REPORT

The Swedish Mortgage Market

7 March 2024

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Contents

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Summary

Inflation continued to be high in 2023, and mortgage rates continued to rise. The Swedish economy was in a recession. The atmosphere on the housing market was cautious, and activity was low. In this report, we analyse the developments on the mortgage market using a sample of borrowers who took out a new mortgage during the early autumn of 2023. The number of new borrowers in the sample was significantly smaller than in previous years, which reflects the economic development. At the same time, household finances continued to be pressured by both higher interest rates and higher costs in general.

Home buyers bought slightly less expensive homes and borrowed slightly less in 2023 than they did in 2022. Overall, the average loan-to-value (LTV) ratio for home buyers decreased. At the same time, the share of borrowers with a loan-to-income (LTI) ratio of more than 450 per cent decreased to 5.3 per cent compared to 9.1 per cent in 2022.

The new borrowers spent on average 10.8 per cent of their income on interest payments after interest rate deductions. Every tenth borrower spent at least 17.5 per cent of their income on interest payments. This is a clear increase compared to the years up to 2021 and even a continued increase compared to 2022. When we add amortisation payments, new mortgagors on average spent almost 18 per cent of their income on loan payments. For every tenth borrower, this figure was almost 30 per cent. Of the new mortgagors who made amortisation payments, the average payment was SEK 4,200/month. Every tenth borrower amortised more than SEK 7,900/month. The bank may grant a mortgagor an exemption from the amortisation requirements for a given period if special grounds exist. If this sum is released, a borrower with special grounds could significantly boost their monthly cash flow. The number of exemptions granted due to special grounds began to rise in Q3 2022 and has since then stabilised at a higher level.

For borrowers who purchase tenant-owned housing, their monthly costs were also impacted by the level of the tenant-owners association fee. In the 2023 sample, the annual fee per square metre was on average 8 per cent higher than in 2022. These associations' loans represent an indirect debt for owners of tenant-owned housing. In 2023, the median loan was SEK 6,900 per square metre. This was an increase of around 5 per cent compared to 2022.

In the calculation of discretionary income that banks perform as part of their credit check, the median surplus was approximately SEK 7,700 per month in 2023 compared to SEK 8,900 in 2022. This surplus has not been adjusted for inflation, which means that the lower amount for 2023 in reality represents an even larger real deterioration in buying power. The share with a low surplus increased: 19 per cent had a surplus in the calculation of less than SEK 2,000/month compared to 15 per cent

in 2022. To adapt the calculation of discretionary income to the changed economic climate, the banks made adjustments in 2022 to the stressed mortgage rates and standardised costs they use. In 2023, the banks continued to make adjustments but to less of an extent than in 2022.

Introduction

The rate at which lending to households has increased has been high for a long time. However, the economic circumstances of households have changed, and mortgages have been growing slower since May 2022. Despite this, households' total indebtedness continues to be high.

Households' loans increased rapidly for many years, and loans also increased faster than income.[1] However, since the start of 2022, the state of the economy has changed dramatically, along with the development for households' loans. We gather a sample every year of all new mortgages issued during a two-week period in early autumn, and in this report we analyse the sample from 2023.

The sample we gathered in 2022 was the first in which new mortgagors were experiencing a different economic reality. The general price level had increased, mortgage rates had begun to increase, and an economic downturn was impending. The labour market continued to be strong, even if the expectation was that it would weaken going forward.[2]

Early in the autumn of 2023, households' economic circumstances had further deteriorated as prices continued to increase rapidly for another year and mortgage rates had increased even more. The Swedish economy was now in a recession. The labour market had been demonstrating surprising resilience, but had now begun to weaken, and this trend was expected to continue for some time.[3]

Housing prices reached their highest point in March 2022 (Diagram 1). Since the summer of 2022, prices have been relatively unchanged. Home buyers in the sample from 2023 were seeing approximately the same price level as those in the sample from 2022. The number of sold homes continued to decrease in 2023. Households' aggregate mortgages have increased at a slower rate since May 2022, even in relation to disposable income. This was true for both the 2022 and the 2023 samples. Despite this, household debt continued to be high in relation to disposable income.

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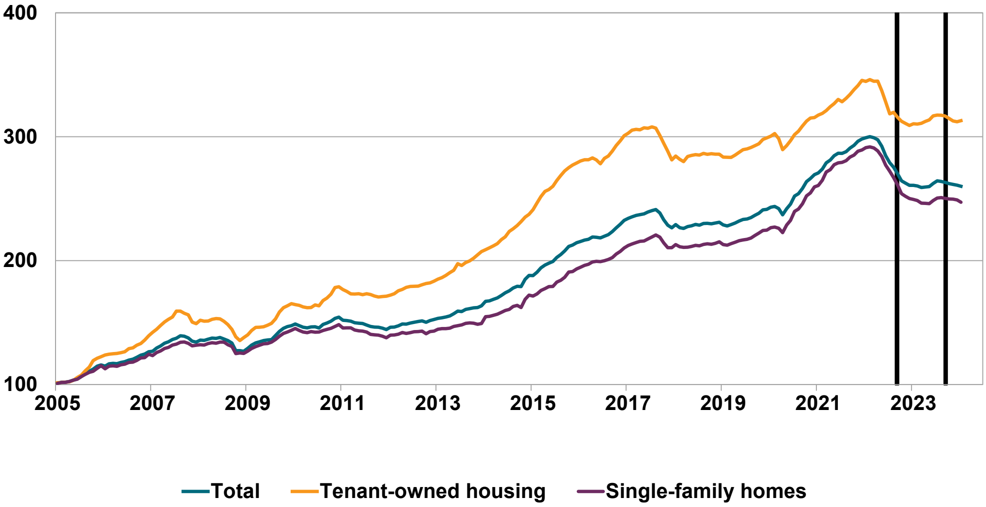
[1] Households' loans as a share of disposable income had doubled at the end of 2021 compared to 1997. Refers to aggregate data from the national accounts, Statistics Sweden (SCB).
[2] National Institute of Economic Research, *The Swedish Economy* September 2022.
[3] National Institute of Economic Research, *The Swedish Economy* September 2023.

1. Total price level approximately the same in 2023 and 2022

Index, January 2005 = 100



Source: Valueguard.

Note: Seasonally adjusted data. The last observation is January 2024. The two vertical lines indicate the timing of the 2022 and 2023 samples. The mortgagors in the samples who bought their homes probably did so a number of months before.

Sample with new mortgagors

As part of its mortgage survey, Finansinspektionen (FI) gathers every year a sample of new mortgagors. Fewer households took out a new mortgage in 2023 compared to previous years, which reflected weaker economic circumstances and a cautious housing market. However, both the age distribution and the geographic distribution of new mortgagors were relatively unchanged compared to previous years.

The purpose of the mortgage survey is to analyse the current situation for households that take out new mortgages. We also use this information to evaluate the measures we have implemented. The survey includes data from the eight largest mortgage institutions.[4] These institutions accounted for approximately 93 per cent of the total mortgage volume in 2023. We gather a sample as part of the survey, and it is primarily this sample that forms the basis of the analyses in this report.

A household-level sample

The sample includes all new mortgage agreements for which the mortgage was paid out during the periods 28 August–4 September 2023 and 25 September–2 October 2023. This is the fourteenth time FI has collected a sample of new mortgagors. The previous samples were collected in 2009 and 2011–2022. The information consists of, for example, data about the new mortgage that was paid out during the period in question, the borrower's income and the total debt burden.[5] However, we do not receive information about borrowers' financial assets. For the new mortgage, we have detailed data about, for example, agreed mortgage rates and amortisation payments, but we do not have the same level of detail about the total debt burden.

New mortgages do not only include new mortgages taken for the purchase of a home. It also includes extensions of existing mortgages (known as *equity withdrawal*). For example, households may withdraw equity to renovate their home, make purchases or pay off other loans. Existing mortgages that the borrower has moved from one bank to another (known as *bank switches*) are also recorded as new mortgages.

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[4] Danske Bank, Handelsbanken, Länsförsäkringar Bank, Nordea, SBAB Bank, SEB, Skandiabanken and Swedbank.

[5] The total debt burden includes, among other things, additional mortgages that are not included in the sample, loans with different collateral, for example a car, and unsecured loans.

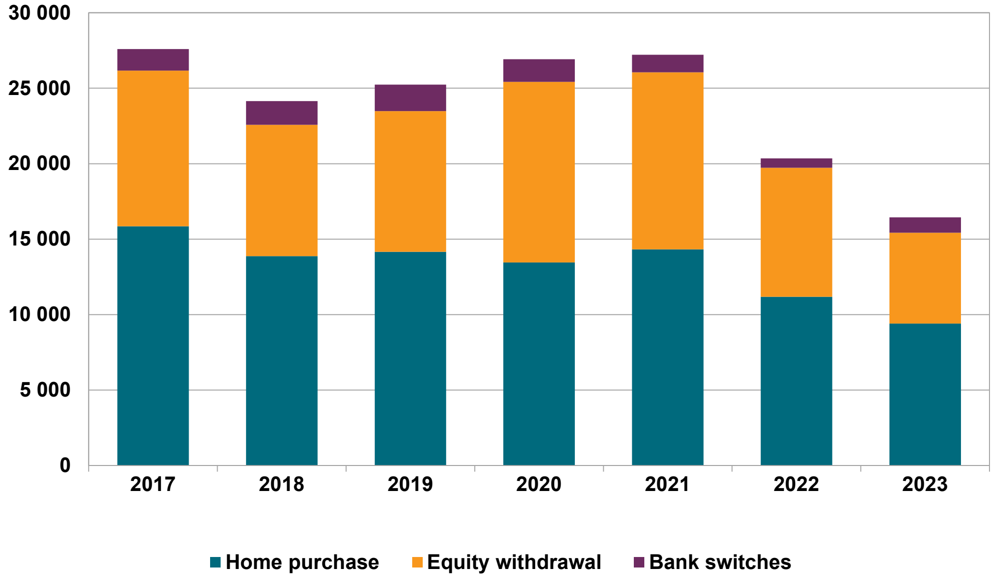
We are currently reviewing the sample and making improvements to the data handling. This means that there are some methodology changes that impact this report, and some historical figures have been revised compared to previous reports.

Fewer borrowers in 2023

There were significantly fewer households that took out a new mortgage in 2023 compared to in previous samples (Diagram 2). This is due to a decrease in both the number of home buyers and the number of equity withdrawals.

2. Significantly fewer households took out a mortgage in 2023

Number



Source: FI.

Note: Refers to the number of borrowers after removal of incomplete and outlier observations.

Similar age distribution as previous years

Despite the large decrease in the number of new mortgagors, the geographic distribution of new mortgagors was relatively unchanged compared to in 2022 (Table 1). The age distribution was also roughly the same. The youngest borrowers (aged 30 and below) accounted for around 20 per cent of new mortgagors, while the oldest (aged 65 and above) accounted for 9 per cent.[6]

[6] The age distribution is based on the age of the primary borrower at the time the loan is issued.

Tabell 1. Geographic distribution and age distribution of new mortgagors

Per cent

Share of households	Stockholm	Gothen-burg	Malmö	Other large cities	Rest of Sweden
2022	26	12	7	20	35
2023	29	11	7	19	35
Share of households	**18–30**	**31–40**	**41–50**	**51–64 years**	**65+**
2022	19	28	23	22	8
2023	20	27	21	23	9

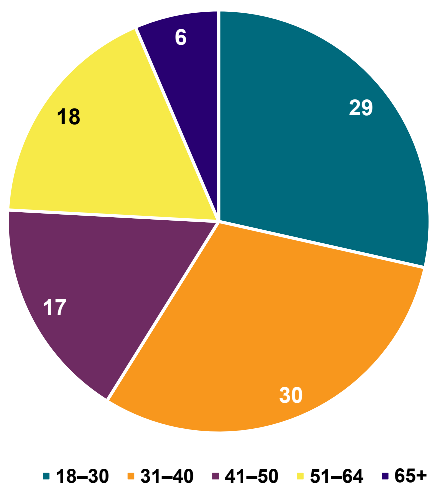
Source: FI.

