ANALYSIS

Mortgage borrowers have proved resilient against the interest rate risk of their loans

19 Jun 2025 – Analysis – Financial stability


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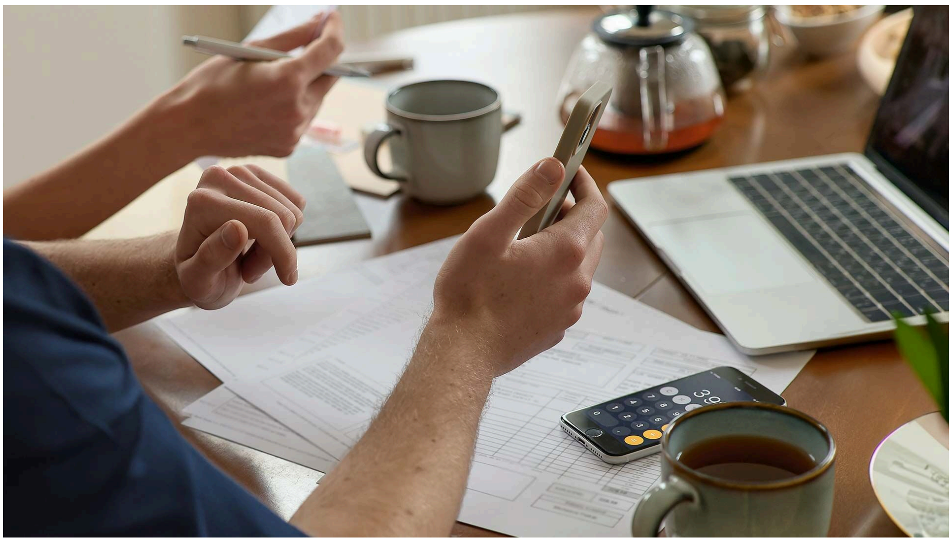
The majority of housing loans in Finland are variable rate loans, where borrowers carry the risk that interest rates will rise. The ability of borrowers to service their debt is currently eased by the decline in interest rates and by the interest rate hedging products taken earlier. Mortgage borrowers have proved to be resilient, coping well with their loan servicing costs even during the period of steep rises in interest rates. Borrowers should ensure they have sufficient buffers for future financial risks too. This article makes use of data from the Positive Credit Register for the first time. The Register was launched in Finland in spring 2024.



High household indebtedness, the prevalence of variable rate loans and the related risks to borrowers and the entire economy are among the significant vulnerabilities of the Finnish financial system (see 'Global upheaval – Financial stability at risk from power politics'). Household debt has decreased relative to disposable income since 2021 – the first significant decrease since the recession in the early 1990s. This has been due to the low level of new borrowing after interest rates began to climb and the relatively rapid rise in nominal income in recent years. Nevertheless, indebtedness is still high relative to Finland's historical data and the euro area average.

The majority of household debt and most of the debt servicing burden concern housing-related debt, as housing loans and housing company loans payable by households account for nearly three quarters of household debt recorded in the statistics. In April 2025, about 1.3 million people in Finland, i.e. about 23% of the population, were registered as having a housing loan (excl. housing company loans) for their own home and/or a buy-to-let property. Based on 2023 data from Statistics Finland, some 29% of households have a housing loan for an owner-occupied home, and about 46% (almost one in two) of households living in owner-occupied homes have an outstanding housing loan.

This article publishes data for the first time from the Positive Credit Register for consumer credit (see info box 1 'What is the Positive Credit Register?').[1] The article focuses on housing loans, which account for about 70% of the debt reported to the Register. The article also examines mortgage borrowers' aggregate debt as reported to the Register, as the finances of borrowers are also burdened by other forms of consumer credit than housing loans. The Register still has some data gaps, but the coverage of the data collected will be extended at a later stage (see info box 2 'Positive Credit Register – further development needed').

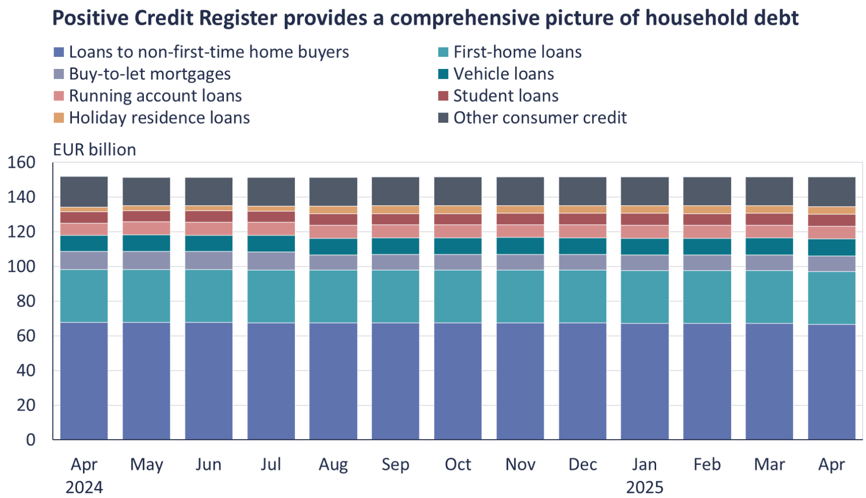
1. No errors or significant gaps have been identified in the data and figures used in the article. Use of the new data and interpretation of the figures may nevertheless be subject to uncertainties. The uncertainties will decrease as more data is collected and more experience is gained with the detailed analysis of the data. The Positive Credit Register data published in this article are not part of the Bank of Finland's published statistics.

