FINANCIAL STABILITY ASSESSMENT

Rise in interest rates is testing the resilience of borrowers, investors and the financial system

Financial stability | 09.06.2023

The Finnish financial system has remained stable despite the spring turbulence in the international financial markets. The rapid and steep rise in interest rates has led to an increase in financial stability risks in Finland as well. The increase in loan servicing costs is a strain on households, housing companies, residential property investors and businesses. The credit and liquidity risks of banks are also expected to increase. Occasional crises should not prevent the promotion of regulatory initiatives, however. A statutory ceiling on borrowers' debt servicing expenditure should be introduced in Finland, and completion of the EU's banking union should be expedited.

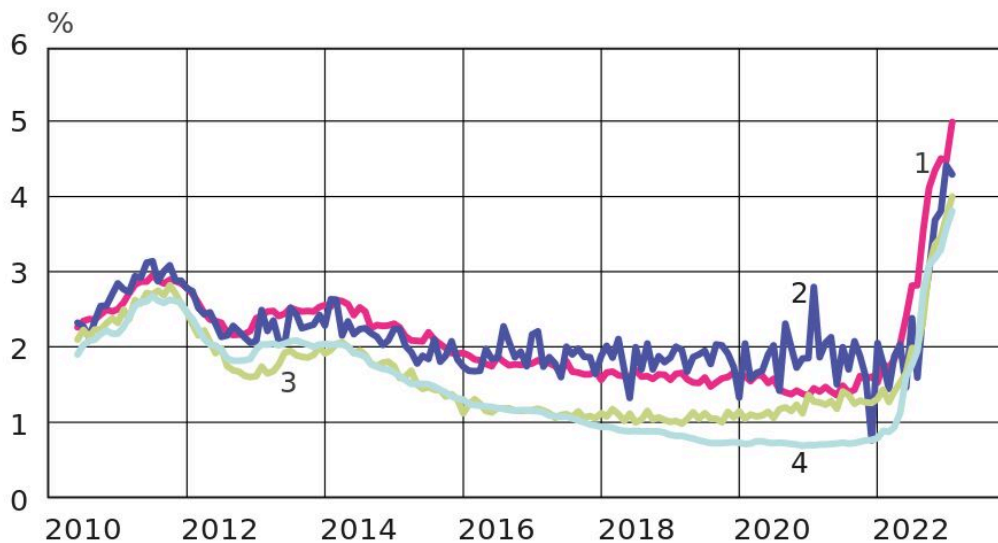
Steep rise in interest rates reveals risks taken during period of low rates

Over just a short period, the surge in inflation and the steep rise in interest rates have transformed the environment for existing and prospective borrowers, banks and economic policy in Europe and

the United States. Central banks have rapidly raised their key interest rates in order to curb the high inflation caused by the COVID-19 pandemic and Russia's war in Ukraine.

Market rates in the euro area have jumped from around zero to several per cent in just one year. Rising market rates have rapidly passed through to interest rates on both new and existing loans to households and businesses (Chart 1). Finland is one of the countries where the pass through has been rapid, partly due to the common use of short-term market rates as reference rates for bank loans.

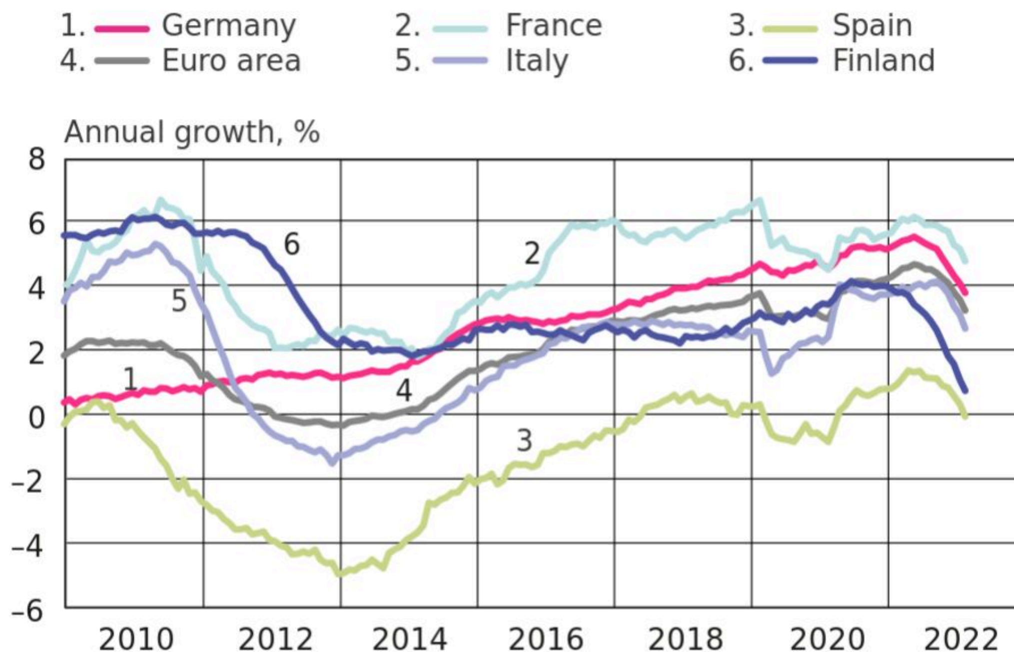
Chart 1.



