assessing the appropriateness of the risk weights for loans backed by real estate and the minimum values for the loss given default

Changes to the Credit Institutions Act that came into force on 12 June 2021 gave Eesti Pank responsibility as the macroprudential authority for raising, if necessary, the risk weights used under the standard method for credit exposures backed by real estate and the minimum values for weighted average loss given default where internal models are used, under articles 124 and 164 of the European Union's Capital Requirements Regulation.

Basing its assessment on the guidelines provided in the Capital Requirements Regulation and the EBA standards, Eesti Pank did not consider after its assessment in spring 2023 that it needed to apply stricter requirements than before for loans backed by residential or commercial real estate.

This means that the following requirements continue to apply to the banks operating in Estonia as set out in the European Union's Capital Requirements Regulation:

1. For banks using the standard method the risk weight is 35% for exposures secured by mortgages on residential real estate and 50% for exposures secured by mortgages on commercial real estate;
2. For banks using the IRB method the exposure-weighted average loss given default for all retail exposures secured by residential real estate must be at least 10% and the exposure weighted average loss given default for retail exposures secured by commercial real estate must not be lower than 15%.

Eesti Pank plans this year to extend the minimum requirement of 15% applied to average risk weights for retail exposures secured by mortgages on residential real estate for banks that use the internal ratings based approach. Eesti Pank first introduced the measure in September 2019, and extended it in 2021. Under article 458 of the European Union's Capital Requirements Regulation, the requirement is to be reviewed at least once every two years.