

## ANALYSIS

# Household indebtedness contributing to corporate loan losses

Financial stability | 23.05.2018 | Kimmo Koskinen, Hanna Putkuri

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Household indebtedness and overheating of the housing market have contributed to financial crises throughout history. However, a considerable proportion of banks' losses during crises have resulted from corporate loans. The situation arises when indebted households cut down their spending during an economic downturn, increasing companies' financial difficulties. The current situation in Finland is twofold: household indebtedness is record-high and has been increasing for a long time, but housing market developments have for the most part remained moderate. The percentage of loans related to housing and real estate is high.



Lending and loan losses form a paradox in terms of financial stability. A sharp increase in housing

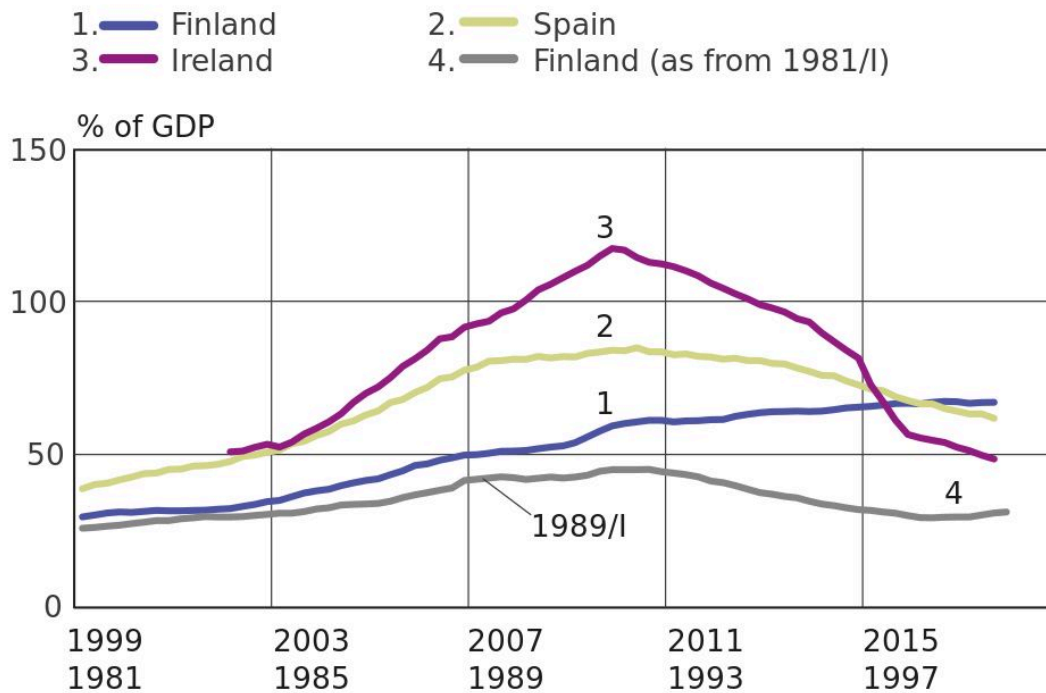
loans and the high indebtedness of households have throughout history been one of the main early warning indicators of financial crises and their severity. Losses to the financial system and the real economy have nevertheless been largely caused by the problems of non-financial corporations, especially in the real estate and construction industries.<sup>1</sup> This is exactly what happened in Finland during the 1990s recession and in many European countries, such as Spain and Ireland, as a result of the global financial crisis of 2007–2008 and the subsequent euro area debt crisis. What is the source of this apparently illogical connection between vulnerabilities preceding financial crises and the consequent systemic risk?

## Lending and property market vulnerabilities increase in an upswing

Household indebtedness and property market vulnerabilities have a tendency to increase during an upswing. Rising house prices may create an overly optimistic spiral of expectations that feeds itself, as was the case in the early 2000s in Spain and Ireland and the late 1980s in Finland (Chart 1). The rise in the collateral value of property combined with higher confidence on the part of consumers and businesses can encourage excessive risk-taking both in the wider economy and on the financial markets.

Chart 1.

