ANALYSIS

Savings help households cope with rising interest rates

Finnish economy | 05.07.2023 | Petri Mäki-Fränti, Aino Silvo

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The rise in consumer prices and interest rates continues to put a strain on households this year. This is affecting households in a variety of ways, depending on their income, wealth and debt. The cost of living of low-income households has risen slightly more than that of high-income households. The largest interest expenses in euro terms burden average and high-income households, but they are also well placed to cope with a rise in expenses. Most Finnish households' financial margin is quite good, which dampens the macroeconomic effects of higher prices and interest rates.

Rise in prices and interest rates putting strain on households

Inflation began to rise in late 2021 throughout the euro area due to, in particular, the supply disruptions caused by the COVID-19 pandemic. The energy crisis triggered by Russia's war in Ukraine caused a surge in energy prices and pushed up inflation further in 2022. Even though the rise in prices is expected to slow in 2023, households' purchasing power will recover slowly. Financial market interest rates are also expected to remain higher than before in the next few years.

Inflation is weakening the purchasing power of all households. The contraction in purchasing power affects the various types of households differently, depending on their financial position and structure of consumption. The rise in interest rates, in turn, affects directly only the indebted households. The higher prices and costs burden, in particular, low-income households who typically have only modest savings as a buffer for a rainy day. In contrast, high-income households are able to cope with even a considerable increase in the cost of living or interest expenses without necessarily having to cut down on spending. On the other hand, high-income households are, on average, more indebted than low-income households.

This article examines the significance of the rise in interest rates as well as housing costs and the cost of living for the financial situation of households. The household sector is examined as a whole and from the perspective of how income, debt and interest rate and other housing expenses are distributed between households in different income brackets. This enables the assessment of the financial margin of the households with various incomes to face the rise in interest rates and costs. This article also assesses the differences in the inflation rates faced by households in the various income brackets in 2022.

The distribution of household income, wealth and debt has an impact on the macroeconomic effects of rising cost of living and interest rates. If households whose financial margin is small are extensively impacted by economic shocks, this may amplify macroeconomic fluctuations. Conversely, the more households have income and savings, the better prepared they are to face the financial blows, which will dampen the macroeconomic effect of rising inflation and higher interest rates.[1]

The majority of households seem to have a reasonable chance of coping with the rise in prices and interest rates, at least as long as the labour market remains strong and unemployment does not increase in a broad-based manner. The wage settlements reached during the spring will support the purchasing power of wage and salary earners. In turn, low-income households largely dependent on income transfers will profit from substantial index increments to social benefits. The majority of households also have savings and financial assets that provide a financial buffer.

Rise in prices affecting different households in various ways

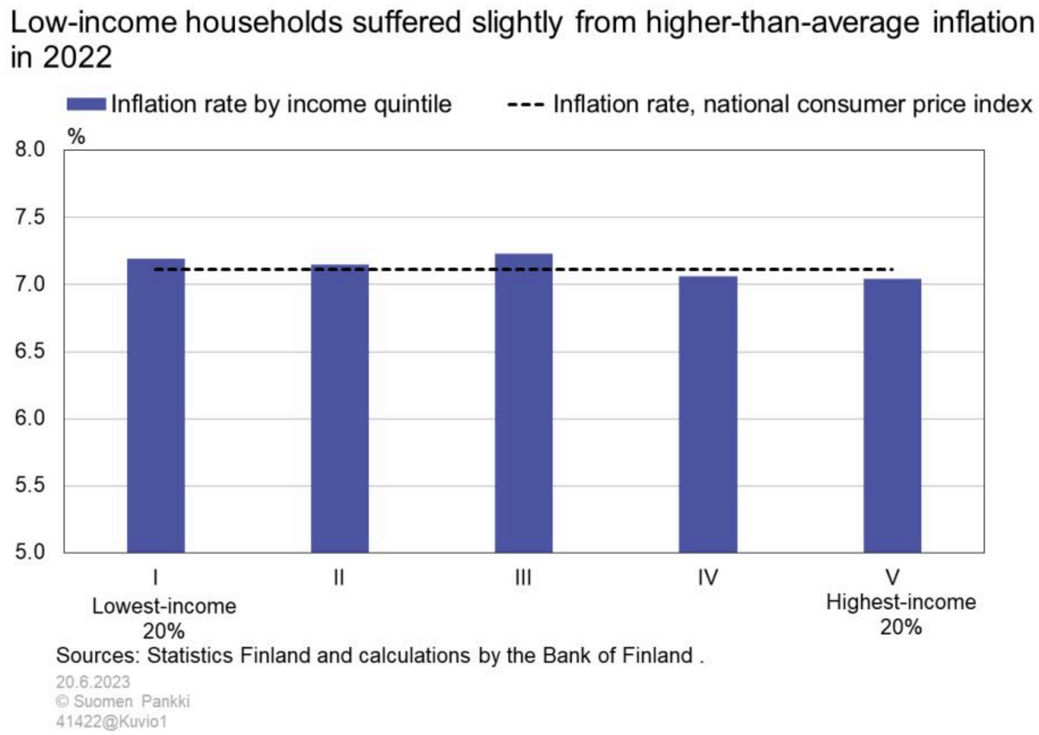
In 2022, the general level of prices rose by 7.1% on a year earlier, as measured by the national Consumer Price Index.[2] The rate of increase was even higher in the prices of food, housing and transport fuels.[3] In contrast, clothing and footwear prices and the prices of many services, for example, rose at a significantly slower-than-average rate.

The effective inflation rates faced by households differ between the income brackets, due to differences in the structure of consumption. The share of consumer expenditure accounted for by necessities, such as food and housing, is larger for low-income households than for high-income households. The share of transport and various services, in turn, is larger for high-income households. Therefore the impact of, for example, a rise in food prices is stronger than average for low-income households, but in the case of higher prices of transport fuels, the impact is stronger than average for those with high incomes.