What is the Positive Credit Register?

The Positive Credit Register is maintained by the Incomes Register Unit of the Finnish Tax Administration and was launched in April 2024. The Register contains almost real-time information on the credit and guarantees of private individuals, but not so-called negative credit information, such as payment default entries under the Credit Information Act (527/2007). In April, the Register contained information on a stock of credit totalling some EUR 152 billion, which provides a comprehensive picture of the personal debt in Finnish households. In addition to credit information, the Register contains data on the wages, pensions and benefits of borrowers as well as income data ascertained by the lender during the lending process.[2]

The Register contains information on individuals who have a Finnish personal identity code and, in addition, a place of residence in Finland or some other special bond with Finland. Currently, the credit information includes housing loans (separately first-home loans and buy-to-let mortgages), holiday residence loans, student loans, vehicle loans, running account credit and other consumer credit falling within the Consumer Protection Act (38/1978) (Chart 1). The Register includes information on credit granted by domestic and foreign credit institutions and other lenders that have an obligation to report information to the Register. The contents of the Register will be expanded at a later stage, and there are still matters that can be developed further (see info box 2 'Positive Credit Register – further development needed').

Chart 1.



Sources: Bank of Finland and the Positive Credit Register.

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The Register is available to lenders, borrowers and certain authorities for carrying out their statutory duties. The objective is to prevent excessive debt accumulation by households, in regard to individual lending situations and in terms of the stability of the entire economy and the financial system. The Positive Credit Register improves lenders' ability to assess the creditworthiness of loan applicants. Information in the Register's e-service also helps borrowers manage their finances. In addition, the Register provides authorities with information that supports credit market statistical records and monitoring and supervision.

The Register data used by the Bank of Finland is in a form where credit- and borrower-specific information cannot be linked to particular individuals. The Register data deepens the monitoring and analysis of financial stability, as it reveals differences between borrowers that would otherwise remain hidden in the statistics covering the aggregate household sector or the total stock of credit. It thus also supports the preparation, jointly with the Financial Supervisory Authority (FIN-FSA), of macroprudential measures needed for safeguarding financial stability. The Bank of Finland and the FIN-FSA process the data in a cloud-based analytics platform they have developed. In March 2025, the platform was honoured with Central Banking's 2025 Financial Stability Initiative award.[3]

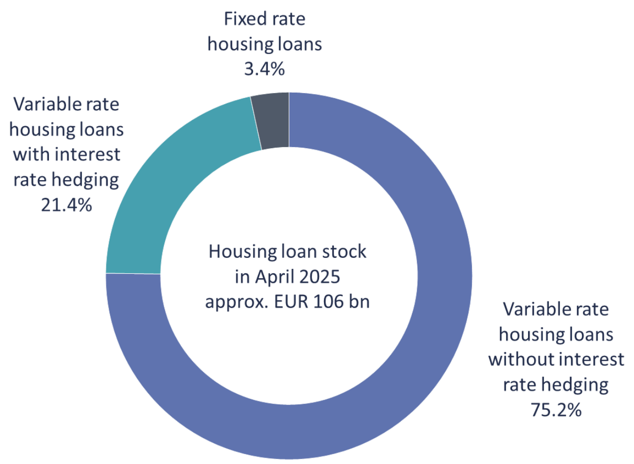
Interest rate decline and hedging products are currently easing the servicing of debt

The majority of housing loans in Finland are variable rate loans. The rates are tied mainly to Euribor rates with various maturities, of which the12-month Euribor is the most popular. Some of the variable rate housing loans are accompanied by a separately agreed interest rate hedging product, for which a fee is charged (Chart 2). This can be an interest rate cap, where an upper limit is agreed on the interest rate, or an interest rate collar, where the interest rate has both an upper and a lower limit. In April 2025, over one fifth (21%) of the housing loan stock consisted of loans with a hedging product, which represented a slight decrease from a year earlier. About 11% of the (euro volume) of new housing loans in the past 12 months were taken out with interest rate hedging. Fixed rate housing loans are very uncommon in Finland.

2. For more information on the Register, see Act on the Positive Credit Register (739/2022) and the Tax Administration's description of the Register.
3. See Financial stability initiative: Bank of Finland/FIN-FSA's credit register and cloud-based analytics platform – Central Banking.

Chart 2.

Finland is a country of variable rate housing loans with some interest rate hedging



Sources: Bank of Finland and the Positive Credit Register.