## Household debt during upswings and downswings



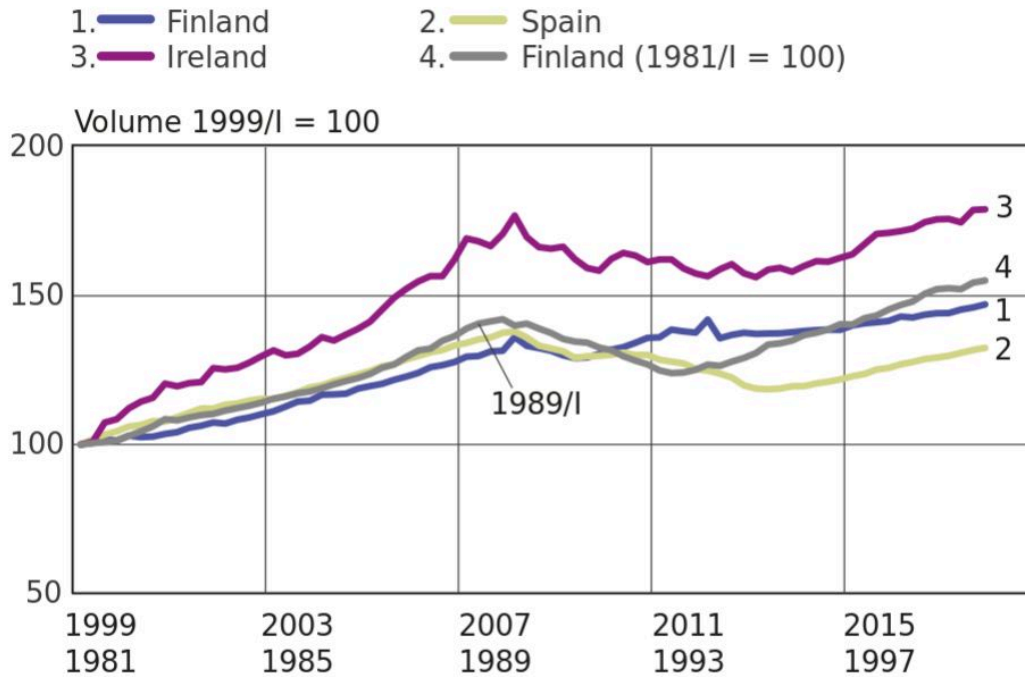
Sources: BIS, Macrobond and calculations by the Bank of Finland.

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In the years before the financial crisis and the European debt crisis, many European countries were enjoying a period of strong economic growth. Narrowing risk premia and relaxed financing conditions encouraged the private sector to take on too much debt, which was reflected especially on the housing market. Demand for housing loans increased sharply in many countries, and annual growth in the housing loan stock in the euro area accelerated in 2005–2006 to an average of more than 10%. The increase in indebtedness was faster in many countries than economic growth and the increase in household income. In Spain and Ireland, for example, household debt increased sharply in proportion to household income and GDP (Chart 2).

Chart 2.

### Household consumption during upswings and downswings



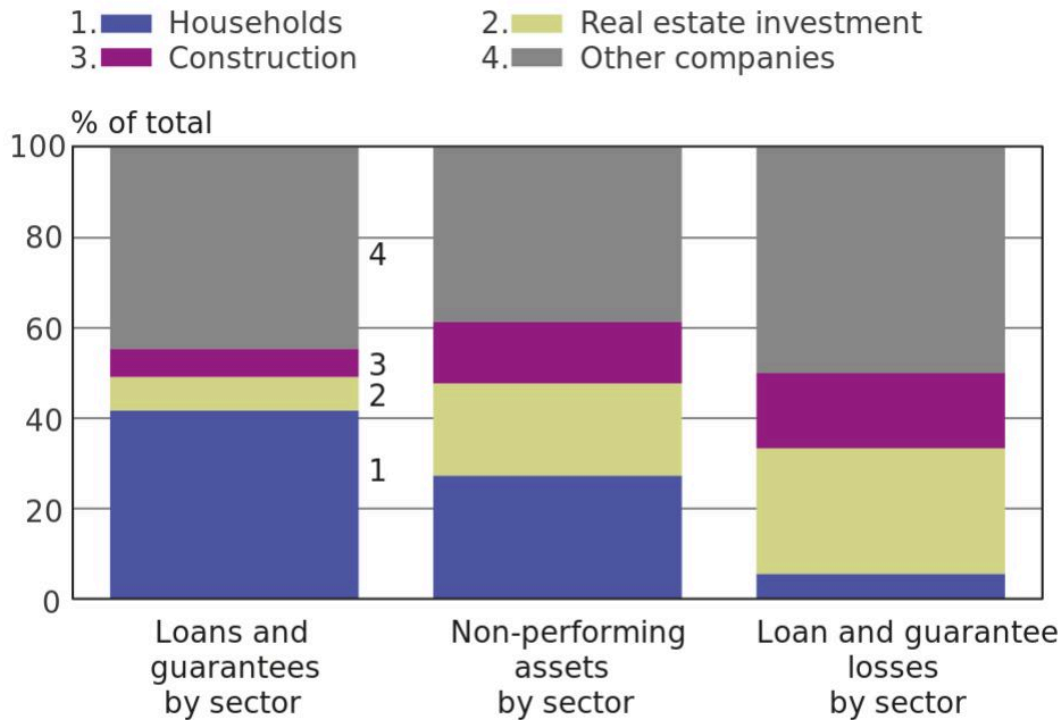
Sources: Eurostat, Macrobond, Statistics Finland and calculations by the Bank of Finland.