The household budget survey by Statistics Finland can be used for estimating the inflation rates faced by households in the various income quintiles.[4] In 2022, in the three lowest income quintiles, inflation was higher than average inflation, and in the two highest, in turn, lower than average, due to differences in the structure of consumption (Chart 1). The lowest income quintile benefited slightly from the fact that rents rose at a slower rate than the general level of prices, because in the lowest income brackets, rental occupation is more popular, and the share of electricity and heating of their consumption expenditure is on average slightly smaller.[5]

The differences in the inflation rates of the various income brackets are, however, small – no more than 0.2 percentage points – as in Finland, the differences in the structure of consumption of the income brackets are relatively small. The calculation is only indicative, as the most recent data from the household budget survey and the weight structure of consumption per income quintile are for the 2016.[6]

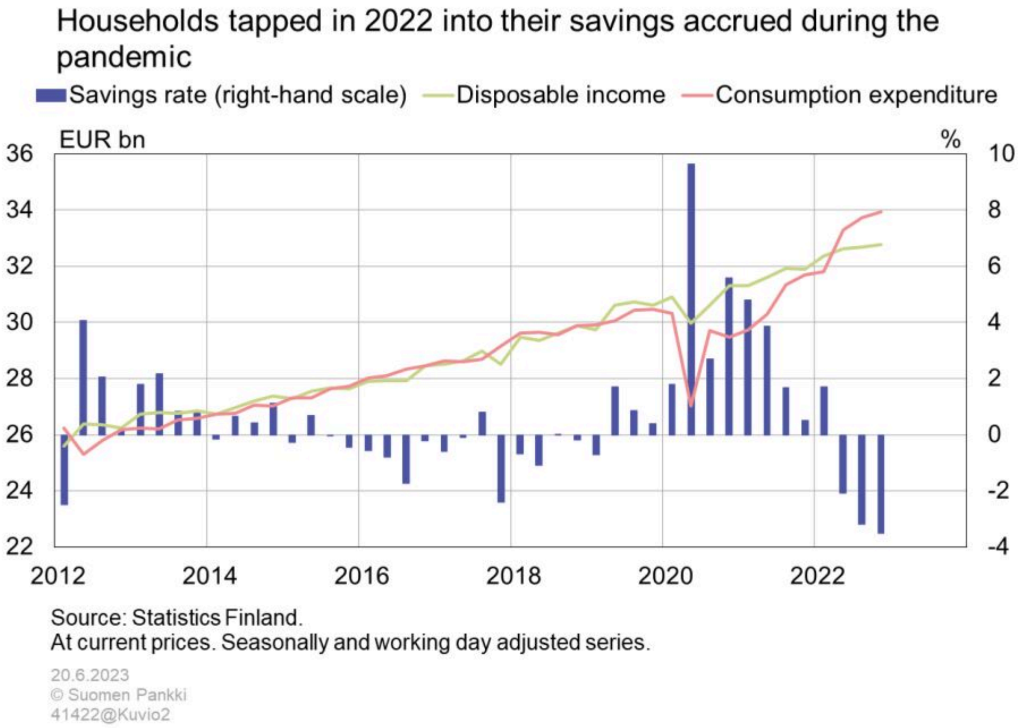
Chart 1.



Households compensate for the rise in prices and interest rates by tapping into their savings

Household savings increased considerably during the first two years of the COVID-19 pandemic in 2020–2021, as the willingness and opportunities to consume decreased and consumers prepared for uncertain times. As inflation started to accelerate and incomes increased at a considerably slower rate than prices, households were able to compensate for the rapid rise in the cost of living by tapping into their savings. This was reflected as a significantly negative savings rate in 2022 (Chart 2).

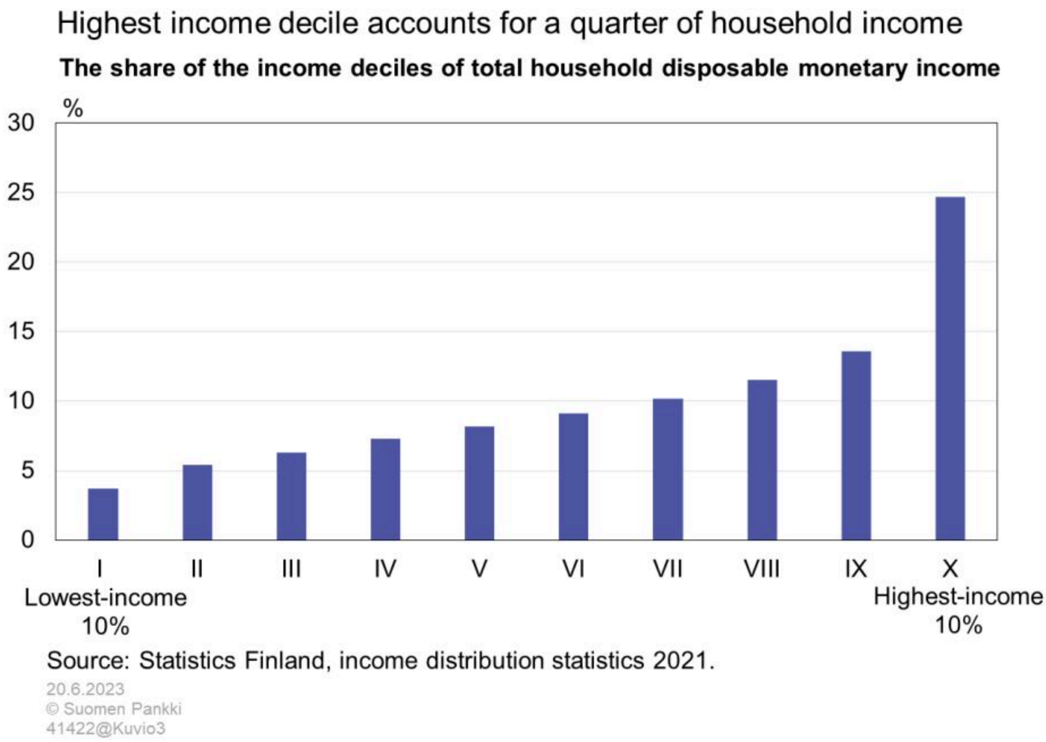
Chart 2.