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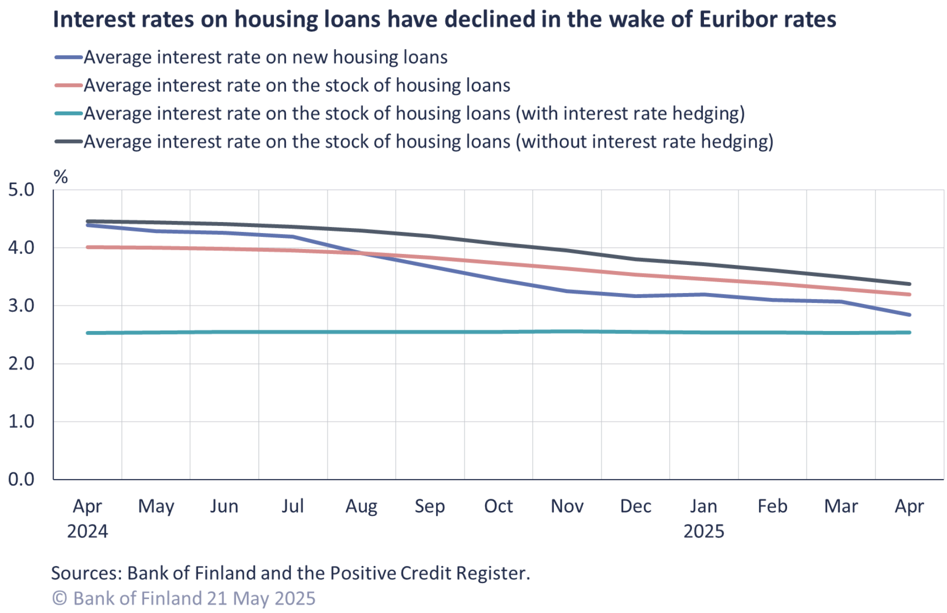
Euribor rates rose steeply in 2022–2023, which rapidly pushed up the interest rates on new and existing housing loans and increased the interest payments of mortgage borrowers. Euribor rates have declined since autumn 2023, which has lowered the interest rates on loans and helped with debt servicing. The interest rates on loans accompanied by a hedging product remained low, at 2.5% on average, also during the period of significantly higher reference rates than the current rates (Chart 3). Based on market expectations, the decline in Euribor rates during the current interest rate cycle seems to be over, at least for the most part, but loan rates are still falling due to the time lag involved. Interest rates are expected to remain at a higher level than they were in 2013–2021, when Euribor rates were exceptionally low and were even negative for a long time.

Chart 3.



The sensitivity of monthly loan servicing costs to changes in mortgage rates depends not only on the type of interest rate, length of the interest fixation period and any hedging product taken, but also on the method of repayment, i.e. on how the repayments of loan principal are determined. The method of repayment of a variable rate loan determines how changes in the reference rate on the day the interest rate is reset affect the size and timing of the principal repayments and thus the size and number of monthly payments. Without interest rate hedging, higher interest rates will always raise the debt servicing costs – either sooner or then later if the loan term is lengthened.

Most housing loans in Finland (75% of the euro volume) are annuity loans (Chart 4), i.e. mortgage borrowers repay the loans in variable monthly or other periodic payments, the size of which depends on the size of the loan, the interest rate and the original agreed maturity. If the interest rate on the loan is raised on the day the interest rate is reset, all the subsequent monthly payments of an annuity loan will increase but remain equal in size. Correspondingly, when the interest rate decreases, the monthly payments decrease. The maturity of the loan nevertheless remains unchanged, unless the borrower separately negotiates a change to it or takes a temporary interest-only period.[4]

A proportion of housing loans (15%) are repaid in fixed monthly payments. In order for the monthly payments to remain unchanged, the maturity lengthens when interest rates rise and shortens when they fall. The original maturities of fixed payment loans are on average shorter than those of annuity loans, as this allows room for the maturity to be extended if interest rates rise. However, there is the risk that the monthly interest payments may rise so high that the maturity becomes very long or that the loan principal does not decrease at all.

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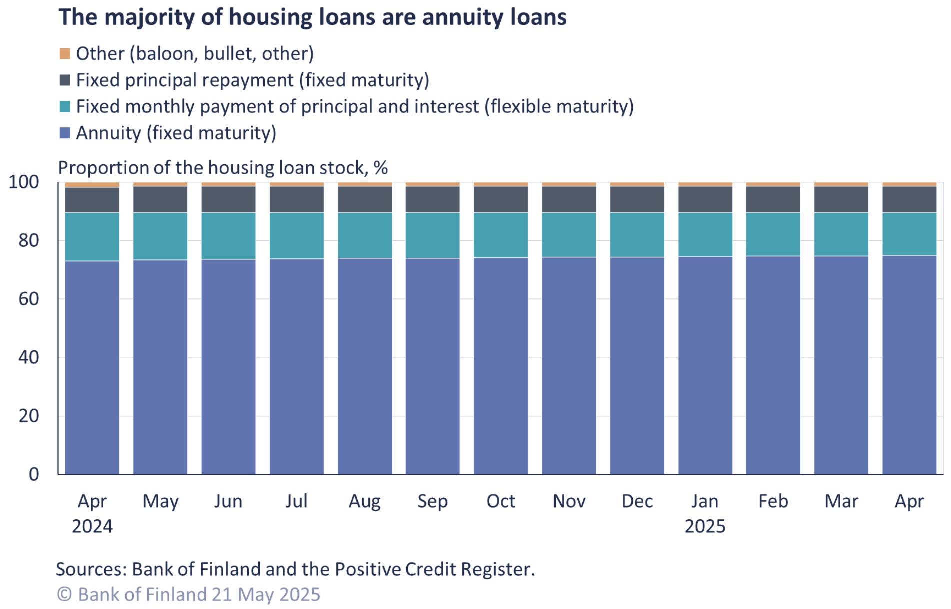
4. With loans that have equal principal repayments (share of the housing loan stock: 9% in April 2025), the loan maturity and the monthly principal repayments are both fixed, but the monthly interest payments depend on the interest rate on the loan and the remaining principal. Bullet and balloon loans, in which repayment of the entire loan amount is made at maturity, account only for a very small proportion of the housing loan stock.

Chart 4.