Note: Refers to home purchases, equity withdrawals and bank switches. Stockholm, Gothenburg and Malmö refer to metropolitan regions. The age distribution is based on the age of the primary borrower at the time the loan is issued.

The share of younger borrowers was larger among home buyers than among households withdrawing equity (Diagrams 3 and 4). Approximately six out of ten borrowers who bought a new home were aged 40 or younger. Among households withdrawing equity, three out of ten borrowers were in this age group. Since home buyers were often younger, they generally also had lower income than the households withdrawing equity.

3. Age distribution for home buyers in 2023

Per cent

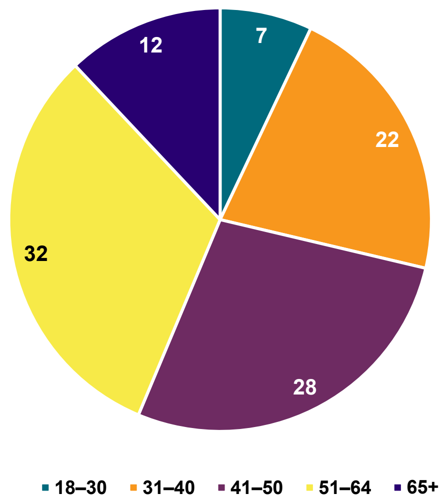


Source: FI.

Note: The age distribution is based on the age of the primary borrower at the time the loan is issued.

4. Age distribution for households withdrawing equity in 2023

Per cent



Source: FI.

Note: The age distribution is based on the age of the primary borrower at the time the loan is issued.

Borrowers' new mortgages

The new home buyers in the sample from 2023 borrowed slightly less, had higher mortgage rates, and were more likely to choose short fixed interest periods compared to previous years.

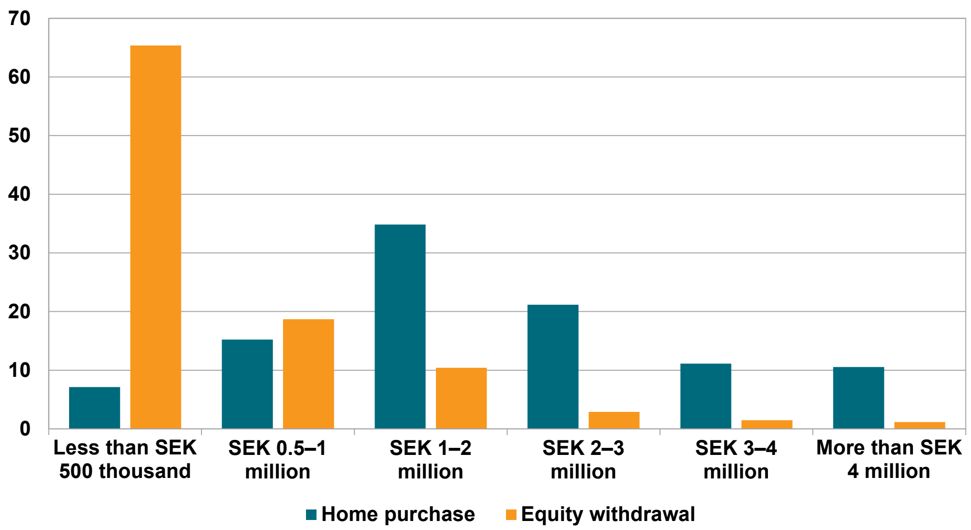
Home buyers borrowed slightly less in 2023

Significantly fewer households took out a new mortgage during the sample period in 2023 compared to previous years. Borrowers also took out slightly smaller loans. On average, the new home buyers borrowed SEK 2.1 million in 2023. This is a decrease of almost SEK 100,000 compared to 2022. Households making equity withdrawals borrowed on average SEK 600,000, approximately as much as in 2022.

More than one-third of borrowers that took out a loan to buy a new home borrowed between SEK 1 and 2 million (Diagram 5), but a significant portion of the home buyers also took out larger loans. Most equity withdrawals were less than SEK 500,000. A few borrowers made large equity withdrawals. These withdrawals can potentially be used for extensive renovation of homes that previously had low leverage. Borrowers with low leverage may also choose to finance the purchase of, for example, a holiday home by increasing the loan on their primary home.

5. Size of the new mortgage broken down by type of loan

Per cent



Source: FI.

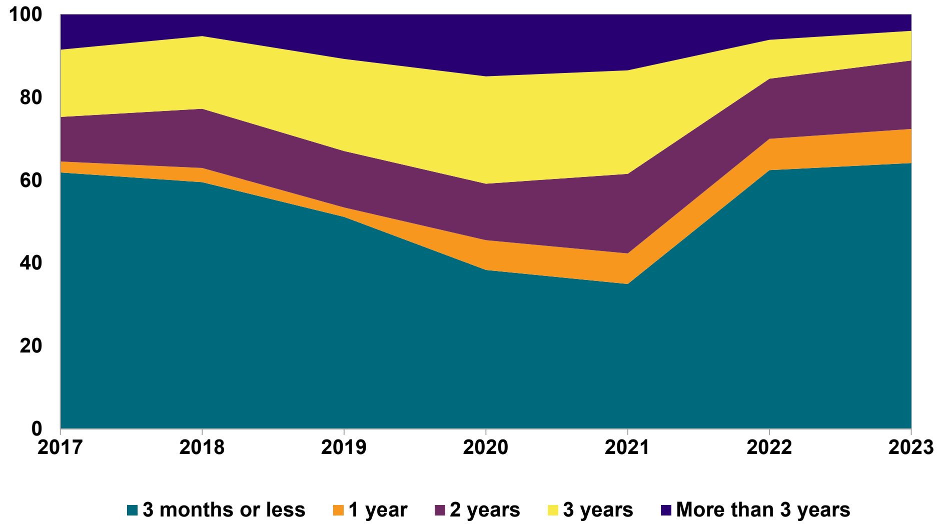
Most chose variable mortgage rates

The average mortgage rate for home buyers was 4.6 per cent in 2023. This was an increase compared to 2022, when the average interest rate was 3.1 per cent, and a significant increase compared to the period 2015–2021, when interest rates were low. Borrowers can protect themselves against higher interest rates by fixing the interest rate on all or parts of their mortgage. This provides greater predictability regarding future loan payments. The borrower can choose different fixed interest periods if the mortgage is divided into multiple loans. In the 2023 sample, six out of ten home buyers had broken down their new mortgage into more than one loan. We calculate a volume-weighted fixed interest period for every new borrower – a combination of the fixed interest period for each loan in relation to the size of each loan.[7]

Among home buyers in the 2023 sample, approximately 65 per cent had a weighted fixed interest period of three months or less (Diagram 6). This was a slightly higher share than in 2022. There can be several reasons for why many choose interest rates with shorter maturities. The uncertainty about when inflation will stabilise at the inflation target and when interest rates will be lowered probably leads to fewer borrowers choosing a fixed mortgage rate for a long period of time. In addition, an interest rate with a three-month fixed period is the standard option at many banks and therefore is most common among mortgagors who do not actively request another fixed interest period.[8]

6. Fixed interest rate period for new home buyers

Per cent



Source: FI.

Note: The fixed interest period is volume-weighted for each loan in the new mortgage.

Borrowers with higher income are more likely to choose a variable rate. It is likely to be more important for mortgagors with lower income and smaller margins to protect themselves against higher interest rates and make future expenses

[7] For households withdrawing equity, the fixed interest period refers to the new loan (the increase). The fixed interest period that applied to the original loan is unknown. Therefore, we focus primarily on home buyers in this section.

[8] See the rapport *Konsumenternas ställning på bankmarknaden*, October 2023, FI.

predictable. Younger borrowers between the ages of 18 and 30 and borrowers outside of large cities were more likely to choose longer fixed interest periods.

Finances of tenant-owner associations

For those purchasing tenant-owned housing, the finances of the association are important. Tenant-owner associations' (TOA) average loan per square metre was approximately 5 per cent higher in 2023 than it was in 2022. Newly formed associations were in general more leveraged than existing associations. Association fees were also higher than in previous years.

Tenant-owner associations' loans impact borrowers

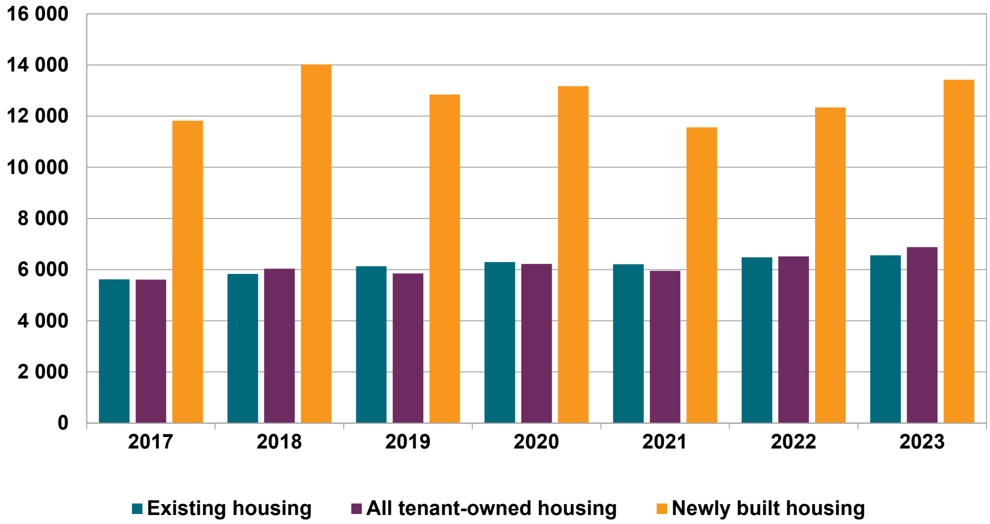
TOA loans are an indirect debt for owners of tenant-owned housing.[9] TOA loans have averaged around SEK 6,000 per square metre of tenant-owned residential space over the years that FI has collected data. In 2023, the average was SEK 6,900 per square metre (Diagram 7). This was an increase of around 5 per cent compared to 2022 and 13 per cent compared to 2021. Borrowers in newly formed TOAs had approximately twice as much debt per square metre on average compared to borrowers in existing TOAs.[10]

[9] Several amendments to the Tenant-Ownership Act (1991:614) entered into force on 1 January 2023. The purpose of these amendments is to strengthen legal protection for people who buy tenant-owned housing: see Government Bill Tryggare Bostadsrätt (Securer Tenant-Owned Housing) 2021/22:171. On 1 January 2024, additional rules went into effect regarding, among other things, economic plans and cost calculations.

[10] FI estimates that around 7 per cent of the new borrowers in 2023 who took out a loan for tenant-owned housing bought a home that was newly built. The share refers to observations that contained information about new production. Information about new production is not included for approximately 40 per cent of the observations.

7. Average loan per square metre of tenant-owned residential space

SEK



Source: FI.

Note: *Existing housing* and *Newly built housing* are sub-sections of *All tenant-owned housing*. *All tenant-owned housing* also includes tenant-owned housing that contains no information about whether or not it is newly built.