Low-income households typically consume a larger share of their income than high-income households, and they also have a smaller margin for coping with loss of income or unexpected additional expenses without having to cut down on spending. High-income households typically have more financial margin and savings, and they are therefore better equipped than low-income households to smooth consumption over time.

In 2021, households in the highest income decile accounted for slightly less than a quarter of the total disposable monetary income of households. The combined share of the three lowest income deciles was some 15% (Chart 3).[7] These deciles include many households whose main income earner is a pensioner, or they receive other income transfers.[8] The income shares have not changed significantly since the turn of the century.

Chart 3.

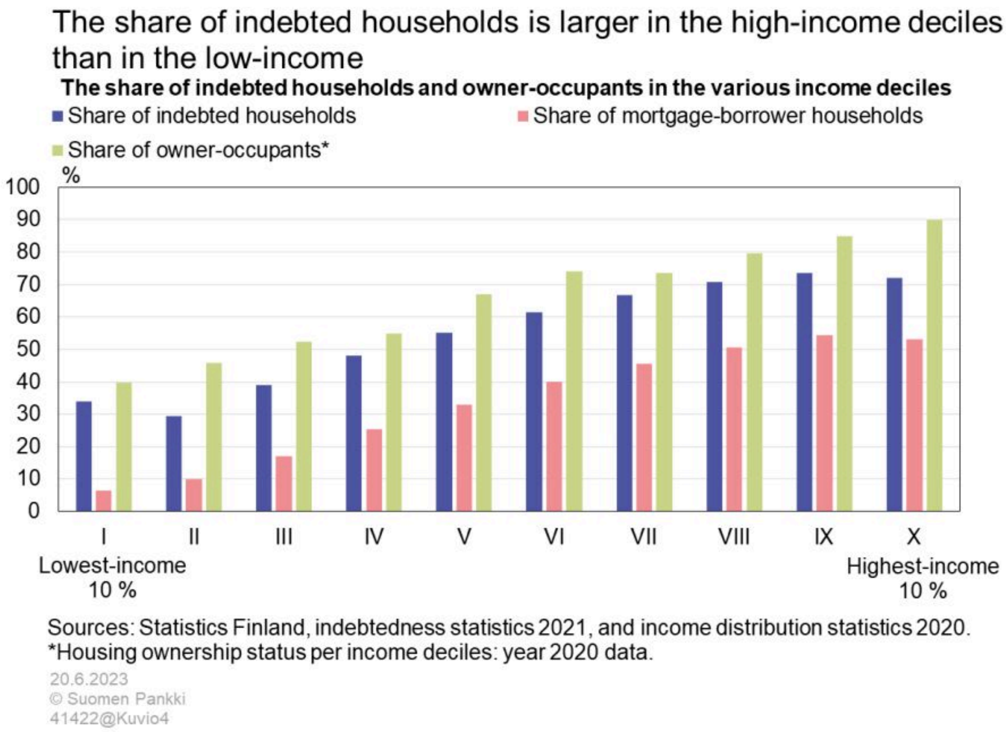


Most household debt is held by average or high-income households

Households' wealth and indebtedness have an impact on their ability to cope with a rapid rise in prices and interest rates. Finnish households' indebtedness ratio, i.e. the loan debt-to-disposable income ratio, has nearly doubled in the past 20 years, from 70% to 133%. At the end of 2022, the share of households' housing loans relative to income was some 80%. In addition, households' share of the loans in the name of housing corporations was 20% relative to their income. The ratio of consumer credit and income was approximately 19% and the rest of household loans was other loans, such as student loans and entrepreneurial loans.

There are data available on the distribution of debt between the income brackets as regards households' personal loans but not on loans in the name of housing corporations. Debt is distributed between households more evenly than income. In 2021, of all households, 53% had debt and 31% had personal housing debt. According to official data, nearly half of Finnish households are therefore debt-free in terms of personal loan exposures. Owner-occupied housing and housing debt are more common than average among high-income earners, whereas the share of debt-free households is larger among the low-income population. The majority of low-income owner-occupants do not have housing debt (Chart 4). The higher interest rates thus affect mainly those with average and high incomes.

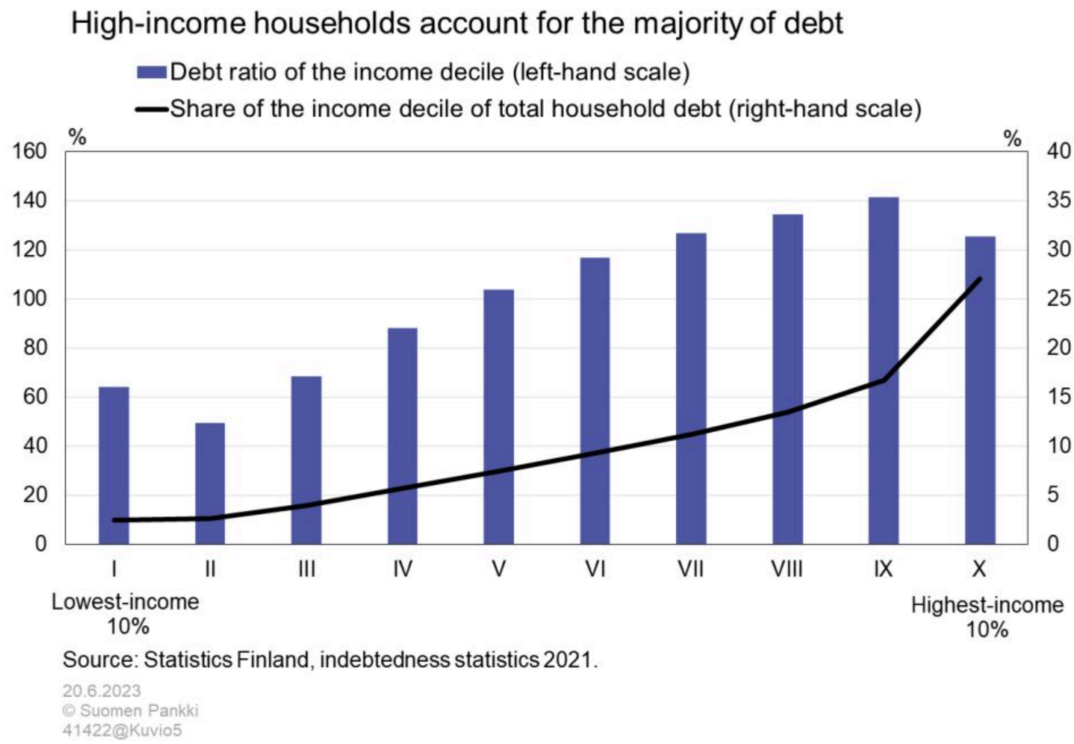
Chart 4.