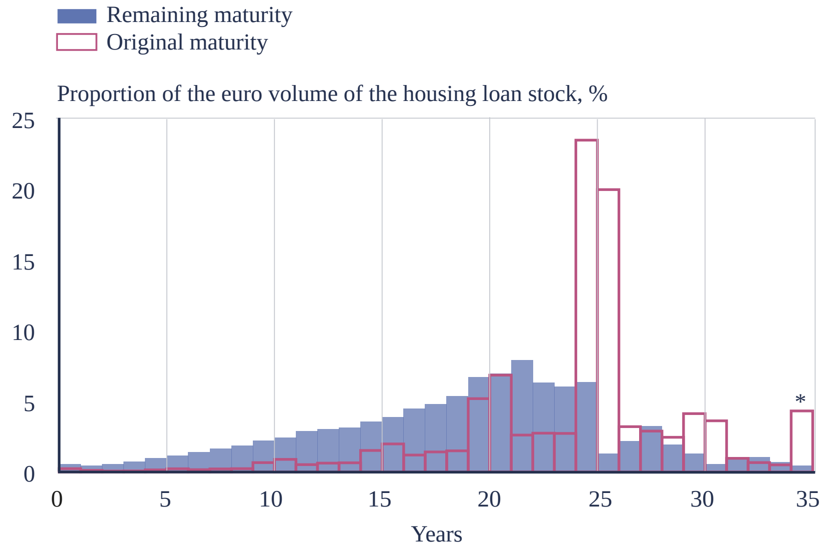


Maturity cap has reduced the share of very long-term new housing loans

The regular repayment of housing loans is evident in the remaining maturities of the stock of housing loans, which are significantly shorter than the original maturities of the same loans (Chart 5). In April 2025, the average original maturity of the stock of housing loans was approximately 24 years, whereas the remaining maturity was on average slightly less than 19 years. Regular repayment of housing loans contributes to curbing the growth in household debt. At the same time, the aggregate interest payment across the entire loan period is smaller than if the loans were repaid significantly more slowly or with smaller principal repayments.

Chart 5.

Regular repayment decreases the remaining maturity of the loan stock



*Outliers of the right-hand tail have been added to the haircut value 35 years.
The data refer to the end of April 2025.

Sources: Bank of Finland and the Positive Credit Register.

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Although new housing loans typically have a maturity of about 25 years, there are housing loans that are significantly shorter or longer than that. Housing loans with longer maturities are also on average larger than typical housing loans. The average original maturity of housing loans drawn down between May 2024 and April 2025 was approximately 22 years, i.e. shorter than the average original maturity for the entire stock of housing loans (24 years).

The granting of housing loans with very long maturities has decreased since the entry into force in July 2023 of the maximum maturity of 30 years included in the Consumer Protection Act (38/1978, as amended). The law permits banks to deviate from the 30-year maturity cap in the case of 10% of the euro volume of new housing loans in each quarter. Just prior to the introduction of the maximum maturity, new housing loans with a maturity of about 30 and 35 years were considerably more common in some banks than they are now. These loans had gradually increased in popularity since 2018, but before that they were very unusual.

In April 2025, the Finnish Government decided that it will deregulate housing finance by, for example, lengthening the maximum maturity of housing loans from 30 to 35 years.[5] The aim of this is to enable other savings and investments by mortgage

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5. For a more detailed discussion, see the growth measures decided on in the Government's mid-term policy review session, some of which are related to housing finance.

borrowers in addition to loan repayment. If the maturities of housing loans lengthen overall, this would be likely to increase the indebtedness, interest expenses and financial risks of households.[6] If housing loans also increase in size, this may push up housing prices in the most attractive areas. The average size of housing loans and the level of household indebtedness increased rapidly in the first decade of the new millennium when loans with a maturity of 20 or 25 years increased in popularity compared to the earlier prevalence of 10–15-year loans.[7]

Delayed payments have remained at a low level

Although key risks related to household indebtedness have partly materialised in recent years, this has not been to the extent that it would have threatened the stability of the financial system. Interest rates have risen from their earlier very low levels (interest rate risk). Households' nominal income has grown, but real purchasing power has weakened and is still below its 2021 peak. In addition, unemployment and the threat of unemployment felt by consumers have increased in the past twelve months (income risk). Prices of homes have fallen substantially since mid-2022, which has decreased the net wealth[8] of some households (collateral and wealth risk).

Most mortgage borrowers have managed to adapt to the increasingly difficult economic environment. The share of non-performing loans (i.e. more than 90 days past due or unlikely to be paid) in the stock of housing loans has grown but is not alarmingly large. Late mortgage payments have remained at a low level. In April, loan payments past due for more than 60 days accounted for a total of about 0.6% of the stock of housing loans (Chart 6). The payment is shown as delayed until the borrower makes the payment in question or agrees a new repayment schedule with the lender.