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A sharp increase in lending and property prices in the early 2000s also led to a significant increase in home and business construction and property investment. Owing to macroeconomic imbalances between the euro area countries, capital and financing for projects were provided not only by domestic banks but also by foreign banks and investors. According to Eurostat, the volume of property construction increased in Europe between 2000 and 2006 by an average of some 13% per annum. Growth was particularly high in Spain and Ireland, where housing investment alone accounted for more than 10% of the countries' GDP (Chart 3).

Chart 3.

### Finnish banks' assets and losses from selected sectors in 1992



Sources: Pensala & Solttila (1993) and calculations by the Bank of Fin

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As a result of heavy lending, many banks were seriously exposed to the risks caused by housing and property market fluctuations. In Spain, for example, the loan stock granted by banks to the construction industry had increased at the end of 2007 to as much as 30% of GDP. Although banks have reduced their lending for real estate activities and construction since the crisis, they still loom large on bank balance sheets. According to the ECB, euro area banks had loans worth some EUR 950 billion for real estate activities, and some EUR 380 billion for construction still outstanding at the end of 2016. Put together, these account for about 30% of banks' corporate loan stock.

## In a downswing, vulnerabilities manifest in a range of losses

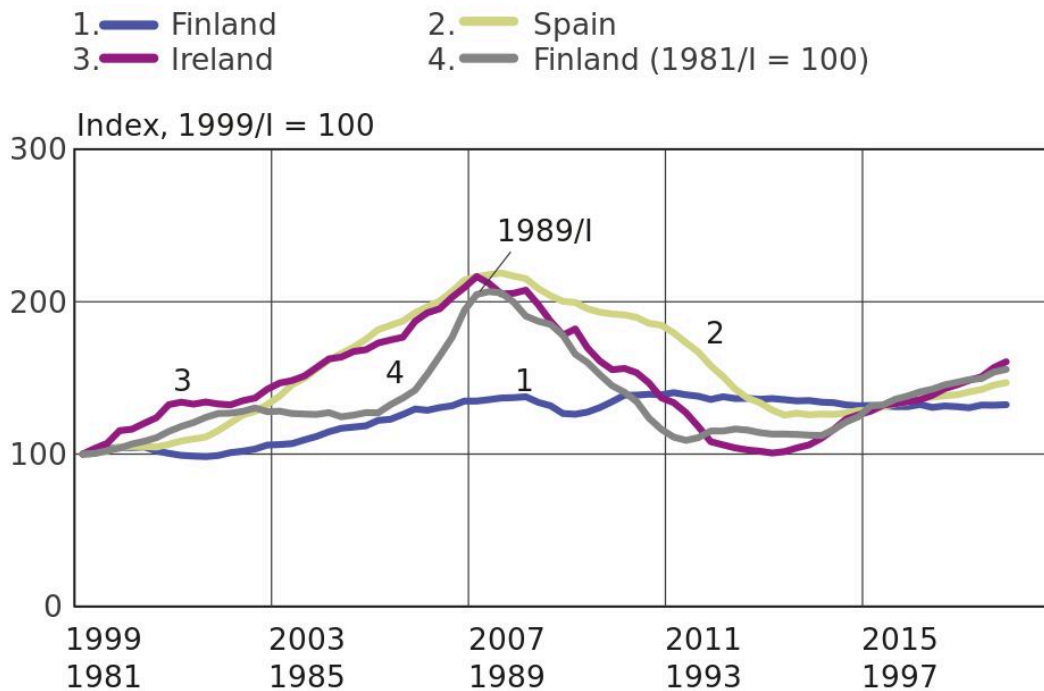
During a downswing, indebted households usually have more financial difficulties, and loans taken during an upswing may turn out to be excessive in proportion to income. Another risk with large housing loans is that the value of the home falls below the loan capital. As a result of customers' payment difficulties, banks' non-performing assets, i.e. loans that were long overdue, began to increase. Compared with corporate loans, however, households' housing loans rarely result in sudden major credit losses, because of the length of a private person's liability for debt.

