Analysis

# High housing debt increases risks to financial stability

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Finland's financial system is, by structure, vulnerable to risks associated with lending for house purchase. Housing loan volumes are large relative to other lending by banks and requirements on banks' own funds. The fact that household debt levels have increased and that housing wealth constitutes a large proportion of household assets also increases the vulnerabilities. In addition, covered bonds secured by housing loans play a significant role in bank funding and investment. However, the increase in vulnerabilities has largely levelled off in the 2010s.



## The downturn in the Finnish housing market has been soft

The strong growth in lending for house purchase and high household debt levels occasionally cause risks in different countries. These risks last materialised on a large scale in connection with the global financial crisis. When the financial system, the real economy and housing markets become simultaneously ensnared in a crisis, the costs to society are invariably huge. It is therefore important to identify and mitigate the risks well in advance.

In Finland, sluggish economic developments since the severe economic downturn of 2009 have been reflected in the housing market as a protracted but relatively soft downward trend. The Finnish financial system has remained stable, and real house prices have declined at a moderate pace. In addition, households have continued to accumulate debt, unemployment growth has halted and private consumption has driven domestic demand. The low level of interest rates has also supported the economy.

The situation therefore differs markedly from the deep recession of the early 1990s. At that time, the devaluation of the Finnish markka together with the collapse of overheated housing markets, unwinding of excessive household debt, strong growth in unemployment and a reduction in demand intensified adverse macroeconomic effects. These factors also increased banks' credit losses and deepened the banking crisis, even though housing loan losses remained limited.

# Three safeguards for financial stability

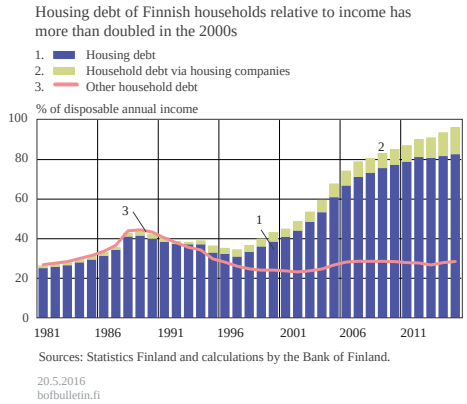
The capacity of the economy and the financial system to withstand stability risks arising from housing loans and household debt accumulation rests on several safeguarding factors (Chart 1). From the perspective of the financial stability, the key safeguarding factors are:

1) adequate repayment ability and financial margin of households with housing debt

2) reasonable loan-to-value ratios for housing loans

3) credit institutions' sufficient own funds

Chart 1.




How well different factors can safeguard households with housing debt and banks from risks is particularly tested in adverse situations in which the household debt service burden increases, nominal house prices decline and credit provision causes either direct or indirect losses to banks. The severity of the risks transmitted through the real economy depends, for example, on households' abilitity to consume and businesses' solvency and willingness to invest.

The first of the safeguards for financial stability – households' ability to service their debts and consume – reduces the probability of large-scale materialisation of risks. The second safeguard – households' solid net asset position – increases their ability to adjust to changes in their finances and decreases direct losses to banks on the materialisation of credit risks. Thirdly, credit institutions' strong capital adequacy underpins their ability to absorb losses arising from the materialisation of risk and improves their possibilities to acquire funding and grant loans even under weak cyclical conditions.

In Finland, authorities have striven to strengthen the factors safeguarding financial stability with precautionary measures. The Financial Supervisory Authority (FIN-FSA) has issued recommendations for banks on the calculation of housing loan applicants' financial margin and the

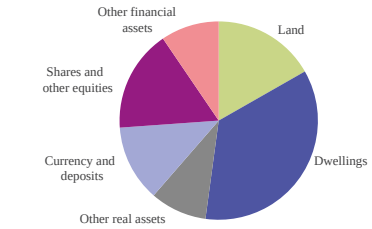
maximum level of loan-to-value ratios.[1] The regulations concerning loan caps will enter into force in July 2016. Additional capital requirements have also been imposed on credit institutions. (For more information on macroprudential authorities' tools to mitigate risks, see the article Finland's neighbors reign in lending for house purchase.)[2]

## Housing debt levels higher relative to income

A key factor affecting the build-up of risks and vulnerabilities is high household indebtedness. Housing debt of Finnish households has more than doubled relative to annual disposable income in the 2000s (Chart 2). The significance of housing-related debt is further emphasised by the fact that loans taken out by households via housing companies have also been growing. Other household debt relative to income is, in contrast, lower than in the second half of the 1980s, for example.

Chart 2.

Housing wealth a significant share of Finnish households' assets




Data as at the end of 2014.
Sources: Statistics Finland and calculations by the Bank of Finland.