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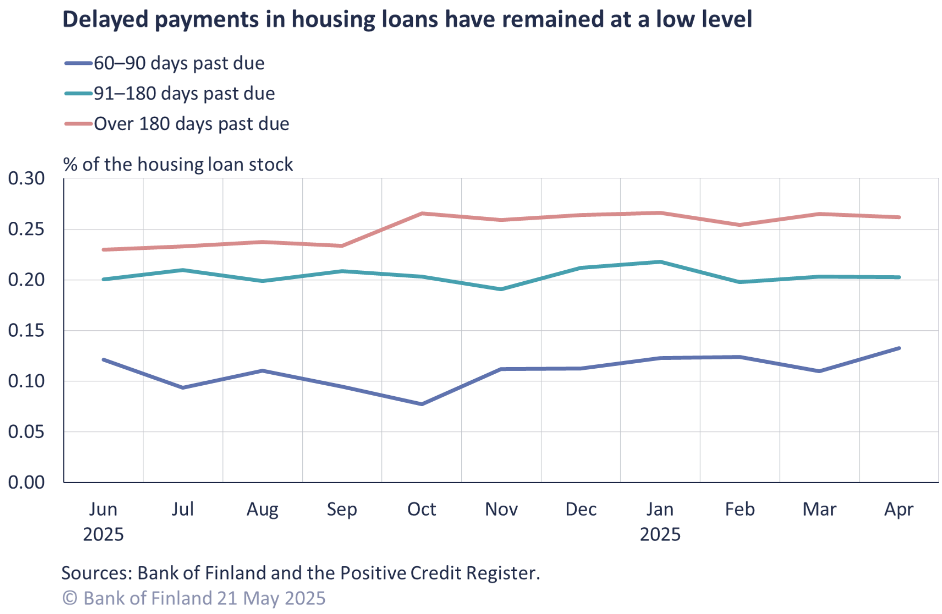
6. See also speech by Bank of Finland Deputy Governor Marja Nykänen on 21 May 2025 (in Finnish only).
7. See Risks in long-term and large home loans – Sweden's worry is also ours – Bank of Finland Bulletin.
8. According to Statistics Finland's Households' assets figures, the median for mortgage-indebted owner-occupant households' nominal net wealth remained unchanged in the period 2019–2023, but the real value of net wealth declined considerably (-14%) due to the surge in inflation. The result is similar when we examine the change in the value of the main residence owned by households in the same period.

Chart 6.



The FIN-FSA has recommended since 2010 that banks use a loan interest rate of no less than 6% and a repayment period of no more than 25 years in assessing housing loan applicants' stressed servicing costs and their financial margin.[9] The purpose of the recommendation is to ensure that borrowers are resilient against the risk related to their variable rate loans, i.e. the risk of a rise in interest rates and potentially a substantial increase in interest payments. The recommendation may have helped curb the granting of particularly high-risk housing loans that are large in relation to the borrower's income, and hence it may have strengthened the resilience of borrowers. A revised recommendation by the FIN-FSA on a maximum debt-service-to-income (DSTI) ratio for housing loan applicants entered into force at the beginning of 2023. Under the recommendation, the stressed servicing costs of the loan applicant's aggregate debts should, as a rule, be no more than 60% of the applicant's monthly net income.[10]

Mortgage borrowers can increase their financial flexibility by taking temporary interest-only periods. In April 2025, some 4.6% of the housing loan stock was in an interest-only period negotiated with the bank (Chart 7). In addition, 2.4% of the stock of housing loans was in an interest-only period allowed by the original loan agreement and which the client did not have to negotiate separately before commencing.[11] Interest-only periods

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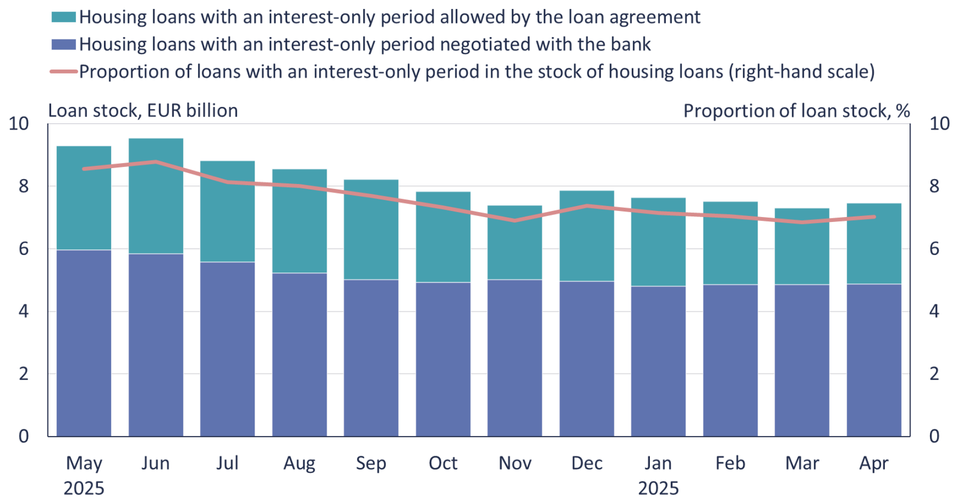
9. The FIN-FSA revised the recommendation on the calculation of housing loan applicants' financial margin (Regulations and guidelines 4/2018, paragraph 33 of the guidelines) in 2020, such that from June 2021 the calculation would have to take into account not only the housing loan but also any increase in capital charges related to housing company loans as interest rates rise, and any expiry of interest-only periods for housing company loans.
10. According to the recommendation, which entered into force in 2023, the calculation would have to take into account the housing loan, capital charges and all other debts of the borrower. The stressed loan servicing costs would have to be calculated using an interest rate of no less than 6% and a repayment period of no more than 25 years. The FIN-FSA expects that, as a benchmark, housing loans with a stressed debt-service-to-income (DSTI) ratio of over 60% should account for no more than 15% of the euro volume of new housing loans granted by the lender in a calendar year.

have become slightly less common in the past 12 months, which may be due to the ending of earlier interest-only periods and the reduced need for such flexible arrangements with the decline in interest rates. The earlier rise in interest rates may also have encouraged some mortgage borrowers to repay their loans earlier than planned.

Chart 7.

Proportion of housing loans with an interest-only period has decreased



Sources: Bank of Finland and the Positive Credit Register.

