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## Bank of Finland Financial Stability Report

One of the Bank of Finland's core tasks is to contribute to the reliable, efficient and stable functioning of the financial markets. The Bank conducts regular analyses of the vulnerabilities and risks related to the financial system that could trigger or exacerbate economic disruptions. These are not forecasts, but analyses of potential financial market developments.

The financial stability analysis published on the Bank of Finland website is intended for financial market participants, other authorities and the general public to provide information and promote discussion on financial stability. The objective is to ensure that these parties take the current condition of and future outlook for the financial system into consideration in their operations. In addition to the stability analysis, the publication features articles of topical interest.

The contents of the Bulletin may be freely quoted, but due acknowledgement is requested.

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# Table of Contents

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<b>New instruments are needed to rein in household debt</b>	<b>3</b>
<b>Debt-to-income cap and maturity limits necessary to curb financial stability risks</b>	<b>6</b>
<b>Nordic housing market showing strength, but not without risks</b>	<b>25</b>
<b>New mortgage-borrowers have an increasing amount of debt relative to income</b>	<b>36</b>
<b>A debt-to-income cap would dampen economic fluctuations</b>	<b>48</b>
<b>Imposing a loan-to-value limit on housing company loans would only affect a share of construction finance</b>	<b>53</b>
<b>Separating buy-to-let mortgages from other housing loans provides a clearer look into household debt</b>	<b>61</b>
<b>Moderate growth in Finnish companies' non-performing loans</b>	<b>65</b>
<b>New stress-testing framework to assess the capital adequacy of Finnish banks</b>	<b>75</b>
<b>Pandemic continues to cast a shadow over the outlook for European banks' credit risks</b>	<b>81</b>

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## EDITORIAL

# New instruments are needed to rein in household debt

4 May 2021 – Bank of Finland Bulletin 1/2021 – Financial stability

Household behaviour and business activity continue to be very much influenced by the COVID-19 pandemic. The prospects for the economic environment returning to a state of normalcy are improving, however, as vaccine rollouts gather pace in Finland and abroad. The Finnish economy has held up better than feared in the worst-case scenarios envisaged one year ago, and the financial system has continued to function well. The economy's better-than-expected performance can be attributed especially to the policy measures put in place domestically and in the euro area, and to the ability of households and businesses to adjust to the emergency conditions.



Activity on the housing market has remained largely brisk in spite of the weak performance of the economy overall. The low cost of finance and relaxed lending terms have contributed to an acceleration in the growth of household debt in Finland. A clear upward trend can be identified in the debt-to-income ratios of new mortgage borrowers. Developments in the level of household debt and the housing market are being closely monitored, and assessments are being drawn as to whether the rise in indebtedness warrants further measures by the authorities.

In the short term, the growth of households' housing-related debt can be curbed by restricting loan-to-value ratios on housing loans. But a maximum loan-to-value ratio for housing loans should be supplemented with instruments that are able to curb total indebtedness. The prevailing favourable financing conditions that have been calibrated

for the euro area as a whole hold the potential to accelerate the growth of household debt in Finland. The measures proposed by a Ministry of Finance working group in October 2019 can help prevent the threat of a debt-driven boom and bust cycle.

The maximum debt-to-income ratio proposed by the ministerial working group can be implemented in such a way that lending could broadly continue as it has recently been. The proposal's framework grants lenders a margin of discretion in exempting loans from the proposed debt-to-income cap. The debt-to-income cap would not have a significant impact on first-time homebuyers, as first-time buyers typically hold less debt than households changing homes.

The proposed maturity limit on housing loans and housing company loans would curtail the growth of indebtedness. The maturities on Finnish housing loans began to lengthen in the early 2000s, at which point the debt burden of households also began rapidly expanding. Banks' lending practices are diverse, so the impact of a maturity limit would affect banks differently.

Imposing a maximum loan-to-value ratio for housing company loans would limit the risks of large housing company loans currently associated with new builds. When a large share of the unencumbered price of a dwelling is financed by a housing company loan and the loan begins with an amortisation-free period, buyers are incentivised to purchase a dwelling that is expensive relative to their debt-servicing ability. It should be stressed that the loan-to-value limit for housing company loans would not affect loans for building refurbishment.

The Finnish banking sector was well-capitalised at the time the pandemic hit, and it has been able to provide finance to households and firms during the crisis. The benefits of the stronger regulation put in place after the global financial crisis can be seen in that the financial system has, by and large, operated without disruption during the pandemic. The banking sector's ability to sustain its lending to the real economy might have been disrupted if the capital adequacy of banks had been weaker. The importance of financial market regulation for the functioning of the economy cannot be overstated.

Businesses that are otherwise sound are still in need of economic support to cushion the effects of the restrictions put in place to combat the lingering pandemic. The protracted pandemic will inevitably raise the credit risk of banks. Hence it is still prudent for banks to prepare for a rise in loan losses, even if they have already increased their loan loss provisions and have, for the time being at least, experienced fewer losses than anticipated. The economy remains clouded by uncertainty, nor have all of the ramifications of the lockdown measures yet been felt.

Helsinki, 20 April 2021

*Marja Nykänen*  
*Deputy Governor*

## Tags

banks, capital adequacy, COVID-19, credit losses, household indebtedness, macroprudential instruments

# Debt-to-income cap and maturity limits necessary to curb financial stability risks

4 May 2021 – Bank of Finland Bulletin 1/2021 – Financial stability

The vulnerabilities related to housing finance have increased in Finland during the COVID-19 pandemic. Long housing loans are being taken out more than ever and a larger proportion of new mortgages are being granted to borrowers whose total debts will then be very high relative to income. The persistent upward trend in household indebtedness will undermine the economy's ability to withstand future economic crises. A debt-to-income cap and a limit on the maturity of housing loans should be introduced without delay to stop the loosening of credit standards.



For now the Finnish economy has survived the shocks of the COVID-19 pandemic and suffered less damage than was feared. Furthermore, the Finnish financial system has remained stable despite the pandemic. Households and businesses have benefited from a strong fiscal and monetary policy stimulus, banks' forbearance towards their customers, direct business grants, and the easing of macroprudential requirements and other banking regulation.

However, household indebtedness, which has been on the increase for some time now, threatens to make the Finnish economy less able to overcome future economic crises. Mortgage lending has risen sharply since the summer of 2020 and increased the indebtedness of households. A larger number of new mortgages are with households that carry a significant amount of debt relative to their income.

Housing loans with very long maturities have increased rapidly and the average size of new housing loans has increased further during the pandemic. From the perspective of financial stability, the increasing popularity of housing loans with long maturities is alarming. A significant lengthening of housing loan maturities from the current level could increase the average size of loans and household indebtedness even further and fuel the rise in house prices in growth centres.

A Ministry of Finance working group has proposed that the risks related to high household indebtedness should be reduced by, for example, introducing a debt-to-income cap and by limiting the maximum maturity of new housing loans. In contrast to views that have been expressed in the public arena, the proposed debt-to-income cap would not target particularly first-home buyers.

The ongoing increase in household indebtedness and the loosening of the terms of new mortgages underline the urgency of the legislative changes proposed by the working group. The purpose of the proposed tools is to complement the current maximum loan-to-collateral ratio for residential mortgages. Another advantage of the proposals is that the instruments would apply not only to credit institutions but broadly also to other creditors.

The share of household debt attributable to housing company loans that households must service has continued to grow. In purchasing a new dwelling, the buyer often assumes responsibility for the dwelling's share of any loan the housing company has taken out, which can represent a significant share of the dwelling's total value. This practice can blur house purchasers' grasp of their overall housing costs and lure households and investors into buying dwellings that are expensive relative to their ability to cover their debts and the housing company's maintenance charges. Imposing a loan-to-value limit and a maximum maturity limit on housing company loans would reduce the granting of the largest housing company loans. The various forms of housing finance should be afforded as equal regulatory treatment as possible.

Banks operating in Finland are exposed to the risks on the domestic and Nordic residential property markets. The Nordic housing market was only temporarily dampened by the COVID-19 pandemic. House prices are rising swiftly again in Sweden and Norway, threatening to fuel housing market imbalances in these countries in particular.

Banks have a considerable amount of receivables from the property investment sector. The majority of these are related to residential investment. The pandemic has depressed professional property investors' returns, most notably from investment in office and commercial real estate.

Despite the pandemic, the profitability of Finnish banks improved in 2020. The banking regulatory reforms implemented after the global financial crisis have significantly strengthened the solvency of banks around the world. The lending and loss-bearing capacity of Finnish banks has remained good.

So far, credit losses from corporate loans have increased less than feared. However, there is reason to prepare for increased credit losses, as they typically materialise with a delay



after the worst phase of a crisis is over.

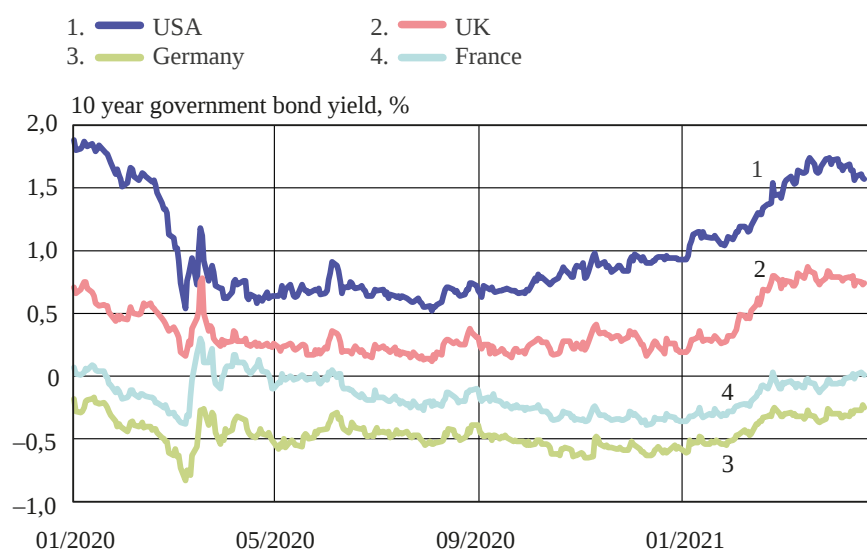
## The stability of the international financial system relies on support measures

The COVID-19 pandemic continues to dominate the outlook for both the domestic and the global economy and for financial stability worldwide. The global economy is expected to continue to recover with the roll-out of the vaccination programmes in 2021, but the pandemic remains serious and the economic outlook is still uncertain, especially in the short term. The stability of the international financial system still relies on expansionary monetary and fiscal policy and other support measures.

In spring 2021 financial conditions tightened somewhat globally. The launch of the vaccine programmes and the US stimulus package heightened optimism about economic recovery. This pushed up long-term government bond yields, especially in the USA, and was also reflected in government bonds in the euro area (Chart 1). Furthermore, the interest rates on long-term corporate bonds rose and stock market volatility increased worldwide.

Chart 1.

Long-term government bond yields increased in the spring of 2021, especially in the USA



Source: Macrobond.

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The main threats to the stability of the Finnish financial system are linked to the long-term impact of the pandemic. Support measures have been used to build a bridge over the immediate problems, but, as a result of these measures, the pandemic's adverse effects on the debt sustainability of companies and households are somewhat unclear.

What is crucial is how the most indebted companies and households, and those which have suffered most due to the pandemic, will be able to manage their obligations after the moratoria and other support measures are over.

European banks have been able to provide financing for companies and households, with the support of monetary accommodation, a temporary easing of regulation and other measures. The credit risks that banks face have, however, grown and may even continue to grow if the pandemic drags on (see [Pandemic continues to cast a shadow over the outlook for European banks' credit risks](#)). The amortization holidays and other repayment flexibilities offered to bank customers have for now curbed the growth in problem loans, and some of the loans to businesses and households are still benefiting from the amortization holidays that began during the pandemic.

## Nordic housing market livelier despite weak economic developments

The majority of lending by Nordic banks consists of residential mortgages and commercial property loans. Indebted households and real estate investors have so far been able to service their debts quite well despite the financial difficulties caused by the pandemic. There are, however, concerns regarding lending growth and the housing market, which has recently seen very strong activity in relation to the economic situation (see [Nordic housing market showing strength, but not without risks](#)).

Sales activity on the Nordic housing market has been brisk following the first phase of the pandemic. House prices have risen rapidly, especially in Sweden and Norway, where they were already high. These developments have partly been driven by the low level of interest rates and other measures to stimulate the economy. Housing market risks will increase if borrowing is based on expectations that interest rates will long remain exceptionally low and property values will continue to rise in urban centres.<sup>[1]</sup>

The first wave of the pandemic in spring 2020 led only to a temporary drop in house sales and new mortgage lending in Finland, and the prices of homes sold at that time did not differ much from the previous year. The housing market bounced back quickly in the summer. In late 2020 and early 2021, house sales were brisker than a year earlier. House prices rose in large cities, further adding to the divergence in the prices between growth centres and the rest of the country.

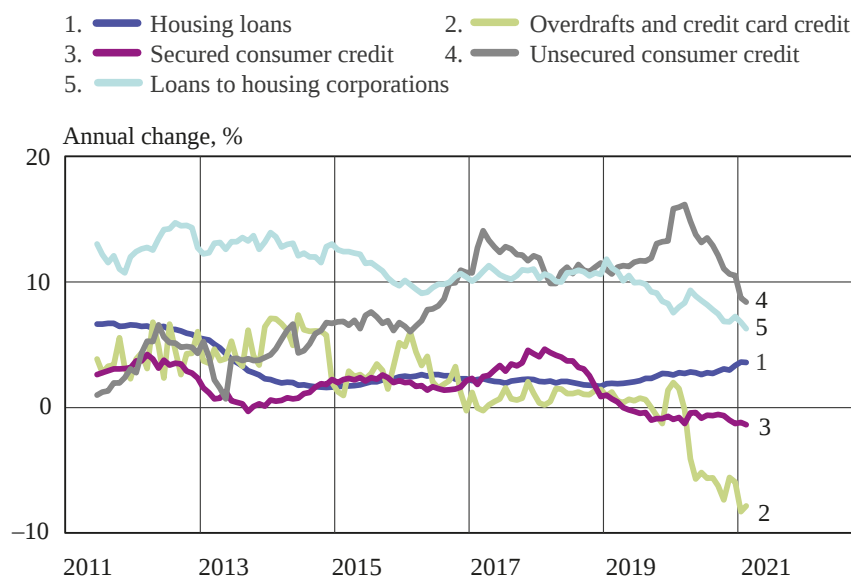
Growth in the stock of housing loans has accelerated on the back of new housing loan drawdowns and fixed-term payment holidays negotiated in spring 2020 (Chart 2). Growth in the stock of housing company loans and other housing corporation loans, in turn, has decelerated due to a decline in residential construction. The pace of growth is still quite swift, however, and residential construction activity is stronger than, for example, over the past decade on average.

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1. Over the past decades, rapid debt accumulation and growth in housing market risks have preceded the most severe banking and financial crises in advanced economies. See e.g. Tölö, E. – Laakkonen, H. – Kalatie, S. (2018) Evaluating Indicators for Use in Setting the Countercyclical Capital Buffer. *Journal of Central Banking* 14: 51–111. The article provides a comprehensive overview of empirical research on factors signalling financial crises.

Chart 2.

### Faster growth for housing loan stock, slower for consumer credit stock



Housing loans and consumer credit to households and loans to housing corporations granted by Finnish credit institutions.

Source: Bank of Finland.

23.4.2021

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The pandemic depressed professional real estate investors' returns and sales on the Finnish and Nordic real estate investment markets. The greater shift towards remote working and online shopping has meant that office and business premises have become less attractive to investors. The share of residential property in professional real estate investors' portfolios has grown. Despite the pandemic, foreign investors increased their share of the stock of Finland's real estate investments in 2020.

Owners of commercial real estate in Finland have had to renegotiate leases, and real estate vacancy rates have partly increased. Rental income from hotel properties, offices and business premises contracted in 2020. Residential, social and logistics properties, in turn, have yielded comparatively strong investment returns during the pandemic.

The prolongation of the pandemic has been reflected in slightly tighter lending standards for the real estate sector in Finland, and growth in loans granted to the sector has slowed. Domestic banks have considerable exposures to the real estate sector, but the majority of these are related to the housing market. Banks' exposures to domestic property market operators most affected by the pandemic, such as owners of hotels, shopping centres and office buildings, are relatively low.

## Housing loans with very long maturities increase indebtedness

The terms of new mortgages have been relaxed further in Finland. Mortgage rates are at historically low levels, reflecting the slight narrowing in average margins and the fact that the reference rates of Euribor-linked housing loans have remained practically at zero.

The Board of the FIN-FSA restored in late June 2020 the maximum loan-to-collateral ratio, i.e. the loan cap, for residential mortgage loans other than first-home loans to the standard level of 90%. [The decision](#) enabled banks to grant larger loans relative to the amount of collateral. The measure supported the functioning of the housing market in a weak economic situation caused by the COVID-19 pandemic.

New mortgages in Finland typically have an initial maturity of about 25 years, but longer maturities of some 30 or 35 years have become increasingly popular during the past two years (Chart 3). Furthermore, the average size of mortgages has grown. Of the households that have taken out a new mortgage, many are highly indebted relative to income (see [New mortgage-borrowers have an increasing amount of debt relative to income](#)).

The increasing popularity of housing loans with very long maturities and growth in borrowing by households with high debt-to-income ratios are worrying phenomena from the perspective of financial stability. Also, the Board of the FIN-FSA has repeatedly underlined the importance that banks carefully assess borrowers' ability to pay and has urged lenders to exercise restraint in granting loans that are very large in relation to the applicant's income and have a longer-than-usual maturity.<sup>[2]</sup>

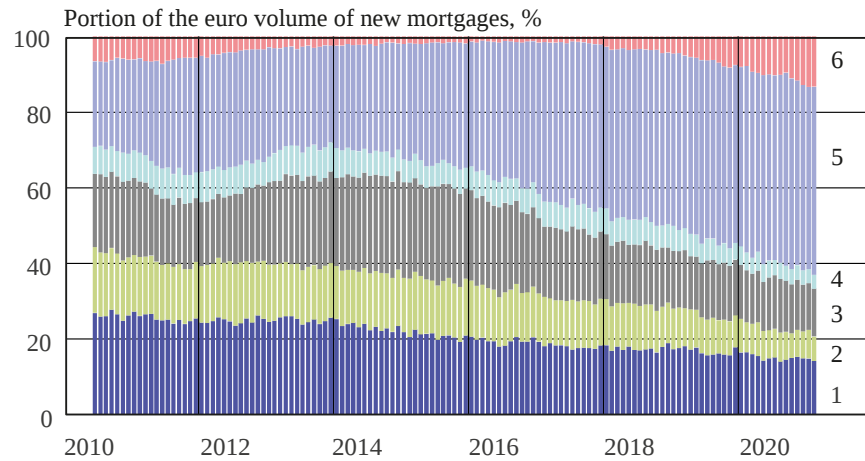
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2. See [Macroprudential decision: FIN-FSA will not tighten macroprudential requirements but will closely monitor mortgage lending](#).

Chart 3.

### New mortgages increasingly with long maturities

1. Maximum 14 years
2. Over 14 and maximum 19 years
3. Over 19 and maximum 21 years
4. Over 21 and maximum 24 years
5. Over 24 and maximum 26 years
6. Over 26 years



Source: Bank of Finland.

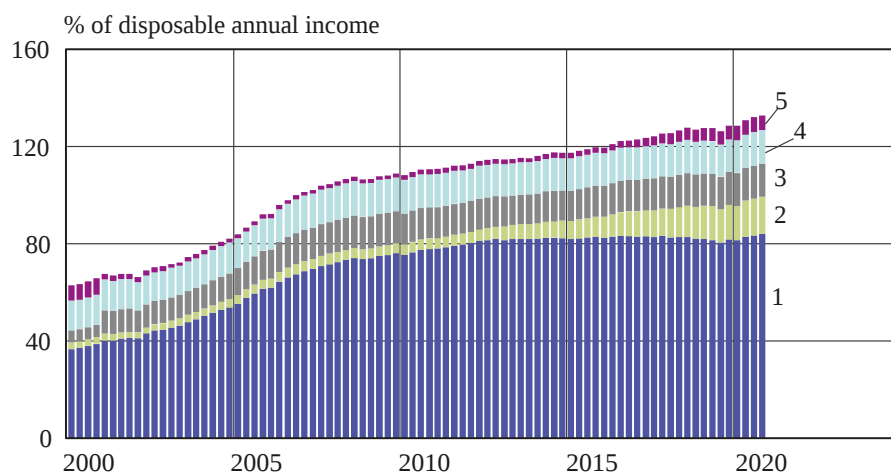
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Finnish households' indebtedness has continued to increase during the pandemic, as debts have grown faster than incomes. The majority of debt and its long-term growth is housing-related debt, i.e. households' mortgages and loans for dwellings for investment purposes, as well as housing company loans related to owner-occupied housing and dwellings for investment purposes (Chart 4). The relative importance in housing finance of loans for dwellings for investment purposes and housing company loans has grown in recent years, which has contributed to the increase in risks caused by housing finance and indebtedness (See [Separating buy-to-let mortgages from other housing loans provides a clearer look into household debt](#) and [Imposing a loan-to-value limit on housing company loans would only affect a share of construction finance](#)).

Chart 4.

### Household debt levels have risen for a long time

1. Housing loans from credit institutions operating in Finland
2. Loans via housing companies
3. Consumer credit from credit institutions operating in Finland
4. Other loans from credit institutions operating in Finland
5. Other loans from Finland and abroad



Sources: Statistics Finland and Bank of Finland.

23.4.2021  
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Growth in consumer credit by credit institutions operating in Finland has slowed notably since the outbreak of the pandemic (Chart 2). Consumer spending declined in 2020 in response to the containment measures, furloughs and decrease in consumer confidence caused by the pandemic. This was accompanied by an increase in household savings. The Consumer Protection Act was amended by introducing a 10% interest rate cap and a direct marketing restriction on consumer credit, which are in force until the end of September 2021.