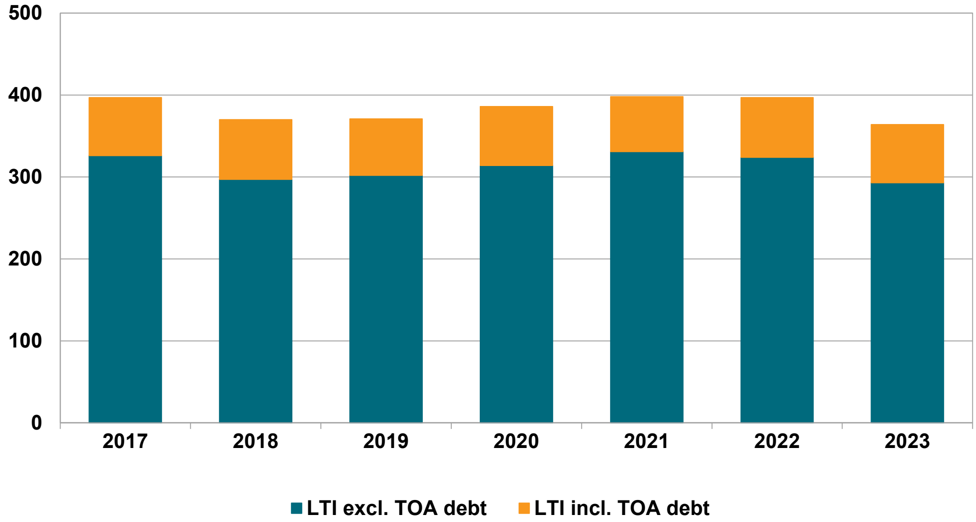
We estimate borrowers' share of the association's debt using a simplified method. The results can then be included in the calculation of the loan-to-income (LTI) ratio to estimate the sum of the borrowers' direct and indirect loans in relation to their income.[11] When the association's loans are included, the average LTI ratio – the household's total mortgage divided by gross income – for all new mortgagors in tenant-owned housing increased by approximately 20 per cent in 2023 (Diagram 8).[12] For mortgagors in newly formed associations, the average LTI ratio increased on average by 30 per cent when indirect debt was included.

[11] Data on the TOA's interest-bearing assets and liquid assets is unavailable in our sample, as is the tenant-owned housing's participatory share of fees to the association. Therefore, the calculation uses only the product of the reported debt per square metre and the area of the home as an estimate of the tenant-owner's indirect debt.

[12] For more information about our calculation of the LTI ratio, see footnote 23.

8. Loan-to-income ratio including the share of the tenant-owner association's debt

Per cent



Source: FI.

Note: Refers to gross loan-to-income ratio for the total mortgages. Refers to all types of tenant-owned housing.

Tenant-owners see higher fees

Most households that live in tenant-owned housing pay a monthly fee to the association. What is included in the fee varies from one association to another, which means that the fees are not fully comparable between borrowers. Often, the fee includes operating expenses, for example heating, water and waste collection. Payment of the association's loans and contributions to maintenance of the property are also normally covered by the fees.

The new interest rate environment affects the associations' finances. When interest rates increase, the associations' interest expenses increase.[13] The Swedish economy is also experiencing a downturn, which could mean that associations' rental income for commercial premises could decrease if tenants terminate their rental contracts. At the same time, higher prices in general are also affecting tenant-owner associations, and operating costs therefore have increased. Some associations have already increased their monthly fees. More may do so to be able to maintain the same maintenance standard and at the same time manage higher costs in general, including interest rate expenses, and potentially lower rental income.[14] Associations with newly built tenant-owner housing units are often more leveraged than tenant-owner

[13] How much and how quickly interest expenses increase are dependent on the share of the association's variable rate and fixed rate loans, respectively, and how long the fixed interest rate period is.

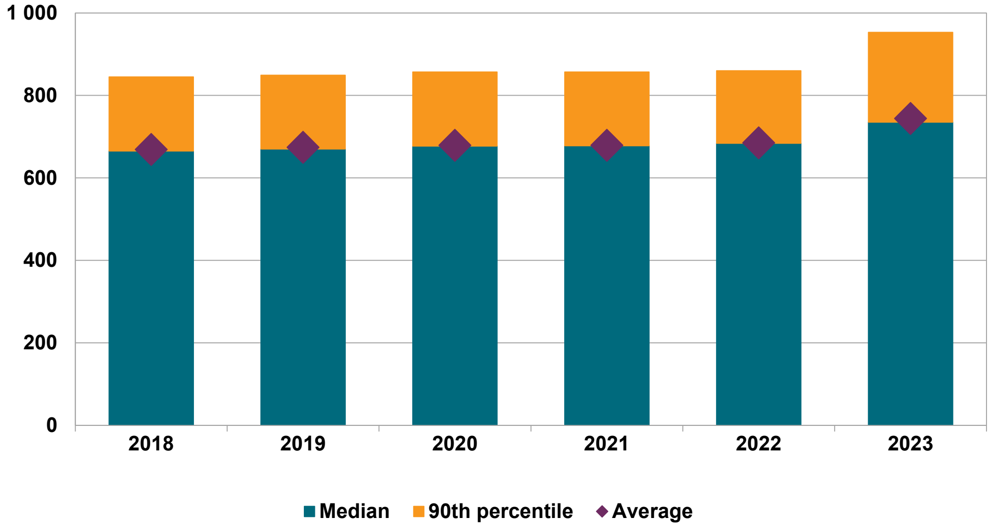
[14] Interest expenses related to mortgages are deductible for mortgagors, but tenant-owner associations may not deduct their interest expenses.

associations with existing tenant-owned housing and are therefore particularly vulnerable to rapid changes in the interest rate.

FI estimates the annual fee per square metre using data on the monthly fee to the association and the size of the tenant-owned housing. The average fee per year and square metre was around 8 per cent higher in the 2023 sample than it was last year (Diagram 9). The increase is visible primarily for the borrowers with the highest fees. There, every tenth new mortgagor had an annual fee of more than SEK 950 per year and square metre in 2023. Borrowers in newly built tenant-owned housing paid slightly higher fees to their associations than borrowers in existing tenant-owned housing.

9. Annual fee per square metre of tenant-owned housing area

SEK



Source: FI.

Note: Refers to all types of tenant-owned housing.

Amortisation payments

The share of new mortgagors who made amortisation payments was lower in 2023 than in previous years. This contributed to a slight decrease in the average amortisation rate. Among those who amortised, the average amortisation payment was SEK 4,200, and every tenth mortgagor amortised more than SEK 7,900/month.

Loans that are too large pose a risk to both the individual borrower and the economy at large. Borrowers gradually reduce their loans by making amortisation payments on them. By reducing their loan over time, the borrower can decrease their interest rate payment and strengthen their resilience. Therefore, FI has introduced regulations on amortisation requirements. The first amortisation requirement entered into force in June 2016 and entailed that mortgages taken after this date that had a loan-to-value (LTV) ratio of more than 50 per cent must amortise 1 per cent a year. If the LTV ratio exceeds 70 per cent, the household must amortise 2 per cent a year. The stricter amortisation requirement entered into force in 2018 and entails that mortgagors with a total mortgage of more than 450 per cent of their gross income must amortise an additional 1 per cent of the mortgage per year in addition to the previous amortisation requirement from 2016.[15]

Older loans or new mortgages where the size of the loan in relation to the borrower's income or the value of the home falls below the thresholds are not subject to the amortisation requirements. In these cases, the borrower can choose not to amortise. New borrowers can also in some cases be granted exemption from the amortisation requirements.[16]

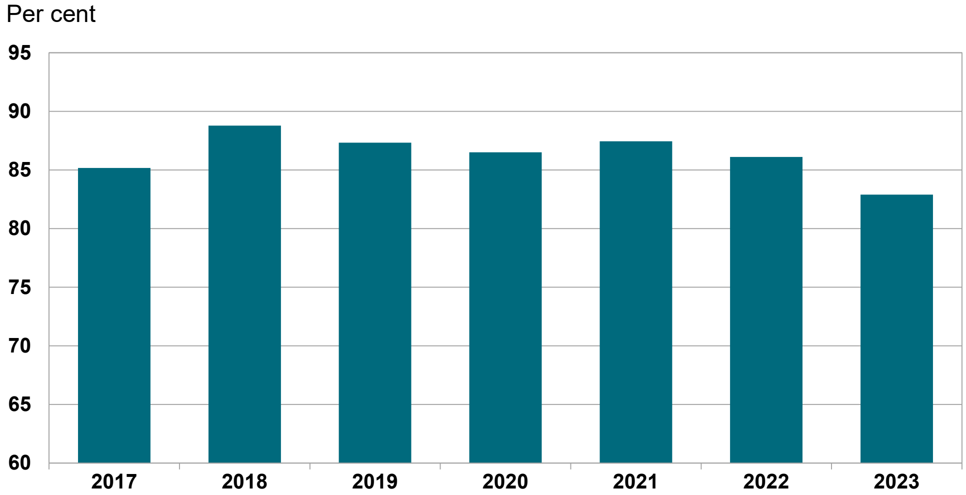
Lower share of new mortgagors amortised

Just under 83 per cent of new borrowers in 2023 signed an agreement to make amortisation payments on their mortgage when signing for the loan (Diagram 10).[17] This is somewhat lower than in previous years. When the interest rates are high, borrowers who are not subject to the amortisation requirements or have the possibility of being granted an amortisation exemption, may choose not to amortise large amounts to keep their monthly loan service payments low. At the same time,

[15] A borrower with an LTV ratio of more than 70 per cent and an LTI ratio of more than 450 per cent would amortise 3 per cent of the mortgage a year.
[16] Exemption is possible, for example, for borrowers moving an older existing loan from one bank to another and for borrowers that acquire a newly built home. It is also possible to be granted exemption if special grounds exist during the term of the loan. For more information about exemption possibilities, see sections 11–16 of Finansinspektionen's regulations (FFFS 2016:16) regarding amortisation of loans collateralised by residential property.
[17] The percentage refers to agreements for regular amortisation made when the loan is granted. The 17 per cent that did not agree on amortisation nevertheless may choose to amortise a lump sum on loans without a fixed interest rate period or to begin to amortise at a later point in time.

high interest rates can lead to other borrowers prioritising to amortise before other forms of savings or consumption in order to reduce the size of their interest rate payments over time.

10. Share of new mortgagors who amortise



Source: FI.

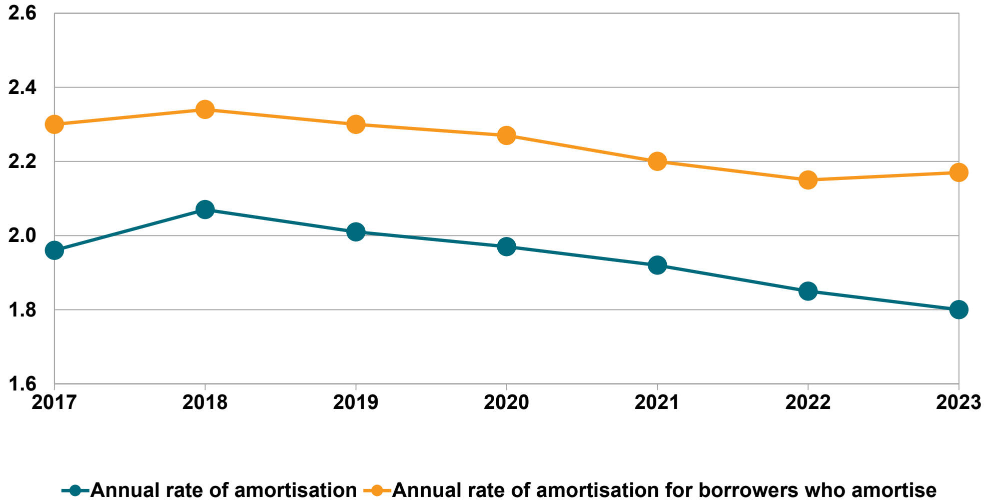
Note: Refers to home purchases, equity withdrawals and bank switches. Refers to amortisation payments on the total mortgages with collateral in the sample.