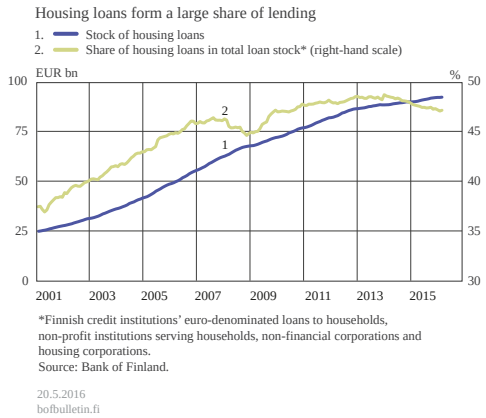
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The strong growth of housing debt in the first decade of the 2000s stemmed partly from two structural changes in lending standards, the impact of which on the growth rate has levelled off in the 2010s. Average amounts of new housing loans (in EUR) grew and loan maturities lengthened considerably compared with the situation of the 1990s. However, new housing loan maturities are still short in Finland by international standards, i.e. 18 years on average, although in many cases they are typically around 20 or 25 years. Housing loans with an initial maturity of over 30 years are very rare in Finland.

Compared with the situation at the beginning of the 2000s, an increasing number of households with housing debt have become heavily indebted relative to income. As the rate of debt accumulation has decelerated, the situation has somewhat improved, however, since 2010. According to the most recent data, more than a quarter (26.5%) of housing debt is borne by households whose total debt is over four times higher than their annual monetary income (Chart

3). The corresponding figure for 2002 was less than 11%, and in 2010 it peaked at over 28%.

Chart 3.




The fact that housing loans are tied to variable interest rates increases the vulnerability of households that are heavily indebted relative to their income. Depending on the loan amortisation method, a rise in the reference rate either increases the monthly debt service costs (annuity loan) or lengthens the loan repayment period (fixed-instalment loan).

Finland is gradually reducing the share of housing loan interest payments deductible in taxation, from the earlier 100% to 25% by 2019. This will increase household interest expenses in future – particularly in times of rising interest rates. The level of interest rates is currently expected to remain low for an extended period.[3] Nevertheless, the lowering of the tax-deductible share of interest payments serves to reduce the attractiveness of large housing loans, which is positive for financial stability.

According to a FIN-FSA recommendation, banks should examine and consider in credit decisions the housing-loan applicant's financial margin by calculating how high the debt service burden would be relative to monthly income if the loan interest rate were to rise to 6% and the loan term could not be extended to over 25 years. The FIN-FSA's 2012 sample survey of new housing loans showed that, in the sample of new housing loans granted over a period of three days, the debt service burden calculated on the basis of the above stress test would have been significant, i.e. over 40% of net income, in the case of every fourth customer.[4]

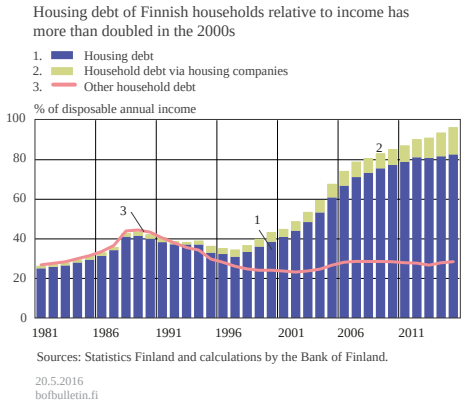
## Housing wealth a significant share of household assets

A significant share of Finnish households' total assets consists of dwellings (Chart 4).[5] The large proportion of housing wealth is explained e.g. by the fact that owner occupancy is notably more

common in Finland than renting.[6] In addition, real house prices have increased considerably over the long term.

The structure of assets has for the most part remained unchanged in Finland in the 2000s. However, the distribution of assets is uneven between households, and the same also pertains to debt. A fall in asset prices could reduce consumption particularly for heavily indebted households with a weak net asset position.[7]

Chart 4.




## Self-financing by households with new housing debt often scarce

Some of the housing loans taken out in recent years have, at the time of loan origination, been rather large relative to the value of the housing serving as loan collateral. The FIN-FSA sample survey of 2012 shows that, in the sample covering a few days, more than one third of new housing loans were granted with a self-financing share of below 10%, and in many of these cases the loan even exceeded the price of the housing. Large loan-to-value (LTV) ratios have been more general in the case of first-time home buyers than of customers that have switched homes.[8]

The maximum LTV ratio for housing loans (loan cap) that will become effective in Finland in July 2016 will prevent banks from granting large housing loans to households that cannot provide such adequate collateral as required by regulation. The collateral can also consist of real assets other than the housing to be purchased with the loan.

The large size of the housing loan relative to the value of the house (small self-financing share) increases the risks relating to falling house prices. In Finland, however, monthly amortisation of housing loans curbs household debt accumulation and decreases the risk that the total assets of a household with housing debt would fall below the remaining loan principal, should the household

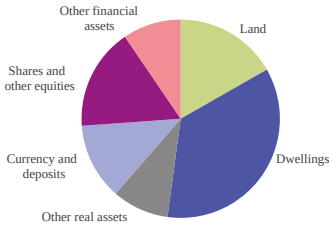
become financially stressed.

## Housing loans of high importance, but risk weights are partly low

Housing loans make a significant share of euro-denominated loans granted by Finnish credit institutions to households and non-financial corporations. At the beginning of 2016, the share was about 47%, i.e. approximately 10 percentage points higher than in 2001 (Chart 5). In the past few years, however, the share has slightly declined, as the stock of housing loans has grown at a slow pace and therefore also at a slightly slower rate than the stock of loans granted to non-financial corporations and housing corporations.