Credit losses caused directly by housing loans have remained relatively low even after housing price bubbles and bursts. Direct credit risk associated with housing loans is therefore generally estimated to be lower than those of corporate loans. In the light of previous crises, when assessing systemic risk caused by housing loans and household indebtedness, we must nevertheless take into account the indirect risks of lending, and their knock-on effects. Indirect risks are often assessed to be greater than direct credit risks because, if realised, they have extensive and long-lasting effects on the real economy and the financial system as a whole.

Debt-driven crises are typically made worse by the fact that, in a downswing, indebted households typically cut their consumption expenditure (Chart 4) and investments because of higher unemployment, a higher debt-servicing burden or lower net wealth resulting from lower asset values.<sup>2</sup> Lower spending intensifies an adverse chain reaction that affects the entire economy. It is to some extent paradoxical that this will eventually result in lower corporate investment, liquidity problems, bankruptcies and a considerable increase in banks' credit losses.

Chart 4.

## Real house prices during upswings and downswings



Sources: OECD, Macrobond and calculations by the Bank of Finland.

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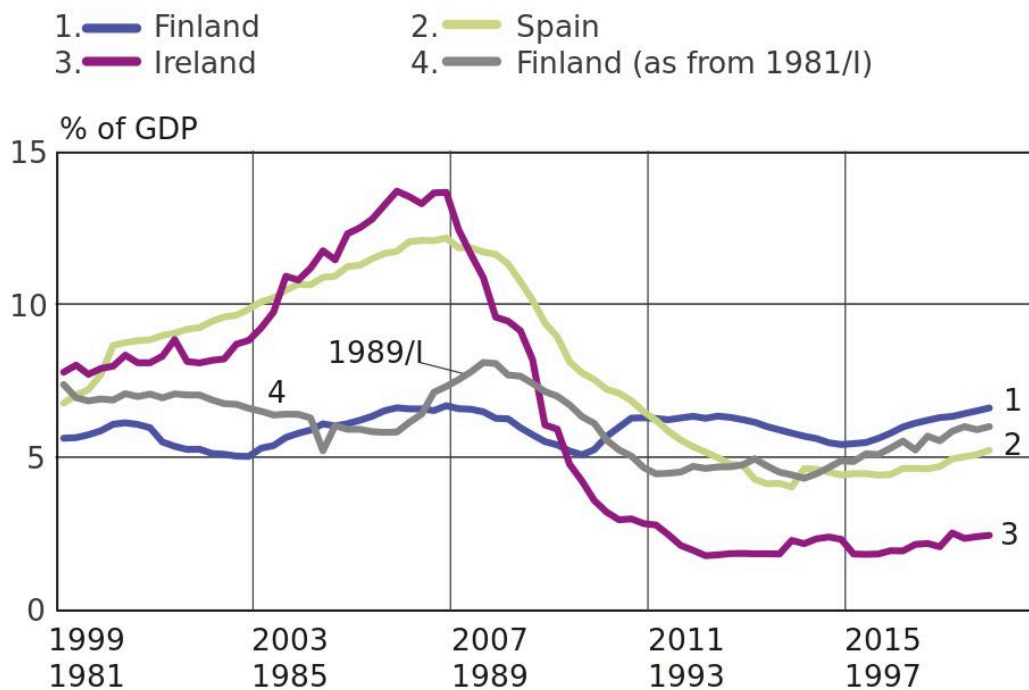
Construction and the commercial property market are typically quite susceptible to cyclical changes. Price corrections on the commercial property market are often dramatic and sudden, and as foreign investors withdraw if a crisis occurs, the price cycles are even more pronounced. Most European construction companies and real estate actors are also very small and poorly prepared to balance their funding in times of crisis. The number of bankruptcies in these sectors generally increases quickly as both private and public investment shrinks and banks tighten their lending to high-risk sectors. In Spain and Ireland, for example, the total turnover of construction companies shrank in the years after the financial crisis by over 50%.