## Proposed measures to prevent excessive household indebtedness

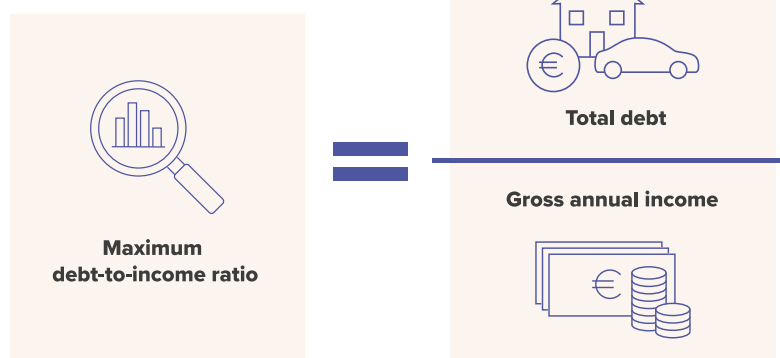
A working group of the Ministry of Finance, led by Leena Mörntinen and representing several authorities and the financial sector, published its report in October 2019.<sup>[3]</sup> In this report, the working group proposed, among other things, the limitations presented below to be incorporated into Finnish law to prevent excessive household indebtedness. The limits would apply to both banks and other creditors.

### Maximum debt-to-income ratio

The maximum debt-to-income (DTI) ratio, or debt-to-income cap would curb indebtedness in relation to income. The total debts of the loan applicant or household would include housing loans, housing company loans and consumer credits. This total would be divided by the loan applicant's gross annual income, i.e. wage earnings, capital income and benefits before taxes and deductions. The DTI cap would be applied when granting new housing loans or large amounts of consumer credit.

Chart 5.

### Capping debt-to-income ratios would limit total household debt.



Source: Bank of Finland.

The working group proposed that the DTI cap would be calibrated so that the total amount of the new loan and any existing loans would not exceed 450% of the gross annual income of the loan applicant or applicants. In addition, creditors would be allowed discretion and flexibility in the case of individual borrowers, i.e. up to 15% of the euro volume of loans could be granted with a ratio higher than

the maximum DTI ratio.

### **Maximum maturity of housing loans and housing company loans**

The maximum maturity of housing loans, and housing company loans for new housing construction, would be limited to 25 years. However, creditors could deviate from these limits in the amount of 10% of the euro volume of the loans granted, meaning that some of the loans could have a maturity in excess of 25 years.

The proposal on the maximum housing loan maturity does not exclude the possibility of interest-only amortization holidays during the loan term. In the case of housing company loans for new housing construction, no interest-only periods would be allowed for five years following the completion of the dwelling.

### **Loan-to-value limit on housing company loans**

A loan-to-value (LTV) limit, or a maximum credit share of 60% would be set for housing company loans for new housing construction. This would mean that, at the construction stage, the maximum amount of credit issued to a housing company could be 60% of the unencumbered price of the flats to be sold.

### **Other proposals**

The working group proposed that the Financial Supervisory Authority also supervise creditors other than banks in the future. In addition, creditors would not be permitted to grant loans to applicants who are likely to be unable to repay the loan.

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## **Debt levels are rising – the debt-to-income cap is a matter of urgency**

As the heightened uncertainty related to the COVID-19 pandemic recedes, it is justified to extend Finland's macroprudential toolkit by introducing into legislation measures proposed by the Ministry of Finance working group (see [Proposed measures to prevent excessive household indebtedness](#)).<sup>[4]</sup> The Bank of Finland supports the working group's proposals.<sup>[5]</sup>

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3. See the Ministry of Finance working group's [Report on means to prevent excessive household indebtedness](#) (in Finnish).

4. More detailed information on the progress of the initiative is available on the Ministry of Finance [website](#) (in Finnish only).



Borrowing helps households to even out their expenditure in the different phases of their life, but very high debt levels relative to income weaken the ability of both households and the economy to adjust to possible negative shocks. The proposed maximum debt-to-income ratio, i.e. the debt cap, would prevent households' total debt from rising to very high levels relative to income, which is a measure of a household's repayment capacity.

The purpose of the debt-to-income cap is to strengthen the resilience of the household sector and the economy and to curb excessive growth in household indebtedness. The continued upward trend in indebtedness underlines the fact that regulation on the debt-to-income cap should be introduced rapidly. It is also important to ensure that the scope of the debt-to-income cap is as extensive as possible, i.e. that it will apply to not only credit institutions but also other entities granting credit to households.

Based on available data<sup>[6]</sup>, the calibration of the debt-to-income cap proposed by the working group would more or less, have allowed the current credit practices. It is justified to calibrate the debt-to-income cap so that its entry into force does not cause abrupt and significant changes in credit-granting practices. As banks can more or less continue their lending practices, the possible negative impacts of regulation on households, housing markets and the economy can be avoided.<sup>[7]</sup>

Calculations by the Bank of Finland using the most recent data show that new-mortgage borrowers' total debt relative to income has increased in the past two years. Therefore, the debt-to-income cap should now be calibrated to as high as 500% if the objective is to minimise its direct impacts on the provision of credit (see [New mortgage-borrowers have an increasing amount of debt relative to income](#)).

High debt-to-income ratios are more common in growth centres than elsewhere in Finland. High debt-to-income ratios are less common in the case of first-home loans than in other new housing loans. This is due to the fact that first-home buyers' total debts are smaller than those of other home buyers. Therefore, the debt-to-income cap does not seem to target particularly the financing of first-home loans. Based on analysis by the Bank of Finland, the debt-to-income cap would have a moderate impact on long-term economic growth, and it seems to be more effective in dampening economic fluctuations than the maximum loan-to-collateral ratio on housing loans currently applied in Finland (See [A debt-to-income cap would dampen economic fluctuations](#)).

In public debate, the view has been expressed that the introduction of a debt-to-income cap would hamper the purchase of housing, particularly in growth centres, and thus decrease the regional mobility of labour. A barrier higher than the possible debt-to-income cap to the internal migration of workers is, however, the regional diversification of house prices, which is a global phenomenon related to urbanisation. Refraining from or undermining reforms that are important for safeguarding financial stability would be both the wrong and an ineffective way of maintaining labour mobility. The internal

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5. See Bank of Finland's [opinion](#) (in Finnish only).

6. The data covered the total volume of mortgages granted by banks and mortgage-applicants' other debt. The calculations were based on observations on which there was sufficient information available.

7. See also [Velkakatto ja enimmäislaina-aika hillitsisivät liiallista velkaantumista joustavasti](#) ('A debt-to-income cap and maximum maturity would curb excessive indebtedness flexibly', in Finnish only).

migration of workers and the balanced regional development of house prices will be supported better by ensuring an adequate supply of housing in growth regions.

## Essential to ensure equal regulatory treatment of different forms of housing finance

In order to reduce the vulnerabilities related to excessive household indebtedness, which are high to begin with, it is necessary to take measures to limit the maximum maturity of housing loans. As well as the debt-to-income (DTI) cap, the maximum limit on housing loan maturities proposed by the Ministry of Finance working group should be introduced without delay (see [Proposed measures to prevent excessive household indebtedness](#)).

Imposing a maximum limit on housing loan maturities would reduce the number of loans that are very high in relation to the borrower's debt-servicing capacity, as borrowers should, as a rule, be able to repay their loans within the prescribed time. Some lenders have offered loans with maturities over 25 years, and the proposed regulations will not necessarily allow them to extend the same amount of long-term credit as they recently have (see [New mortgage-borrowers have an increasing amount of debt relative to income](#)).

Large unit shares of housing company loans and interest-only periods at the beginning of the loan period impair the ability of buyers to assess the debt-servicing costs associated with housing company loans. As a result, a subset of buyers may purchase dwellings that are too expensive in terms of their debt-servicing costs and housing company maintenance charges. Large unit shares of housing company loans expose households and the economy to the risks of overindebtedness.

Imposing a loan-to-value limit on housing company loans would mitigate the risks associated with very large housing company loans. The proposed limit would still allow for the substantial use of housing company loans to finance new owner-occupied construction. The impact of the loan-to-value limit on new-build construction and its financing will depend on the ability of construction companies to supplement housing company loans with other sources of funding (see [Imposing a loan-to-value limit on housing company loans would only affect a portion of construction funding](#)).

The financial literacy of Finnish citizens plays an important role in curbing excessive indebtedness. In January 2021, the Bank of Finland submitted to the Ministry of Justice its proposal for a national strategy for financial literacy.<sup>[8]</sup> The aim is to help people make sound financial decisions and avoid over-indebtedness.<sup>[9]</sup> The management of household finances will also be fostered by the positive credit register to be introduced in 2024. This will include data on the total debt held by borrowers.<sup>[10]</sup>

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8. See [Finns will have the world's best financial literacy by 2030 \(suomenpankki.fi\)](#).

9. The idea here is, among other things, that by developing easily accessible proactive advisory services we can give people the means for planning their everyday spending, the funding of major purchases, as well as their borrowing, savings and investment behaviour.

10. See working group report on legislation on the positive credit register ([Positiivista luottotietorekisteriä koskeva lainsäädäntö: Työryhmän mietintö - Valto \(valtioneuvosto.fi\)](#), in Finnish only).

## The full impact of COVID-19 on businesses is yet to be seen

So far, businesses and the Finnish economy in general have come through the crisis with less damage than most other European countries (see [Moderate growth in the number of Finnish companies' non-performing loans](#)). This has been facilitated by, for example, direct support measures, interest-only periods on corporate loans and companies' own adjustment measures. However, the impact of the crisis has been particularly severe in the services sector.

In 2020, the share of non-performing loans and forborne exposures in the corporate loan stock of Finnish banks grew only marginally from the end of 2019. Banks' loan losses from corporate and household loans have so far also increased only moderately compared with the worst case scenarios presented in the early stages of the pandemic. If the Finnish economy recovers from the pandemic as predicted, bank loan losses will not increase as much as estimated in the loan loss scenarios published by the Bank of Finland in spring 2020.<sup>[11]</sup>

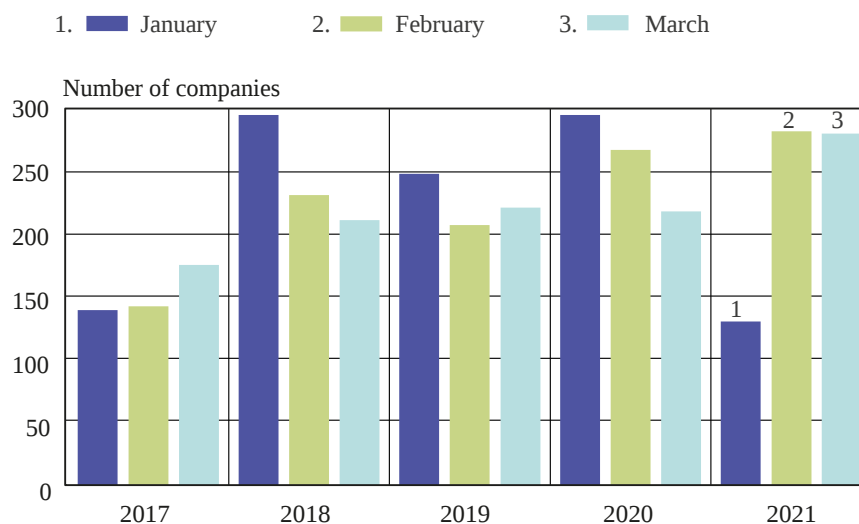
However, there is still considerable uncertainty regarding the survival of companies through the pandemic and the magnitude of long-term risks to the financial system rooted in the corporate sector. Temporary reliefs for companies – such as the easing of the bankruptcy legislation until January 2021, and the interest-only periods on corporate loans granted in spring 2020 – may only have postponed the insurmountable problems of some companies. However, the number of bankruptcies initiated in February–March 2021 was only slightly higher than in the corresponding months in 2017–2020. (Chart 6).

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11. See the Bank of Finland's [assessment of the stability of the Finnish financial system, spring 2020](#).

Chart 6.

### Pandemia ei ole merkittävästi lisännyt vireille pantuja konkurssseja



Source: Statistics Finland.

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Crises such as the COVID-19 pandemic weaken the creditworthiness of companies affected by the crisis and increase the credit risk of loans granted to them. The pandemic appears to have had only a minor impact on the average margins on new corporate loans granted by Finnish banks. Moreover, according to surveys conducted with companies and banks, the pandemic does not seem to have significantly tightened the credit policies of corporate financiers.<sup>[12]</sup>

Uncertainty related to the operating environment causes companies to postpone fixed investments until the outlook for the economy becomes clearer. It is important that the banking sector has sufficient capacity to support companies' investments and the recovery of the Finnish economy when investment and the related demand for funding pick up again.

## Finnish banks have avoided the worst

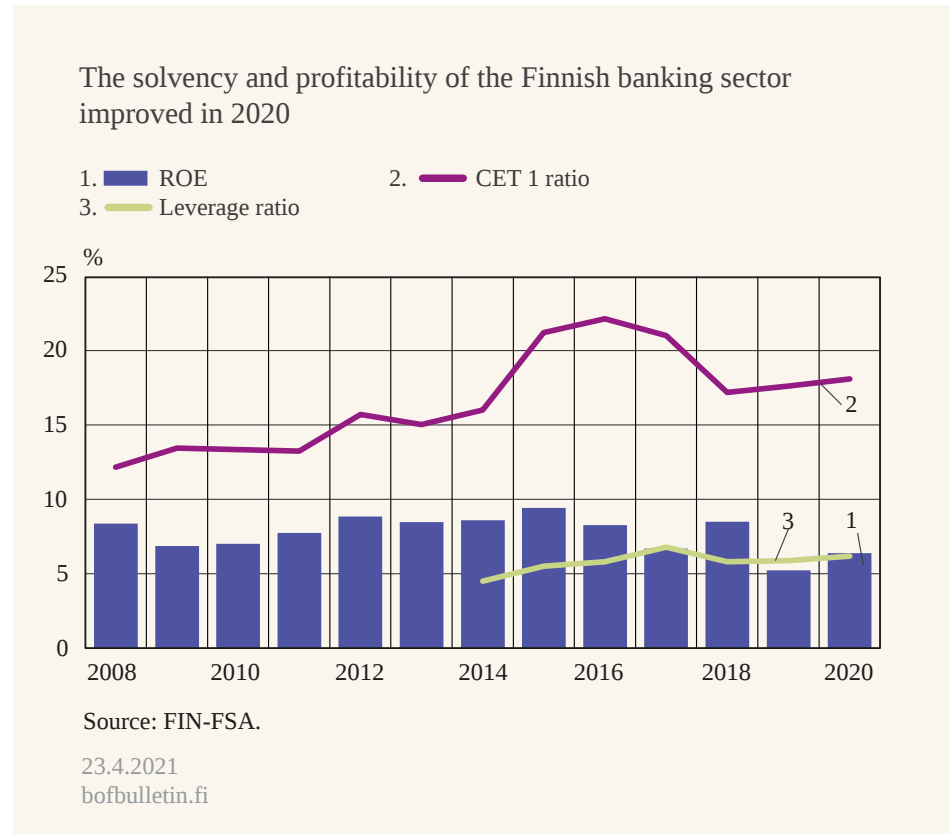
In Finland, the pandemic's direct impact on banking operations has been less drastic than the impact on many other sectors. The profitability of the Finnish credit institution sector improved in 2020. According to the Financial Supervisory Authority, net interest income increased by around 4% compared with 2019, mainly as a result of lower interest expenses.<sup>[13]</sup> Costs decreased, although in the year of comparison a good number of non-

12. For more information on the bank survey, see the results for Finland in the ECB's Bank Lending Survey. For more information on the corporate survey, see Finnish Enterprises' *SME Barometer, spring 2021* (in Finnish only).

recurring expenses were recorded. Not one banking group made a loss.

At the end of 2020 the overall capital ratio of the Finnish credit institution sector was over 21% and the capital adequacy ratio (CET 1) over 18% (Chart 7).<sup>[14]</sup> The restrictions on profit distribution helped strengthen the banks' loss-absorbing capacity. The credit ratings of Finnish banks have remained stable.

Chart 7.



The Central Bank's share of bank financing grew with the longer-term refinancing operations in June 2020. Moreover, the deposits made by households and companies have also increased during the pandemic. The number of debt securities issued by Finnish credit institutions remained almost unchanged from January 2020 to January 2021. A larger proportion of this financing is long-term, which reduces liquidity risks.

The interest on covered bonds issued by Finnish banks is still negative. The interest on covered bonds over a term of around three to five years was virtually unchanged at the start of 2021.

Many banks recorded far more in bad debt provisions in 2020 than in 2019, particularly in the first half of the year. The pandemic may weaken customers' ability to pay long-

13. Consolidated data for all Finnish banks, including their branches and subsidiaries abroad.

14. See the FIN-FSA report *Pankkisektorin vakavaraisuus säilyi vahvana ja liikevoitto parani* ('Capital adequacy of the banking sector remains strong and operating profit improves') (in Finnish only); the data is available in English: <https://www.finanssivalvonta.fi/en/statistics/banks/key-financial-figures/>.

term, and its effects may not yet have been fully reflected in banks' lending portfolios. The banks therefore need to continue to prepare for possible problems ahead.

Finnish non-life insurance companies have remained solvent. Their sound financial position was strengthened even further in 2020 by favourable returns on investment and improved profitability in the insurance business. The position of the life insurance sector remained sound, although it was less so than a year before.<sup>[15]</sup>

## Improved financial regulation in the wake of the financial crisis has helped during the pandemic

The adverse effects of the COVID-19 pandemic on the economy have been dampened in diverse ways as a result of measures taken by the ECB and the macroprudential authorities as well as the supervisory and regulatory authorities.<sup>[16]</sup> For many countries the pandemic was the first test to show how macroprudential policy can strengthen the ability of banks to lend. For example, in Finland, the Board of the Financial Supervisory Authority eased the capital buffer requirements of Finnish credit institutions in April 2020. The aim was to maintain the stability of the financial system and promote lending to businesses and households.<sup>[17]</sup>

The capital buffer requirements set for credit institutions are legislated under the EU's Solvency Directive, which was amended with the banking package in 2019. The amendments to the Finnish Act on Credit Institutions required by the banking package entered into force in April 2021.<sup>[18]</sup>

The amendments to the law obviate any overlap in the use of capital buffer requirements and permit use of a more targeted systemic risk buffer.<sup>[19]</sup> The banking package in the EU also implements some of the reforms in banking and financial regulation agreed worldwide following the global financial crisis.<sup>[20]</sup>

A set of tools more flexible than previously is available to the authorities responsible for

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15. See the FIN-FSA report [Valvottavien taloudellinen tila ja riskit](#) ('Financial condition of, and the risks associated with, supervised entities', in Finnish only).

16. The banks were allowed some flexibility with respect to their liquidity and capital requirements. They were also afforded the opportunity to show flexibility in the way they recorded reserves against bad debts, for example. The European banks complied broadly with the recommendations of the supervisory authorities, temporarily refraining from paying dividends. Many national macroprudential authorities in Europe eased their banks' capital buffer requirements or reversed earlier tightening. Moreover, the implementation of Basel III, the final instalment of accords to strengthen banks' capital adequacy and liquidity was delayed by a year.

17. See Marja Nykänen's blog [Koronakriisi toi esiin makrovakauspoliitiikan hyödyt](#) ('COVID-19 crisis shows the benefits of macroprudential policy', in Finnish only).

18. See [the Act on Credit Institutions](#) (in Finnish only).

19. The Board of the Financial Supervisory Authority can set a capital risk requirement known as a systemic risk buffer for a credit institution if it believes that the credit institution sector is structurally vulnerable to financial crises and their wide spread within the financial system. The Board can also prevent systemic risks associated with large exposures to credit institutions generally by means of a new sector-specific systemic risk buffer.

20. These include the requirement for a minimum amount of a credit institution's own funds in relation to the size of its balance sheet (leverage ratio) and the net stable funding ratio requirement, which curbs any over-reliance on the part of the organisation on short-term market funding.

the stability of the Finnish financial system when they assess the capital adequacy of Finnish credit institutions in the operational environment after the pandemic. The assessment may make use of stress tests customised to reflect the situation in Finland and which evaluate the ability of the Finnish banking sector to withstand major financial crises and the losses they cause (see New stress testing framework to assess the capital adequacy of Finnish banks).

By the end of June 2022, the European Commission is to examine the adequacy of the regulation on macroprudential instruments and evaluate areas that need improvement. As regulation evolves there are good arguments for focusing special attention on the systemic risks that arise outside the credit institution sector and propose ways to mitigate them.

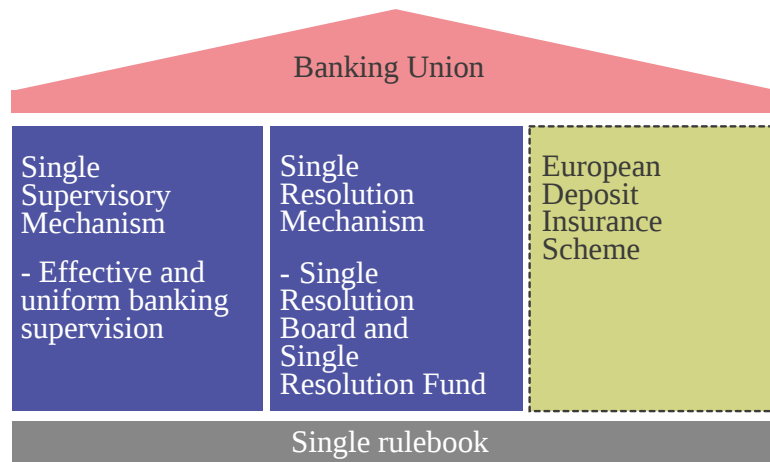


## It is vital to complete the Banking Union and diversify the capital markets

Completion of the European Banking Union is vital, as it would support financial stability and financial intermediation. The common European Deposit Insurance Scheme is the most important missing part of the Banking Union. A common deposit insurance would increase confidence in the banking system, prevent deposit runs and reduce harmful links between banks and their home countries. In the longer term, it would be particularly important for countries such as Finland with a proportionally large and concentrated banking sector.

Chart 8.

### The third pillar of Banking Union is missing



Source: Bank of Finland.

26.4.2021  
bofbulletin.fi

The finalisation of the Banking Union and the single European Deposit Insurance Scheme has been delayed by the large number of non-performing loans of European banks. Banks have significantly reduced their non-performing loans since the financial crisis, but the pandemic is threatening to increase them again. Measures proposed by the European Commission in December 2020, such as the development of a secondary market for non-performing loans, are to be highly commended.

In order to reduce bank NPLs and support market-based solutions, the possibility



to grant state aid provided by the EU's resolution and state aid legislation should not be abandoned in the short term.<sup>[21]</sup> This mechanism should be dropped at a later date, but with a sufficiently long transitional period.