Slightly lower average amortisation rate

The average annual amortisation rate for all new mortgagors in the 2023 sample was 1.8 per cent, which is slightly lower than in previous years (Diagram 11). This is probably largely due to fewer new mortgagors in the sample in 2023 who amortised. The average amortisation rate among the mortgagors that actually amortised was 2.2 per cent. This was marginally higher than in the 2022 survey.

11. Annual rate of amortisation

Per cent



Source: FI.

Note: Refers to home purchases, equity withdrawal and bank switches. Refers to amortisation payments on the total mortgages with collateral in the sample.

Among the new mortgagors who made amortisation payments, the average payment was SEK 4,200/month. Every tenth borrower amortised more than SEK 7,900/month. Measured in SEK, the new mortgagors amortised slightly less than in recent years. Amortisation payments can constitute a significant portion of the loan service payments. If special grounds arise during the term of the loan, the banks have the option of temporarily exempting mortgagors from their amortisation requirement. During the second half of 2022 and all of 2023, this option has been utilised more than it had been previously (see Fact Box – Amortisation exemption due to special grounds). Borrowers with special grounds can strengthen their cash flow by pausing their monthly amortisation payments.

Fact Box – Amortisation exemption due to special grounds

The amortisation regulations allow lenders to offer mortgagors whose financial circumstances have deteriorated significantly temporary amortisation exemption.[18] It is up to the lender to decide whether to grant an exemption following an individual assessment of the mortgagor's finances. During the spring of 2023, FI

[18] Section 11 of Finansinspektionen's regulations (FFFS 2016:16) on amortisation of loans secured on residential properties (the amortisation regulations) gives mortgage lenders the opportunity to allow mortgagors to refrain from making amortisation payments for a given period of time given the existence of special grounds.

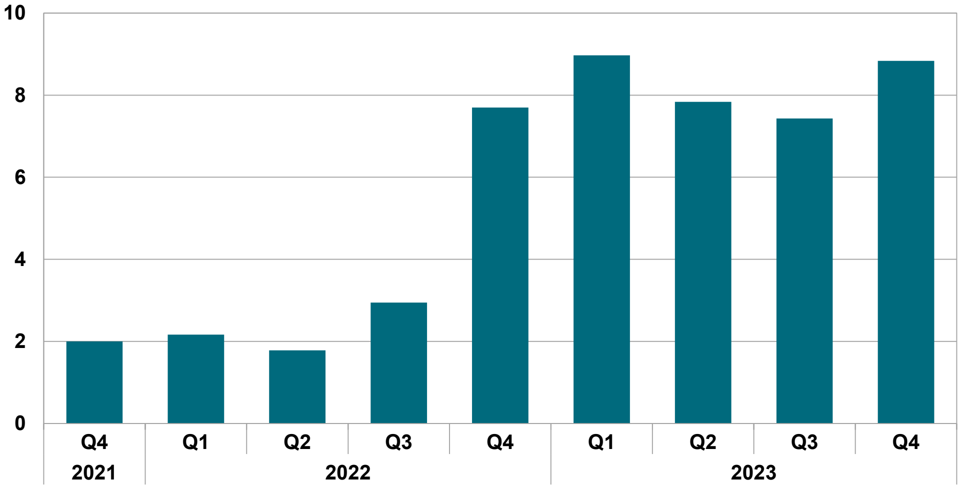
was tasked by the Government to map how the banks applied the exemption option based on so-called special grounds.[19]

The number of exemptions granted due to special grounds began to increase in Q3 2022 and peaked in Q1 2023 (Diagram 12). The number of exemptions granted decreased in Q2 and Q3 of 2023 and then increased again at the end of the year. In Q4 2023, banks granted just under 9,000 exemptions. The number of borrowers that were granted an exemption in 2023 more than doubled compared to in 2022, from just under 15,000 to more than 33,000.

All in all, we see that the number of granted exemptions has stabilised at a higher level than before the start of the increase in September 2022. This indicates that the change in the economy over the past year has continued to put pressure on many borrowers. Given these circumstances, it is still important to use the flexibility in the regulatory framework and for banks to grant exemption from the amortisation requirements when justified.

12. Number of granted exemptions remains at higher level

Thousand



Source: FI.

Note: Number of granted exemption from the amortisation requirements due to special grounds, per quarter.

Amortisation payments more common among young mortgagors

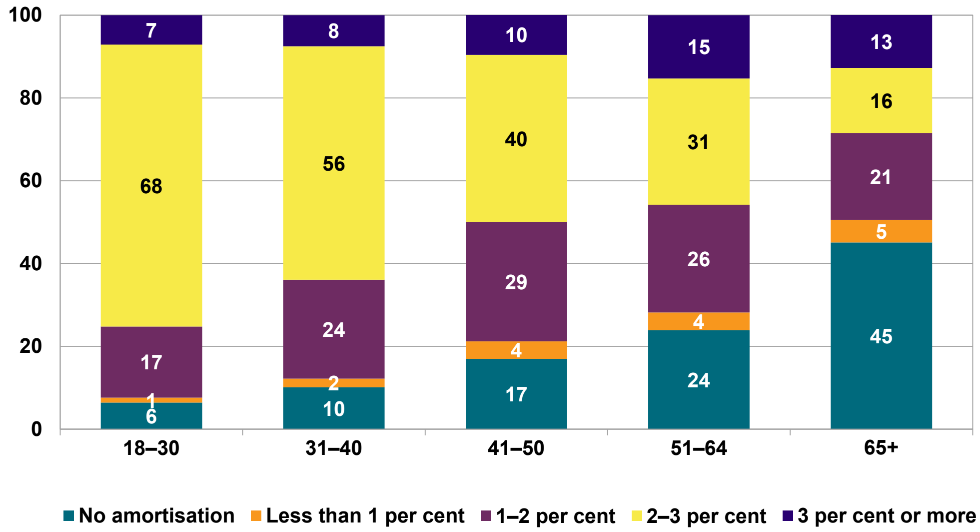
New mortgagors in the age groups 18–30 and 31–40 were more likely to amortise than the borrowers in the other age groups (Diagram 13). This is largely due to

[19] For more information, see *Banks' administration of amortisation requirement exemptions*, June 2023, FI.

young mortgagors as a rule having a higher LTV ratio and LTI ratio than older borrowers, which thus requires them to make amortisation payments under the regulations. One reason for this is that young borrowers often have lower income, and the share of single-person households among younger age groups is high. Among the borrowers who amortised, in contrast, those in the older age groups had higher average amortisation rates than younger mortgagors. The average amortisation rate among the mortgagors that amortised in the 65+ age group was 2.8 per cent. The corresponding amortisation rate among mortgagors in the 18–30 age group was instead 2 per cent. This is primarily due to older age groups often having smaller loans. When it comes to smaller loans, straight-line amortisation – where the borrower pays a fixed sum at every payment occasion – gives a higher amortisation rate in cases where the borrower amortises.

13. Size of amortisation payment by age group

Per cent



Source: FI.

Note: Refers to home purchases, equity withdrawals and bank switches. Refers to amortisation payments on the total mortgages with collateral in the sample. The age distribution is based on the age of the primary borrower at the time the loan is issued.

Loan-to-value ratio

The size of the mortgages in relation to the value of the home has been relatively stable for new mortgagors in recent years. In general, home buyers have had higher LTV ratios than those that withdrew equity. Among those that took out a mortgage to buy a home, four out of ten had an LTV ratio of 85 per cent or just under.

One way of identifying groups that may be more vulnerable than others is to view loans in relation to other variables. One example of this is to view the mortgage in relation to the value of the home (LTV ratio). In a scenario where the borrower needs to sell their home, a borrower with a high LTV ratio is more vulnerable to a drop in housing prices since the value of the home can be lower than the loans on the home. Through amortisation, the borrower decreases this risk over time.

Slightly lower LTV ratios for home purchases

The average LTV ratio for new mortgagors was approximately 64 per cent in 2023.[20] This percentage has remained basically the same since 2017. The LTV ratio in general was higher among home buyers than it was among those withdrawing equity. For home buyers, the average LTV ratio was just under 68 per cent in 2023, which was slightly lower than in 2022. Home buyers in general purchased slightly less expensive homes than in the previous year, but loans decreased even more.[21] For those withdrawing equity, the average LTV ratio was approximately 61 per cent. The level was basically that same as in 2022.

Almost one-third of new mortgagors had an estimated LTV ratio of between 80 and 85 per cent of the value of the home (Diagram 14). The share with an LTV ratio above 80 per cent has decreased slightly since 2020. The group with an LTV ratio above 85 per cent, in other words above the mortgage cap, represented approximately 0.5 per cent of the borrowers in 2023.[22] Approximately one-fourth of new mortgagors had an LTV ratio of less than 50 per cent. According to data on the market value and mortgage in the sample, these mortgagors are not subject to the first amortisation requirement.

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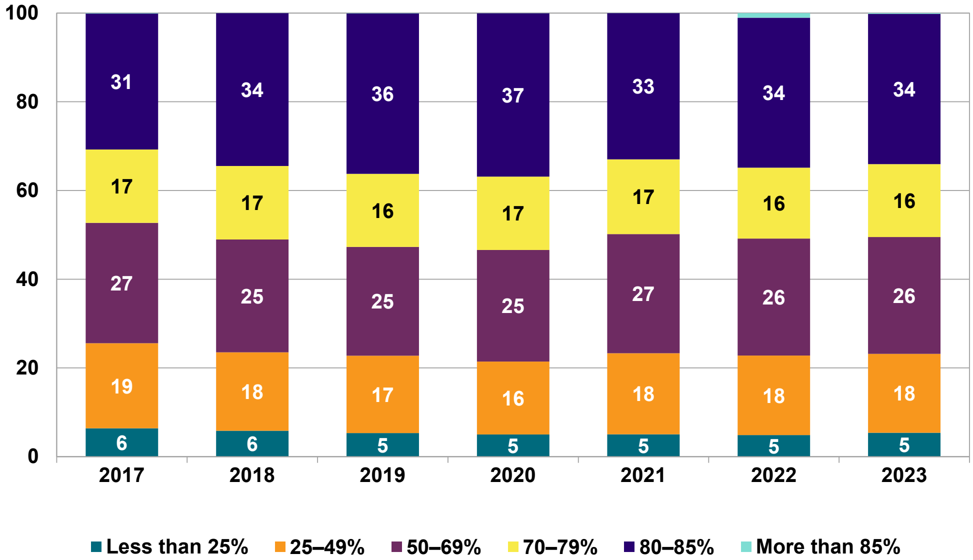
[20] For equity withdrawals, the LTV ratio is based on the actual increase in the mortgage and previous mortgages for the same home. In previous reports, unsecured loans that were taken out at the same time as the mortgage at the same bank were included in the calculation of the LTV ratio, but they are no longer included. The reason for this is that relatively few borrowers take out an unsecured loan from the same bank in conjunction with the mortgage. It is also possible that mortgagors are financing part of their home purchase with an unsecured loan at another bank and at another point in time than when the mortgage is granted.

[21] The average market value was SEK 3.3 million.