The key role of banks in real estate financing has led to a situation in which, as a result of the financial and sovereign debt crises, many European banks have had significant amounts of non-performing loans granted to real estate activities and construction on their balance sheets. At the

height of the sovereign debt crisis, for example, almost 40% of loans granted by Spanish banks to the real estate sector were non-performing (Chart 5). In Ireland, the corresponding figure was a staggering 70%. Various measures have been taken in recent years to solve the problem of European banks' non-performing loans. According to the ECB's latest financial stability review,<sup>3</sup> commercial property loans are nevertheless still the greatest source of non-performing loans.

Chart 5.

### Housing construction investment during upswings and downswings



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

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### Finland's current situation is twofold in historical perspective

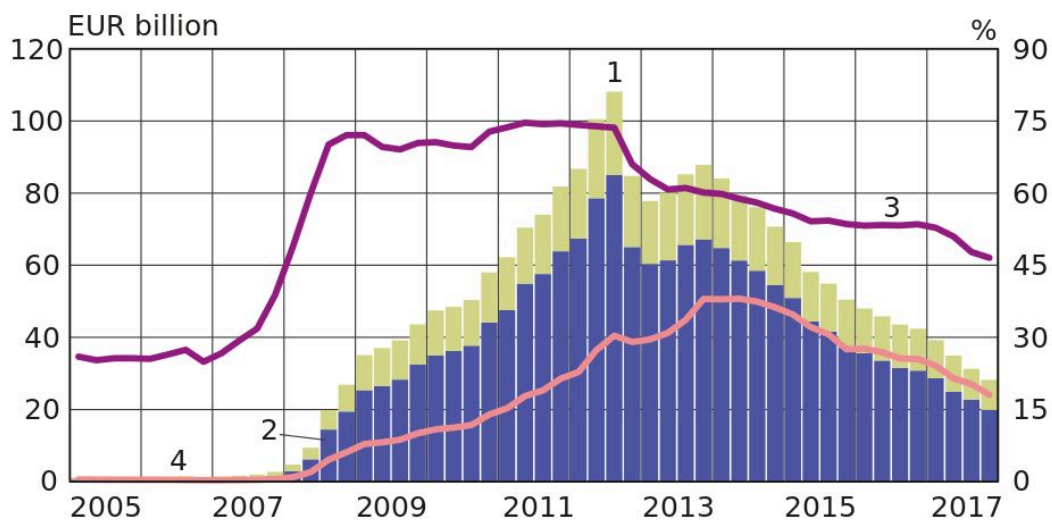
The 1990s recession hit the real estate and construction industries particularly hard. For example, at the end of 1992, a relatively small part of banks' receivables from households and businesses concerned real estate investment and construction companies, but the significance of non-

performing assets and credit losses related to these sectors was considerably higher (Chart 6).<sup>4</sup> A considerable proportion of the credit losses to companies receiving public bank support in 1991–1999 were the result of loans granted to real estate, sanitation, rental service and construction companies.<sup>5</sup>

Chart 6.

### Volume of non-performing loans granted by banks in Spain for construction and real estate activities

1. ■ Non-performing loans, construction (left-hand scale)
2. ■ Non-performing loans, real estate activities (left-hand scale)
3. — Non-performing loans for construction and real estate activities, % non-performing loans (right-hand scale)
4. — Non-performing loans for real estate activities, % of all real estate I (right-hand scale)



Source: Bank of Spain.

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The economic recession in 2009 and the 2010s after the international financial crisis was deeper and lasted longer in Finland than in many other countries. However, the recession did not threaten the financial system's stability, and the downturn was relatively modest in the housing market. This was helped by lower interest rates and the fact that house price developments in Finland were more moderate than in many other countries both before and after the crisis. The rise in