In order to diversify Europe's banking-centred financial system, it is important to continue the development of the capital markets. A more determined dismantling of barriers to capital market integration in the EU would promote access to business finance, sustainable economic growth and cross-border diversification of investment risks. The new Capital Markets Union action plan, published by the European Commission in autumn 2020, proposes actions to improve small and medium-sized enterprises' access to market financing, among other things.

The objective of sustainable economic growth is also supported by the European Green Deal, which drives the European economy towards climate neutrality while simultaneously reducing potential short-term risks to the financial sector in the transition to a carbon-neutral economy. Developing the market for green finance would support the EU's climate objectives.

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## Tags

[banks](#), [COVID-19](#), [debt-to-income cap](#), [financial stability](#), [indebtedness](#), [mortgage lending](#)

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21. As a rule, state aid to banks is prohibited, but EU legislation on bank resolution allows for state aid under certain conditions provided by the legislation.

# Nordic housing market showing strength, but not without risks

4 May 2021 – Bank of Finland Bulletin 1/2021 – Financial stability



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The Nordic residential and commercial real estate markets recovered quickly from the first wave of the COVID-19 pandemic. House sales and property investment flows have been strong despite the uncertain economic outlook. The rise in house prices – even rapid in some regions – and growth in lending emphasise the existing vulnerabilities of Nordic banks. On the property investment market, the pandemic has reinforced ongoing trends, such as growth in the share of residential property in professional real estate investors' portfolios.



## Banks exposed to risks in residential and commercial real estate markets

The Nordic financial system is vulnerable to risks in the housing and commercial property markets.<sup>[1]</sup> Banks' key vulnerabilities are related to the provision of credit to households, investors and other operators in the real estate sector. Banks are also exposed to funding and investment risks on the covered bond market. Any losses

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1. See <https://www.bofbulletin.fi/en/2020/2/nordic-countries-are-vulnerable-to-housing-market-risks-aggravated-by-the-coronavirus-pandemic/>. For more detailed information, see also ESRB (2019) *Vulnerabilities in the residential real estate sectors of the EEA countries*.

incurred would weaken the profitability, capital adequacy and liquidity of banks, with potential for even greater ramifications through bank interlinkages and economic interconnectedness of the Nordic countries.<sup>[2]</sup>

Risks on the residential and commercial property markets have played a role in the emergence and severity of many previous economic and financial crises. In times of sharply increasing indebtedness and a synchronous overheating of the real estate market, housing and property prices have risen in an unsustainable manner. Economic downturns following debt-driven price bubbles have been particularly deep and protracted.

The COVID-19 crisis has diverged significantly from previous economic crises in that it was triggered by an exogenous shock, i.e. a health threat coming from outside the economy. Moreover, the housing market sustained its strength in spite of the economic slowdown. In a situation where the economic outlook remains uncertain and may deteriorate suddenly again, there is a risk that vulnerabilities in the financial system could increase further.

Households and professional real estate investors finance a significant share of their residential and property transactions with debt. Housing loans and a large proportion of Nordic investors' debt financing are from domestic banks in the region. Property investment companies focusing on the management and rental of residential and commercial property also raise market funding by issuing bonds.

Housing loans and loans to firms in the real estate sector account for a large proportion of the provision of credit by Nordic banks. For this reason, these loans have a significant impact on the banks' credit risks. Data on large European banks collected by the European Banking Authority (EBA) shows that, at the end of 2020, the share of residential and commercial real estate loans in the stock of bank lending varied in the Nordic countries from almost 70% in Denmark to 50% in Norway (Chart 9).<sup>[3]</sup> Denmark and Sweden recorded the largest shares in Europe, while among the largest countries the share of these loans was only 28% in Germany and 17% in France, for example.

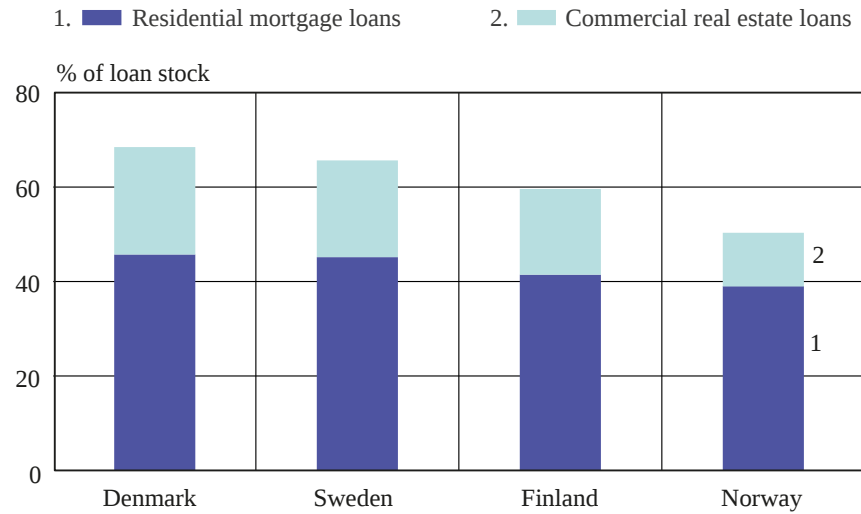
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2. See <https://www.bofbulletin.fi/en/2018/articles/risks-on-the-swedish-housing-market-also-a-cause-for-concern-in-other-nordic-countries/>.

3. Loans to the construction sector are excluded. They account for a larger share of corporate loans in Norway than in Finland, Sweden or Denmark.

Chart 9.

### Nordic banks have issued high volumes of residential and commercial real estate loans



Source: EBA.

22.4.2021  
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The scale of credit risks and losses depends on the payment ability of indebted households, investors and firms as well as changes in the value of the housing and property serving as loan collateral. Nordic banks' losses from housing loans and other real estate lending have been small in recent years. Low interest rates, payment holidays and substantial monetary and fiscal stimulus to support the economy have helped tenants and owners to stay solvent, which has facilitated debt repayment during the pandemic.

Some of the banks' own funding and investment activities are also closely linked to the housing market. Bonds collateralised by housing loans, i.e. covered bonds issued by banks, constitute a significant proportion of banks' long-term market-based funding. Banks also invest in covered bonds issued by each other and hold these investments in their liquidity buffers. In Sweden, for example, banks hold about 20% of all covered bonds issued by Swedish banks.

Pricing and demand for debt securities issued by Nordic banks depend on the confidence of international and domestic investors in banks and in their respective domestic residential and commercial real estate markets. If the risks on these markets were to materialise, this would drive up the cost of bank funding which, in turn, could undermine bank lending capacity and tighten the credit standards for new loans to firms and households.

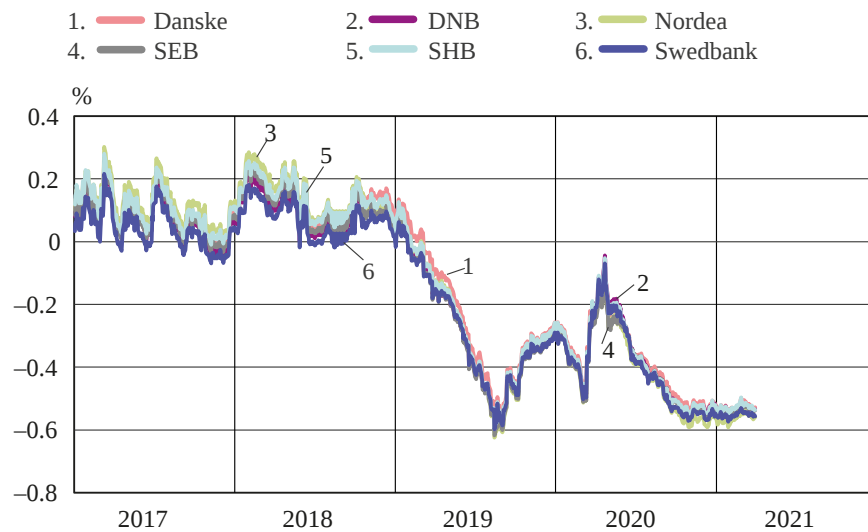
Nordic banks have long enjoyed good credit ratings, low funding costs and easy access to market funding. Bank funding costs increased temporarily after the outbreak of the pandemic, but the market recovered fairly rapidly (Chart 10). The yields required by investors have long been negative, indicating that bank bonds have been attractive to

investors even during the pandemic.

Bank-specific differences in required yields are minor. This is partly because investors perceive Nordic banks as a very homogeneous group in the bond market, due to their similar strengths and vulnerabilities. This increases the contagion risk, i.e. disruptions on the financial markets and in the economy could easily spread from one bank or country to another.

Chart 10.

### Yields on Nordic banks' covered bonds have returned to pre-pandemic levels



Covered bonds maturing in 2022.

Source: Bloomberg.

13.4.2021

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Central banks' purchase programmes also support the demand for covered bonds of Finnish and Swedish banks. Covered bonds were included in the ECB's purchase programmes for the first time in 2009. The Swedish Riksbank, in turn, launched purchases of Swedish krona-denominated covered bonds issued by domestic banks in March 2020 as part of its pandemic-related economic support measures.

## Housing market recovered quickly from first wave of pandemic

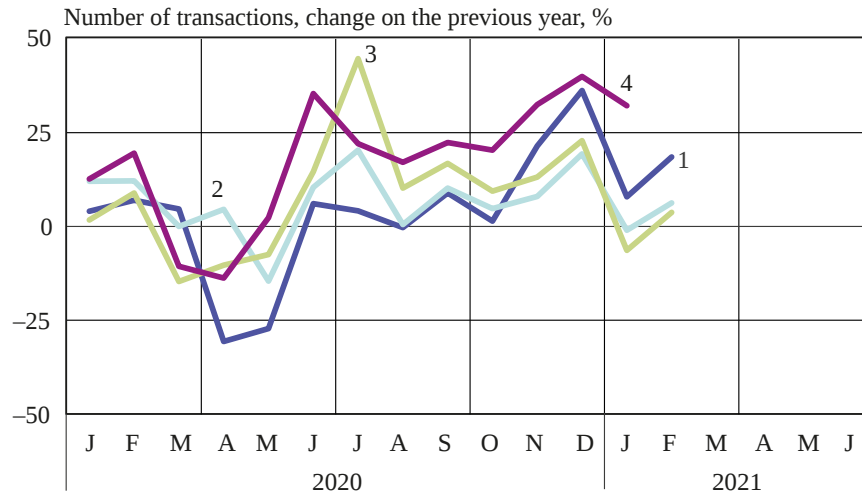
Residential property transactions in the Nordic countries fell sharply in spring 2020, as the pandemic fuelled economic uncertainty, and lockdowns affected the activities of banks, real estate agents and their customers (Chart 11). Transaction activity started to recover in the summer, once consumer confidence in the economy improved and private home viewings and the use of digital services, for example, became more common.

House sales increased further in the autumn and towards the end of the year, when pent-up demand accumulated during the spring was released into the market. As a whole, 2020 saw more house sales than the previous year, and 2021 also began at a brisk pace.<sup>[4]</sup>

Chart 11.

### Nordic house sales quickly recovered from the first wave of the pandemic

1. Finland 2. Sweden 3. Norway 4. Denmark



Finland: old dwellings; Sweden, Denmark and Norway: all dwellings.

Sources: Central Federation of Finnish Real Estate Agencies, Mäklarstatistik, Statistics Denmark, Eiendom Norge, Macrobond and calculations by the Bank of Finland.

22.4.2021

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There are many factors underlying the strong housing market dynamics. Urbanisation and low interest rates have long driven high demand for owner-occupied and investment housing in growth centres. Household and investor demand has also persisted during the pandemic, which has shortened sales times and reduced the number of homes available for sale. In Finland, for example, the number of online listings of homes for sale was lower at the end of 2020 than a year earlier. The supply of rental apartments, in turn, has increased.<sup>[5]</sup>

The economic repercussions of the pandemic have so far been less severe than anticipated in the Nordic countries. The Nordic economies contracted by about 3% in

4. Epidemics have also caused short-term disturbances on the housing market before. Due to the SARS epidemic, for example, house sales temporarily dipped dramatically in 2003, most notably in Hong Kong, but the recovery was swift and the impact on house prices remained modest. See Wong, G. (2008) Has SARS infected the property market? Evidence from Hong Kong. *Journal of Urban Economics*, Volume 63, Issue 1, 74–95.

5. See <https://www.stat.fi/tup/kokeelliset-tilastot/asuntojen-myynti-ja-vuokrailmoitukset/2021-01/index.html> and <https://www.etuovi.com/asuntojen-hinnat-ja-asuntomarkkinat> (both in Finnish).

2020, compared with a decline of nearly 7% for the euro area as a whole. Extensive fiscal stimulus has contributed to slowing unemployment growth, which has helped households to cope better with their financial obligations. Consumers' expectations concerning their own financial situation have also been stronger than their confidence in the overall economy.

The economic fallout from the pandemic is estimated to have hit tenants harder via the labour market than owner-occupiers with housing debt. In Finland, for example, the number of young and elderly wage earners fell more because of the pandemic than the number of other wage earners.<sup>[6]</sup> Tenant households are most common among the young age groups, and households who have paid off their mortgages most common among the elderly age cohorts. The number of persons furloughed during the pandemic has been high in the construction, transport, restaurant, retail and tourism sectors.<sup>[7]</sup> These sectors entail more part-time and occasional work on average than other sectors – forms of work that are typical among young and the elderly people.

Low interest rates, mortgage payment holidays and relaxation of macroprudential policy have supported the economy and the housing market alike. At the end of June 2020, Finland raised the maximum loan-to-collateral ratio (LTC, loan cap) for homebuyers other than first-time homebuyers to its standard level of 90%. Finnish banks also generously granted payment holidays for their customers. In Norway, Norges Bank quickly lowered the policy rate from 1.5% to 0.25%. Norway and Sweden both relaxed their macroprudential requirements for mortgage borrowers during 2020.

The strength of house sales and new mortgage lending and the ample use of payment holidays have fuelled growth in the stock of housing loans and household indebtedness. The stock of housing loans has long expanded rapidly in Norway and Sweden, while the pace has been slower for Finland and Denmark. Nordic households have high debt levels relative to income and their indebtedness has increased in recent years, with the exception of Denmark, where household indebtedness is nevertheless the highest among the Nordic countries.

The rise in house prices accelerated in the Nordic countries towards the end of 2020 and the trend continued in early 2021, most notably in Norway and Sweden (Chart 12). This was not exceptional on a European scale, however, as in 2020 house prices also rose widely across Central and Southern Europe. On the other hand, rising house prices combined with high household indebtedness will amplify the vulnerabilities associated with mortgage lending, especially for banks in the Nordic countries.

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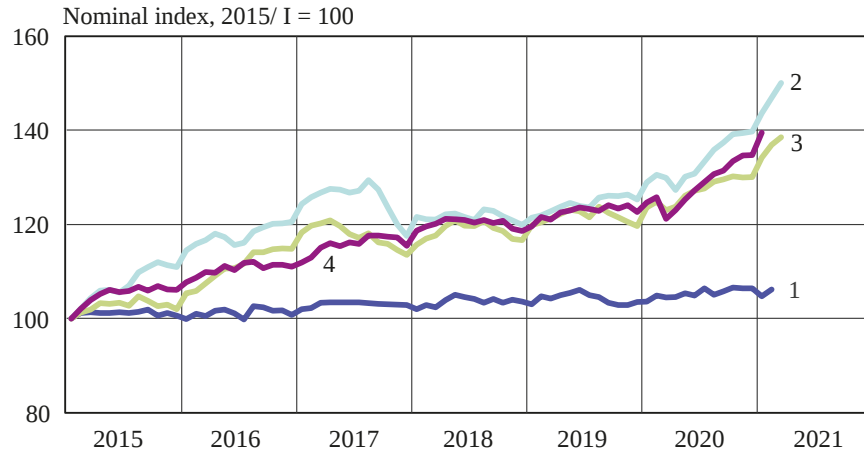
6. See [https://www.stat.fi/tup/kokeelliset-tilastot/tulorekisterin\\_palkat\\_ja\\_palkkiot/2020-joulukuu/index.html](https://www.stat.fi/tup/kokeelliset-tilastot/tulorekisterin_palkat_ja_palkkiot/2020-joulukuu/index.html) (in Finnish).

7. See <https://tem.fi/koronaviruksen-vaikutukset-tyollisyystilanteeseen> (in Finnish).

Chart 12.

### House prices increasing at a faster pace in Sweden, Norway and Denmark

1. Finland 2. Sweden 3. Norway 4. Denmark



Finland: old dwellings; Sweden, Denmark and Norway: all dwellings.

Sources: Statistics Finland, Valueguard, Statistics Denmark, Eiendom Norge, Macrobond and calculations by the Bank of Finland.

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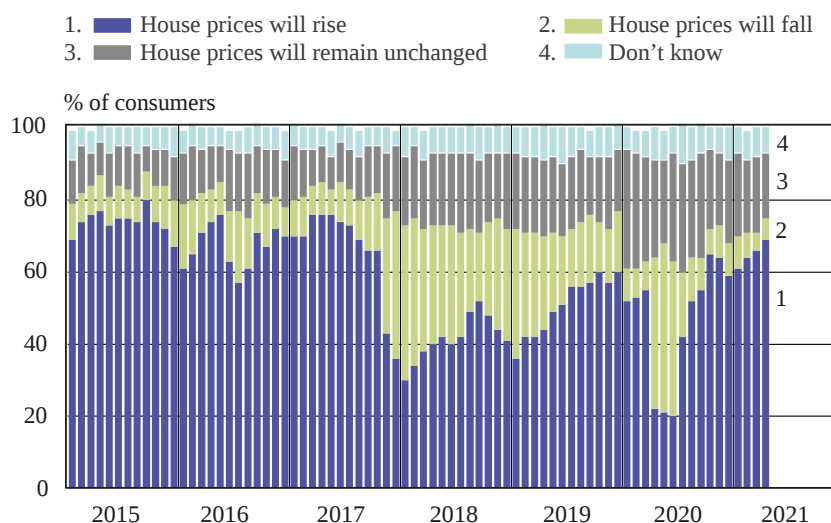
In the short term, the housing market is facing risks in both directions. On the one hand, housing market activity may remain brisk or strengthen further on the back of favourable financing conditions. In this case, there is a risk that the housing market could become overheated in regions where housing demand clearly exceeds supply. On the other hand, if the economy recovers more slowly than expected and bankruptcies and unemployment increase, debt-servicing difficulties may worsen and the risks of weaker-than-expected economic developments may also materialise on the housing market.

The vast majority of Swedish consumers expect house prices to increase further over the next 12 months (Chart 13). This may strengthen housing demand and thus drive up prices, since the number of dwellings will not increase with demand – at least not in the short term. A rapid rise in house prices may fuel excessive indebtedness and risk-taking, amplifying the risk of house price deflation over the longer term. In the past, house prices have fallen when rising interest rates or declining income has boosted households' and investors' debt-servicing burdens and stepped up forced sales.



Chart 13.

### Swedish consumers expect house prices to increase



19.4.2021  
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## Real estate investment market has not yet suffered significantly from the pandemic

The commercial property market is vulnerable to economic downturns, as empty premises and rental losses depress real estate investors' income. Typical real estate investors in the Nordics are, for example, large domestic institutions such as insurance and pension companies, and domestic and foreign property investment companies<sup>[8]</sup> and funds. Difficulties experienced by property investment companies investing with high leverage could be reflected in the growth of banks' non-performing loans and credit losses. Borrowers could also face problems in accessing new funding from banks and the bond market.<sup>[9]</sup>

Banks' risks associated with lending to property investment activities have received attention over the recent years, most notably in Sweden and Norway. In both countries, banks' commercial real estate exposures are subject to a risk weight floor<sup>[10]</sup> of 35%, which is to ensure that banks have sufficient capital buffers to cover potential future

8. In Finland, large real estate investment companies include Kojamo, Sato and Citycon.

9. In Sweden, the number of property investment companies is high and the firms also use market funding fairly actively: about two thirds of their debt financing is from banks and one third from bond markets. Some Swedish companies also issue bonds denominated in euro.

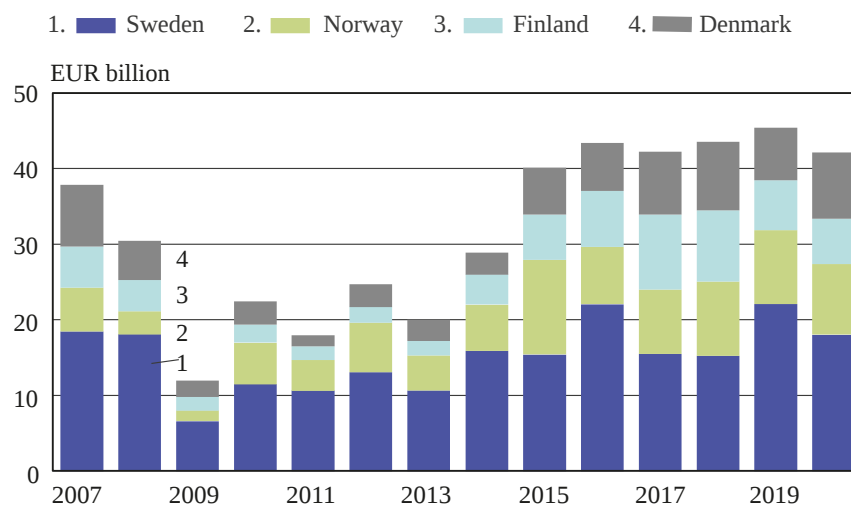
10. In calculating banks' capital adequacy, bank exposures are subject to risk weight floors. The higher a loan's risk weight is, the more own funds a bank must have to cover the credit risk related to the loan. The risk weight floor sets a lower limit for the risk weights of certain types of loans.

credit losses from real estate lending.

Activity on the Nordic property investment market slowed down after the outbreak of the pandemic but picked up notably towards the end of 2020. According to data by Pangea Property Partners, which monitors the Nordic real estate investment market, the total volume of transactions in 2020 was only slightly behind the volume in 2019 (Chart 14). Moreover, the rents of high street offices in capital cities did not fall extensively. However, the pandemic has likely prompted many lessors to grant temporary rent reductions to their customers.

Chart 14.

Strong year-end brought the volume of commercial property transactions in 2020 close to the previous year's level



Source: Pangea Property Partners / Mrec.