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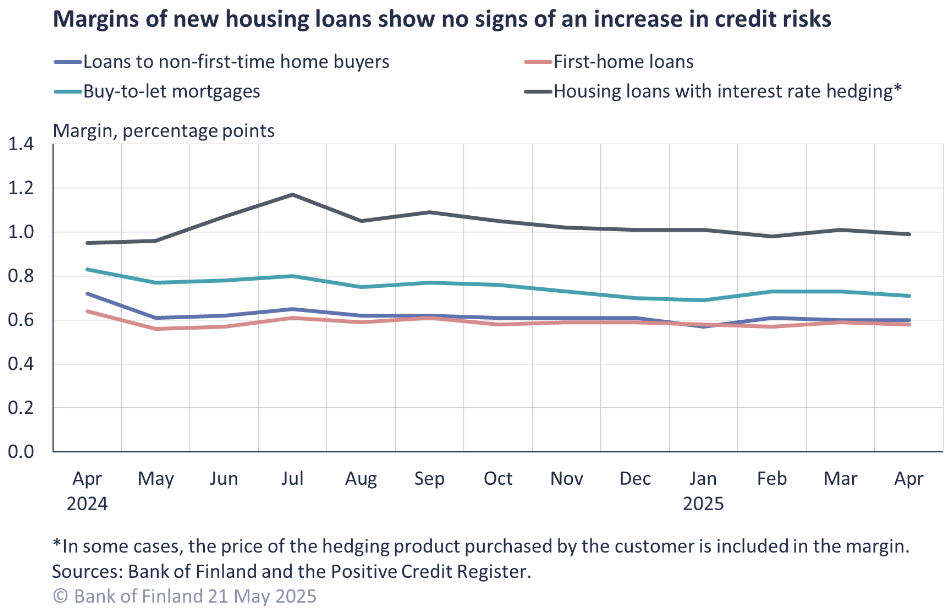
Margins on new housing loans have remained virtually unchanged in the past 12 months (Chart 8). The margins thus do not show signs that banks would have priced in significantly higher credit risks than before. These margins are narrow by international comparison, which may also reflect competition between banks. The average margins of first-home loans and of loans for non-first-time home buyers are close to each other, whereas the margins of buy-to-let mortgages are slightly larger. The margins of housing loans with a hedging product are on average about 0.5 percentage points larger than for all housing loans. Some banks include the price of hedging as part of the margin, whereas others may charge a separate fee for the hedging product that is not included in the margin or the interest rate.

11. Loans in which only interest is paid on the loan but for which there is no valid interest-only period separately agreed with the bank are defined as loans with an interest-only period allowed by the loan agreement.

Chart 8.



Mortgage borrowers' total debt burden also includes other consumer credit

Besides a housing loan, mortgage borrowers might also have other debt, such as a loan for the purchase of a car or holiday residence. These other debts can add significantly to the mortgage borrower's debt servicing costs, which can rise to very substantial levels. It is therefore essential that risk assessment and credit decisions take into account all of the credit applicant's debts and related costs. The Positive Credit Register is an important contribution to this.

Mortgage borrowers' aggregate debt burden can be illustrated by examining new housing loans and breaking these down[12] into different categories on the basis of borrower *indebtedness*. The indebtedness can be measured using two different ratios (indebtedness indicators):

- the loan-to-income ratio (LTI ratio), which compares the size of a new housing loan with the borrower's annual income (Indicator 1), and
- the debt-to-income ratio (DTI ratio), which compares the aggregate amount of the borrower's debts with their annual income (Indicator 2).[13]

According to Indicator 1, the biggest categories of new housing loans (by euro volume) are those in which the size of the loan is between 200% and 350% of the borrower's annual income (Chart 9, the three tallest blue columns), i.e. the LTI ratio is 2.0–3.5. When all the debts of borrowers are included (Indicator 2), the largest amount of new

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12. The housing loans were granted during the period May 2024 to April 2025.

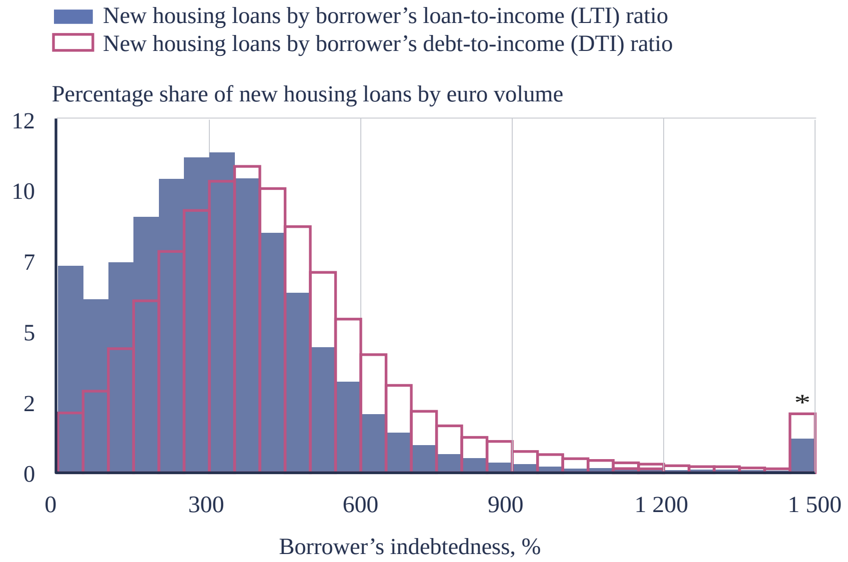
13. The figure for aggregate debt is the total amount of the borrower's residential and other consumer credit after taking a new housing loan, and the figure for annual income comprises the income which the bank has ascertained either from the borrower or by other means for the purpose of assessing the borrower's creditworthiness.