[22] Under the mortgage cap, the borrower's mortgage may amount to at the most 85 per cent of the value of the home. In previous reports, the share with an estimated loan-to-value ratio of more than 85 per cent has been larger. See Footnote 20 above.

14. Loan-to-value ratio

Per cent

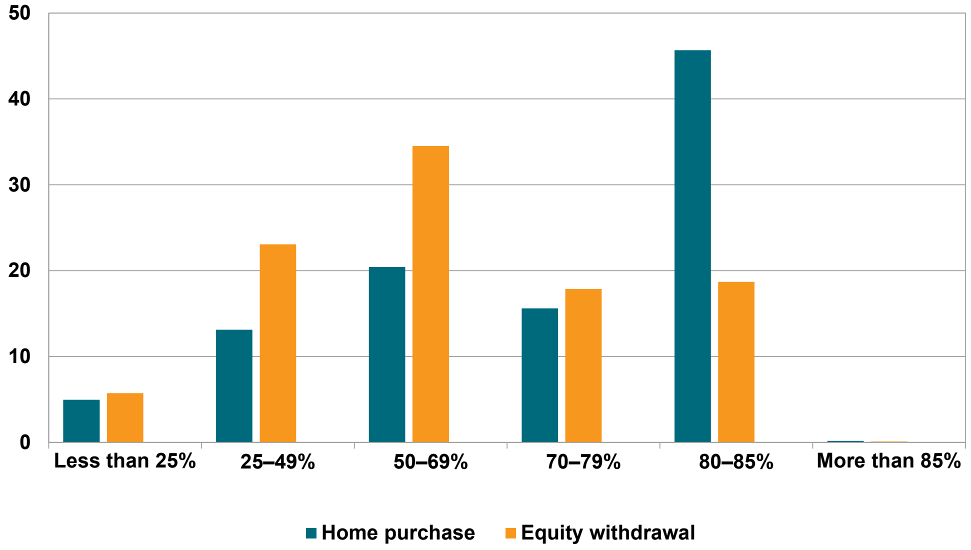


Source: FI.

Note: Refers to home purchases, equity withdrawals and bank switches.

Among home buyers, approximately 45 per cent had an LTV ratio of 80 per cent or more in 2023 (Diagram 15). Just under 40 per cent had an LTV ratio of 84 or 85 per cent; in other words just under the cap. Those withdrawing equity in general had lower LTV ratios than home buyers. Just under one-third of the borrowers that withdrew equity had, including the increase, an LTV ratio of less than 50 per cent. For home buyers this share was 18 per cent, and for all new mortgagors it was 24 per cent.

15. Loan-to-value ratio by type of mortgage in 2023
Per cent

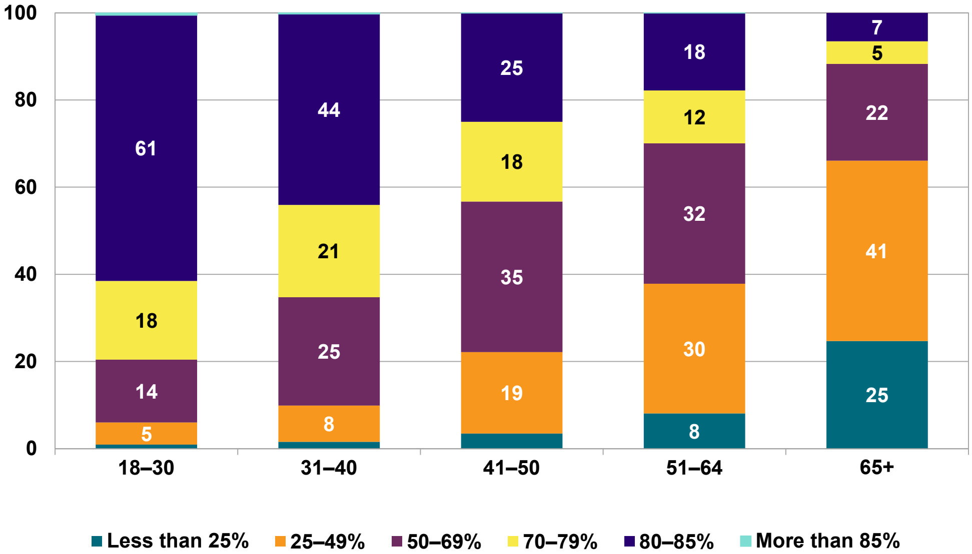


Source: FI.

Higher loan-to-value ratios among young borrowers

Among new mortgagors where the main borrower was 30 years old or younger, 6 out of 10 had an LTV ratio of 80 per cent or more (Diagram 16). This share is lower among older borrowers. One explanation is that older borrowers who are buying a new home often have the option of financing the purchase with a larger percentage of equity. They have often completed previous housing transactions and profited when housing prices increased. They have also managed to save and amortise for a longer period of time. A borrower who wants to increase an existing mortgage and withdraw equity can only do so if there is unutilised loan capacity in the home. For borrowers who were 65+ and took out a new mortgage, almost 7 out of 10 had an LTV ratio of less than 50 per cent. For older home buyers, it is also possible that they are buying a smaller and less expensive home than before, and they can thus have a lower LTV ratio.

16. Loan-to-value ratio broken down by borrowers' ages in 2023
Per cent



Source: FI.
Note: Refers to home purchases, equity withdrawals and bank switches.

Loan-to-income ratio

The higher interest rates contributed to a decrease in the average LTI ratio among new mortgagors in 2023. Both home buyers and households withdrawing equity displayed the same trend. The share of borrowers with an LTI ratio of more than 450 per cent also continued to decrease, and in 2023 this figure was back at approximately the same level as when the stricter amortisation requirement was introduced.

In addition to the LTV ratio, another measure used to identify groups that could be more vulnerable is the LTI ratio, loans divided by the borrower's income.[23] A higher LTI ratio means that the borrower must dedicate a larger portion of their income to interest rate payments at any given interest rate level. The LTI ratio therefore can indicate how a borrower is impacted by interest rate increases or a drop in income.

Continued decrease in loan-to-income ratios

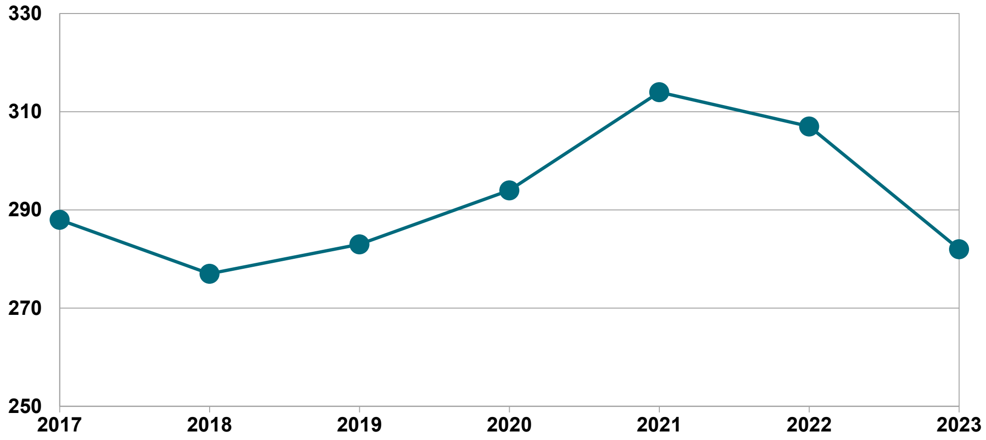
New mortgagors took out on average smaller mortgages in relation to their income in 2023 compared to the two previous years. One explanation is that the costs to take out a loan have increased sharply as a result of increasing interest rates. It could also be that lenders have become more restrictive in their lending. At the same time, housing prices also decreased compared to 2021. In 2023, the average LTI ratio for a mortgage was 282 per cent, which can be compared to 307 per cent in 2022 (Diagram 17).

The average LTI ratio was thus back to approximately the same level as in 2018 when the stricter amortisation requirement was introduced. Home buyers had on average larger mortgages in relation to their income than those withdrawing equity. One reason for this difference is that those withdrawing equity generally have higher income.

[23] We consistently use gross income when calculating the LTI ratio. Income includes earned income, capital gains and business income. The reported income differs to some extent between banks, for example some banks include child benefits, study grants, and child support, for example, as income. Gross income is related in the LTI ratio to the household's total mortgage.

17. Average loan-to-income ratio

Per cent



Source: FI.

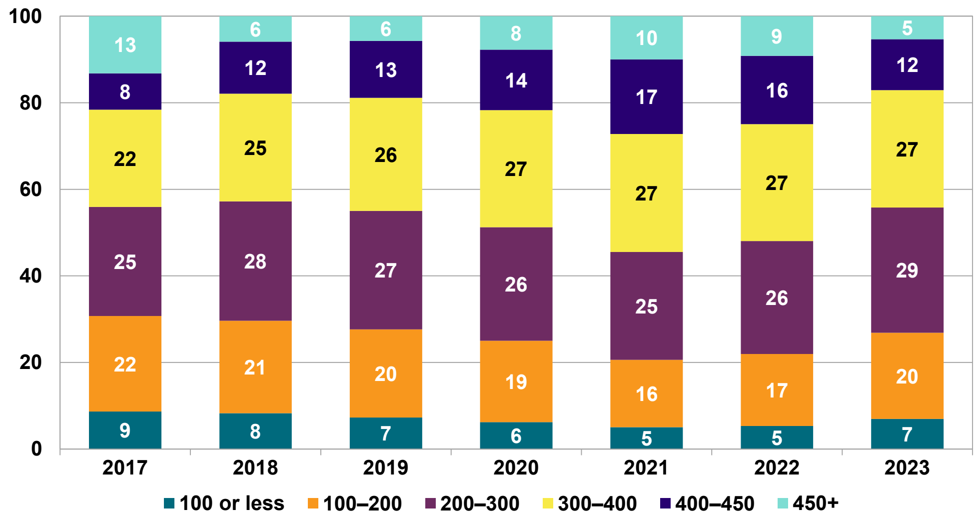
Note: The LTI ratio is calculated as gross income divided by the total mortgages. Refers to home purchases, equity withdrawals and bank switches.

Increasing interest rates decrease the share that have high LTI ratios

The majority of new mortgagors had an LTI ratio between 200 and 400 per cent (Diagram 18). The share with an LTI ratio above 450 per cent was 5.3 per cent in 2023. It was a decrease from the 2022 survey, where the share was 9.1 per cent. During the pandemic years, 2020 and 2021, the share of borrowers with an LTI ratio above 450 per cent increased. During this period of time, interest rates were low at the same time as housing prices increased.

18. Loan-to-income ratios for mortgages

Per cent



Source: FI.

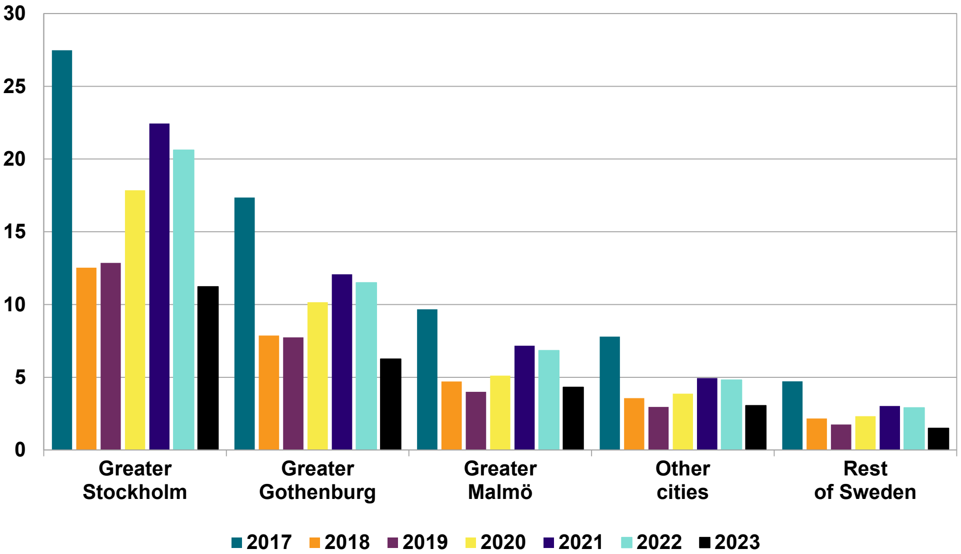
Note: The loan-to-income ratio is calculated as gross income divided by the total mortgages. Refers to home purchases, equity withdrawals and bank switches.