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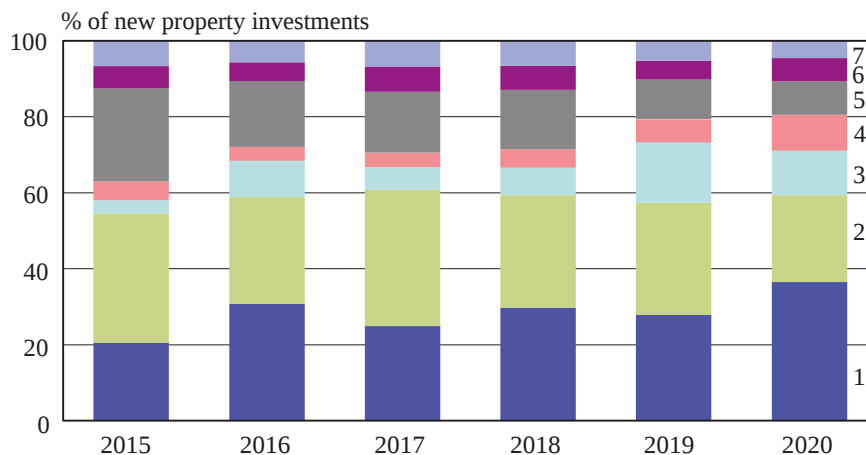
Residential property accounts for a significant proportion of Nordic property investors' portfolios. Of the transactions concluded in 2020, residential was once again the largest property segment in value terms (Chart 15). The weight of office, retail and public properties decreased, while the share of logistics property in the value of transactions increased. These changes in the shares of different sectors reflect long-term trends on the property investment market.

The pandemic period has also intensified pre-existing trends. The increase in remote working reduces the need for offices and may fuel the conversion of office buildings to residential use. Retail property returns are suffering from the restrictions on mobility and the growing popularity of online purchases. On the other hand, growth in online shopping has increased the importance of the logistics sector. Hotel properties have long accounted for a small proportion (less than 5%) of all property transactions in the Nordics, and a further decrease was evident in 2020.

Chart 15.

### Residential property the largest sector in the property investment market in 2020

- 1. Residential
- 2. Office
- 3. Public sector
- 4. Logistics
- 5. Retail
- 6. Industrial and warehouse
- 7. Other (incl. hotels)



Source: Pangea Property Partners / Mrec.

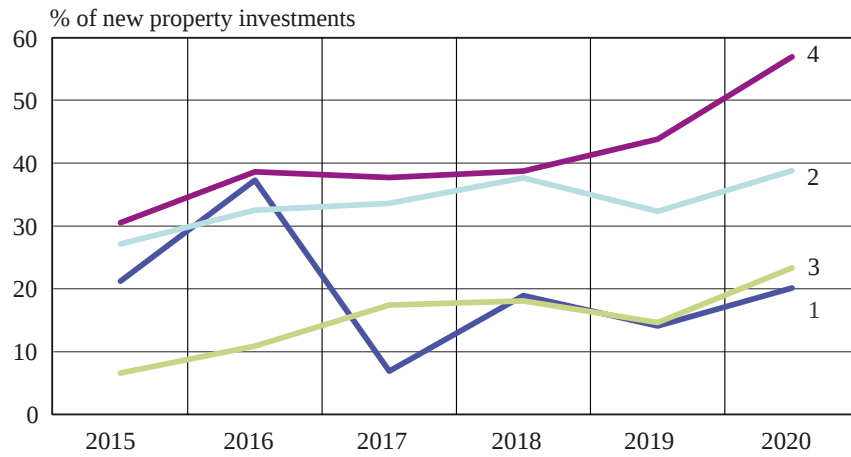
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The share of residential property in total property transactions grew in all the Nordic countries during 2020 (Chart 16). Many lessors have granted rent relief, for example to restaurants due to restrictions on opening hours, and residential property appears to have offered the most stable income flows to real estate investors. Not surprisingly, in 2020 the largest individual real estate transactions in the Nordics concerned residential property.

Chart 16.

### Share of residential property in new property investment grew in 2020 in all the Nordics

1. Finland 2. Sweden 3. Norway 4. Denmark



Source: Pangea Property Partners / Mrec.

13.4.2021

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## Tags

[banks](#), [COVID-19](#), [housing markets](#), [Nordic countries](#), [property investments](#)

# New mortgage-borrowers have an increasing amount of debt relative to income

4 May 2021 – Bank of Finland Bulletin 1/2021 – Financial stability



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New mortgage-borrowers' total debt relative to income has increased in recent years. A higher proportion of new loans for house purchase are granted to highly indebted households relative to income. High debt-to-income ratios are less common in the case of first-home loans than in regard to other new housing loans. High debt-to-income ratios are more common in growth centres than elsewhere in Finland. The proposed debt-to-income cap would curb growth in indebtedness relative to income.



## A debt-to-income cap would constrain large loans relative to income

A Ministry of Finance working group proposed in October 2019 that a maximum debt-to-income ratio, i.e. a debt cap for households, be introduced in Finland.<sup>[1]</sup> A debt cap would curb new borrowers' debt relative to income (debt-to-income cap, DTI). Calculation of the loan applicant's debt-to-income ratio would take into account the amount of the new

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1. See Ministry of Finance press release [Household indebtedness must be curbed with new measures](#) (1 October 2019).

loan applied for, outstanding previous loans, the applicant's share in housing company loans, as well as the applicant's annual gross income. The objective of the debt cap would be to curb excessive household indebtedness and consequent macroeconomic risks.<sup>[2]</sup>

A careful assessment of borrowers' repayment capacity is important at all times. The debt-to-income cap proposed by the working group would be a measure that would serve as a measuring stick for creditors, particularly in situations in which the applicant's total debt would be very large relative to income. According to the proposal, the majority of new loans should be calibrated so that when taking the loan, the household's total debt relative to gross annual income should not exceed 450%. The working group also proposed that the Board of the Financial Supervisory Authority (FIN-FSA) could adjust the debt-to-income cap by a maximum of 50 percentage points on financial stability grounds.

Creditors could still grant a portion of new household loans to applicants whose debt relative to income would be larger or would, as a result of the new loan, exceed the proposed debt-to-income cap. In the case of higher debt-to-income ratios, creditors would, however, be expected to exercise particular care. The working group proposed that creditors' room for discretion would be limited so that, on a quarterly basis, the debt-to-income cap could be exceeded by 15% relative to the total euro volume of new household credit granted by individual creditors.

It is important that authorities and creditors are given the possibility to use discretion in the calibration and practical application of the debt-to-income cap, in accordance with the proposal. Firstly, assessments of the impacts of macroprudential instruments, such as the debt-to-income cap, are always subject to uncertainty, which speaks in favour of allowing sufficient flexibilities. Secondly, the loan applicant's debt-servicing ability depends not only on the debt-to-income ratio but also on other factors, the impact assessment of which is part of creditor expertise. Such factors include the household's assets and expected developments in income.

Legislation on the debt-to-income cap and the other proposals by the working group is currently being prepared further by the Ministry of Finance, following the consultations.<sup>[3]</sup> The calibration and impacts of the debt-to-income cap will be re-assessed during the preparatory work. In its opinion, the Bank of Finland considered the debt-to-income cap and the other proposals by the working group as justified and that it would be important to develop impact assessments. Some of the commentators were, however, worried particularly that the debt-to-income ratio might weaken applicants' possibilities of being granted a mortgage and purchasing a first-time home, particularly in the Greater Helsinki area.<sup>[4]</sup>

## New mortgage-borrowers' debt-to-income ratios

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2. See also Samu Kärkkäinen and Juho Nyholm's *A debt-to-income cap would dampen economic fluctuations*.

3. For more detailed information on the progress of the initiative, see <https://vm.fi/hanke?tunnus=VM119:00/2018> (reference 23 February 2020).

4. See also the article by Tuulia Asplund *Velkakatto ja enimmäislaina-aika hillitsisivät liiallista velkaantumista joustavasti* (9 December 2020) (A debt-to-income cap and maximum maturity would flexibly curb excessive indebtedness, in Finnish only).

## have increased

Households' debt-to-income ratios have been examined at the Bank of Finland using loan-specific data on new mortgages compiled by the FIN-FSA from credit institutions. The data also includes information on new mortgage-holders' total debt and income.<sup>[5]</sup> The most recent data, compiled in 2020, covers the period between April 2019 and June 2020 (hereinafter '2020'). The reference data, compiled in 2018, covers the period between April 2017 and March 2018 ('2018').<sup>[6]</sup>

The data shows that new mortgage-borrowers' total debt relative to income has increased. New mortgage-borrowers' total debt relative to annual gross income was in 2020 on average higher than in 2018 (Chart 17). In 2020, the typical debt-to-income ratio of new mortgage-borrowers was approximately 360%, against approximately 328% in 2018.<sup>[7]</sup> The median value of new mortgages rose during the same period from EUR 81,000 to EUR 89,000.

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5. In the data collection for 2020, the question on borrowers' total debts differed from the question asked in 2018. The data on debt of the 2020 survey has been adjusted in the Bank of Finland based on the other information contained in the survey. In addition, the calculations have omitted a) bullet loans, b) loans known to be for the payment of old debts and c) observations for which the debt-to-income ratio cannot be calculated. The adjustments reduce the number of observations, but improve the comparability of the data from the different years.

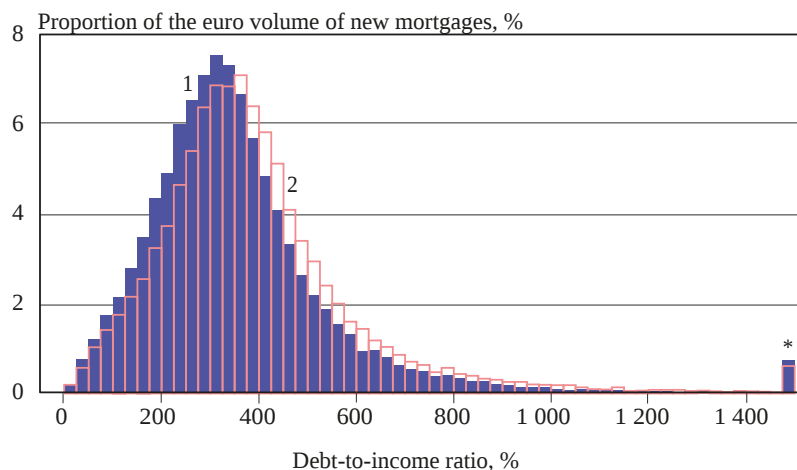
6. Year 2018 data is examined in more detail in Ville Voutilainen's article [Capping debt-to-income ratios complementary to housing loan cap](#) (29 May 2019) and in the Ministry of Finance working group's [Report on means to prevent excessive household indebtedness](#) (1 October 2019, only the abstract in English).

7. Here, a typical debt-to-income ratio refers to the mortgage-weighted median debt-to-income ratio (middle observation). The weighted median describes the midpoint of the distribution of the *euro volume* of new mortgages. It provides a better picture of housing credit than the unweighted median, which describes the midpoint of the distribution of *the number* of mortgages.

Chart 17.

### New mortgage-holders' debt-to-income ratios have increased

- 1. ■ Year 2018 data, n = 112 423
- 2. □ Year 2020 data, n = 90 968



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

New mortgages as per borrower's debt-to-income ratio, data for 2018 and 2020.  
Sources: Financial Supervisory Authority and calculations by the Bank of Finland.

15.4.2021  
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Some of the new mortgage-borrowers are highly indebted relative to their income. High debt-to-income ratios were in 2020 more common than two years earlier. The change can be illustrated by using as a measure the 450% debt-to-income ratio and the higher debt-to-income ratio of 500% examined in the Ministry of Finance working group's report.

In 2020, of the euro volume of new mortgages, some 28% was granted to households with a debt-to-income ratio of over 450% as a result of the new mortgage, and some 21% to households with a debt-to-income ratio of over 500%. In 2018, the corresponding proportions of new lending for house purchase were smaller (Table 1). The figures do not show the impact of the proposed debt-to-income cap on possibilities to acquire a loan, as the calculation does not take into account the room for discretion proposed for creditors (for a more detailed analysis, see the impact assessment below).



Table 1.

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**Proportion of highly-indebted borrowers in euro volume of new mortgages has increased**

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	<b>Borrower's debt-to-income ratio over 450%</b>	<b>Borrower's debt-to-income ratio over 500%</b>
Year 2020	28% of euro volume	21% of euro volume
Year 2018	22% of euro volume	16% of euro volume

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Sources: Financial Supervisory Authority and calculations by the Bank of Finland.

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In 2020, the typical debt-to-income ratio of new first-home buyers was approximately 368%, compared with 356% in the case of persons purchasing subsequent homes and 330% in the case of persons purchasing a dwelling for investment purposes (Chart 18).<sup>[8]</sup> Of the euro volume of new mortgages, some 33% were first-home loans, 58% loans for the purchase of subsequent homes, and 9% loans for dwellings for investment purposes.

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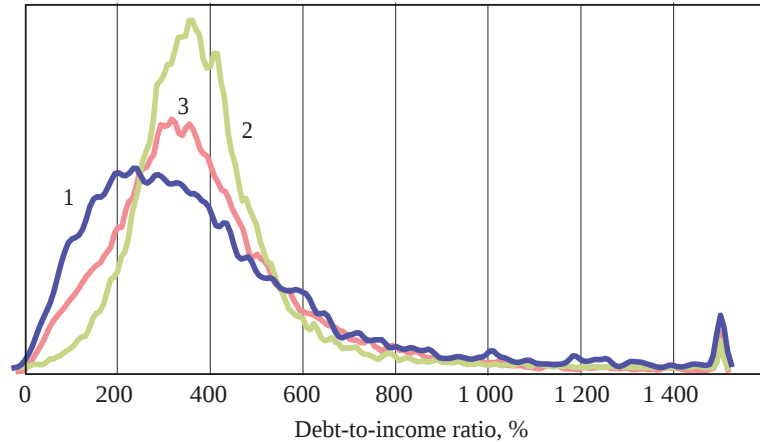
8. The examination is based on the information available on the purpose of the loan. A first-home loan taken out for investment purposes is classified as a first-home loan.

Chart 18.

### A smaller proportion of first-home loans granted to highly-indebted borrowers than of other mortgages

1. Dwelling for investment purpose
2. First home
3. Subsequent home

Density function, mortgage-weighted



New first home loans, loans for subsequent homes and loans for dwellings for investment purposes according to borrower's debt-to-income ratio, year 2020 data.

Sources: Financial Supervisory Authority and calculations by the Bank of Finland

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In terms of euro volume, new first-home loans are on average larger than other new mortgages. Nevertheless, a smaller proportion of the euro volume of new first-home loans has been granted to borrowers with a high debt-to-income ratio than in the case of other new mortgages (Chart 18 and Table 2). This is mainly due to the fact that even though first-home buyers' new mortgages are usually larger, the amount of previous other debt is usually smaller than in the case of other new mortgage-borrowers.

Table 2.

<b>The proportion of highly-indebted borrowers in the euro volume of new mortgages is smaller for first-home loans than for other new mortgages</b>		
	<b>Borrower's debt-to-income ratio over 450%</b>	<b>Borrower's debt-to-income ratio over 450%</b>
First-home loans	25% of euro volume	16% of euro volume
Loans for subsequent homes	30% of euro volume	23% of euro volume
Loans for dwellings for investment purposes	30% of euro volume	24% of euro volume

Year 2020 data.  
Sources: Financial Supervisory Authority and calculations by the Bank of Finland.

## **New mortgage-borrowers' debt-to-income ratios highest in growth centres**

New mortgages are on average larger in the Greater Helsinki area and other growth centres than in the rest of the country.<sup>[9]</sup> This is also reflected in the indebtedness of new mortgage-borrowers. In 2020, the typical debt-to-income ratio of new mortgage-borrowers was in the Greater Helsinki area approximately 403%, compared with 335% elsewhere in Finland. In the Greater Helsinki area, the typical debt-to-income ratio of first-home buyers was 409% and for other mortgage borrowers, 398%.

Among new mortgage-borrowers, the highest debt-to-income ratios in 2020 were found in the sub-regional units of Åland and Helsinki (Chart 19). The Helsinki sub-regional unit comprises the Greater Helsinki area, the surrounding municipalities and other selected municipalities of the Uusimaa region.<sup>[10]</sup> Typical debt-to-income ratios were higher-than-average also in the sub-regional units of Tampere, Seinäjoki, Vaasa, Jyväskylä and Turku.<sup>[11]</sup>

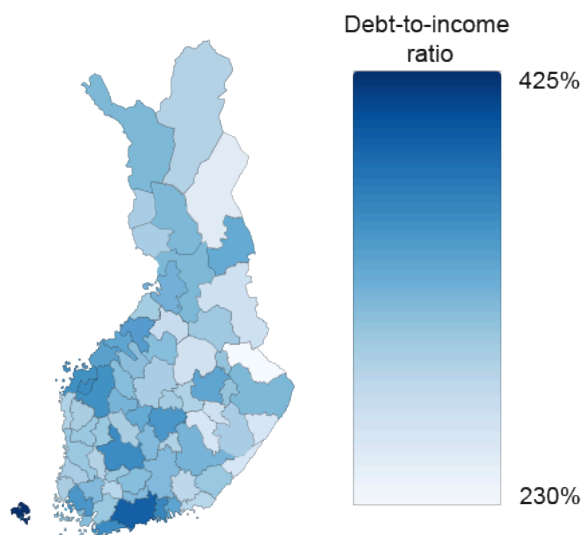
9. The examination is based on data on the location of the primary real-estate pledge given as collateral for the housing loan. Information on the location of the primary real-estate pledge is loan-specific, whereas the debt-to-income ratio is borrower-specific.

10. Sub-regional units are regional entities formed by a few or several municipalities that belong to the same region. The reasons for forming sub-regional units are cooperation between municipalities and employment. The sub-regional units are confirmed annually by the Ministry of Economic Affairs and Employment.

11. New mortgage-borrowers' typical debt-to-income ratios in 2020 in the sub-regional units were as follows: Mariehamns stad 382%, Ålands landsbygd 427%, Helsinki 394%, Tampere 358%, Seinäjoki 357%, Vaasa 355%, Jyväskylä 349% and Turku 349%.

Chart 19.

### New mortgage-borrowers' typical debt-to-income ratio is higher in growth centres than elsewhere in Finland



The darker the colour, the higher the typical debt-to-income ratio of new mortgage-borrowers (mortgage-weighted median of the debt-to-income ratio). The sub-regional unit Ålands skärgård is not shown in the map due to the small number of observations.

Sources: Financial Supervisory Authority, Statistics Finland and calculations by the Bank of Finland. The municipality-based statistical units of the sub-regional units have been downloaded from the Statistics Finland interface service with the licence CC BY 4.0.

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New mortgage-borrowers' typical debt-to-income ratios differ also between income classes. The proportion of loans granted to highly indebted households relative to income was larger in new mortgages to low-income households than those to medium- and high-income households.<sup>[12]</sup>

## The neutral debt-to-income cap is now close to 500%

The Bank of Finland has assessed whether the proposed debt-to-income cap and the involved room for discretion would have an impact on the possibilities of new borrowers to obtain a mortgage relative to current credit-granting practices. The most recent calculations are based on mortgages granted by credit institutions between the period

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12. Borrowers have been classified into three income groups based on the total net income of borrowers of joint mortgages. In the data, borrowers in the lowest income quintile are classified as low-income, borrowers in the highest income quintile as high-income and others as medium-income.

April 2019 and June 2020 (see the above description of the data).

The calculations estimate how large a proportion of the euro volume of new mortgages could have been granted if either the 450% or the 500% debt-to-income cap had been in force and the 15% room for discretion available to the creditor in the application of the debt-to-income cap.

The calculations assume that, of the mortgages in the data, all those mortgages would still be granted in respect of which the borrower's debt-to-income ratio is lower than the examined debt cap. The calculation also assumes that borrowers whose debt-to-income ratio exceeds the debt-to-income cap will decrease the size of the applied loan by 10% to fall below the threshold (hereinafter 'adjustment'). If the debt-to-income ratio is lower than the debt cap following the adjustment, the applicant is granted the credit. Otherwise, the credit depends on the creditor's discretion.<sup>[13]</sup>

Based on calculations, the neutral level of the debt-to income cap that more or less allows recent credit-granting practices has increased from the approximately 450% estimated by the Ministry of Finance working group to approximately 500% (Table 3). This shows that new mortgage-borrowers' total indebtedness has increased in the past two years.

According to calculations, a 500% debt-to-income ratio, a 15% creditor discretion and the adjustment of certain loan applications by 10% as a whole would not have significantly reduced new lending for house purchase relative to the actual level of lending. Based on the calculations, of the total euro volume of new mortgages, some 98% would have been granted during the period under review if the debt-to-income cap had been in force.

Creditor discretion is significant particularly for those borrower groups in which debt levels are more typically higher than the proposed maximum debt-to-income ratio (see the above calculations on the exceeding proportions). It is, however, difficult to distinguish the impact of the debt-to-income cap on the various types of borrowers, as in practice creditors may apply discretion in various ways. In contrast to what is presumed in public debate, the debt-to-income cap would, however, not target particularly first-home buyers, as, based on the data, a smaller portion of first-home loans have been granted to highly-indebted households than is the case for other mortgages.

Without the assumption of loan application adjustment, the estimated impact of the debt-to-income cap on new lending for house purchase would be larger. Without adjustment of the loan applications, a larger proportion of the loans granted during the review period would not have been granted if the debt-to-income cap had been in force. This would, however, be a very extreme estimate of the impacts of the debt-to-income cap and the possible behaviour of loan applicants following the introduction of the cap. Furthermore, the calculations also do not take into account the possibility that creditors might re-channel their lending activities relative to the current situation once the debt-

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13. In addition, the calculations are based on the following assumptions: first, the creditors can use the allowed 15% room for discretion to the full extent; second, creditors may have to reject some of the applications if the euro volume of the loans applied for exceeds the allowed room for discretion; third, creditors randomly select those loan applicants who exceed the debt-to-income cap and are granted credit within the room for discretion (after adjustment of the loan volume). Random sampling has only a small impact on the outcome of the calculations.

to-income cap has entered into force.<sup>[14]</sup>

Table 3.

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**Proportion of the euro volume of new mortgages granted with a 450% or 500% debt-to-income cap and 15% creditor discretion as well as various loan volume adjustment assumptions**

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	<b>Adjustment assumption</b>	<b>Debt-to-income cap 450%</b>	<b>Debt-to-income cap 500%</b>
Year 2020	0%	85%	93%
Year 2020	10%	90%	98%
Year 2018*	0%	93%	100%
Year 2018*	10%	98%	100%

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\*As in the report by the Ministry of Finance working group.  
Sources: Financial Supervisory Authority and calculations by the Bank of Finland.