Rising interest rates have caused a downturn in the financial cycle in Europe. A long period of

rising real estate prices is coming to an end in many countries, and the growth rates in lending to businesses and households are slowing down (Chart 2). In Finland, loans taken out by households have decreased particularly sharply. Vulnerabilities that may have developed during the upturn in the financial cycle – such as overvaluation of property prices or an oversupply of new-build construction – can potentially cause serious disruptions in the financial system during a financial downturn.

Chart 2.



The rapid rise in interest rates has increased the risks to the international financial system (see related article (in Finnish)). The broadly based fall in prices has led to valuation losses on the securities markets and a reduced risk appetite. The increase in financing costs has decreased borrowing among households and businesses. This has also been reflected in the size of mortgages

and property prices, which have begun to fall. Rising interest rates and higher construction costs weaken the profitability of residential construction, which reduces construction activity and housing supply.

Higher interest rates pass through more quickly to banks' lending rates than to their deposit rates. This strengthens banks' net interest income and improves their profitability in the short term. At the same time, however, banks pay a higher price for their market funding. In the longer term, high interest rates can increase the credit risks of banks. Higher financing costs may cause payment difficulties for borrowers, and this could increase banks' non-performing assets and credit losses. The growth in net interest income may also slow down over time if banks have to attract deposits by offering higher deposit rates.

The rise in interest rates and the tightening of financial conditions have an impact on borrowers, investors and financial sector entities, and ultimately on financial stability. A more normal interest rate environment promotes financial stability as it curbs the growth of vulnerabilities stemming from indebtedness and risk-taking. Rapid changes in interest rates also increase the risks associated with financial intermediation and may reveal excessive risks taken and vulnerabilities built up during low interest rates. The sudden collapse of Silicon Valley Bank and several other US banks in March 2023 serves as an example of this.

Economic growth is expected to remain subdued both globally and in the euro area, and there is considered to be a high risk of weaker than expected growth. Increased geopolitical tensions, slowing globalisation and protectionist policies are curbing world trade. According to the Bank of Finland's interim forecast, the Finnish economy will see a shallow recession this year and slow growth in 2024 (see the article 'Finnish economy in hibernation' in the Bank of Finland Bulletin). Inflation is high this year but will slow and then fall below the 2% mark next year. Slower growth in the cost of living and a reasonably high level of employment will support households' ability to service their loans and financial stability in general.

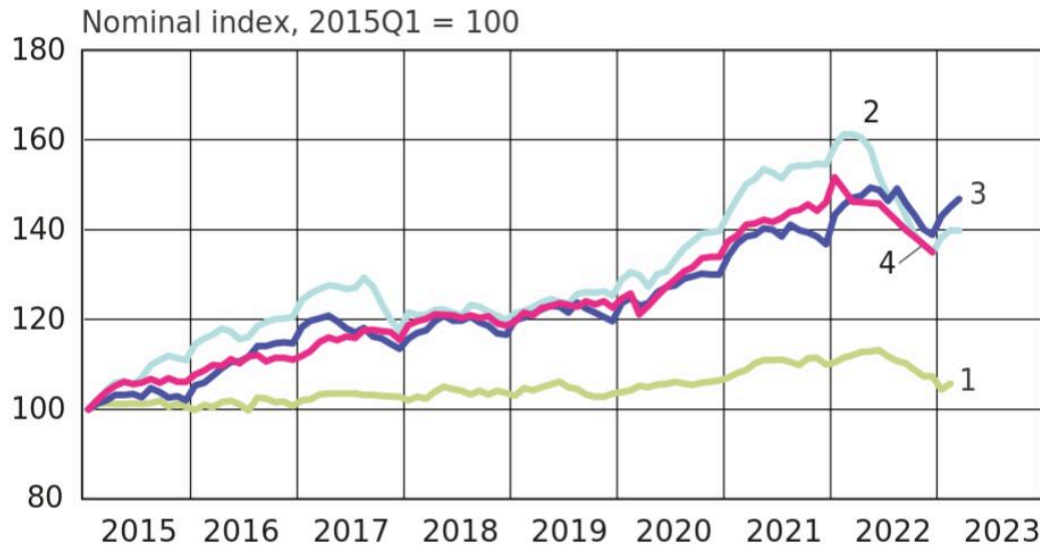
Housing market slowing down and prices falling

Residential property prices began to fall in Finland and the other Nordic countries during 2022 (Chart 3). In Finland, prices have fallen by around 7.5% from the peak of 2022. A comparison of the Nordic countries shows that the fall has been steepest in Sweden, where housing prices had increased particularly strongly during the pandemic.[1]

Chart 3.