housing loans is in categories in which the borrower's aggregate debt is between 300% and 450% of their annual income (the three tallest red columns), i.e. the DTI ratio is 3.0–4.5. For a new mortgage borrower, the typical LTI ratio is about 3.5, while their DTI ratio is considerably higher, at about 4.4.[14]

Use of the DTI ratio (Indicator 2) instead of the narrower LTI ratio (Indicator 1) shows that by this measure a significantly greater share of new housing loans is accounted for by individuals with a high amount of debt in relation to income. This can be seen in the chart, where the histogram of new housing loans is more to the right, and its right tail thicker, when the DTI ratio, rather than the LTI ratio, is used as the indebtedness indicator.

Chart 9.

Some mortgage borrowers also have other debts and this is seen in high DTI ratios



*Outliers of the right-hand tail have been added to the haircut value 1,500%.

New housing loans May 2024 to April 2025 by borrower indebtedness using different indebtedness indicators.

Sources: Bank of Finland and the Positive Credit Register.

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High DTI ratio more common for non-first-time home buyer loans and for buy-to-let mortgages than

14. The typical indebtedness level of borrowers refers here to the median of the indebtedness indicator weighted by the euro volume of the housing loan. The weighted median lies exactly half way along the distribution of housing loan observations ranked in order of size.

for first-home loans

From May 2024 to April 2025, 25% of new housing loans were granted to first-time home buyers, 11% were buy-to-let mortgages and 64% were for non-first-time home buyers. First-home loans are typically larger than other new housing loans. The typical size (median) of new first-home loans taken out in January–April 2025 was approximately EUR 126,000, whereas the corresponding size of mortgages to non-first-time home buyers was about EUR 102,000, and for buy-to-let mortgages it was significantly smaller, at about EUR 69,000.[15]

However, many non-first-time home buyers and residential property investors have a greater amount of other consumer credit and previously drawn housing loans than first-time home buyers, which means their aggregate debt-to-income ratio can be higher. This can be seen by examining how new housing loans taken out for different purposes are distributed in terms of the borrower's DTI ratio.

In the case of new loans to first-time home buyers, the typical DTI ratio of borrowers is 4.36, whereas for non-first-time home buyer loans it is a little higher, at 4.61, and for buy-to-let mortgages a little lower, at 4.06.[16] Compared with first-home loans, a higher proportion of new housing loans for non-first-time home buyers and new buy-to-let mortgages are cases where the borrower has a very substantial amount of debt in relation to income (i.e. a high DTI ratio) (Chart 10). This can be seen in the chart, where the right tails of the histograms for new loans to non-first-time home buyers and for new buy-to-let mortgages are thicker than for first-home loans.

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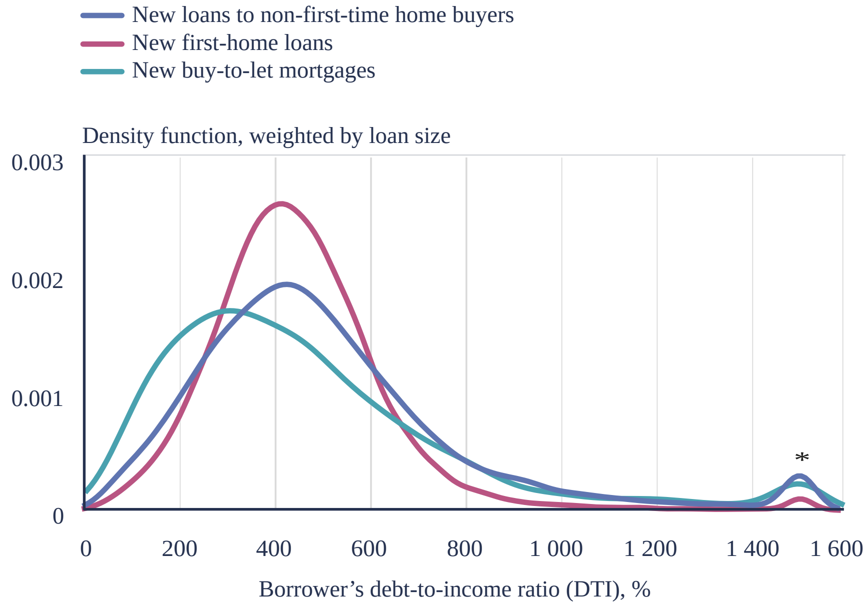
15. The median size of the housing loan is determined by ranking the loans in size order and taking the mid-point figure, on one side of which are larger loans and the other side an equal number of smaller loans. The median is less affected by outliers than the mean.
16. New housing loans (euro volume) by borrower DTI ratio are presented as a density function in Chart 10 (weighted by loan size). The density function indicates something similar to the histogram in Chart 9, but as a continuous distribution without the housing loans being divided into separate categories. The area under each density function is always the same (equal to one), as the area represents the probability that the borrower's DTI ratio falls within a given range.

Chart 10.

Compared with first-home loans a larger volume of new non-first-time home buyer loans and buy-to-let mortgages are granted to borrowers with a high DTI ratio



*Outliers of the right-hand tail have been added to the haircut value 1,500%.

New housing loans May 2024 to April 2025.
The chart shows the loan-weighted continuous distribution of new housing loans by different debt-to-income (DTI) levels of borrowers.
Sources: Bank of Finland and the Positive Credit Register.