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The debt-to-income cap can be calibrated so that, when it comes into force, it would have a relatively small impact on new lending. Such a debt-to-income cap would, however, curb excessive growth in household indebtedness in future, particularly if there is a risk that debt levels continue to increase faster than borrowers' incomes. This scenario is examined in more detail in the article [Capping debt-to-income ratios complementary to housing loan cap](#) (published on 29 May 2019). The analysis shows that the debt-to-income cap is well placed to complement the loan-to-value cap on housing loans, particularly if house prices grow faster than household incomes.

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14. Debt-to-income-cap-type regulation may channel lending from low-income borrowers to higher-income borrowers, and from areas with a high-activity housing market to areas with less activity, as has been the case in Ireland. See V. V. Acharya et al. (2020) *The anatomy of the transmission of macroprudential policies*. IMF Working Paper No. 2058.



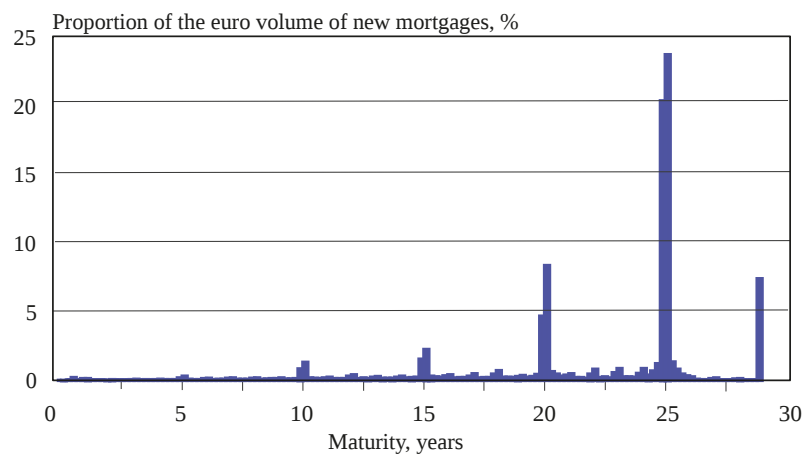
## Imposing a maximum limit on housing loan maturities may change credit-granting practices

As a measure to curb excessive indebtedness, in their report, the Ministry of Finance working group proposes a maximum repayment period for new housing loans. According to the proposal, new housing loan agreements must not include terms allowing for repayment periods longer than 25 years from the date of loan drawdown. However, lenders would be allowed a 10% deviation from the maximum limit (*permissible breach*), as measured by the total amount of housing loans. Calculations based on banks' new housing loan data indicate that while the total amount of new housing loans more or less falls within the realms of the proposal, differences in lenders' practices may serve to constrain lending.

Chart 4 illustrates the distribution of maturities for new housing loans drawn down between April 2019 and June 2020. Maturities for most housing loans are concentrated around 20 and 25 years, but some loans have maturities over 25 years (Table 4). Given that a significant proportion of loans with these longer maturities have maturities just above the 25-year limit, the impact analysis of the maximum limit should focus rather on loans with maturities over, say, 25.5 years.

Chart 4.

### Maturities of new housing loans typically around 25 years



\*Outliers of the right-hand tail have been added to the haircut value 29.

Sources: Financial Supervisory Authority and calculations by the Bank of Finland.

22.4.2021  
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Table 4.

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Long-term credit as a proportion of new housing loans			
Maturities over 25 years	Maturities over 25 years	Maturities over 25.5 years	Maturities over 25.5 years
23% of observations	35% of euro volume	5% of observations	10% of euro volume

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Sources: Financial Supervisory Authority and calculations by the Bank of Finland.

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From Table 4 we can see that the maximum maturity limit proposed by the working group (here assumed to be 25.5 years) would be sufficient to just cover the proportion of housing loans in excess of the limit. In practice, the picture is more complicated, as repayment periods differ between lenders. The maximum maturity limit will be binding on lenders who have granted long-term credit in excess of the deviation allowed under the proposal. Therefore, the limit may act as a constraint on lending overall, provided that other lenders, who still have some leeway left, do not grant credit on corresponding terms. It must also be noted that the data used does not capture the extension of loan maturities since June 2020.<sup>[15]</sup>

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## Tags

debt-to-income cap, financial stability, housing loans, indebtedness, maximum debt-to-income ratio

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15. See e.g. [An exceptionally high amount of housing loans drawn down in late 2020 \(suomenpankki.fi\)](#) The impact of the maximum limit must be recalculated when the data employed in the article is updated.



# A debt-to-income cap would dampen economic fluctuations

4 May 2021 – Bank of Finland Bulletin 1/2021 – Financial stability

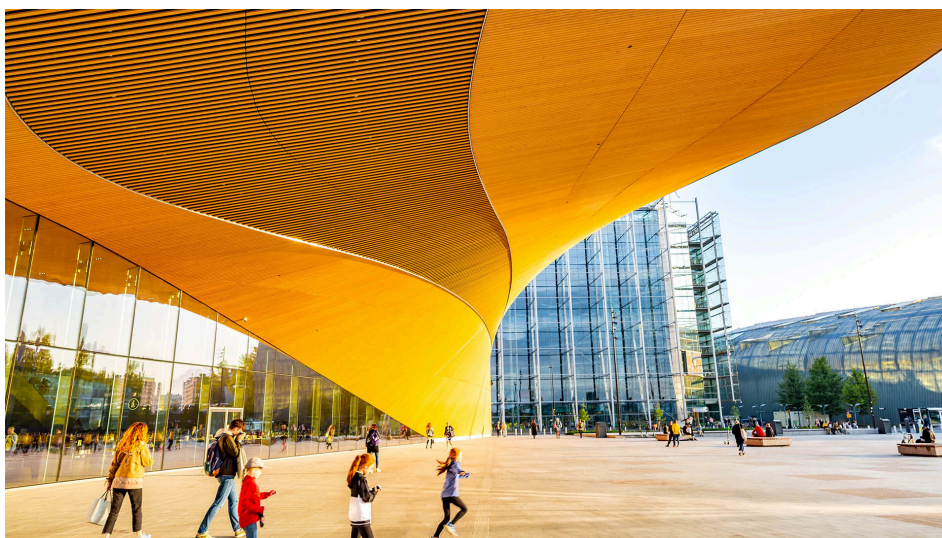


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How would the economy react in the long term if the maximum size of housing loans granted by banks were tied to the customer's income instead of the value of the dwelling to be purchased? This question can be examined using the Bank of Finland's general equilibrium model. Based on analysis, the introduction of a maximum debt-to-income ratio, i.e. a debt-to-income cap, would have a moderate impact on long-term economic growth. A debt-to-income cap could, however, dampen economic fluctuations relative to the current loan-to-value cap.



Efficient financial markets are essential for the functioning of the economy. Their task is to allocate finance to investments and ensure that financially sound households obtain the financing they need. Unsuccessful allocation of finance may create a leveraged bubble, the bursting of which has an immediate impact on the financial markets. In a worst-case scenario, a financial market disruption would jeopardise transmission of finance to the real economy.

Financial market disturbances can be prevented by ensuring that banks' capital positions are strong and borrowers' debt-servicing ability is sufficient. The maximum loan-to-value (LTV) currently applied enables an increase in debt levels when house prices and collateral values rise. The *debt-to-income* (DTI) cap proposed in the Ministry of Finance

report<sup>[1]</sup> would prevent excessive indebtedness by borrowers and the creation of leveraged housing bubbles in Finland, as the amount of debt would be tied to developments in consumer incomes.

New policy measures may have an impact on consumer and bank behaviour, and thereby on the economy, even when regulation does not target the volume of credit granted in the long term. It is useful to examine these impacts using the Bank of Finland's general equilibrium model, Aino 3.0.<sup>[2],[3]</sup> Aino 3.0 allows the estimation of long-term macroeconomic impacts in a situation where the constraint in use is a DTI constraint set to a neutral level.<sup>[4]</sup> A neutral calibration would mean that the ratio of housing loans to GDP would remain unchanged in the long term, also following the entry into force of the DTI constraint. Even though the analysis does not consider the fact that the constraints are overlapping, it nevertheless clarifies their differences and provides a picture of how the new regulation would impact the functioning of the economy.<sup>[5]</sup>

The first three columns in the table describe the long-term impacts of the various levels of the debt-to-income cap.<sup>[6]</sup> The figure in the first row describes the tightness of the constraint and shows which housing loans-to-GDP ratio would be achieved on the various levels of the DTI constraint. The percentages in the lower rows show how the transition from LTV regulation to the DTI constraint would impact the equilibrium level of the variables. The percentage figures are calculated by dividing the equilibrium level of a factor prevailing under the DTI constraint by the equilibrium level of the factor prevailing under LTV regulation. An analysis made using the general equilibrium model shows that replacing the LTV constraint with a DTI constraint set at a neutral level would not cause significant changes in long-term economic growth. This could be interpreted to mean the debt-to-income cap would not hamper the channelling of finance to high-return investments relative to the current situation.

A debt-to-income cap that is too tight would hamper the channelling of finance to the economy, which could slow economic growth. Based on the model, long-term economic growth is, however, not sensitive to the level of the DTI constraint even if the constraint

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1. See <https://julkaisut.valtioneuvosto.fi/handle/10024/161807>.

2. Macroeconomic impacts are modelled in a scenario in which the model's LTV constraint is replaced by the DTI constraint. In fact, an LTV constraint is not in force in Finland but an LTC constraint. The difference is due to the fact that in Finland, the volume of credit is constrained by the value of collateral (C) instead of the value (V) of the dwelling to be purchased. In the model, this type of a distinction is however very difficult to implement.

3. For a detailed description of the Bank of Finland's general equilibrium model, i.e. the Aino 3.0 model, see Silvo and Verona (2020), The Aino 3.0 model, <https://helda.helsinki.fi/bof/handle/123456789/17442>.

4. In fact, the Ministry of Finance report does not propose that the current maximum LTV ratio be replaced by a maximum debt-to-income ratio. Instead it proposes that the latter be incorporated into regulation. The LTC regulation applied in Finland was developed for monitoring banks' credit risks. Systemically, credit risks are very problematic particularly when a very large number of credit risk incidents take place simultaneously. The model is not suitable for modelling extreme incidents that cause a considerable amount of credit risks, and in this respect, the advantages of LTC regulation are not discernible in the modelling.

5. A more thorough analysis is presented in 'Economic effects of a debt-to-income constraint in Finland: Evidence from Aino 3.0 model', Bank of Finland Economics Review 1/2021.

6. A tight calibration refers to a situation in which the DTI constraint is set to a level which in the long term generates a housing loans-to-GDP ratio of 100%. With a neutral calibration, the housing loans-to-GDP ratio remains unchanged at 147%. A loose calibration would allow the ratio to rise to 200% in the long term.

were set to a level tighter than neutral, as in the model the rate of economic growth is determined mainly by productivity growth. Despite the uncertainties concerning the calibration of the neutral level of the debt-to-income cap<sup>[7]</sup>, in light of the analysis, small deviations would not cause significant side-effects on long-term economic growth.

The model's LTV constraint is countercyclical. Higher house prices increase the level of the loan cap, while a decline in prices tightens it<sup>[8]</sup>. In an environment of rising house prices, improved access to housing loans boosts the demand for housing and puts an upward pressure on the already high level of house prices. In contrast, if the maximum loan amount was tied to household incomes, it would curb household indebtedness when house prices grow faster than household incomes. Constraining the volume of housing loans in this situation would also dampen the upward pressure on house prices, as the DTI constraint would curb the growth in demand. The Ministry of Finance report also reminds us that residential investments are very sensitive to house prices. Via this mechanism, among others, fluctuations in house prices also create fluctuations in the broader economy.

The DTI constraint would curb growth in household loans in an upswing that is accompanied by rising house prices. In the case of the LTV constraint, a rise in collateral values loosens the loan-to-value cap, irrespective of the level of household income. But if the DTI constraint is in force, the debt-to-income cap will curb growth in the loan stock if the level of income remains unchanged. A rise in income levels enables larger borrowing also in the case of the LTV constraint, as households can use a share of their higher income to increase the size of the self-financed portion of their housing loan.

The last column in the table examines changes in the fluctuation of economic variables, in response to the transition from the LTV constraint to the DTI constraint. The percentages are calculated by dividing the standard deviation of the variable prevailing under DTI regulation with the standard deviation prevailing under LTV regulation.

The model analysis shows that transition to DTI regulation would decrease fluctuations particularly in the loan stock-to-GDP ratio and house prices compared with the current situation. The DTI constraint would be more successful than the LTV constraint in curbing growth in the credit stock and dampening the pick-up in house price inflation in an upswing, but on the other hand, a change in the constraint would not have a significant impact on long-term growth.

Calculations using the Bank of Finland's general equilibrium model show that the DTI constraint curbs household indebtedness particularly when house prices grow faster than household incomes. This may dampen economic fluctuations and prevent the adverse side-effects of indebtedness.

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7. See [New mortgage-borrowers have an increasing amount of debt relative to income](#).

8. The LTC constraint applied in Finland is also countercyclical in nature. Its operating principles are very similar to those of the LTV constraint used in the modelling, as housing assets comprise the majority of the collateral for housing loans.

Table.

Impact assessment on the debt-to-income cap						
		Tight calibration	Neutral calibration	Loose calibration	Long-term standard deviation relative to current situation if a neutral DTI constraint was in force (%)	
	Housing loans-to-GDP ratio with various DTI constraint calibrations	100	147	200	Housing loans-to-GDP ratio	42
	Size of the housing loan stock	68	101	140	Size of the housing loan stock	51
<b>Long-term values relative to current situation if a neutral DTI constraint was in force (%)</b>	Growth in private consumption	100	101	103	Growth in private consumption	102
	Growth in private sector output	100	103	105	Growth in private sector output	94
	House price inflation	100	100	100	House price inflation	89
	Growth in real labour income	99	101	103	Growth in real labour income	97
	Growth in real wages	100	100	100	Growth in real wages	99
	Man-hours	100	101	103	Man-hours	92

Source: Bank of Finland calculations.

## Tags

Aino model, debt-to-income cap, housing loans, banks, macroprudential stability, maximum debt-to-income ratio

# Imposing a loan-to-value limit on housing company loans would only affect a share of construction finance

4 May 2021 – Bank of Finland Bulletin 1/2021 – Financial stability



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Housing company loans are contributing to household indebtedness and are changing the composition of household debt. Housing company loans can also incentivise residential property investors to become highly leveraged. Imposing a loan-to-value limit of 60% on housing company loans would mitigate the issues associated with large housing company loans and make it easier to assess their risks. The impact of a loan-to-value limit would largely fall on owner-occupied housing output. Housing company loans are generally not used to finance the construction of rental housing. Imposing a loan-to-value limit on housing company loans might increase the number of pre-sales required by small construction companies or raise their borrowing costs.



## Large housing company loans are changing the composition of household debt

In October 2019 a working group<sup>[1]</sup> appointed by the Ministry of Finance proposed new measures to curb the growth of household debt in Finland. The proposed measures

included restrictions on the use of housing company loans to finance new build construction. The working group proposed that housing company loans for new builds should not exceed 60% of the unencumbered price of the flats to be sold; the maximum maturity on housing company loans should, as a rule, be limited to 25 years; and housing company loans should not be eligible for amortisation-free periods during the first five years from the commissioning of the building and the transfer of the dwellings to their buyers.

A housing company loan share is the share of a housing company's long-term liabilities allocated to a particular shareholder of the housing company. The concerns surrounding large housing company loan shares highlighted in the ministerial working group's report relate especially to new build housing. A flat can have a low sales price if a large proportion of its unencumbered price is made up by a housing company loan. The housing company loan reduces the need of the buyer to take out a large housing loan or investment loan. Yet large housing company loans are raising the overall indebtedness of households in the economy and are changing the composition of household debt.

Imposing a loan-to-value limit on housing company loans would not change the unencumbered price of a flat. It would restrict the amount of housing company debt allocated to the housing shares being sold, resulting only in a higher sales price. This would likely raise the demand for housing loans. Shifting the balance away from housing company loans in favour of personal housing loans would clarify the responsibility associated with the loan and make the debt-servicing costs more transparent to the buyer.

When purchasing a flat, financial fees collected by the housing company to pay down the flat's share of the housing company loan should be recognised as part of the flat's overall loan-servicing costs. Large housing company loan shares and long amortisation-free periods impair the ability of buyers to assess the total costs and debt-servicing burden associated with a flat.<sup>[2]</sup> Although the owner of each flat is principally responsible for meeting his or her share of the financial fees collected by the housing company, liability for the housing company loan ultimately falls on all the housing company's shareholders.<sup>[3]</sup>

The large housing company loan shares of new build housing can incentivise residential property investors to take on leverage. This, in turn, can amplify cycles in the housing market and construction industry. If investors face difficulties in renting out their flats, this might lead to repayment delinquencies for the housing company, especially in cases where investors hold a large proportion of the housing company's shares. Declining demand in the rental market could force investors to sell off their dwellings, resulting in broader ramifications for house prices.

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1. See <https://vm.fi/en/-/household-indebtedness-must-be-curbed-with-new-measures>. The Bank of Finland issued an opinion on the working group's report concluding that the proposals were well-justified.

2. According to the Bank of Finland's Analytical Credit Database, the average length of an amortisation-free period agreed for a housing company loan (where applicable) during the past year was for about 2 years, with the longest amortisation-free periods reaching as much as 5 years.

3. Housing companies can also fall into bankruptcy, albeit such occurrences are rare.

The risks for households are related to weakening levels of income and rising debt burdens. When economic conditions falter, households often first cut back on non-housing expenditure, which only weakens the economic cycle further. A rise in housing company payment delinquencies could make it harder for housing companies to borrow the funds needed for maintaining an ageing building stock.

## **Imposing a loan-to-value limit on housing company loans would largely only affect the construction of owner-occupied housing**

According to the Confederation of Finnish Construction Industries (RT), a significant share of Finland's housing output during the past decade has consisted of owner-occupied dwellings.<sup>[4]</sup> The output of non-subsidised rental housing has, however, grown significantly since 2017. This has coincided with a clear decline in the construction of owner-occupied flats. According to RT's November 2020 housing output survey, non-subsidised owner-occupied and rental housing construction has concentrated especially around the Helsinki metropolitan area.

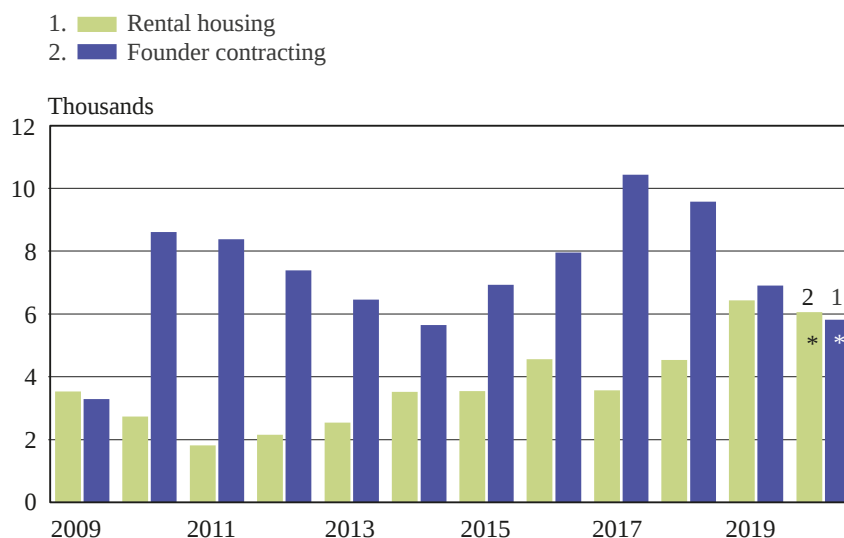
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4. Founder contracting begins with a contractor founding a limited liability housing company. After this, the founder contractor constructs the development independently or with the help of a construction company. The founding shareholder must see to it that an appropriate guarantee is issued before the housing shares are offered for sale in order to protect the housing company and share buyers against his insolvency. ([Housing Transactions Act, Chapter 2 Section 19](#)). The founding contractor may then open a credit line for the construction project that is undersigned by the housing company (RS-financing). Drawdowns from the RS-facility are recorded on the liability side of the housing company's balance sheet, i.e. as a housing company loan. When the volume of new build construction reached a historical high in 2017, as many as 75% of housing starts were founder contracting developments based on the RS-system. The RS-system protects buyers from the founder contractor falling into bankruptcy during the construction phase as well as from building mistakes and ensures that the development is constructed to specification.



Chart 21.

### Construction of rental housing has picked up in growth centres



\*Estimate, November 2020.

Source: Confederation of Finnish Construction Industries RT.

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A non-subsidised rental housing development is a construction project where the construction company sells the entire property during the construction phase to an investor who will generally rent out all of the dwellings included in the purchase.<sup>[5]</sup> The construction of rental housing is usually commissioned by large domestic and foreign property investors as well as institutional investors. Rental housing developments are generally not associated with housing company loans.<sup>[6]</sup> As a result, imposing a loan-to-value limit on housing company loans would not affect the construction of rental housing in the same way as owner-occupied housing.

## A significant proportion of new build sales exceed the proposed loan-to-value limit

According to data by the Central Federation of Finnish Real Estate Agencies (KVKL), 92% of recorded sales of new non-subsidised owner-occupied flats were encumbered with housing company loans in 2020. For old housing stock, 46% of sales were encumbered with housing company loans. There has been a significant rise in how much housing company loans make up the unencumbered prices of new build flats. In recent

5. The demand for residential properties by professional investors has increased in Finland in recent years, and a number of foreign professional investors now operate in the Finnish market alongside large domestic entities.

6. Housing company loans typically only occur here if a housing development has started as a founder contracting development but has for one reason or another later been sold to an institutional investor.

years housing company loans have generally accounted for between 60 and 75% of the unencumbered price of new flats.

Based on data<sup>[7]</sup> by KVKL, imposing a maximum loan-to-value ratio of 60% on housing company loans might impact on the sales of new builds. Limiting the loan-to-value ratio to 60% would curb the growth of housing company loan shares in new builds.