Mortgage borrowers are found in all income brackets, but the largest volume of debt, both in terms of value and relative to household income, is held by high-income households. Of the total amount of households' personal debt, more than a quarter is held by households in the highest income decile. Correspondingly, only less than a tenth of the debt is held by households in the three lowest income deciles (Chart 5). These calculations underestimate households' debt burden, however, as there are no data available on the distribution between the income deciles of loans in the name of housing corporations. At the end of 2022, the value of households' share of loans taken out by housing corporations was approximately EUR 22 billion, while the total amount of personal loan debt was EUR 151 billion.

In addition to the euro volume of debt, also debt relative to income increases with higher income. Households in the highest income decile have personal debt on average some 1.3 times the amount of their disposable income. The debt ratio of households in the three lowest income deciles is only some half of this (Chart 5). However, high debt ratios are also found in low-income households. In the case of low-income households, debt relative to income increases to high levels even with a relatively small amount of debt.

Chart 5.



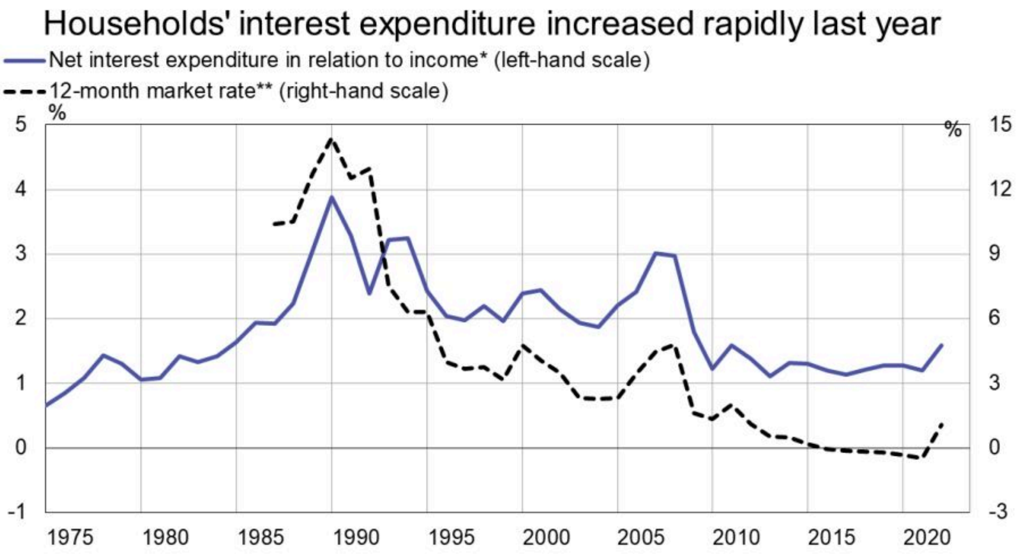
The high-income and highly-indebted households typically have considerable real and financial wealth to cover their debt.[9] At the same time, the household debt ratio is of significance for the development of net wealth, as indebtedness amplifies the impact of house price fluctuations on household net wealth. Mäki-Fränti et al. (2022) examine the impact of the changes in asset prices on Finnish households' net wealth and its distribution.[10] The results show that a rise in interest rates causes a decline in housing prices, and those suffering the most are the households who have a large amount of debt relative to housing wealth. Due to leverage, the net wealth of these households may decrease strongly in a situation like this. The effect of the rise in housing prices on net wealth is naturally the opposite.

High-income households' interest expenditure increase the most

The ECB has responded to the high inflation rate in the euro area by tightening its monetary policy. As a result, market rates, commonly used in Finland as reference rates for household loans, began to rise rapidly in spring 2022. This has also caused a noticeable increase in households' interest expenditure. During the 2000s, households' interest expenditure in relation to income has been higher only during the previous interest rate peak in 2007. The previous record was on the eve of the recession in 1990, when interest rates were raised strongly to support the value of the Finnish markka (Chart 6).

Households' interest expenditure is expected to continue to grow strongly during the second part of 2023, as the impact of the higher reference rates is reflected with a delay e.g. on housing loans when the interest rates are adjusted.

Chart 6.