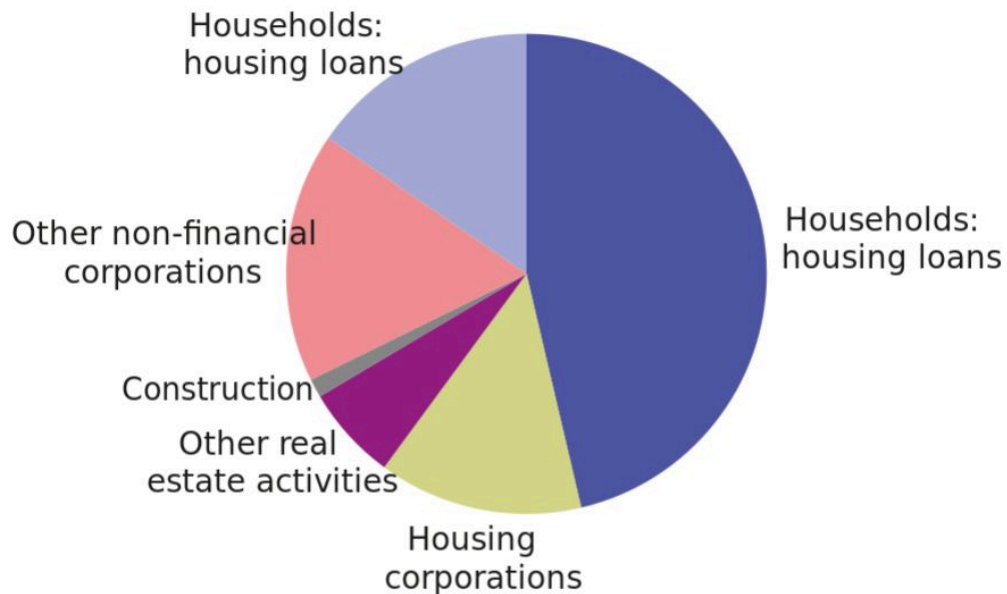
house prices before the crisis was also much slower than in the years before the 1990s recession (see Chart 1 above).

The Finnish housing market has picked up in recent years, and the construction of blocks of flats has been particularly active. Housing construction investment has accounted for a higher percentage of GDP than the long-term pattern and the average in the new millennium. However, Finland is not showing any signs of the kind of major increase in construction (see Chart 3 above) or quick rise in house prices as was the case in the late 1980s and the debt-driven price bubbles in crisis countries in the 2000s. Yet regional differences have increased, with urbanisation causing construction work, indebtedness and house price increases mainly in growth centres (see [Wide regional disparities in Finnish house prices and household indebtedness](#)).

This means that the Finnish financing system is susceptible to risks associated with housing loans and funding secured by housing loans. The proportion of loans related to housing and real estate activities in relation to credit institutions' stock of loans has been increasing and is high by international standards. At the end of 2017, housing loans, loans granted to housing corporations, and loans for the real estate and construction industries totalled around EUR 140 billion, accounting for two thirds of loans granted to households and non-financial corporations (Chart 7).

Chart 7.

## Finnish credit institutions' loans to households and non-financial corporations



The information above relates to the situation at the end of 2017, when the loan stock totalled EUR 207.5 billion.

Source: Bank of Finland.

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The loan stock quality has remained good in the 2010s,<sup>6</sup> but an increase in vulnerabilities has continued, especially as a result of higher household indebtedness. Household indebtedness has been increasing for a long time – also during the 2010s recession – and indebtedness is record-high in comparison with income and GDP (see Chart 2 above). Most housing loans carry variable interest rates and have long maturities. Households' wealth also tends to be tied up in their housing assets. These factors make households more vulnerable to, for example, higher interest rates, a fall in house prices and cyclical fluctuations in the economy.

## Notes

1. An increase in corporate loans does not, however, predict crises as well as does an increase in household indebtedness. Karlo Kauko has written about this paradox in his blog *Asuntolainojen riskipainoille alaraja – mistä on kyse?* ('A minimum risk weight for housing loans – what's it all about?'; in Finnish only). †
2. See, for example, Flodén, M. (2014) *Did household debt matter in the Great Recession?* Supplement to blog post on *ekonomistas.se*; and Mian, A. & Sufi, A. (2014) *House of Debt*, University of Chicago Press. †
3. ECB (2017) *Financial stability review*, November 2017. †
4. Pensala, J. & Solttila, H. (1993) *Pankkien järjestämättömät saamiset ja luottotappiot vuonna 1992. (Banks' Non-Performing Assets and Loan Losses in 1992.)* Bank of Finland Discussion Papers 5/1993. †
5. FSA Newslines 3/2000 (in Finnish only). †
6. According to the Financial Supervisory Authority's statistics, the percentage of non-performing assets and other receivables of banks operating in Finland was 2.6% for non-financial corporations, 2.2% for households and 0.1% for housing corporations at the end of 2017. With regard to loans to the construction industry, the percentage was 4.2%, and to the real estate industry (excl. housing corporations) 0.8%. †

## Key words

construction, households, housing markets, indebtedness, real estate activities