High loan-to-income ratios more common in metropolitan areas

The metropolitan areas in particular, and especially Greater Stockholm, are where new mortgagors had LTI ratios above 450 per cent (Diagram 19). In 2023, just over 11 per cent of new mortgagors in Greater Stockholm had an LTI ratio of more than 450 per cent, which was a significantly larger share than in other regions, but it was at the same time a significantly lower share than in 2022. Compared to 2022, the share with an LTI ratio above 450 per cent decreased in all regions.

19. Share with loan-to-income ratio above 450 per cent broken down by region

Per cent



Source: FI.

Note: The loan-to-income ratio is calculated as gross income divided by the total mortgages. Refers to home purchases, equity withdrawals and bank switches.

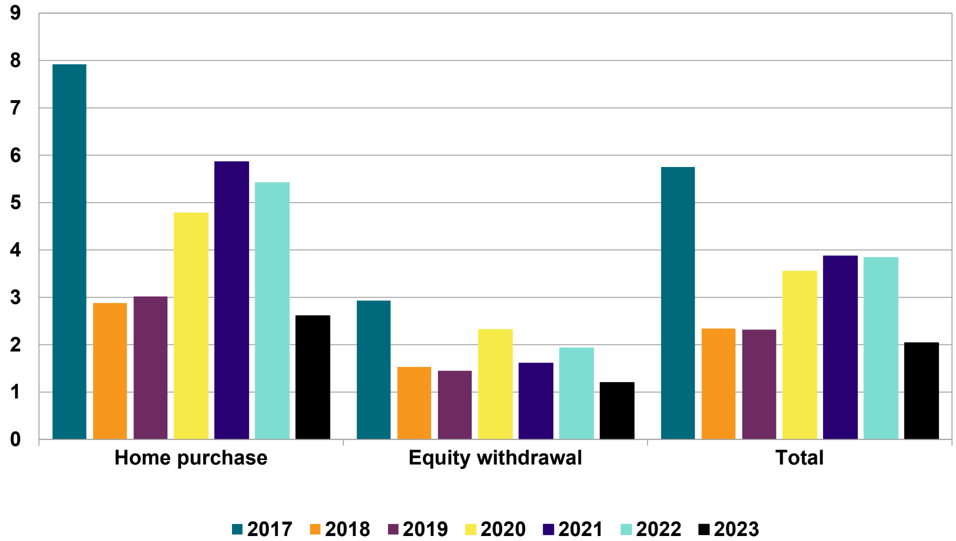
Fewer highly leveraged households

The share of borrowers with an LTI ratio above 450 per cent and an LTV ratio above 70 per cent was 2 per cent in 2023.[24] This was lower than in 2022. The decrease was clearest among home buyers, where the share decreased from 5.4 per cent in 2022 to 2.6 per cent in 2023 (Diagram 20).

[24] A borrower with an LTV ratio above 70 per cent and an LTI ratio above 450 per cent would amortise 3 per cent of the mortgage a year.

20. Share of borrowers with a loan-to-value ratio above 70 per cent and a loan-to-income ratio above 450 per cent, by mortgage type

Per cent



Source: FI.

Note: The loan-to-income ratio is calculated as gross income divided by the total mortgages.

Loan service payments for the mortgage

Households are dedicating an increasingly larger share of their income to loan service payments on their mortgages. The interest rate expense after deduction was on average SEK 6,000 per month for the mortgage in the 2023 sample. This was an increase of SEK 2,000 compared to 2022. The interest rate expense in relation to disposable income increased from 7.8 per cent in 2022 to 10.8 per cent in 2023.

One way to analyse households' ability to repay their loans is to estimate loan service payments in relation to the borrowers' disposable income. The interest-to-income ratio is the interest rate expense (interest rate payments after interest rate deductions) divided by income. The loan service ratio includes both interest rate payments and amortisation payments as a percentage of disposable income. Interest rate payments and mortgage payments on mortgages can take up a significant portion of a household's income. As interest rate payments increase, this decreases a household's ability to consume and save. If the household does not receive an immediate tax deduction for its interest expenses, the impact on cash flow is greater. We therefore estimate interest-to-income ratios before and after interest rate deductions.[25] For the new mortgage in the sample, there is information about interest rates and fixed interest periods.[26] We weight the interest rate levels for each component of the new mortgage. We then use the weighted interest rate to estimate the household's interest expense for the entire mortgage in the sample and for the household's total mortgage.[27]

Higher share of income spent on interest payments

The average interest-to-income ratio for mortgages in the sample more than doubled between 2021 and 2022. In 2023 it continued to increase (Diagram 21). On average, the interest payment for the mortgage in the sample – before the interest

[25] When we calculate actual interest expense after interest deductions, we assume that the entire interest expense is deductible and optimally divided between borrowers to grant maximum deduction. Furthermore, we consider the break-off limit for the interest rate deduction, where the right to a deduction decreases for amounts above this limit. The interest deduction allows a deduction of 30 per cent for interest expenses up to SEK 100,000 per person and year. In excess of this amount the deduction is 22 per cent.

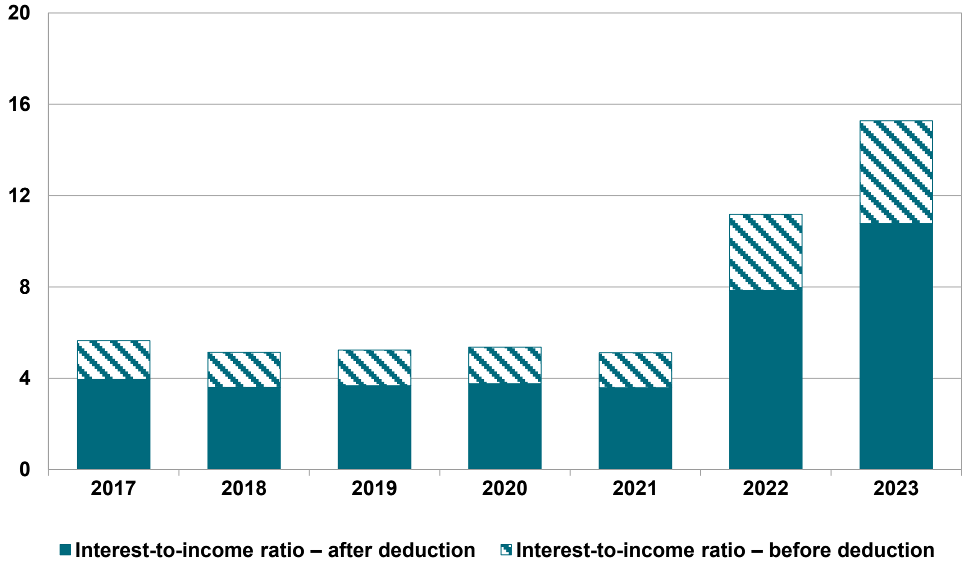
[26] We have data on the nominal interest rate. This means that the interest expenses that have been calculated to some extent underestimate the effective rate, i.e., the actual cost.

[27] If the loan in the sample is for equity withdrawal, the interest rate and the fixed interest rate period for the remaining parts of the loan are not known. Therefore, the actual weighted interest rate for the entire mortgage is more uncertain for increases to the existing mortgage than for new loans taken by home buyers. For home buyers, we have data on the interest rate for the entire loan.

rate deduction – was more than 15 per cent of net income in 2023.[28] After the interest rate deduction, the average interest-to-income ratio was 10.8 per cent.

21. Average interest-to-income ratio before and after interest rate deduction

Per cent



Source: FI.

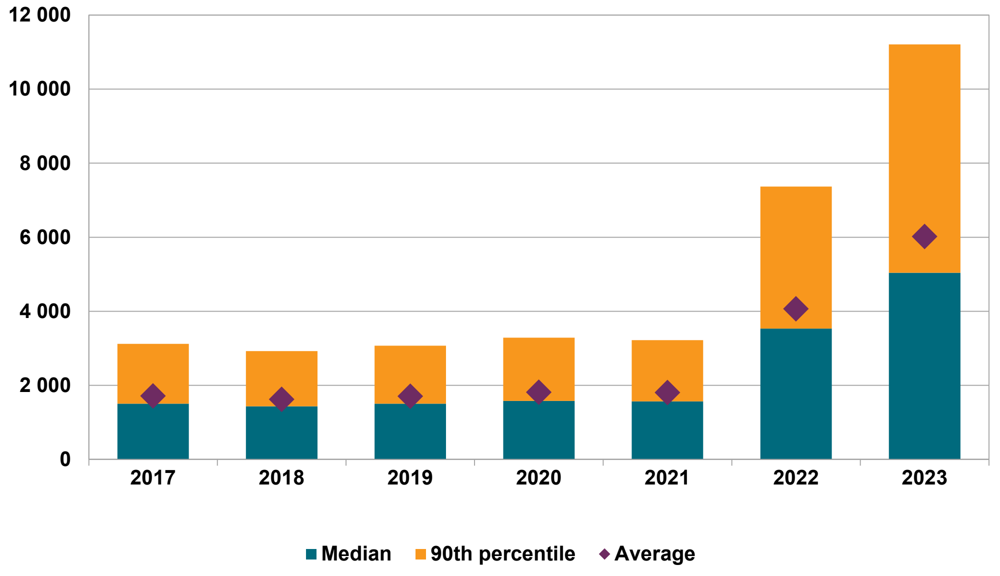
Note: Refers to the mortgage in the sample. The interest-to-income ratio relates the interest fee (before interest deduction) and the interest expense (after interest deduction) to the household's post-tax income. Refers to home purchases, equity withdrawals and bank switches.

Half of the mortgagors had an interest expense in 2023 – after interest deduction – of at least SEK 5,000 per month (Diagram 22). This corresponds to around SEK 7,200 per month before interest deduction. And one out of ten borrowers had an interest expense in 2023 of SEK 11,200 per month or more. This corresponds to an interest-to-income ratio of 17.5 per cent or more.

[28] As part of the ongoing oversight of the data handling of the sample, we have switched to using the banks' own reported net income for the household. Before, we calculated net income ourselves.

22. Interest expense per month after interest deduction

SEK



Source: FI.