Sources: Statistics Finland and calculations by the Bank of Finland.
* Net interest expenditure is the difference between interest expenditure paid by the household sector and their interest income.
** Pre-1999 statistics show the 12-month Helibor rate, replaced with 12-month Euribor from the beginning of 1999.
Annual averages.
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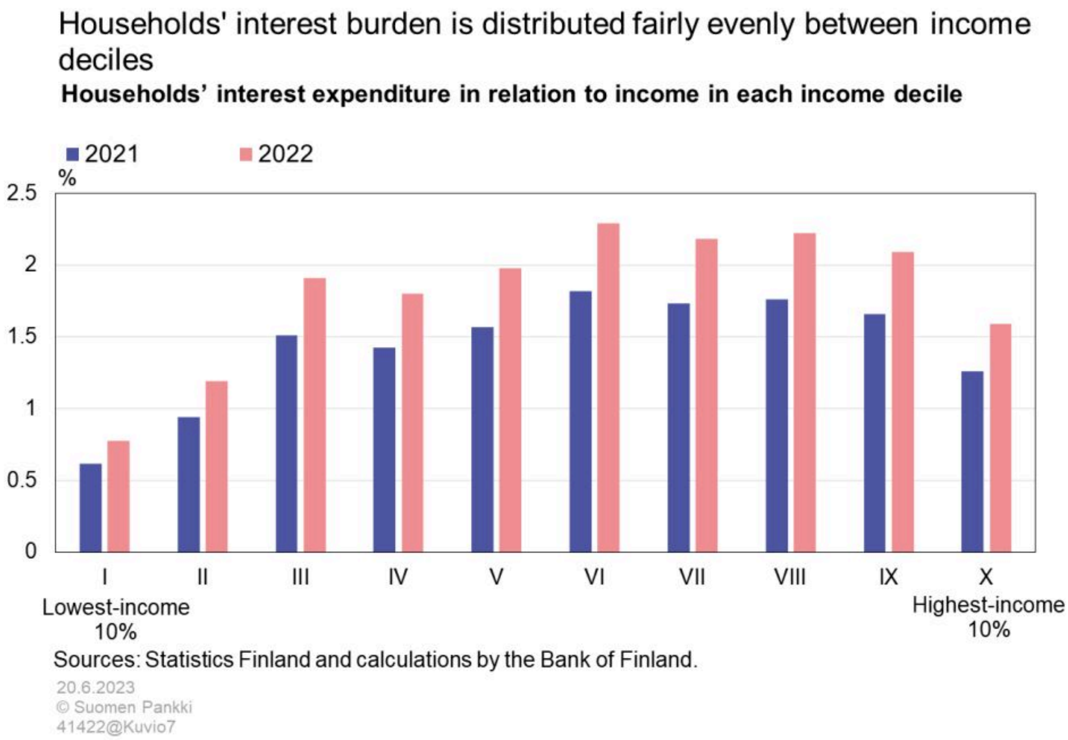
In relation to income, the interest burden is the highest for households with higher than average income. In 2022, interest expenditure in the income deciles VI–VIII accounted for just over 2% of annual disposable income (Chart 7). In the same income deciles, interest expenditure in relation to income also increased the most from 2021.[11] The interest burden on households in the lowest-income deciles is reduced especially by their small share of housing loan borrowers (Chart 4).

Chart 7.

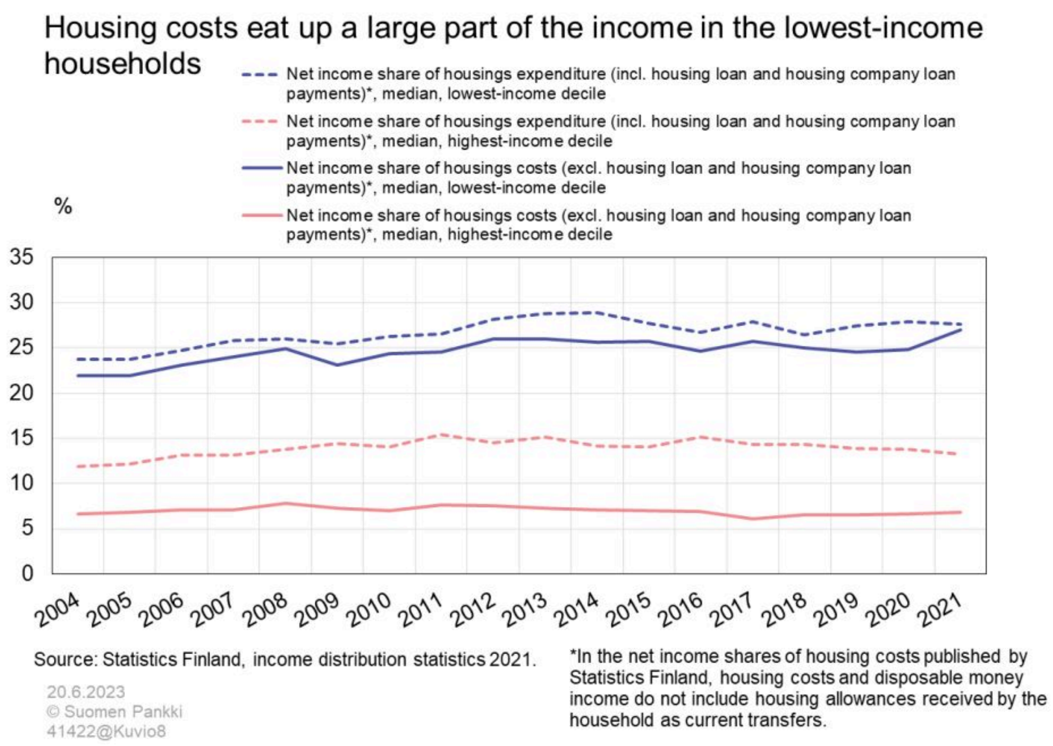


Low-income households spend much of their income on housing

In addition to interest expenses, households' *housing costs* include maintenance charges for dwellings in housing companies and rents. In a wider sense, even housing loan repayments and housing company loan payments can be considered essential *housing expenditure*.[12] Although households with higher-than-average income have the highest interest expenditure in relation to income, low-income households spend the largest share of their income on housing costs.

On average, households in the lowest-income decile spent around 27% of their disposable income on actual housing costs in 2021. Due to the limited number of owner-occupiers in the low-income population, the share of housing expenditure of disposable income – taking into account housing loan repayments and housing company loan payments – was roughly the same. In the highest-income decile, the income share of housing costs was only just over 7%. Their share of total housing expenditure in relation to income was clearly higher than this, as the highest-income decile clearly paid more in housing loan repayments and housing company loan payments than the lowest-income decile, but the income share was still only around half of the corresponding share in the lower-income deciles (Chart 8).

Chart 8.



The deteriorating economic situation and the rising interest rates have stalled the housing market and caused a downturn in house prices. Due to weak demand, market rents grew at a clearly slower rate than consumer prices and interest rates in 2022. Rents of non-subsidised dwellings rose by only 0.9% in the country as a whole and rents of state-subsidised ARA apartments by 1.0% on the previous year. In the Helsinki Metropolitan Area rent growth was even slower.