Shares of new, non-subsidised owner-occupancy housing have also been marketed towards residential property investors in recent years. Here a loan-to-value limit on housing company loans would help mitigate the high use of leverage in residential property investing. When a large proportion of a flat's unencumbered price is financed by a housing company loan, investors are able to buy housing shares with relatively little equity. Private investors in particular have benefitted from the opportunity to invest in residential housing with small shares of equity. A housing company loan can serve as cheaper source of finance for a residential property investor than a personal investment loan. In addition, investors can take advantage of their ability to deduct interest expenditure and amortisations from their capital gains income. Although there are no comprehensive statistical data on the exact number of private investors<sup>[8]</sup>, various assessments suggest that households have played a significant role in raising housing company loans. According to Statistics Finland's transfer tax data, households might hold over 80% of housing company loans issued for new dwellings.<sup>[9]</sup> Based on the annual survey conducted by the Finnish Landlord Association, it can be estimated that about one-third of Finnish private investors hold housing company debt. However, only 12% of respondents reported holding housing company debt in excess of EUR 100,000.

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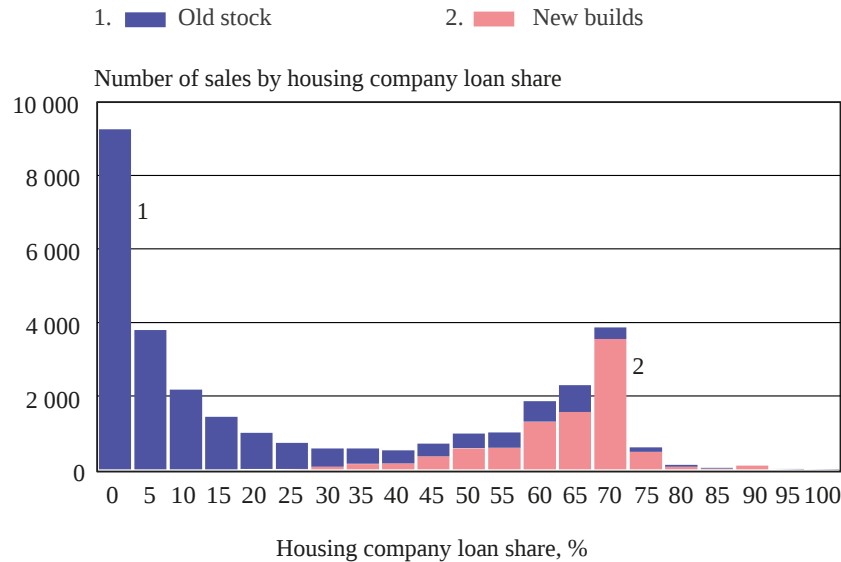
7. KVKL's data only cover a share of all new housing output. Does not include all brokers. In addition, rental housing is obviously excluded from these statistics.

8. There are, however, new data available on buy-to-let mortgages, for example. For more information, see Bank of Finland Bulletin 1/2021 'Separating buy-to-let mortgages from personal housing loans paints a clearer picture of household debt'.

9. Some of the housing company debt held by households has been acquired for the purposes of property investment. Private individuals are estimated to own over 300,000 residential investment properties, which corresponds to about 36% of the rental housing stock. Source: KTI.

Chart 22.

### Distribution of housing company loans shares of new and old housing companies in 2020



Sources: KVKL and Bank of Finland.

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In the national accounts housing company loans are classified as part of the housing corporations sector. In addition to housing companies, the sector includes real estate companies specialised in rental housing and various public housing<sup>[10]</sup>. The consolidated loan stock of housing corporations stood at about EUR 42.3 billion in September 2020. Credit institutions operating in Finland issue the majority of loans to housing corporations. In addition to banks, housing corporations receive funding from other lenders, including the public sector. The volume of outstanding loans issued by Finnish credit institutions to housing corporations stood at about EUR 37 billion at the end of September 2020 (Chart 23, green bars). Of this, about EUR 22 billion consisted of loans issued to housing companies (Chart 23)<sup>[11]</sup>. A significant share of the stock of bank loans to housing corporations consists of construction finance for new build housing. Imposing a loan-to-value limit on housing company loans would mostly impact on construction loans for new builds.

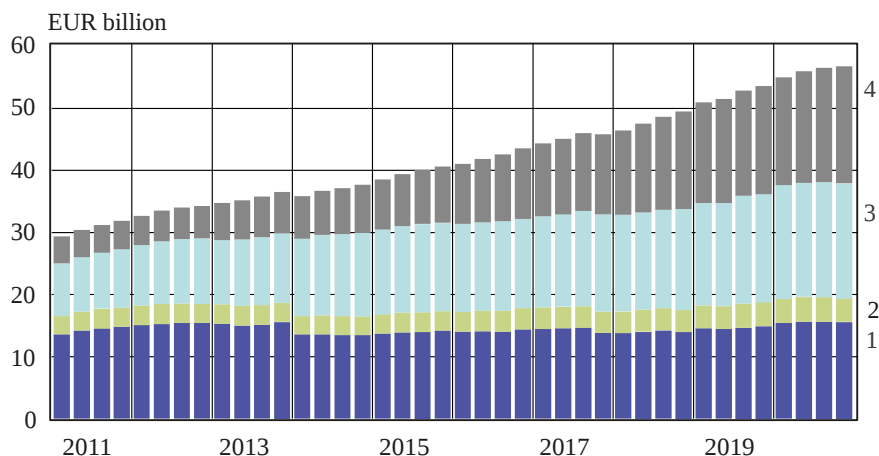
10. These specialised real estate companies and public sector entities include large limited liability companies that construct and manage non-subsidised rental properties, real estate investment firms which operate in the rental market and are governed by domestic pension and insurance companies, various non-profit organisations recognised by the Housing Finance and Development Centre of Finland (ARA), and real estate companies controlled by municipalities.

11. Statistics Finland has estimated the stock of housing company loans held by households at EUR 18.4 billion.

Chart 23.

### Housing company loans comprise about one-third of all real estate loans issued by domestic credit institutions

- 1. Other real estate loans
  - 2. Construction
  - 3. Other housing corporations
  - 4. Housing company loans
- (Statistics Finland)



Sources: Bank of Finland and Statistics Finland.

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### The impact of a loan-to-value limit for housing companies on construction finance

Large housing company loans have in recent years become an established source of finance for the construction of non-subsidised owner-occupied housing. Housing company loans reduce the need for construction companies to seek alternative sources of funding during the construction stage. From the perspective of a builder, a large housing company loan decreases the financial risk associated with a development, as the construction company is only liable for the loan for a limited period of time. The liability of the loan is passed on to the housing company and its shareholders as soon the dwellings have been sold and handed over to the buyers. The RS-system allows for dwellings to be sold already during the construction stage, which also reduces the financial risk for the construction company<sup>[12]</sup>. Housing company loans and the RS-system are particularly important for smaller construction companies when securing funding for a development, and indeed development work can only be started once a pre-determined number of dwellings have been reserved, usually about 40–50% of the dwellings for sale. With the help of housing company loans even small construction companies can begin work on several developments at once.

The average interest rate on bank loans issued to construction companies for the build

12. See <https://www.finanssivalvonta.fi/en/publications-and-press-releases/Press-release/2018/risks-increasing-in-construction-stage-financing-and-housing-corporation-loans2/>.

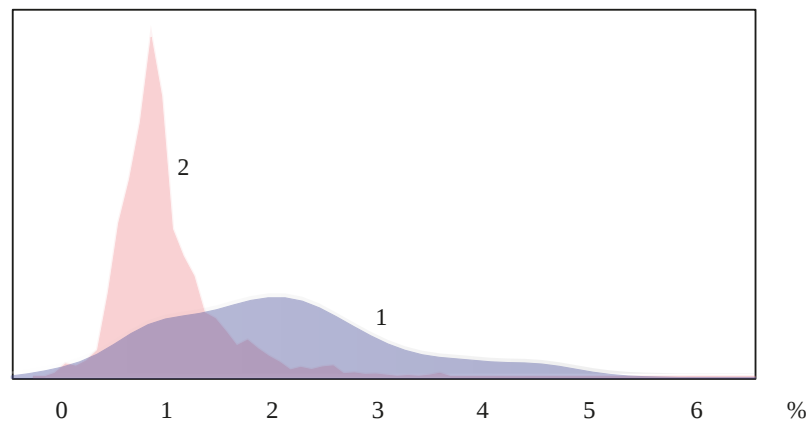
stage is almost 1 percentage point higher than the average rate on the overall loan stock of housing corporations. For smaller companies the RS-loans issued by banks are especially important, as the interest rate paid by small construction companies on bank loans is often significantly higher than that paid by construction companies on average (Chart 24). Smaller construction companies typically have a higher credit risk than large companies, as they have less collateral and their liquidity may be more sensitive to economic downturns than large companies.

Chart 24.

### Small construction companies pay substantially higher interest rates on their bank loans than housing company loans

1.  Construction companies      2.  Housing companies

Density distribution, weighted by loan volume



Source: Bank of Finland.

20.4.2021  
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Large construction companies often have several sources of funding, including, for example, the RS-facility issued for the construction stage, other market-based funding, and deposits collected from buyers. For small construction companies, alternative sources of funding are often scarce. Imposing a loan-to-value limit on housing company loans may affect the borrowing costs of small construction companies if they require other sources of funding than the RS-facility. Another effect of the restriction could be that a higher number of dwellings must be reserved before construction can begin.

### Tags

[construction](#), [COVID-19](#), [indebtedness](#), [housing company loans](#), [debt accumulation](#)

# Separating buy-to-let mortgages from other housing loans provides a clearer look into household debt

Today – Bank of Finland Bulletin 1/2021 – Financial stability



Markus Aaltonen  
Economist

The stock of buy-to-let mortgages stood at EUR 8.1 billion at the end of March 2021, comprising 7.9% of the total stock of housing loans. It is estimated that buy-to-let mortgages have grown faster than the rest of the housing loan stock since the global financial crisis. Buy-to-let mortgages are smaller than residential mortgages and have shorter repayment periods. In March 2021 the average interest rate applied on new buy-to-let mortgages was higher than on residential mortgages, but lower than the rate applied on housing company loans.



## Private landlords own the majority of non-subsidised rental flats

According to data by the Finnish Tax Administration 328,000 private persons rented out a flat in 2019<sup>[1]</sup>. The Finnish Landlord Association estimates that two-thirds of all non-subsidised rental flats in Finland are owned by private landlords. The largest number of landlords can be found in Helsinki, followed by Tampere, Espoo and Turku.<sup>[2]</sup> The largest

1. In 2019 rental income from flats was accrued by 282,000 persons and rental losses incurred by 46,000.

number of buy-to-let mortgage drawdowns between April 2019 and June 2020 were also for flats located in Helsinki<sup>[3]</sup>. At the same time, almost one-fifth of all one-bedroom flats sold as investment housing in 2019 were located in Helsinki according to Statistics Finland. More generally, about a fifth of all flats sold in 2019 were acquired by private persons engaging in residential property investment<sup>[4]</sup>.

## Buy-to-let mortgages accounted for 10% of all new drawdowns of housing loans

For a number of years now loan-level data collected by the Finnish Financial Supervisory Authority (FIN-FSA) has provided information on new drawdowns of buy-to-let mortgages by households. Between April 2019 and June 2020 buy-to-let mortgages comprised 8.3% of all newly originated housing loans. On a monthly level this share ranged from 6–10%. As of March 2021, the Bank of Finland's statistics have been able to sort buy-to-let mortgages from other housing loans. According to the newly available data, EUR 210 million of buy-to-let mortgages were drawn in March 2021, comprising 10% of all newly originated housing loans.

The average interest rate applied on buy-to-let mortgages drawn in March 2021 was 0.87%, compared with 0.69% on residential mortgages and 1.29% on drawdowns of housing company loans<sup>[5]</sup>. Interest rate margins on buy-to-let mortgages are typically higher than on owner-occupied residential mortgages. This would suggest that banks view buy-to-let mortgages as being exposed to slightly more risk than residential mortgages. The average margin on buy-to-let mortgages was 0.82% between April 2019 and June 2020, compared with 0.64% on owner-occupied residential mortgages during the same period. As with other housing loans, buy-to-let mortgages are seldom based on any other reference rate than the Euribor rates. More than one-fifth of the newly originated buy-to-let mortgages had an interest rate cap. Interest rate caps were slightly more common with owner-occupied residential mortgages.

Chart 25.

## Buy-to-let mortgages are smaller and have shorter repayment periods than other housing loans

According to the data by the FIN-FSA, new buy-to-let mortgages are smaller on average than owner-occupied residential mortgages. The average amount of a new buy-to-let mortgage drawn between April 2019 and June 2020 was slightly under EUR 100,000, compared with EUR 125,000 for owner-occupied residential mortgages drawn during the same period. In Helsinki, newly originated buy-to-let mortgages were larger on average (over EUR 150,000), as were owner-occupied residential mortgages (almost EUR 200,000). Buy-to-let mortgages are smaller than residential mortgages because flats

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2. Where members primarily serve as landlords: [Finnish Landlord Association](#).

3. Source: Finnish Financial Supervisory Authority. The primary housing pledge was most often located in Helsinki.

4. Based on record information by Statistics Finland.

5. Source: Credit data collection. Imputed average rate on new mortgage drawdowns.

purchased for investment purposes are similarly smaller on average. According to Statistics Finland, over 85% of flats which can be inferred as being investment housing are one or two-bedroom.

Repayment periods for new residential mortgages have been on the rise since 2014. In recent years mortgages with longer repayment periods (over 29 years) have especially become more common. For new residential mortgages drawn in March 2021 the average repayment period stood at 21 years and 7 months. The repayment periods for buy-to-let mortgages are typically shorter than for other housing loans. The average repayment period for a new buy-to-let mortgage drawn in March 2021 was 18 years and 4 months, compared with 21 years and 11 months for an owner-occupied residential mortgage.

For buy-to-let mortgages, the ratio of the mortgage loan and the housing company loan relative to the unencumbered price of the flat (i.e. the loan-to-value ratio, LTV) is generally slightly higher than for other housing loans. Indeed, buy-to-let mortgages are more likely to be backed by significant amounts of other housing collateral when compared with other housing loans.

## Residential property investors are also accumulating debt through housing company loans

According to an estimate based on transfer tax data, households have long held more than 80% of new drawdowns of housing company loans.

Purchases of residential investment properties are often partly financed with housing company loans. According to the FIN-FSA's data<sup>[6]</sup>, almost a third of flats purchased with a buy-to-let mortgage are also encumbered with a housing company loan. Yet buy-to-let mortgages were seldom coupled with housing company loans in the case of new-build housing. Indeed, new builds are increasingly purchased with large housing company loans. The buyer's share of the housing company loan can finance as much 80% of the unencumbered price of the flat, so the rest of the price might be covered by the buyer's savings, for instance. According to a survey conducted by the Finnish Landlord Association, almost one-third of landlords held a share of a housing company loan in connection with a new-build property. The tax treatment of residential property investors is likely to have increased the share of housing company loans in new builds. Other factors which are likely to have contributed to raising the stock of housing company loans are the gradual removal of the tax deductibility of housing loans, the low level of interest rates, and the high level of house prices. The stock of housing company loans is especially concentrated around the Helsinki metropolitan area and the country's major urban areas.

Whether this incentive for residential property investors to take on leverage warrants action is being discussed by policymakers (see [Imposing a loan-to-value limit on housing company loans would only affect a share of construction finance](#)). The Finnish Government Programme for 2019–2023 includes plans for 'an investigation [that] will study the prospects for reforming taxation of housing investment'. Among other

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6. Loans drawn between April 2019 and June 2020.



measures, the reform aims to limit the right to deduct housing company loan repayments from rental income.

## The ratio of buy-to-let arrears relative to the loan stock is smaller than for other housing loans

The stock of delinquent housing loans has slightly increased in recent months and comprised 1.6% of the total loan stock at the end of March 2021. Relative to the loan stock, buy-to-let mortgages had a smaller number of delinquencies than other housing loans. A full 98% of respondents to the survey conducted by the Finnish Landlord Association reported having no difficulties in meeting their share of housing company loan fees during the coronavirus crisis. In spite of the pandemic, housing company impairment losses and arrears have remained small throughout the country.

According to the FIN-FSA's data, overall indebtedness relative to annual income is slightly lower for holders of buy-to-let mortgages than for holders of owner-occupied residential mortgages. However, a third of buy-to-let mortgage borrowers still had a debt-to-income ratio in excess of 450%, which is comparable with second-time and subsequent homebuyers. (See [New mortgage-borrowers have an increasing amount of debt relative to income](#))

Having the ability to examine buy-to-let mortgages as a distinct whole separate from other housing loans promises to provide a sharper and more complete view of household indebtedness in Finland.

### Tags

[debt accumulation](#), [housing loans](#), [households](#), [investment](#), [buy-to-let mortgages](#)

# Moderate growth in Finnish companies' non-performing loans

5 May 2021 – Bank of Finland Bulletin 1/2021 – Financial stability



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The economic shock caused by the COVID-19 pandemic has reduced demand for goods and services offered by Finnish companies. Accommodation and catering services, in particular, have faced severe difficulties. The risks of corporate loans to banks and other corporate lenders have increased. The heightened risk has not, however, been reflected much in the average interest rates on new corporate loans from banks. So far, no significant amounts of credit losses have incurred from corporate loans, but payment-term arrangements have been used extensively.



The COVID-19 pandemic drove the Finnish economy into recession in 2020 and has created great uncertainty about the future development of the economy. Economic crises pose a threat of widespread problems in the corporate sector, which at worst may lead to bankruptcy waves and a sharp rise in unemployment. In addition to the duration of the crisis and the support measures targeted at the corporate sector, companies' ability to cope with the coronavirus crisis will be affected by factors such as the ability of the

banking sector to transmit new financing to them, the terms of new and renewed financing, banks' chances to cope with impairments and credit losses, and the indebtedness of companies.

Economic crises pose a threat of a "credit crunch". In a credit crunch, banks suffer major credit losses and their lending capacity is weakened: the financial system is unable to provide financing to financially sound companies, as financial institutions are forced to limit their lending to maintain their solvency. This occurred, for example, in the Finnish economic and banking crisis in the early 1990s and in many European countries during the worst stages of the global financial crisis and the euro area sovereign debt crisis in 2008–2009 and 2010–2012. Even in Finland, the global financial crisis caused big corporations to return to domestic banks for funding, which temporarily threatened to halt small enterprises' access to financing in late 2008 and early 2009.<sup>[1]</sup>

The operating conditions of banks have been significantly strengthened through extensive regulatory reforms since the global financial crisis. The aim of the reforms has been to secure a strong banking sector that is able to provide funding also in difficult economic conditions.

This article assesses the development of the availability and conditions of bank loans for Finnish companies and the extent of problems related to the servicing of bank loans during the COVID-19 pandemic, in particular in the light of the Bank of Finland's statistics on financial institutions.

## Some sectors hit hard by the coronavirus

Like other countries, Finland has curbed the spread of the coronavirus through direct restrictions and recommendations issued by the authorities. Many restrictions have prevented companies from operating in part or even in full. In addition, increased consumer caution has reduced the demand for services involving a risk of exposure to the viral infection. By declaring a state of emergency and introducing containment measures in March 2021, Finland curbed the resurgent spread of the virus, but also further delayed and hampered the recovery from the crisis of companies affected by the pandemic.

The coronavirus has affected different sectors differently. Many of the restrictions have been targeted directly at companies in the restaurant and tourism industry. According to the business outlook indicator calculated by the Finnish Hospitality Association MaRa, the economic outlook for the sector has been significantly bleaker than normal since spring 2020. In March 2021, restaurants were closed in most parts of Finland and only allowed to serve takeaway meals. The restrictions have further worsened the situation for restaurants.

In accommodation services, the situation is also very precarious. According to Statistics Finland, between March 2020 and January 2021, the number of overnight stays of foreign tourists was almost 85% lower than a year earlier. The number of overnight stays

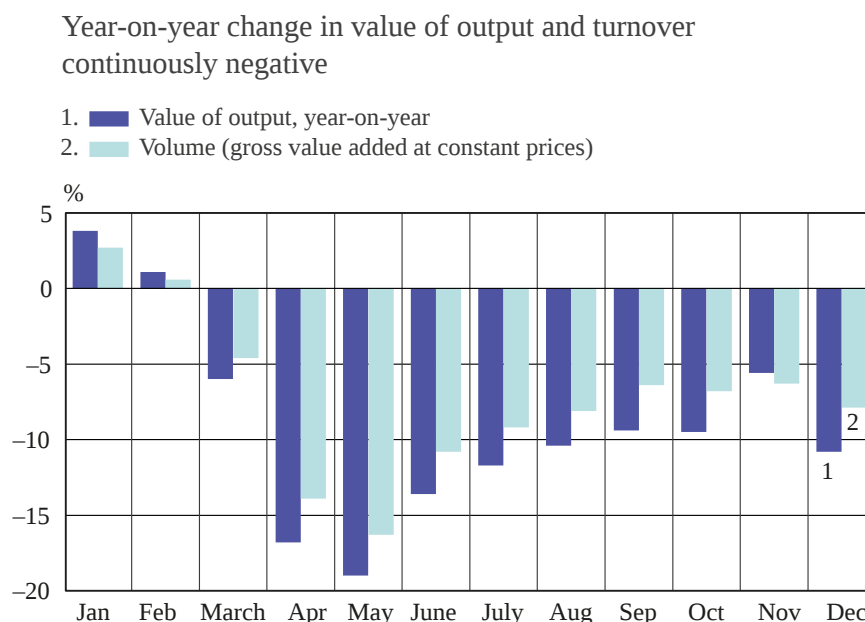
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1. See e.g. [Bank of Finland Governor Erkki Liikanen's speech: The international economic crisis and Finland](#) (in Finnish), Conference of Finnish venture capital investors 'Pääomasijoituspäivä', Helsinki, 3 February 2009 ([suomenpankki.fi](https://suomenpankki.fi)).

of Finnish customers decreased by around 30%.

The turnover of companies in the services sector declined sharply in spring 2020 and has continued to decline since then (Chart 26). According to Statistics Finland, turnover of companies in accommodation and food service activities fell by more than one quarter from the previous year in January–October 2020. In the same period, turnover in transportation and storage activities declined by about one fifth.

Chart 26.



Source: Statistics Finland.