Chart 5.

Housing wealth a significant share of Finnish households' assets




Data as at the end of 2014.
Sources: Statistics Finland and calculations by the Bank of Finland.

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Own funds required of banks to cover risks relating to lending for house purchase depend not only on general capital adequacy requirements imposed on banks and the volume of housing loans but also on the estimated riskiness of housing loans, i.e. the risk-weighted amount of housing loans. The higher a loan's risk weight is, the more own funds a credit institution must have relative to the loan amount.[9]

Finnish banks that use internal ratings based approaches (IRB) currently estimate that unexpected credit losses on housing loans are low. Banks using IRB models apply in their capital adequacy calculations risk weights based on these estimates. From the perspective of macroprudential stability, however, risk weights below 10% are low, considering the risks relating to household debt accumulation both for the financial sector and the real economy.[10]

## Covered bonds increasingly important

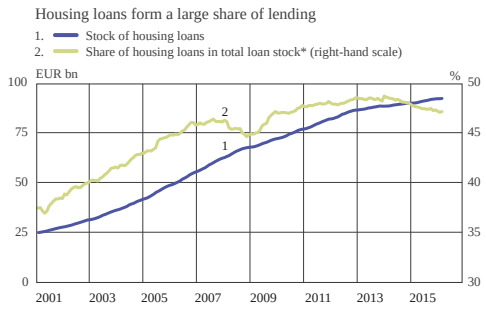
Finnish banks depend on both deposits of the public and market funding for financing housing

loans and other lending. Banks acquire a larger share of market funding than before via bonds secured by housing loans. At the end of 2015, these so-called covered bonds accounted for over 40% of banks' market funding and for over 60% of total bond funding.[11]

The increase in banks' long-term funding is positive for the stability of funding, but the wider use of covered bonds is also reflected in high levels of bank asset encumbrance. Banks have also invested in covered bonds issued by other Nordic banks and mortgage credit institutions e.g. because of their good availability, liquidity and eligibility. This increases the overall importance of housing loans and related debt securities on both sides of the balance sheet.

Cross-ownership of debt securities and concentration and interconnectedness of the banking sector may increase the cross-border contagion risks relating to housing loans. The three large banks systemically important for the Finnish financial system account for a large share of lending, i.e. over 60%.[12] Lending for house purchase is even more concentrated: the three largest banks account for over 80% of the stock of housing loans (Chart 6).[13] Two of these banks are directly interlinked to the Nordic banking sector, which may increase the significance of joint Nordic vulnerabilities. (For more details, see the article Nordic financial sector vulnerable to housing market risks.)

Chart 6.




## Notes

1. FIN-FSA's supervision release on household housing finance (8 June 2010). ↑
2. See also the European Systemic Risk Board: Report on residential real estate and financial stability in the EU (December 2015). The macroprudential authorities' toolkit to mitigate risks is divided in the report into three categories similarly to Chart 1. ↑
3. The Governing Council of the ECB expects the key ECB interest rates to remain at present or lower levels for an extended period of time. See the European Central Bank (2016) ↑

Economic Bulletin 2/2016.

4. FIN-FSA (2012) Otantatutkimus henkilöasiakkaiden asuntoluotoista 2012 (‘Sample survey of housing loans 2012’; in Finnish only). ↑
5. Estimates of the value and structure of household wealth vary depending on the calculation method. Chart 4 is based on Statistics Finland’s financial accounts, according to which housing wealth accounts for more than one third of total household assets. In the household wealth survey based on Statistics Finland’s micro data on households, main residence constitutes a larger share – more than one half on average – of total assets. ↑
6. The relatively small share of financial assets in Finnish households’ total wealth – especially by international comparisons – is partly explained by savings accumulating from statutory pension contributions, which are classified in Finland as assets of employee pension funds. In many other countries, pension saving is voluntary, and the related assets are categorised as household financial assets. ↑
7. See e.g. Essi Eerola’s blog entry Asuntolainat ja Yhdysvaltojen suuri taantuma (‘Housing loans and the Great Depression in the United States’; in Finnish only). ↑
8. FIN-FSA (2012) Otantatutkimus henkilöasiakkaiden asuntoluotoista (‘Sample survey of housing loans 2012’; in Finnish only). ↑
9. For example, a housing loan with a risk weight of 10% binds, with a capital adequacy requirement of 10.5%, bank’s own funds by 1.05% of the amount of the exposure. For banks using the standardised approach (SA) the risk weight for housing loans is 35%. ↑
10. Statement by the Board of the Financial Supervisory Authority regarding the low level of housing loan risk weights applied by banks and the need to raise them (22 December 2015). ↑
11. Financial Supervisory Authority (2016) Banking sector’s capital adequacy strong, risks posed by the operating environment high. ↑
12. Federation of Finnish Financial Services (2015) Financial Services Statistics 2014. ↑
13. Bank of Finland data on aggregate housing loan volumes and banks’ financial statements for 2015. ↑

## Keywords

banks, financial stability, households, indebtedness, mortgage credit granting