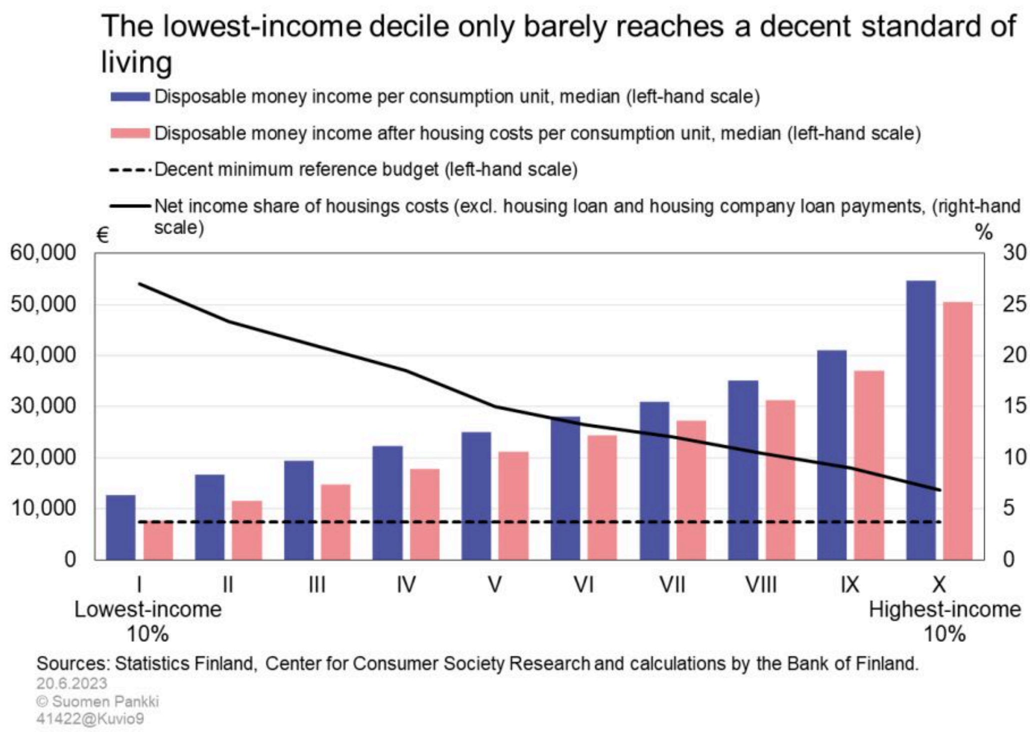
On average, owner-occupancy is less common among low-income households, which is why, so far, the rising housing costs have mostly affected average- and high-income households rather than the lowest-income households. However, the general increase in prices and interest rates may put an additional strain on tenants' finances in the longer term. The rents of ARA apartments, in particular, may be subject to upward pressure in the near future as they are often determined on a cost basis. This is particularly relevant in housing companies with lower-than-market rents.

Households still have financial margin

Surprising income losses, such as spells of unemployment, or correspondingly increases in essential outgoings, such as rising rents or housing loan interest rates, affect low-income households clearly more than average- and high-income households.[13] A way to estimate households' financial margin is by comparing their net income after housing costs with the 'decent minimum reference budget' created by the Center for Consumer Society Research at the University of Helsinki. The reference budgets have been drawn up separately for different types of households, and according to them, a single person under the age of 45, for example, needs around EUR 615 per month for their essential expenditure (excluding housing costs).

In 2021, the income per consumption unit (after housing costs) of the lowest-income decile only barely covered the minimum expenses according to the reference budget. In the other income deciles, the financial margin compared to the reference budget ranged from EUR 350 per month up to EUR 3,600 per month in the highest-income decile (Chart 9).[14] In this calculation, housing costs do not include housing loan repayments or housing company loan payments.[15]

Chart 9.



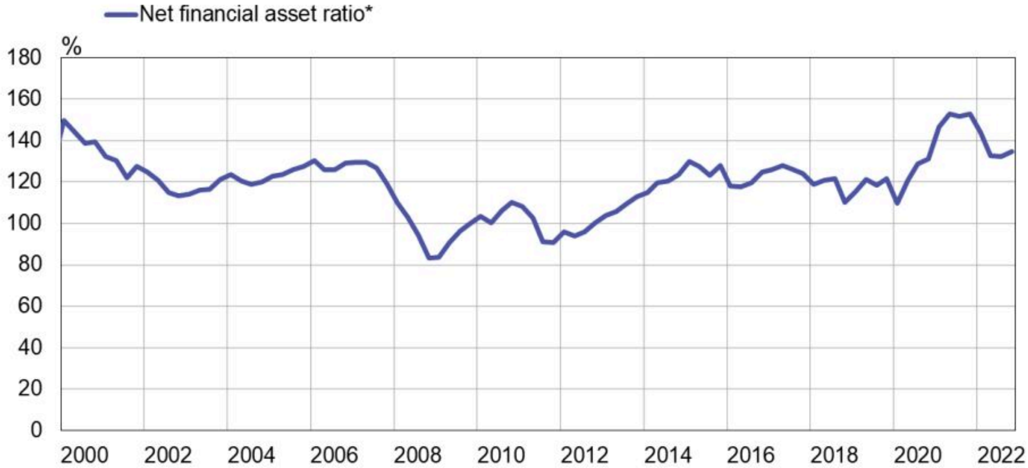
Savings increase financial margin

Households' financial assets strengthen their resilience against financial risks. Risk resilience is increased, in particular, by deposits and other liquid assets, the liquidation of which does not result in significant capital losses or other costs for the households, even in adverse market conditions.

At the end of 2022, households' financial assets (EUR 377 billion) were worth almost twice their financial liabilities (EUR 201 billion). Households' net financial assets, i.e. the difference between financial assets and liabilities, thus amounted to approximately EUR 176 billion and their net financial assets stood at 135% of disposable income. Overall, the value of households' net financial assets grew rapidly from summer 2020 to summer 2022, as saving became more popular and asset values increased strongly (Chart 10).

Chart 10.

The value of households' financial assets grew rapidly during the pandemic years 2020–2022



Source: Statistics Finland.
* Net financial asset ratio: the difference between financial assets and financial liabilities in relation to disposable annual income.