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A business survey conducted by Finnish Industry Investment, for example, provides an indicative overview of company and sector-specific differences in profitability growth during the COVID-19 pandemic.<sup>[2]</sup> Measured in terms of the profit share of Finnish SMEs, average profitability did not deteriorate in 2020, at least not in the second and third quarters.<sup>[3]</sup>

Nonetheless, the survey showed that there are great differences in the profitability of different companies and sectors. Around one tenth of the companies who responded to the survey estimated that their profitability measured by operating profit will decline by at least one quarter in 2020. The profitability expectations of accommodation and catering companies clearly deteriorated most. At the same time, more than half of the companies estimated that their profitability has remained unchanged or even improved.

2. See [20201208\\_Koronakriisin-vaikutukset-PK-yrityksiin\\_Kierros\\_3-FINAL-1.pdf](#) (tesi.fi, in Finnish).

3. Corporate profit share refers to the share of operating surplus in value added.

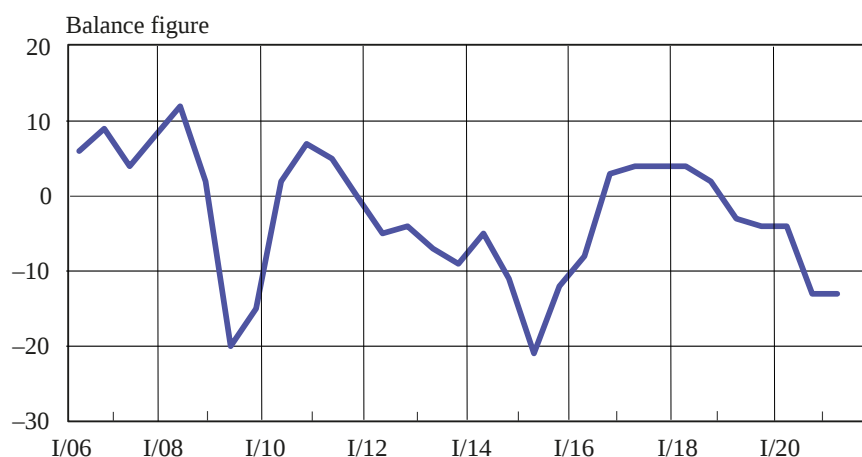
## Coronavirus temporarily increased financing needs of companies in spring 2020

The effects of the COVID-19 pandemic on new corporate lending of Finnish banks are quite similar to the effects of the global financial crisis just over ten years ago. In both crises, the escalation led to a short-term increase in banks' lending to companies, as companies affected by the contraction of their turnover and the depletion of their cash assets needed bank loans to meet their acute liquidity needs.

Also in both crises, new lending of banks started to decline rapidly after the early stages of the crisis, as companies began to postpone or reduce their investments in an exceptionally uncertain operating environment. According to the February 2021 SME Barometer published by the Federation of Finnish Enterprises, Finnvera and the Ministry of Economic Affairs and Employment, the number of companies expecting investment reductions still exceed those expecting growth in all the main sectors (Chart 27).<sup>[4]</sup>

Chart 27.

SMEs' investment expectations have continued to deteriorate during the COVID-19 pandemic



Source: SME Barometer, spring 2021.

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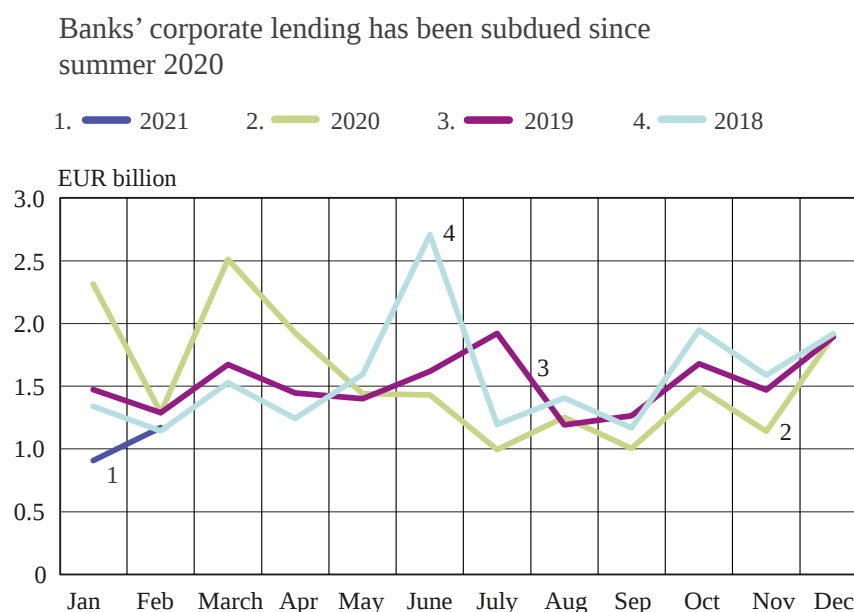
In all of Finance Finland's Banking Barometer surveys conducted in 2020, bank managers expected demand for corporate loans to shrink.<sup>[5]</sup> Expectations were lowest in the second and fourth barometers of 2020 but, for example during the global financial crisis 2008–2009, bank managers' expectations of future demand for corporate loans were even lower.

4. See [SME Barometer spring 2021, Yrittajat.fi](#) (in Finnish).

5. See [Banking Barometer, Finance Finland](#).

The use of external financing from monetary financial institutions (MFIs) increased rapidly in Finnish companies in March–April 2020, as the containment measures introduced to control the coronavirus and increased consumer caution reduced the demand for products and services in many sectors. Statistics by the Bank of Finland show, however, that since May 2020, the monthly volume of new corporate loans granted by Finnish MFIs has been on average significantly lower than in 2018 and 2019 (Chart 28).

Chart 28.



Source: Bank of Finland.

12.4.2021  
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MFI loan statistics do not show the numbers of rejected loan applications or instances where a company decided not to apply for a loan due to the likelihood of not receiving it. According to the SME Barometer 1/2021, problems with access to finance were not particularly exacerbated in December 2020 and January 2021: only 6% of SMEs reported that they had not applied for funding in the last 12 months despite a need for it. Additionally, only about one in ten of those who decided not to apply reported that the reason was poor access to funding.

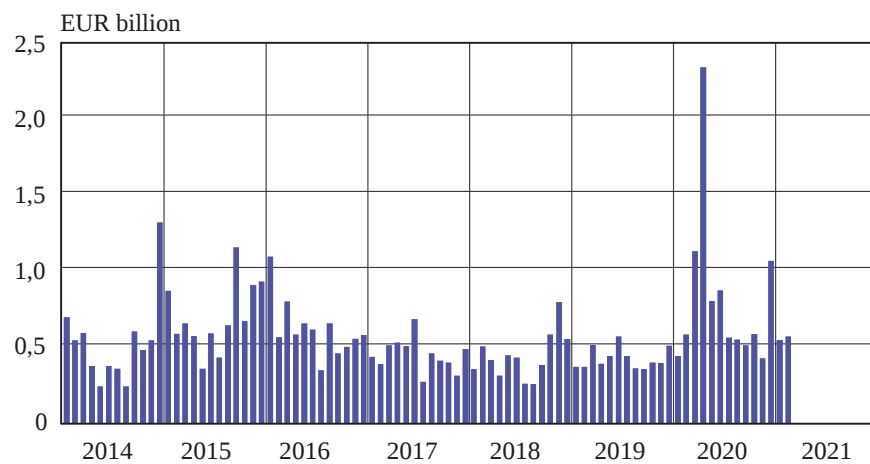
But while access to funding may be good on average, it may also conceal sectoral difficulties. According to the Finnish Hospitality Association MaRa's cyclical barometer of January 2021, at least in the tourism and restaurant sector, companies have struggled with significant financial difficulties.

In order to mitigate the shock caused by the COVID-19 pandemic, in early spring 2020 companies applied for an exceptionally large number of interest-only periods and other changes in their loan payment programmes (Chart 29). The number of changes to

payment programmes granted by banks was also clearly higher than normal in December 2020. According to the Financial Supervision Authority, about 5% of the corporate credit portfolio of Finnish banks was subject to interest-only periods and other allowances in repayment arrangements in August 2020. At the end of 2020, the share had decreased to slightly over 2%.<sup>[6]</sup>

Chart 29.

### Number of corporate loan renegotiations shot up in spring 2020



Source: Bank of Finland.

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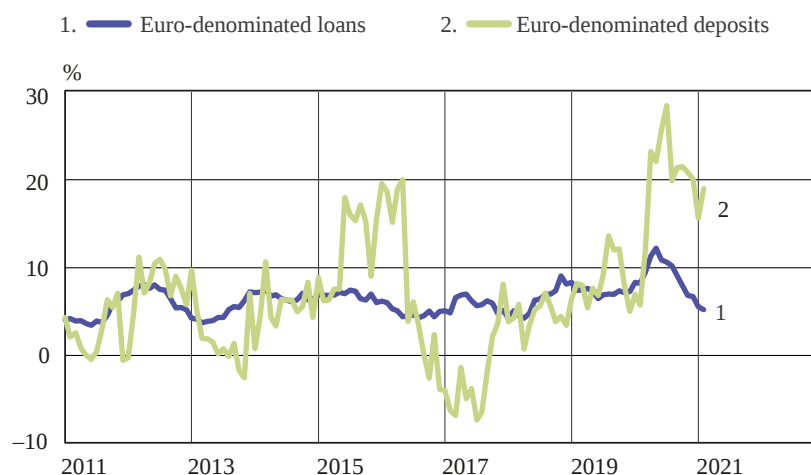
According to statistical data collected by the Bank of Finland, between March and December 2020, renegotiated loans to accommodation and catering companies totalled EUR 264 million, which corresponds to approximately 34% of the sector's bank loan stock in March 2020. In other sectors, the share of renegotiated loans has been smaller. In manufacturing, for example, renegotiated loans in the same period represented only around 15% of the loan stock in March 2020. The aggregate amount of renegotiated corporate loans in all sectors totalled nearly EUR 9 billion, which is roughly 15% of the March 2020 loan portfolio.

On the other hand, the decline in companies' borrowing and investment appetites has led to strong growth of the corporate deposit stock (Chart 30). In economic crises, uncertainty increases demand for money, as different economic agents typically want to keep a larger share of their assets immediately available, for example in current accounts or as assets with high liquidity.

6. See [Magnitude of effects of the COVID-19 pandemic vary between sectors – Finnish banks are well equipped to support economic recovery \(in Finnish\)](#).

Chart 30.

Pandemic has increased non-financial corporations' deposit stock  
MFI euro-denominated loans to euro area non-financial corporations and housing corporations and euro-denominated deposits of euro area non-financial corporations and housing corporations



Source: Bank of Finland.

22.4.2021  
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## No new sector-specific risk premia on corporate loans

The credit risk associated with the repayment of the loan usually affects the interest rate of the loan, because the creditor takes the risk into account in the loan terms and in the decision to approve the credit application.<sup>[7]</sup> Lenders compete for low-risk debtors by offering low interest rates, which means that loan applicants assessed as reliable can obtain loans on cheaper terms.

Based on the average interest rates on new corporate loans, banks do not seem to have demanded higher interest rates from their corporate customers due to the potentially increased credit risk. In the last three quarters of 2020, the average interest rate on new corporate loans was around 0.3 percentage points lower than one year earlier. At the same time, the three-month EURIBOR was on average about 0.06 percentage points lower than a year earlier, so reduced corporate loan prices cannot be fully explained by the fall in market rates. Either the credit risk in new business loans has not increased significantly, for example due to government support measures, or the increased risks may have affected the availability of credit or loan terms other than margins instead of interest rates.<sup>[8]</sup>

7. It is also possible that, in order to cover the uncertainty of the loan, the interest rate would have to be so high that it would become difficult to service the loan. In such situations, the loan is unlikely to be granted or the offered loan is not drawn.



When interpreting the figures, it is important to note that companies that applied for loans in 2020 may have been more solvent or profitable than companies that received loans in 2019, or that the lending appetite or access to credit of companies with a poor credit rating may have decreased in 2020. The data may therefore contain only few new loans to weaker companies.<sup>[9]</sup> If these factors exist and their effects are prominent, they may make it more difficult to detect a possible increase in risk premia for corporate loans.

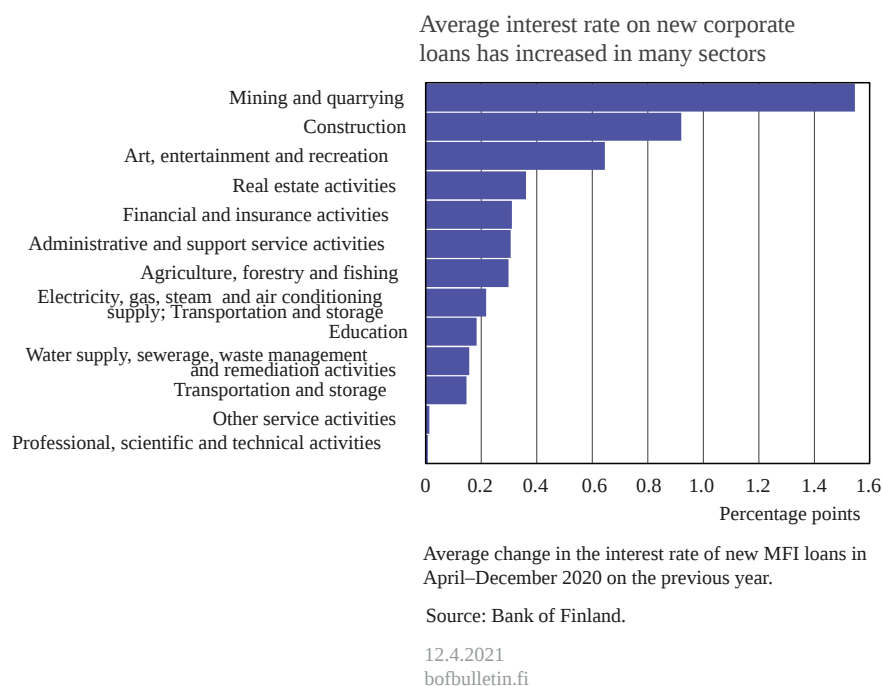
Industry-specific figures likewise do not indicate an increase in the average risk premia for new corporate loans by banks. A comparison of industry-specific average loan interest rates in April–December 2020 and 2019 does not show a correlation between interest rates and changes in turnover. From 2019 to 2020, the average interest rate on new loans increased most in the mining and quarrying industry, where the average interest rate on loans increased by 1.6 percentage points on the previous year. Arts, entertainment and recreation are particularly affected by the crisis, and the average interest rate on new loans increased by around 0.7 percentage points (Chart 31). On the other hand, the average interest rate on new loans for the most severely affected industry, accommodation and food service activities, surprisingly decreased slightly, by around 0.13 percentage points.

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8. According to the latest SME Barometer by the Federation of Finnish Enterprises and its partners, of the companies that estimated that banks had tightened their lending policies, around two thirds reported that collateral requirements had tightened, whereas one third reported that loan margins had widened. [SME Barometer spring 2021, Yrittajat.fi](#) (in Finnish).

9. According to a business survey conducted by Finnish Industry Investment, only a relatively small number of companies whose solvency has deteriorated significantly due to the pandemic have applied for a new bank loan, see [20201208-vaikutukset-PK-yrityksiin\\_Kierros\\_3-FINAL -1.pdf](#) (tesi.fi, in Finnish).

Chart 31.



### Worst fears of Finnish companies' liquidity shortages and banks' large credit losses of banks have been allayed

The immediate impact of COVID-19 on the Finnish economy has been less severe than predicted in the most adverse scenarios. Through measures such as direct support to companies and a temporary amendment to the Bankruptcy Act<sup>[10]</sup>, Finland has so far avoided the feared wave of bankruptcies. Unlike some previous economic crises, the coronavirus crisis has not, at least not yet, undermined the loss-bearing and lending capacity of the Finnish banking sector, which were strengthened through regulatory reforms before the onset of the crisis.

If the Finnish economy recovers from the pandemic as predicted, it appears that the darkest scenarios presented in spring 2020 on Finnish banks' credit losses<sup>[11]</sup> will remain unrealised. However, the development of credit losses is subject to uncertainty and typically materialised over a relatively long term.

Total non-performing loans increased by only around 8% in all industries between March and December 2020. At the end of 2020, the industry with the relatively highest

10. Between May 2020 and January 2021, the amendment temporarily removed the presumption that a debtor who has not repaid a clear and due claim within a week of the receipt of a remainder shall be deemed insolvent. Creditors could therefore not use a bankruptcy-threatened demand for payment as a means for recovering claims. The amendment was based on government proposal 46/2020 and was originally set to stay in force until the end of October 2020.

11. For more information about scenario calculations by the Bank of Finland in spring 2020 on the impacts of the COVID-19 pandemic on the loan losses of Finnish banks, see [Banks must be able to finance firms and withstand loan losses amid the coronavirus pandemic, Bank of Finland Bulletin](#).

share of non-performing loans was human health and social work activities. Non-performing loans accounted for almost 8% of the sector's loan stock. Surprisingly, the difficulties in accommodation and food services were not reflected as a sharp increase in debt servicing difficulties, at least not during 2020: the amount of non-performing loans in this sector increased by less than EUR 10 million. Due to the low baseline, however, the percentage increase was high, approximately 23%.

## Tags

[COVID-19](#), [COVID-19 pandemic](#), [companies/firms](#), [financing](#), [Finland](#), [non-performing loans](#)

# New stress-testing framework to assess the capital adequacy of Finnish banks

4 May 2021 – Bank of Finland Bulletin 1/2021 – Financial stability



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Stress tests are important analytical tools that measure the resilience of banks to sudden, dramatic disruptions to the operational environment. The Bank of Finland and the Financial Supervisory Authority (FIN-FSA) have together developed a new stress testing framework as a more flexible means of testing the loss-absorbing capacity of banks when facing certain local systemic risks. The tool can also be used, for example, when setting macroprudential (capital) buffers.



Risk-taking is very much part of a bank's core business, and banks must have sufficient capital in the event of risks materialising. This could happen with one specific client or as a result of a sudden, significant deterioration in the business environment that is more widespread across different customer groups.

A stress test is an important analytical tool that measures the resilience of banks to various disruptions to the operational environment. Stress tests conducted by the supervisory authorities examine in particular the loss-absorbing capacity of individual banks (micro-stress tests), although they may at the same time help identify possible structural vulnerabilities in the banking system, such as the joint exposure of banks to certain risk types. Macroprudential stress tests have been developed to test the resilience

of the entire financial system. These analyse the banking system overall and focus very much on the dynamic relationship between the economy and the banks as well as multiplier effects.

Stress tests can be carried out in two ways. Either the banks themselves use their own risk models to examine how a hypothetical scenario would affect their profit and loss account and balance sheet (bottom-up testing), or an authority uses its own model to work out the sort of credit loss a scenario would result in and how that would affect the typical risk parameters on the banks' balance sheets and, ultimately, their levels of capital (top-down testing).

The main business-related risk for banks is credit risk, which is directly linked to macroeconomic developments and the capital adequacy of the banks. Accordingly, stress tests have tended to focus on credit risk analysis. Another significant type of risk for the banks and subject of analysis in stress tests is market risk, which has an impact on their earnings and capital adequacy when the market value of securities or net interest income change. In recent years, stress testing methods have improved enormously and, for example, special testing methods have been developed specifically for operational risks and for liquidity risks.

Since 2011, the European Banking Authority (EBA) has conducted Europe-wide stress tests every other year in cooperation with the other European banking authorities. The goal is to test all the main European banks using the same methodologies and criteria and to raise awareness of the resilience of the European banking sector. Banks' loss tolerance is tested based on a three-year-long adverse scenario as a bottom-up exercise. The loss tolerance of Finnish banks has in recent years mainly been tested at the same time.<sup>[1]</sup>

The EBA's stress tests are an important tool in assessing the adequacy of the various banks' capital buffers, although the tests are only carried out once every two years. Furthermore, the focus with them is economic trends and market disruption, which are among the main threats to financial stability in Europe as a whole. To supplement this toolkit, the Bank of Finland and the Finnish Financial Supervisory Authority have together developed a stress test as a more flexible means of testing more local systemic risks to the financial system in Finland and the Nordic countries. The stress tests can also be used to determine the size of different macroprudential (capital) buffers.

## **The Bank of Finland and FIN-FSA's stress testing framework tests banks' credit, interest rate and market risks**

The methodology employed in the stress tests is typically multi-stage in nature and varies according to the type of test. Various econometric models may be used in different stages of the test to support the analysis. There are three stages in the stress testing framework

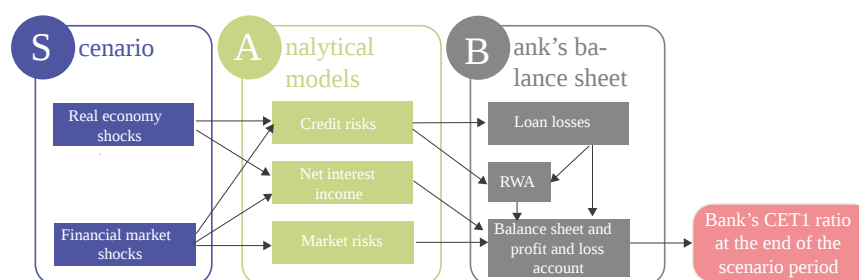
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1. The big Finnish banks are involved in the joint test, in addition to which the FIN-FSA tests the smaller banks applying the same scenarios and methodology. The Finnish banks have come out well in the test – they would have had sufficient capital to cover the losses incurred in an adverse scenario.

employed by the Bank of Finland and the Finnish Financial Supervisory Authority (Chart 32). In the first, an adverse hypothetical scenario is created. In the second, an estimate is made of the scenario's impact on banks' risk parameters throughout the banking sector employing different econometric models. In the third stage, the effect of the risk parameters on the results and the balance sheet of individual banks is evaluated. This is how information is obtained regarding what each bank's capital adequacy ratio would be by the end of the scenario period.

Chart 32.

Bank of Finland and FIN-FSA's stress testing method has three stages



Sources: Bank of Finland and Financial Supervisory Authority.