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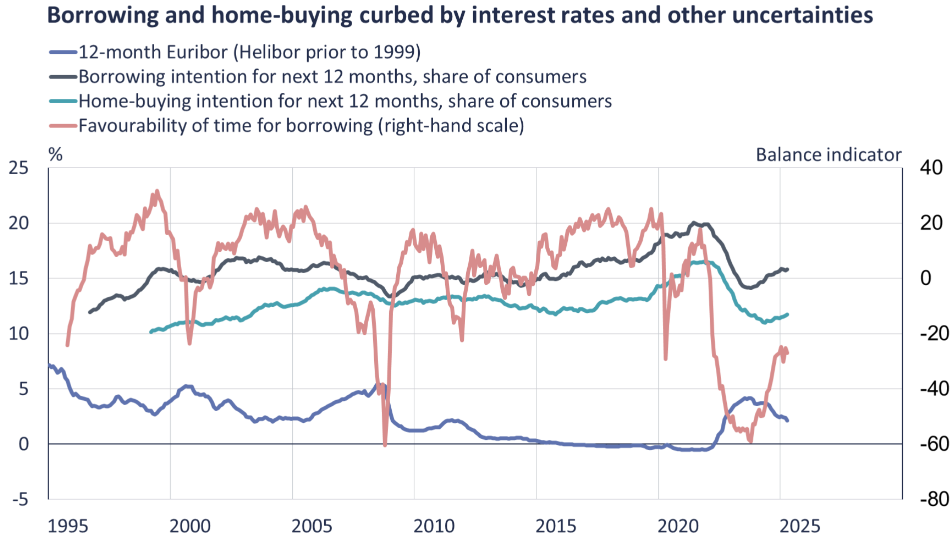
Households are cautious about taking new risks

Households in recent years have experienced many changes and uncertainties in the world around them. Over the past five years, consumers' uncertainty about the outlook for their own finances and for the Finnish economy has been perpetuated by various events. These include the COVID-19 pandemic, Russia's war in Ukraine, the inflation surge affecting consumer goods and services, the Middle East crisis, and the escalation of geopolitical and trade policy tensions globally. Although inflation has now come down and interest rates have decreased, household purchasing power is still weaker and interest payments higher than in 2021.

The loan servicing difficulties of households have been contained, but indirect risks associated with debt accumulation, investment and the housing market have been widely evident in Finland. Private consumption has been subdued, as households have been saving some of their income and paid off their loans instead of spending the income. Housing sales and demand for credit have both been at below normal levels, and the demand for new homes and investment properties has dwindled. Bankruptcies and loan repayment problems in construction companies have increased, and investment in both housing and other production has decreased. (For more on this, see 'Global upheaval – Financial stability at risk from power politics' and the article 'Trade war weakens export outlook for Finnish companies'.)

The economic setbacks affecting consumers and the weak consumer confidence in the economy are still reflected in the caution towards new risk taking. Consumers view this as an unfavourable time for borrowing (Chart 11). Although consumers' borrowing intentions have picked up, their home-buying intentions are still below the long-term average. The housing market is generally expected to recover in stages and cautiously, but the near-term outlook is still uncertain and the risks are dependent on developments in the global and Finnish economies.

Chart 11.



Sources: Statistics Finland, Refinitiv and calculations by the Bank of Finland.

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Positive Credit Register – further development needed

The Positive Credit Register contains very extensive credit, personal guarantee and income data indicating the creditworthiness of private individuals, but the Register is not all encompassing. There are gaps in the Register's contents, which means that lenders and public authorities should also use other information when making assessments and decisions.

Not all the income at the credit applicant's disposal is necessarily included in the Register or in the Incomes Register on which it is based. They do not include the income received by self-employed persons working under a business name, or grants or most capital income, for example. Furthermore, the Positive Credit Register does not include all the credit or liabilities that burden solvency, although the credit coverage will improve in the coming years from the present position.

From December 2025, the credit granted to private individuals by lenders and reported to the Register will also include credit other than consumer credit. This is credit such as that granted to self-employed persons, which is intended for financing their business activity. The Bank of Finland's statistics show that at the end of March 2025, loans taken out by self-employed persons for business purposes totalled approximately EUR 3.6 billion. The majority of these loans had been granted for agriculture.

Also to be added to the Register at a later stage are owner-specific debt shares in housing company loans; this information is from the Residential and Commercial Property Information System of the National Land Survey of Finland. The government proposal concerning this legislative amendment to the Register is scheduled for consideration by Parliament in autumn 2025. Statistics Finland estimates that there is altogether about EUR 22 billion in housing company loans for which Finnish households are liable (end-2024 data). The capital charges concerning housing company loans can be a significant burden on many households.

The Bank of Finland's experts also consider it important that the Register should include more comprehensive data on loan collateral, such as its value and the location of the residential property pledged. Demographic and socioeconomic data on borrowers, such as age and employment status, would also enrich the analysis. A more granular breakdown of consumer credit by purpose would also be beneficial, as the item 'other consumer credit' is fairly large (Chart 1 above).

According to the Ministry of Justice, an assessment of the functioning of the Positive Credit Register and the related legislation will be made by spring 2028, by which time sufficient experience will have been gained in the use of the

Register.[17]

Tags

interest rates, financial stability, housing loans, indebtedness, positive credit register, households

17. See: Lenders' assessments of financial standing should use not only the Positive Credit Register but also other sources – Ministry of Justice (in Finnish).