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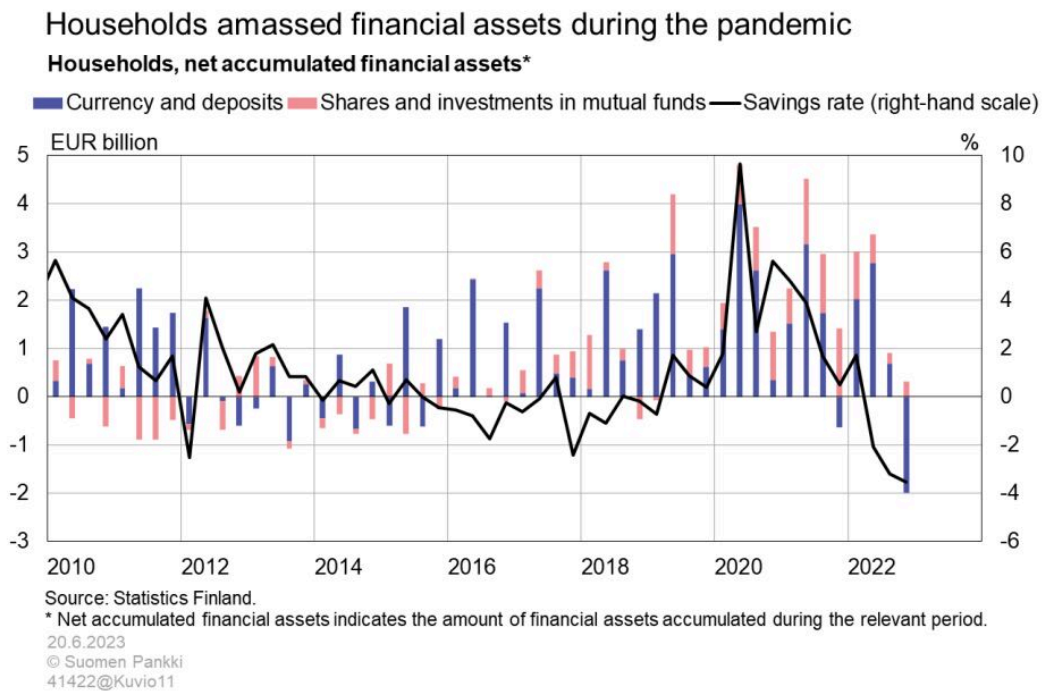
Households invested the savings they accumulated during the pandemic in both real assets and deposits, shares and mutual funds. Over the course of 2022, net investments in financial assets decreased clearly, and in the final quarter households decreased their deposits by EUR 2 billion. This reflects a strong decrease in the savings rate during last year (Chart 11).

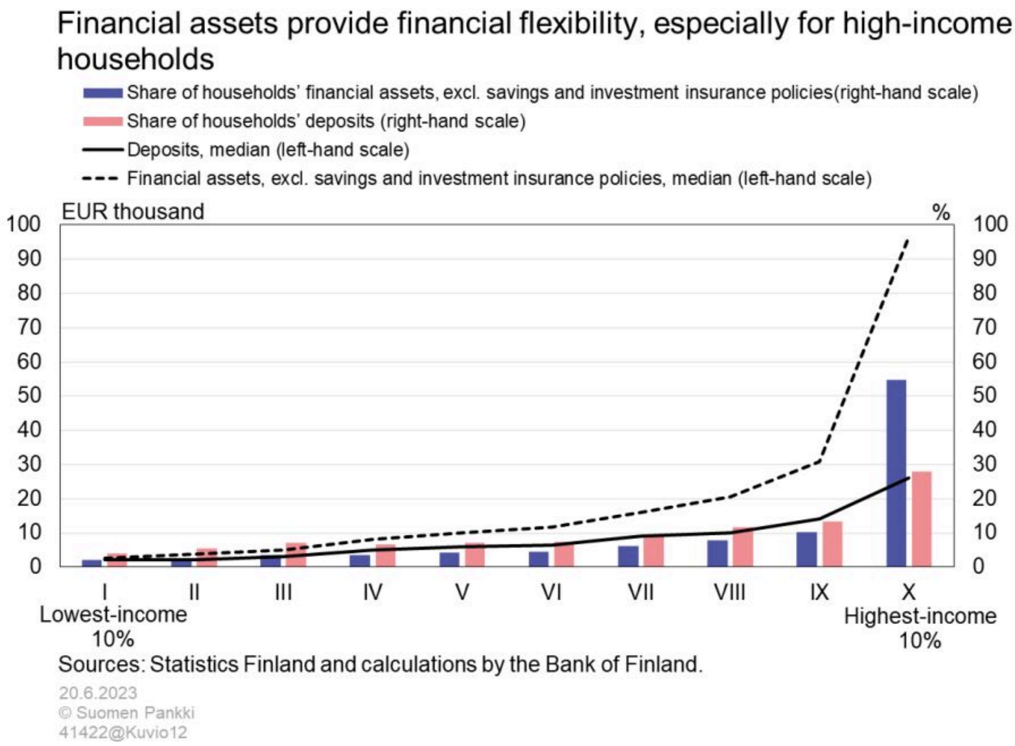
Chart 11.



The importance of financial assets as a source of financial flexibility depends on how it is distributed among households. The largest debts are borne by the highest-income households, but they also hold the majority of the financial assets that cover these liabilities. Financial assets are clearly more unevenly distributed among households than income and liabilities. According to Statistics Finland's wealth survey, the highest-income decile held about 55% of households' financial assets in 2019, while the lowest-income decile's share amounted to only just over 2% (Chart 12). The ownership of shares and mutual funds is particularly concentrated in high-income and wealthy households.

Deposits are more evenly distributed among households than other financial assets, thus providing financial flexibility also for lower-income households. In most income deciles, however, the deposits amount to no more than a few thousand euros. For example, in the average-income deciles (IV–VI), average deposits in 2019 amounted to just below EUR 6,000 and the average value of financial assets was around EUR 10,000 per household.[16]

Chart 12.