23.4.2021  
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*The test starts with the creation of a hypothetical scenario, where, for example, poor economic developments and serious disruptions to the financial markets are significantly undermining the banks' operational environment. The scenario is not a forecast: it is intended as an unlikely though possible development in the business environment. The results of the stress test are always contingent on the scenario and only show the loss-absorbing capacity of banks within the context of a selected series of events. Because the banks face many types of risk and potential future sets of circumstances, the scenario has to be chosen with care and has to present the most relevant risks in the opinion of the experts.*

*In the second stage of the test, different models are used to evaluate the scenario's impact on banks' risks throughout the banking sector. The test uses two econometric models, the first of which is employed to assess the credit losses incurred by the banks as a result of the scenario. The second evaluates the scenario's effect on the banks' net interest income.*

The credit risk model employs statistical methods for modelling the link between the general economic situation and the banks' loan losses. It helps to estimate how much loan losses the banks would incur in the context of the economic developments the scenario represents. History shows that rapid economic growth is associated with few indications of credit loss, while high interest rates push up the loan losses. A fast rise in outstanding debt in relation to GDP has been shown in the past to be associated with higher than average amounts of loan losses. Furthermore, house and share prices often help explain why the volume of credit losses is what it is, and the scenario needs to

reckon with the direction in which these prices are moving.

The Finnish banks also incur credit losses on loans granted to foreign – mainly Nordic – entities, and so the scenario also needs to cover other countries besides Finland. The modelling exercise distinguishes between credit losses through household lending and those related to loans to business. Information is therefore needed on the loan losses resulting from different types of loan and how the amounts vary according to the economic situation. International data on historical loan losses from different sectors make an assessment of this sort possible.

Net interest income – the difference between interest earned and interest paid – is one of the main sources of income for the banks. It depends chiefly on the amount of bank loans and deposits on the balance sheets and the difference in interest on money borrowed and money lent. In the stress test calculations by the Bank of Finland and the FIN-FSA it is assumed that net interest income is linked to the business cycle and the interest rate. In practice, the variables used in the model are the three-month money market interest rate and nominal GDP. The effect these variables have on the combined net interest income for the banking sector was tested using quarterly data covering the time Finland has been in the euro area.<sup>[2]</sup> It is assumed that the statistical equivalence found would also apply to the stress testing scenarios.<sup>[3]</sup>

*The final stage involves calculating the impact of the risk parameters on the banks' results and balance sheets.* Firstly, the loan loss model is used to predict for various sectors and countries possible changes to the volume of non-performing loans of banks and the probability of default for different customer groups. These changes together with the risk weight formulae in prudential regulation serve to estimate banks' risk-weighted assets (RWA), which are used to determine their capital adequacy ratios.

Secondly, attention is given to the results of the net interest income model, which are directly reflected in the banks' profit and loss accounts. The BOF – FIN-FSA stress testing framework ignores any differences between banks, the assumption being that the net interest income for all credit institutions reflects the economic situation in the same way. Several bank groups have undergone major restructuring. Their market shares as regards the various customer groups have changed. The banking sector overall has altered much less than the individual groups, however, and the changes to market shares do not affect aggregate net interest income.

Thirdly, the effects of a market shock are assessed with reference to the changes in the market variables under the scenario and the risk sensitivities estimated by the big banks themselves.<sup>[4]</sup> Some of the effects are reflected on the banks' income statements and

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2. There is a stable long-term relationship between sets of variables, discovered using a statistical method called a cointegration test. The relationship can be shown in simple terms, as follows. If GDP were to increase by, say, 1%, the banks' net interest income would increase by around 1.34%, depending on the business results. If the interest rate rose amid low interest rates by approximately one percentage point, the banks' net interest income would increase by around 14%. These 'elasticities' help calculate how net interest income would change in a hypothetical situation where GDP fell.

3. In reality, the change could be stronger or weaker, but if net interest income depends on interest rates and economic cycles, as has generally been the case in the past with banks, the estimates are indicative.

some are recorded directly as a change to equity, as there are differences in the accounting treatment for instruments measured at fair value. In the case of the smaller banks, the effects have been assessed based on the results of previous bottom-up stress tests and with reference to the market shock caused by the COVID-19 pandemic in early 2020, since no regular estimates of risk sensitivities are available.

*The final result of the test obtained is the solvency situation for each bank at the scenario end-point.* The test furthermore produces other important information about the effect of different types of risk on individual banks.

## Stress testing framework put to the test

We conducted the Bank of Finland and FIN-FSA stress test<sup>[5]</sup> on Finnish banks using the scenario employed in the EBA stress tests in 2018 in order to throw light on how it functions. In the scenario the global economy is experiencing a severe recession and financial market disruption: the stock market, the bond market, the housing market – all are in turmoil. In the scenario, housing market shocks play a key role and house prices in Sweden, for example, are plummeting.

The result of the stress test shows that in the adverse scenario the banks' CET1 (capital ratio) falls to 13.9%, from a starting point of 18.1% (Chart 33).<sup>[6]</sup> The biggest impact on the banks' capital adequacy is, as expected, from the increase in credit risk. The fall in their CET1 (capital ratio) due to greater credit risk is by 8.2 percentage points.<sup>[7]</sup> Interest rate and market risks affect the capital adequacy of the banks either as a result of poor results or due to changes to equity. The impact both have is moderate compared with the decline in the capital adequacy ratio resulting from credit risk.

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4. This concerns (first-order) sensitivity to a change in the market variables as evaluated by the banks.

5. The stress test in 2018 was the most recent Europe-wide test, because the one conducted in 2020 was cancelled owing to the COVID-19 crisis. The EBA stress test for 2021 was begun in January and its results will be out by the end of July. The calculations and estimates given in this article are there merely to illustrate how the Bank of Finland – FIN-FSA stress testing framework functions. They will have no effect on the banks' monitoring process.

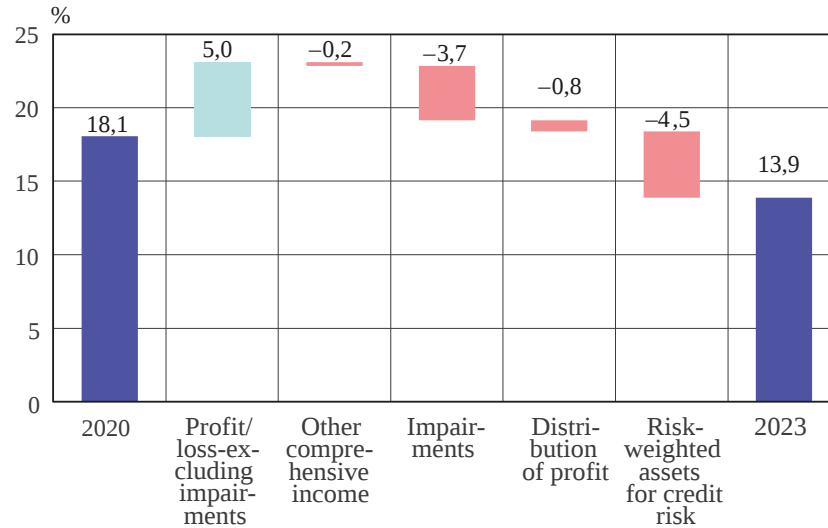
6. The item 'Profit/loss excluding write-downs' is the difference between revenue and expenses in the banking sector before account is taken of write-downs. Consequently, it incorporates the estimated trend in net income interest in the stress scenario and the changes in value of instruments measured at fair value in the profit and loss account caused by a market shock. The item 'Other comprehensive income' includes changes to value caused by a market shock in instruments, changes in whose fair value is recorded directly as changes in equity. The item 'Write-downs' corresponds to the separate impact of estimated bad debts on the core capital ratio in the banking sector. The item 'Distribution of profits' includes any possible distribution of profits on the part of the banks during the stress period. The amount of profit distributed has been worked out in such a way that the banks distribute their profits in each year of the stress period in accordance with their own declared dividend policy or the distribution ratios from previous years, if a positive result for the year in question is recorded. The item 'Risk-weighted assets' shows the effect of the change in RWAs based on the estimated trend in bad debts.

7. Impairments -3.7 percentage points, effect of credit risk on RWAs -4.5 percentage points.



Chart 33.

The CET1 capital ratio in the Finnish banking sector falls in the stress test scenario particularly due to the increase in credit risk



Sources: Calculations by the Financial Supervisory Authority and the Bank of Finland.

8.4.2021  
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The test results show a similar pattern in terms of the relative effects of risks to the EBA test in 2018. However, the CET1 (Capital ratio) of the banks in this test falls more than in the EBA test. The results are not directly comparable, as the starting point for the banks in our calculation is different from what it was in the EBA test in 2018. Moreover, the groupings for the banks tested have changed. For example, Nordea was still being treated as a Swedish bank when it was tested in 2018.

The stress test developed by the Bank of Finland and the FIN-FSA is able to flexibly assess the resilience of banks to systemic risk, thus promoting the solvency of the entire banking sector. The information obtained from it can also be used when setting macroprudential (capital) buffers.

## Tags

[COVID-19](#), [macroprudential analysis](#), [stress tests](#), [systemic risks](#)

# Pandemic continues to cast a shadow over the outlook for European banks' credit risks

4 May 2021 – Bank of Finland Bulletin 1/2021 – Financial stability



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The COVID-19 pandemic has led to an increase in the credit risk faced by European banks. Although the pandemic's negative impact on the economy has been eased thanks to various support measures, there is still much uncertainty attached to how the crisis will play out. Banks in general are showing stronger resilience to risk than they did in previous crises. The state of the banking sector will be assessed in spring 2021 by means of stress tests. If the stock of non-performing loans increases, it could be difficult for banks to continue supplying credit to the real economy. The European Commission has proposed an action plan to reduce the number of non-performing loans.



## Policy measures have for now curbed the increase in non-performing loans

The risks to the operational environment of European banks have increased in all European countries. Economic growth has been weakened due to the constraints in place to control the COVID-19 pandemic and wariness on the part of consumers. Combined with the changes in the business environment that the pandemic has caused, this has meant the credit risks that banks face have increased. Attempts have been made to

dampen the adverse economic effects of the pandemic through monetary policy, banking supervision and regulation, as well as through macroprudential policies. Furthermore, a broad range of public sector support measures has for now curbed the increase in non-performing loans.

According to the European Banking Authority (EBA), by the end of 2020 more than EUR 320 billion of loans were subject to payment deferrals (moratoria) granted by banks. This accounted for around 2.8% of the corporate and household loans granted by banks supervised by the EBA. Moreover, some EUR 340 billion in private sector loans were granted out of the State guarantee schemes by the end of 2020. Both the number of payment deferrals and the number of loans backed by various State guarantees vary considerably from country to country.

## The number of non-performing loans is expected to increase this year

As the COVID-19 pandemic drags on, businesses have become less profitable and unemployment has risen. The expectation is that the number of non-performing loans will increase.<sup>[1]</sup> Some actors in the private sector are unlikely to be able to meet all their loan obligations because of the financial problems they have due to the pandemic. [The indicators for the quality of the banks' credit portfolios](#) reveal a deterioration in the creditworthiness of households and corporate borrowers. Because of the provisional support offered by the authorities, it is actually hard to judge the creditworthiness of bank customers. Estimates suggest, however, that approximately 30% of the loans to customers who have been granted payment deferrals come with a substantially increased credit risk (Stage 2 loans). The financial support measures granted to help with loans will gradually start to end in 2021. According to the European Banking Authority, almost 30% of the loans granted under the State guarantee schemes in the EU will have to be repaid by the end of the year.

Corporate surveys and economic statistics reflect the worsening situation in particular for SMEs in the travel and other service industries in many countries. The number of non-performing loans threatens to grow mainly in countries where the share of industries hardest hit by the pandemic is significant. In some countries the number of non-performing loans was high following the global financial crisis and before the pandemic even began.

## Banks show stronger resilience to risk

The risk resilience of European banks has improved since the global financial crisis.<sup>[2]</sup> Regulatory reforms have improved the capital adequacy of the banks and they are better placed to face possible economic downturns than they were in previous crises. The banks succeeded in nearly halving the number of non-performing loans on their balance sheets before the pandemic, when compared with the figure for 2014. Data from the Single

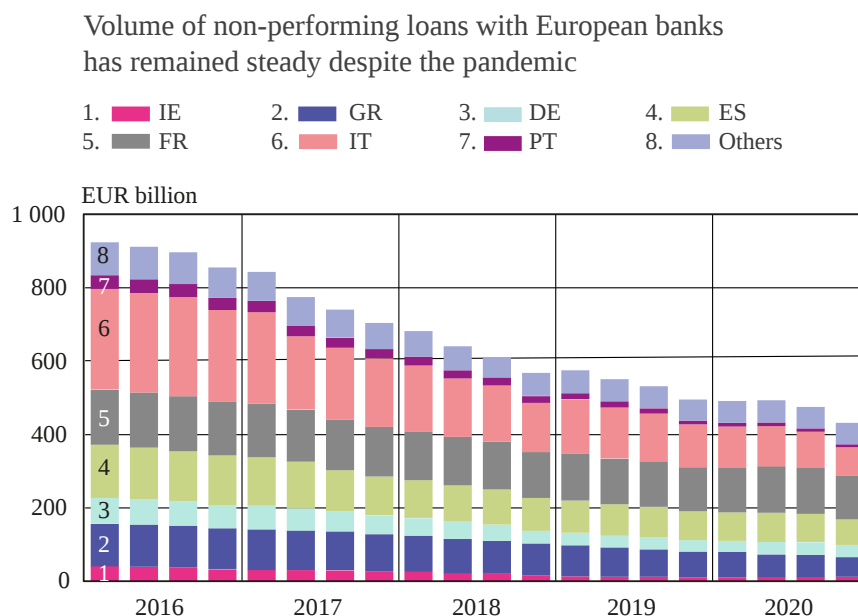
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1. A non-performing loan is a debt the payment of which is at least 90 days late.

2. According to the European Central Bank, the Common Equity Tier 1 capital ratio (CET1) of banks in the euro area was 15.6% at the end of 2020, against 15.0% at the end of 2019.

Supervisory Mechanism (SSM) shows that, at the end of 2020, banks in the euro area had EUR 444 billion in non-performing loans on their books, which accounted for about 2.6% of all the money borrowed from euro area banks (Chart 34). At the peak of the debt crisis in the euro area, non-performing loans accounted for around 8% of all the loans granted by banks.

Chart 34.



Source: SSM.

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In recent years, the strengthened solvency of the banks and their risk resilience have helped them continue to be able to lend money to the private sector more readily than in previous crises. The risk resilience of the big banks is measured in stress tests conducted by the European Banking Authority. A stress test exercise began in January 2021 and its results will be published at the end of July.

## The banks have prepared for a rise in the number of non-performing loans with an increase in buffers

In addition to the support granted by the authorities, banks have also taken steps to prepare for a weaker economic situation and for a rise in the number of bad loans by strengthening their buffers against losses. Loan loss reserves grew substantially, especially during the first six months of 2020. By the end of 2020, the provisions recorded by European banks stood at EUR 115 billion, which is almost the figure for the reserves set aside after the global financial crisis.

In several countries, banks are recording poor profitability because of the large volume of

loan loss provisions. At the end of 2020, banks' return on equity was 2.0%, compared with 5.7% one year earlier. Bad debts aside, the low interest rate environment and the sharp fall in lending are further reducing the revenues banks are receiving from their core activities. In addition, European banks continue to face many long-term structural problems associated, for example, with business models based on interest income and a wide network of branches as well as huge operational expenses. Banks also have to face the challenges of digitalisation and climate change. The pandemic has heightened these challenges.

## Non-performing loans are hampering banks' ability to supply credit

Non-performing loans weaken the profitability of banks. When banks prepare for the losses due to non-performing loans, they make provisions for them in their accounts, and these reserves come out of their revenue. Profitability also suffers since the bank earns no interest on non-performing loans, as they would with conventional loans.

Non-performing loans also undermine a bank's solvency, as they tie up its capital more than conventional loans because of the bigger risk weights involved. A bank's capital adequacy is weakened when the number of non-performing loans in its credit portfolio increases.<sup>[3]</sup> The bank's solvency also suffers if the bank records a negative net profit due to non-performing loans, and that is why these types of loans make it difficult for banks to supply credit to the real economy.

One way to reduce the number of non-performing loans is for banks to sell them to asset management companies. Following the global financial crisis, it became evident that removing a large number of non-performing loans from banks' balance sheets can be a very slow process. This is, for example, because the parties buying the loans and the bank selling them cannot agree on a price.<sup>[4]</sup> The price demanded by the buyer for problem loans could mean the bank would have to record significantly more in loan losses and that its capital requirements would no longer be met. The bank's idea of what the loans are worth may be a lot more than what the buyer may have in mind.

In Europe, banks are the main source of financing for companies and households. In December 2020, the European Commission published a Communication 'Tackling non-performing loans in the aftermath of the COVID-19 pandemic', which aims to safeguard financial intermediation to support the real economy. The Communication proposes four measures for keeping the number of non-performing loans on the banks' balance sheets under control. The proposed measures relate to the development of secondary markets, the reform of the EU's insolvency and debt recovery legislative framework, asset management companies, and precautionary public support measures for banks in the exceptional situation caused by the pandemic.

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3. If loan loss provisions are booked in respect of a loan, the bank's balance sheet will record the portion of the loan that the provision does not cover. Such a procedure therefore also reduces the number of risk-weighted assets.

4. Removing NPLs from balance sheets can also be a slow process because of a bank's inadequate resources and inadequate legislation on debt recovery and bankruptcy. The secondary market is also not sufficiently developed in all countries.

## Investors buy non-performing loans from banks

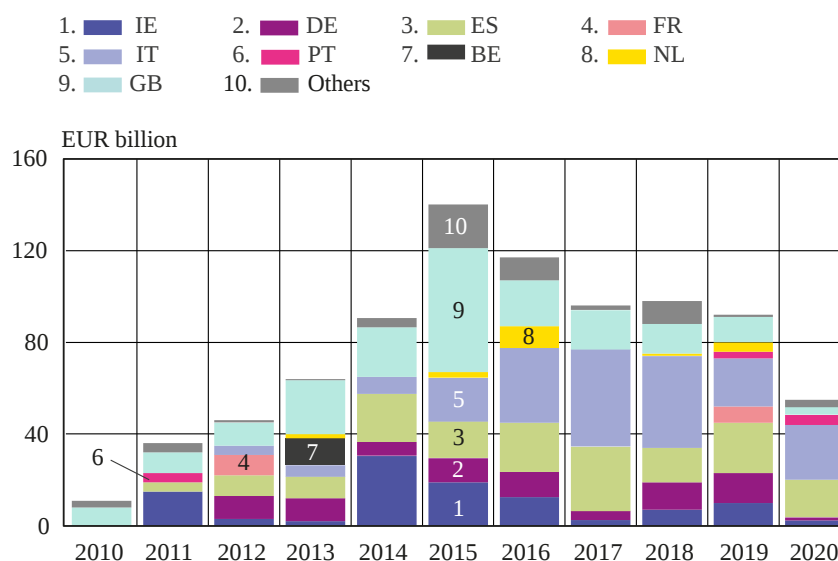
The development of the secondary market in non-performing loans is an important step, because a viable market enables the sale of the loans to investors. When these loans are removed from a bank's balance sheet the bank does not need to set aside additional capital to cover any future losses, and the capital that was previously tied down by a non-performing receivable can be freed up to grant new loans.

Removing NPLs from a bank's balance sheet makes it easier for an external party to assess the bank's creditworthiness. This in turn improves the availability of wholesale funding to the bank. Also, a lot of the bank's resources are tied up in updating repayment plans for non-performing loans, in debt recovery and in sales of collateral.

The European secondary market in NPLs developed mainly in the wake of the global financial crisis and was fairly active before the pandemic broke. The pandemic resulted in a slowdown in the sale of loans in 2020 (Chart 35). Under the Commission's plan, the aim will be to improve the functioning of the secondary markets, for example through better availability of consistent and transparent information on the loans.

Chart 35.

Owing to the COVID-19 pandemic, sales of bank loans in Europe in 2020 were down on previous years



Source: PwC.

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The euro area also faces structural challenges in the management of non-performing loans. Legal proceedings connected with the realisation of collateral used to secure loans can be time-consuming and complicated. The same goes for corporate debt restructuring. In the Commission's proposal, the goal would be to reform the corporate insolvency and

debt recovery legislative framework by harmonising practices across different countries and thereby expediting the process of realising collateral. The aim is particularly to standardise the extrajudicial realisation of collateral. These procedures would, however, apply only to businesses.

## **Non-performing loans can be transferred to separate asset management companies**

Non-performing loans can be transferred from a bank to an asset management company (AMC). In this way, the bad debts are entirely removed from the bank's balance sheet. These AMCs are sometimes called bad banks. An AMC benefits from economies of scale, meaning it can manage loans at lower fixed costs than individual banks. An AMC also often has more time at its disposal to sell the loans than the banks that originally granted them: they typically operate over several years and do not have the same capital requirements as banks. Furthermore, they can concentrate all their resources on the restructuring or resolution of non-performing loans.

An asset management company can be financed in different ways. In case of public financing, the EU's rules on State aid to banks must be complied with, i.e. the State must act as if it were a private investor. It is the Commission that ultimately approves State aid to AMCs. Some countries in Europe now have functional national AMCs. These have been active in the secondary markets for non-performing loans. These markets are used by companies for the resolution of their outstanding claims. The Commission is prepared to help Member States that want to establish national AMCs.

## **Countries are able to offer more flexible support to banks that have suffered from the pandemic**

In principle, it is not allowed to grant banks State aid, as this would be seen as a distortion of the functioning of the common market. The essence of the crisis resolution framework for banks is that the banks' shareholders and other investors are liable for the costs of the restructuring if the bank has run into difficulties. If a bank needs State support, the crisis resolution authority must in normal circumstances order a crisis management plan to be drawn up or declare the bank bankrupt.

Nevertheless, State aid is allowed in the case of solvent banks in times of serious economic crisis. In spring 2020, the Commission decided that the coronavirus pandemic was an exceptional situation, and it was therefore justified to allow countries to grant banks precautionary capital support if the other strict terms and conditions set for State aid were met. At the same time, the Commission made a temporary change to the State aid framework: the banks' shareholders and other investors would not have to contribute to the costs of restructuring as they normally would, provided that the precautionary public support was used to address the problems caused by the pandemic.

Bank stress tests and asset quality reviews are ways to assess what European banks might need in terms of precautionary public support or other measures to strengthen their capital as a result of the pandemic, for example in order to prepare for future loan losses. The stress test being conducted by the EBA in 2021, referred to earlier, will be

important, as it will provide information on possible capital shortfalls on the banks' balance sheets. The prevailing uncertainty and the existence of public support measures mean that interpreting the results of the stress test will be particularly challenging this time around.

## Tags

banking sector, banks, COVID-19, COVID-19 pandemic, credit losses, euro area, financial stability, non-performing loans