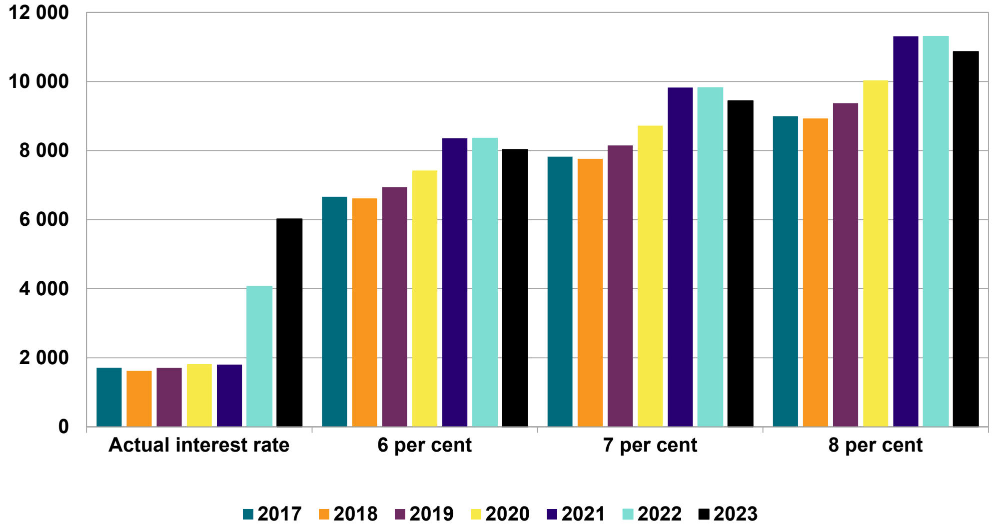
Note: Refers to the mortgage in the sample. Refers to home purchases, equity withdrawals and bank switches.

Fact Box – Interest expenses for the mortgage at higher interest rate levels

Interest rate expenses smaller at a higher interest rate than last year

In a scenario where the mortgage rate had increased to 6 per cent, the average interest expense had increased to approximately SEK 8,000 per month (Diagram 23). This is less than in 2022, which is because borrowers in 2023 took out smaller loans than previously. At an interest rate of 8 per cent, the average was approximately SEK 10,900/month.

23. Monthly interest expense after interest deduction by interest rate
SEK



Source: FI.
Note: Refers to estimated interest expense after deduction for the mortgage in the sample. Refers to home purchases, equity withdrawals and bank switches.

The actual cost for the mortgage decreases due to the possibility for interest rate deduction. However, the interest deduction is smaller for higher interest payments, which results in a higher interest expense for the household. Given the actual mortgage rate that the borrower had in the sample, approximately 16 per cent of the borrowers would have an interest payment for the mortgage that exceeded the the break-off limit for interest rate deductions in 2023.[29] This marks a clear increase from 2022, for which the corresponding share was only 3 per cent. At a mortgage rate of 6 per cent, the share of borrowers with an interest-rate payment above the break-off limit for interest rate deductions would increase to 32 per cent. The share is based on the mortgage in the sample. If the household had additional interest expenses for other mortgages or from non-mortgage loans, it is probable that an even larger share of borrowers would receive a receive a reduced interest rate deduction at a higher interest rate level.

Lower interest-to-income ratios in 2023 given a stressed mortgage rate

The borrowers' interest-to-income ratio was lower at a higher mortgage rate than in previous years. The average interest-to-income ratio – after interest rate deduction – at a mortgage rate of 6 per cent is estimated to be 14.3 per cent of disposable income (Diagram 24). The corresponding figure the previous year was 15.7 per cent. This is an indication that borrowers, by taking out slightly smaller loans in relation to their income, were slightly more resilient in 2023 to an increase in interest rates. However, the differences between the years during the period 2017–2023 were relatively small.

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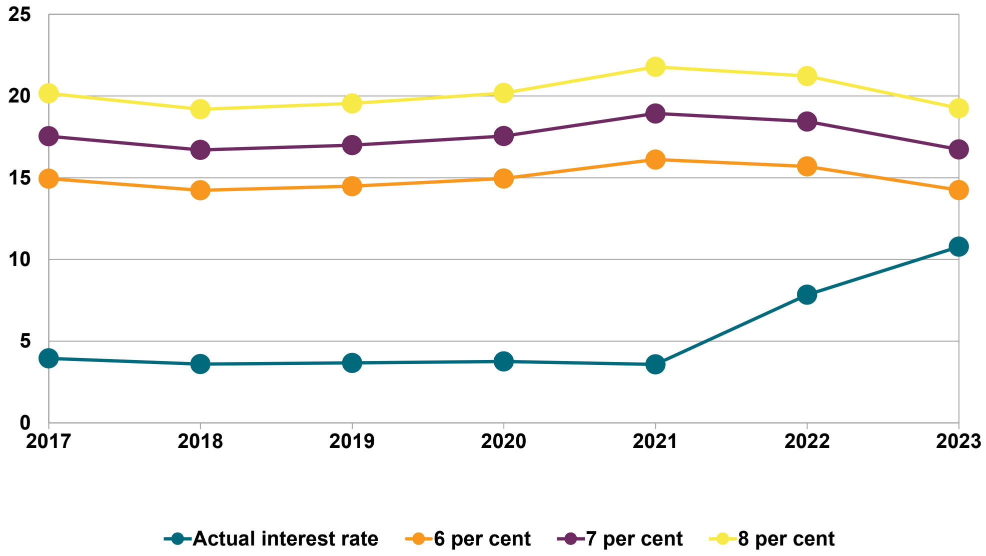
[29] SEK 100,000 per year and borrower.

24. Monthly interest-to-income ratio after interest deduction by interest rate
Per cent



Source: FI.
Note: Refers to estimated interest expense after deduction for the mortgage in the sample in relation to the household's net income. Refers to home purchases, equity withdrawals and bank switches.

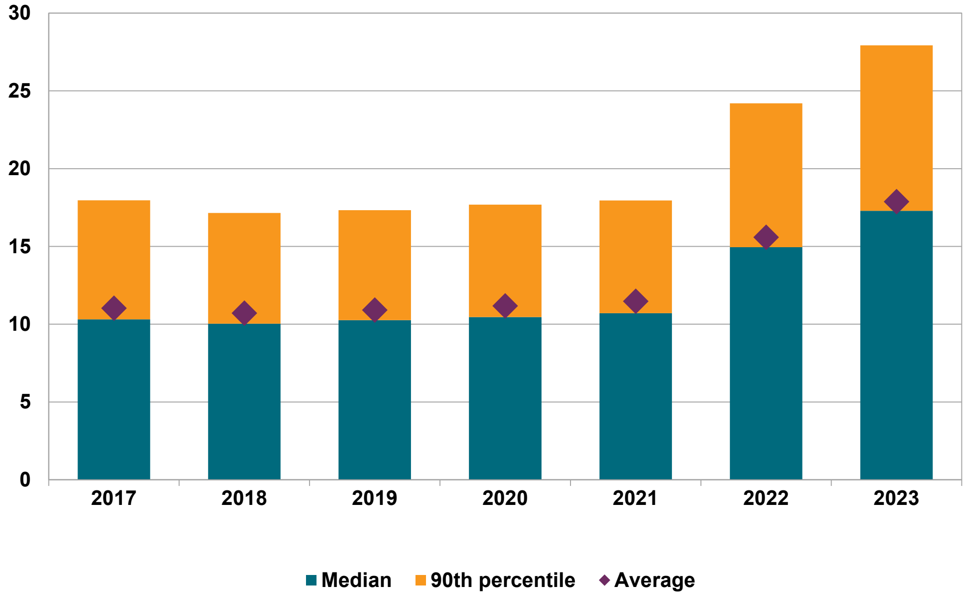
Interest rates were a larger share of total loan service payments

The average loan service ratio among new mortgagors who amortised[30] their mortgage was 17.9 per cent in 2023 (Diagram 25). Half of the borrowers who amortised had a loan service ratio for the mortgage in the sample of 17.3 per cent or more. Every tenth borrower spent at least 27.9 per cent of their income on interest and amortisation payments. The average loan service ratio among those who amortised increased by 2.3 percentage points between 2023 and 2022.

[30] We are using the actual amortisation amounts that the borrowers had for the mortgage in the sample.

25. Loan service ratio after interest deduction for new borrowers who amortise

Per cent

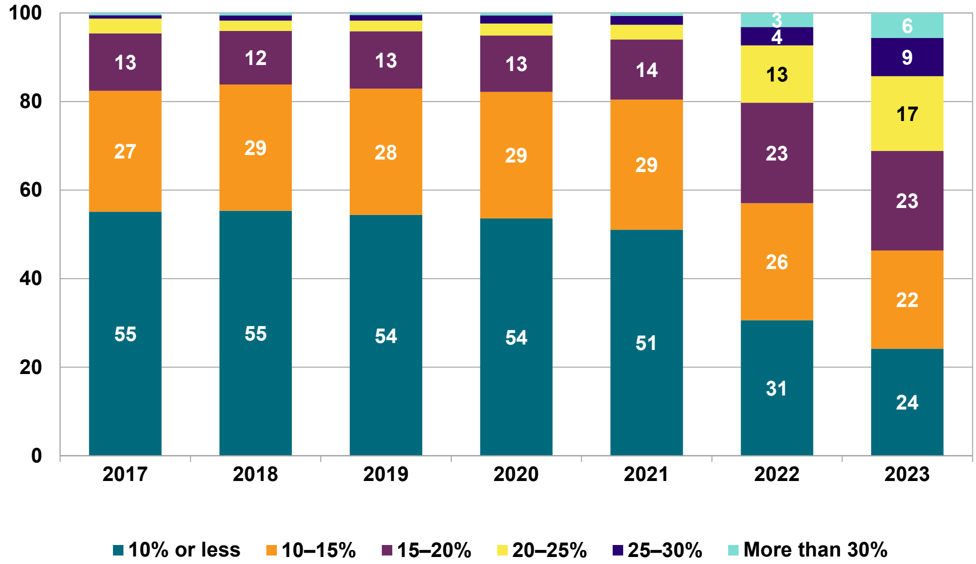


Source: FI.
Note: The loan service ratio consists of interest expense after deduction and amortisation for the mortgage in the sample in relation to disposable income. The diagram shows borrowers who amortised the mortgage in the sample. Refers to home purchases, equity withdrawals and bank switches.

During the period 2017–2021, more than half of the new mortgagors spent 10 per cent or less of their net income on interest and amortisation for their mortgage (Diagram 26). Instead, in 2023, one out of three new borrowers had a loan service ratio of 20 per cent or higher. These figures also include borrowers who do not amortise their mortgage.

26. Loan service ratio after interest deduction for new borrowers

Per cent



Source: FI.

Note: Refers to the mortgage in the sample. Refers to home purchases, equity withdrawals and bank switches.

Margins of borrowers

The calculation by the banks of the borrowers' surplus each month was lower in 2023 than in the previous year. The surplus is also not expressed in inflation-adjusted terms. Even if the banks adjusted their calculations in 2023, this means that any given surplus did not go as far in 2023 as it did in 2022 since costs in society have increased in general.

The purpose of a credit check is for the bank to determine whether the borrower has the financial means to repay the loan. Only then will the lender grant the loan. A new mortgage typically has a very large impact on the household's finances. Therefore, a credit check of new mortgagors is important to ensure good consumer protection by reducing the risk that consumers borrow too much.

All banks included in the survey calculate discretionary income as part of the credit check. In this calculation, the banks deduct the household's costs from its income. The household's subsistence and housing costs are considered, as are interest rates and amortisation of the household's various loans. To assess whether the household can handle interest rates that are higher than at the time the loan is granted, the banks stress the interest rates in their calculations.

The credit check cannot guarantee that the borrower will be able to make future loan payments. For example, the borrower could experience an unexpected life event – such as unemployment, illness or divorce – that has a negative impact on their ability to repay their loan.[31] In this section, we are using the banks' own discretionary income calculations after interest deductions.