Most households have financial margin

The rise in prices, costs and interest rates affect different households in various ways. In 2022, the general rise in consumer prices affected low- and average-income households slightly more than high-income households, as food prices and housing costs increased the most. On average, the lower the income of the household, the larger the relative share of income used for food and housing. The differences in inflation rates between various income brackets were, however, small.

The strongest impact of the recent rapid rise in interest rates, on the other hand, is felt by average- and high-income households, who, on average, hold large loans both in terms of loan amounts and in relation to income. Nearly half of Finnish households are debt-free, and the rise in interest rates does not directly burden their finances. Of the lowest-income households, two thirds are completely debt-free. However, housing expenses eat up a considerable share of the income in the very lowest-income households. Households in the lowest income bracket are also the most vulnerable to increases in prices and costs, as their financial margin is very narrow.

As long as the labour market remains strong and unemployment does not increase in a broad-based manner, households have a relatively good chance of coping with the rise in prices and interest rates. The wage settlements reached during the spring will, in part, compensate for the purchasing power lost in 2022. Moreover, the lowest-income households will profit from this year's exceptionally large index increments to social benefits.

Overall, most Finnish households' financial margin is quite good. Many households also have savings and financial assets that they can use to compensate for the rapid rise in costs of living and interest expenditure. The highest burden is borne by average- and high-income households, who are better equipped to smooth consumption over time. This will dampen the impact on aggregate consumption of the loss of purchasing power and the rise in interest rates.

Footnotes

1. See also Kärkkäinen and Silvo (2023), Household debt, liquidity constraints and the interest rate elasticity of private consumption, Bank of Finland Economics Review 2/2023. ↑
2. In the Bank of Finland's forecast inflation is measured by the Harmonised Index of Consumer Prices (HICP), because the ECB uses HICP inflation in defining its price stability objective. The compilation of the HICP is harmonised between the euro area countries. This article, however, examines the national Consumer Price Index (CPI), which is designed for measuring the cost of living of Finnish households. The key difference between the Harmonised Index of Consumer Prices and the national Consumer Price Index is that the CPI includes both owner-occupied housing and rentals for housing as part of housing consumption, but the HICP includes only rentals for housing. ↑
3. The prices of housing include, for example, rentals and owner-occupied housing, water supply and refuse collection, electricity, heat energy and renovations. The price of owner-occupied housing is measured by, for example, housing prices, housing renovation costs and interest rates on housing loans. ↑
4. A corresponding analysis, covering the entire euro area, has been prepared by Charalampakis et al. (2022), The impact of the recent rise in inflation on low-income households, ECB Economic Bulletin 7/2022. ↑
5. See also The highest-income households use electricity many times more than low-income, VATT Institute for Economic Research, 16 December 2022, in Finnish only. ↑
6. The calculation utilises public data from the 2016 household budget survey by Statistics Finland. The calculation of the inflation rate in each income bracket utilises the weight structure of consumption as in the household budget survey for each income quintile and price indices as measured by the national consumer prices index (CPI) for each sub-component of consumption. The calculation of the inflation rate in each income bracket

uses the CPI weight structure with the assumption that the differences in consumption weights between the income quintiles as in the household budget survey have remained unchanged since 2016. The weight structure of consumption per income bracket is calculated by adding to the CPI consumption weights the deviation, as per mill unit, of each income bracket from the average consumption weight as in the household budget survey and weighted by households' consumption shares. The weight structure of consumption may have actually developed differently in the various income brackets. If the relative weight of food and housing has changed in the lowest income quintile relatively more than in the higher quintiles, the calculation underestimates their inflation rate. In the 2000s, the differences in the weight structure between the income brackets have, however, been fairly small. ↑

7. In 2021, the median of disposable monetary income per unit of consumption was in the highest income decile EUR 58,271 per annum. In the third lowest decile, the median income was EUR 19,859 and in the lowest EUR 12,850. ↑
8. In some 35% of the households in the income deciles II–IV, the main income earner is a pensioner. In the three highest income deciles, the share of pensioner households is approximately 15%. ↑
9. In 2019, nearly every other household that had debt at least four times the amount of their income was in the two highest income deciles in terms of gross wealth. See e.g. Mäki-Fränti (2021), The financial situation of the highly indebted varies in Finland, Bank of Finland Bulletin, 25 November 2021, in Finnish only. ↑
10. Mäki-Fränti, Petri – Silvo, Aino – Gulan, Adam and Kilponen, Juha (2022), Monetary policy and inequality in a small open economy, Bank of Finland Research Discussion Paper 3/2022. ↑
11. The calculation is based on the aggregate disposable income and paid interest expenditure in each income decile as reported in Statistics Finland's Income Distribution Survey for 2021. Data on disposable income of the household sector (S14) and actual interest expenditure paid by households as presented in the sector accounts for 2021 and 2022 have been allocated to the different income deciles according to their income and interest expenditure shares in 2021. ↑
12. Housing costs include maintenance charges, rents, water rates and waste charges, separate energy expenses, costs of maintenance repairs and other operating and maintenance expenditure, as well as interest on the housing loan and property tax. The term housing expenditure used by Statistics Finland additionally includes housing company loan payments and housing loan repayments, which are in fact savings accumulated by households rather than actual housing costs. ↑
13. See also Kauko (2023) Asuntolainoja, korkoriskejä ja sähkökriisi – Kuinka Suomen

kotitaloudet selviytyisivät iskuista? (’Housing loans, interest rate risks and the electricity crisis – How would Finnish households survive the shocks?’), Bank of Finland Bulletin 31 March 2023. ↑

14. The Center for Consumer Society Research publishes separate reference budgets for a number of different household types. For the sake of simplicity, the reference budget in the figure is calculated from the average reference budgets for men and women over and under 45, excluding housing costs according to the reference budget. ↑
15. There were no data available on disposable income after housing expenditure where repayments of loans were taken into account. ↑
16. These figures underestimate the actual amount of households’ deposits as they are based on Statistics Finland's wealth survey to households, the results of which estimate the total amount of household deposits well below the figures presented in the national financial accounts. ↑

Key words

borrowing, households, income, wealth