Fact Box – Changes in standardised costs and stressed mortgage rates

As a rule, the banks conduct an annual overview of their discretionary income calculations. When the state of the economy changes significantly banks may need to review their discretionary income calculations more frequently. For example, the banks can adjust their stressed interest rates or the standardised figures they uses to estimate certain costs such as subsistence and operating costs for the home. In 2022, the banks increased both their stressed interest rates and standardised costs as a result of increasing mortgage rates, rapidly increasing inflation, and high electricity prices. In 2023, the banks continued to make adjustments. Based on the

[31] See Andersson, M. K., Bergling, A. and Üye, M. (2021), "
Loans, payment problems and debts at
the Swedish Enforcement Authority", FI Analysis 32, Finansinspektionen.

available information, however, the banks appear to have made most of the adjustment to the state of the economy already in 2022.

In 2023, three out of eight lenders increased their stressed interest rate for mortgages. This can be compared to the change in 2022, when five out of eight banks increased their stressed interest rate. The average stressed mortgage rate among the banks in the survey was 6.6 per cent in 2023, an increase of 0.2 percentage points compared to the previous year. Despite the increases, the average stressed mortgage rate was still lower than in 2016–2020, when it was closer to 7 per cent.

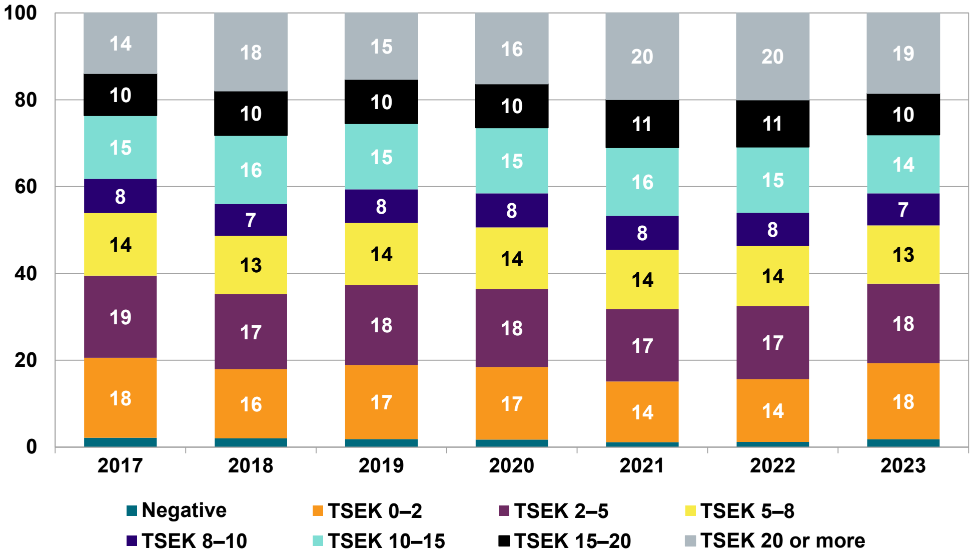
Standardised subsistence and operating costs vary between banks, particularly for the individual components. The difference between the banks decrease if we consider all cost components used by the banks. In 2022, most banks stated that they had raised their standardised costs on more occasions than the changes made in conjunction with the annual review due to the macroeconomic development. A majority of the banks in the survey increased their standardised subsistence costs in 2023 as well, but the average increase was lower than in 2022. Half of the banks increased their operating costs for tenant-owned housing and single-family homes in 2023. The average standardised costs among these banks increased by SEK 300 and SEK 900, respectively.

The estimated surplus is an important part of the banks' credit assessment of new mortgagors.

The reported surpluses are expressed in SEK/month in nominal terms. This means that any given surplus is not directly comparable between years during the period 2017–2023. Even if the banks made adjustments to their discretionary income calculations in 2023, an unchanged discretionary income surplus in SEK in practice entails a decrease in buying power due to the sharp increase in costs across society in general. In other words, the borrower's surplus does not stretch as far as it did previously. It is also relevant to note that the results consist of the households that actually had their mortgage application approved. This means that we cannot see the corresponding calculations for those that applied for a mortgage but were denied due to a deficit in their discretionary income calculation.

The share of new mortgagors that had a surplus in 2023 in the calculation of less than SEK 2,000/month was 19 per cent (Diagram 27). In 2022, this figure was 15 per cent. Almost one-third of borrowers in 2023 had a surplus in the calculation of SEK 15,000/month or more. This is a slightly smaller share than in the previous year. There still continued to be a large share of the new mortgagors that were judged to have a large surplus even given a stressed mortgage rate. Because the calculation is based on a large number of assumptions and to some extent standardised costs, the results should not be overinterpreted. However, the results can provide an indication of the share of new mortgagors that are estimated to have a significant surplus even when interest rates are stressed, as well as how many and which households that have small margins.

27. Monthly surplus in TSEK
Per cent



Source: FI.
Note: Refers to home purchases, equity withdrawals and bank switches

During the period 2017–2023 there was a small share of new mortgagors that had a deficit in their discretionary income calculations but were still granted a mortgage. There can be many different explanations for this, and this is not noteworthy on its own. For example, the borrower may have shown that they will soon have higher income or have personal wealth that means that in reality their repayment ability is very good.

Much lower monthly surplus per borrower

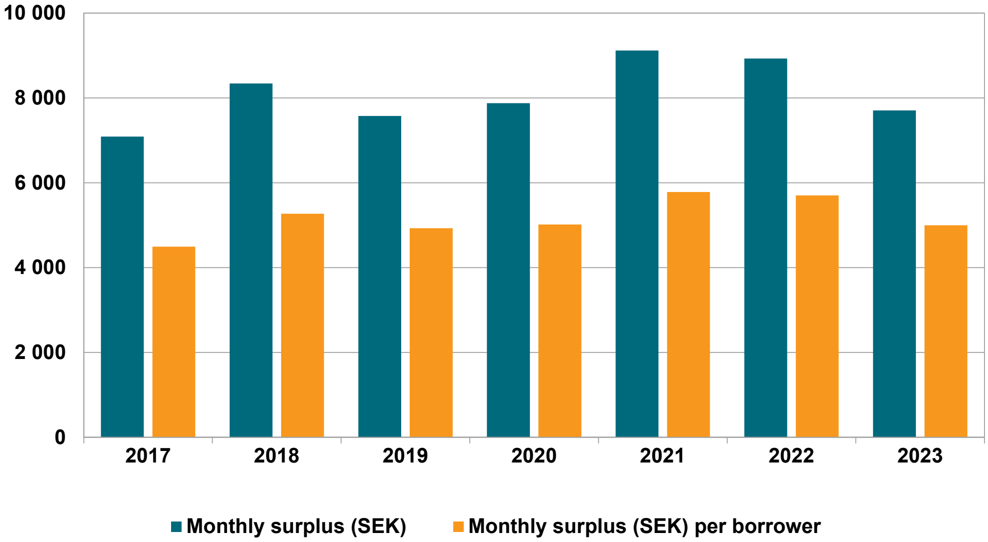
The median surplus was approximately SEK 7,700 per month in 2023 (Diagram 28).[32] The reported surplus in SEK is a measure that does not consider the number of borrowers (adults) or individuals (adults and children) that live in the household. A borrower who lives by themselves with a given surplus has significantly greater room to manoeuvre economically compared to a family with children that has the exact same surplus in SEK. To illustrate this, we also show the surplus per borrower.[33] The median surplus was instead SEK 5,000 per month and borrower

[32] There is a large spread in the reported surpluses. Some borrowers have a deficit in the calculation while others have a large surplus.
[33] We also excluded cases where there are three or more borrowers, since this normally consists of loans where there are one or several co-borrowers outside the household. The adjustment does not take into consideration the number of children at home.

(Diagram 28). This is around SEK 700 lower than the median surplus per borrower in 2022 and corresponds to a decrease of around 12 per cent.

28. Monthly surplus in SEK

Per cent



Source: FI.

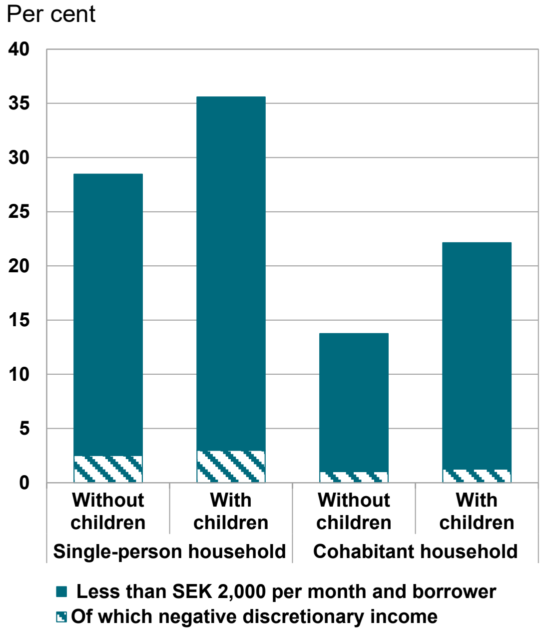
Note: For monthly surplus per borrower, the reported discretionary income has been split evenly between cohabitating borrowers. Loans with three borrowers or more have been excluded. Refers to home purchases, equity withdrawals and bank switches.

Single-person households with children had the lowest margins

The group Single-person household with children had the lowest surplus. More than one out of three single-person household mortgagors with children living at home had a surplus in the discretionary income calculation of less than SEK 2,000 per month (Diagram 29). Among cohabitators without children, the share with a discretionary income calculation surplus of less than SEK 2,000 per month and person was the lowest.

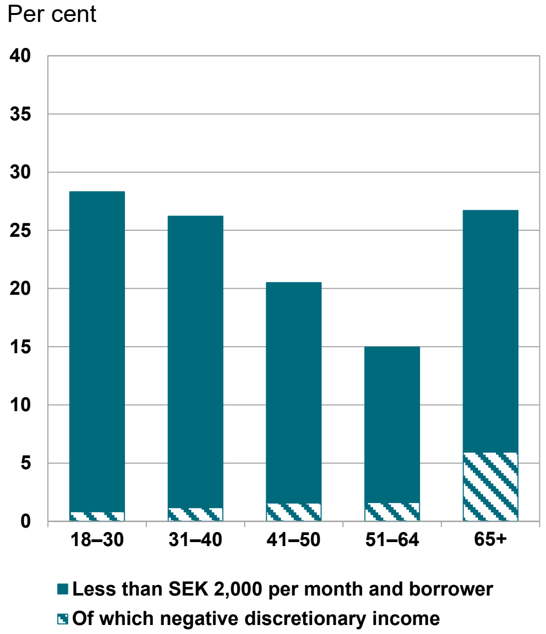
Almost one-third of the mortgagors in the age group 18–30 in 2023 had a surplus of less than SEK 2,000 per month and person (Diagram 30). This is a slightly larger percentage than among older mortgagors. In the group of mortgagors where the main borrower was 65 or older, more than every fourth borrower had a surplus of less than SEK 2,000/month. However, in this group it was more than four times as common to have a negative result in the discretionary income calculation. This means that it is more common for older mortgagors to get a new mortgage despite a negative outcome in the discretionary income calculation. Most likely, this can often be explained by factors such as large capital or many years of savings and potentially also gains from previous housing transactions.

29. Share of borrowers in 2023 with a monthly surplus of less than SEK 2,000 per person, broken down by household composition



Source: FI.
Note: Estimated surplus in the discretionary income calculation has been split evenly between cohabitating borrowers. Households with three borrowers or more have been excluded. Refers to home purchases, equity withdrawals and bank switches.

30. Share of borrowers in 2023 with a monthly surplus of less than SEK 2,000 per person, broken down by age



Source: FI.
Note: Estimated surplus in the discretionary income calculation has been split evenly between cohabitating borrowers. Households with three borrowers or more have been excluded. Refers to home purchases, equity withdrawals and bank switches.