Residential property prices have begun to fall in all Nordic countries

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



Finland: existing dwellings in housing companies. Sweden, Denmark an
Norway: all dwellings. Danish quarterly data became available in 2021.
Sources: Statistics Finland, Valueguard, Statistics Denmark, Eiendom N
Macrobond and calculations by the Bank of Finland.

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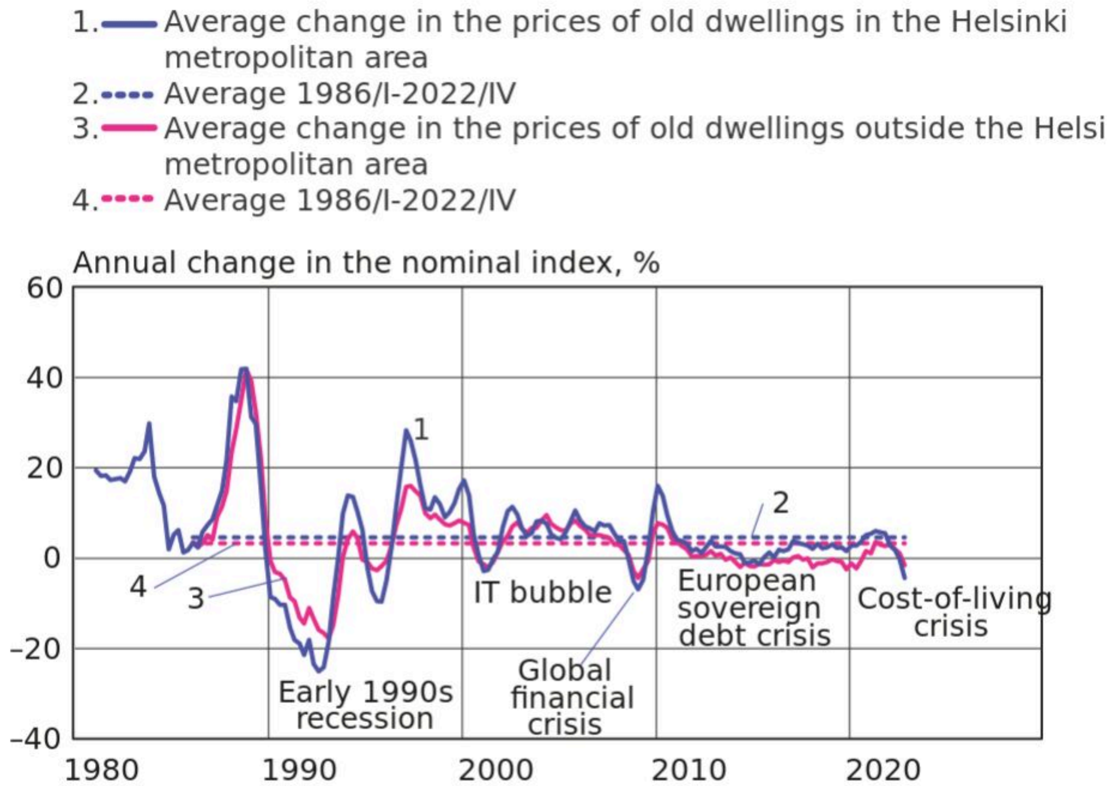
The turnaround in the Finnish housing market in mid-2022 was slightly more marked in the Helsinki metropolitan area and other major cities than elsewhere in the country (Chart 4). In economic disruptions, housing prices commonly decline more in locations where they had earlier increased the most. On average, housing prices tend to be higher and mortgage loans larger in the major cities than in other parts of Finland.[2] The impact of higher interest rates on housing demand and on households' and investors' willingness to borrow is therefore greater in the major cities.

Chart 4.



Uncertainty concerning the future level of interest rates makes it difficult to estimate loan servicing costs, which increases caution among households with house purchasing intentions. The demand for housing has fallen rapidly, but the supply remains ample. There were more properties for sale in March 2023 than a year earlier.[3] New-builds are still being completed in large numbers, but construction is gradually declining. The number of new building permits issued and new construction starts decreased during 2022 and in early 2023.

Volatility in the housing market amplifies the upturns and downturns in the economy as a whole, as investment in residential property construction varies more than total GDP. The strong cyclical

fluctuations in construction affect the turnover and profitability of construction companies and employment in the construction industry. Housing accounts for a significant proportion of households' total wealth. Falling property prices reduce households' wealth, especially mortgage borrowers' wealth relative to their debts. This may reduce indebted households' opportunities and willingness to move to another property, to take on new loans or to make purchases.[4]

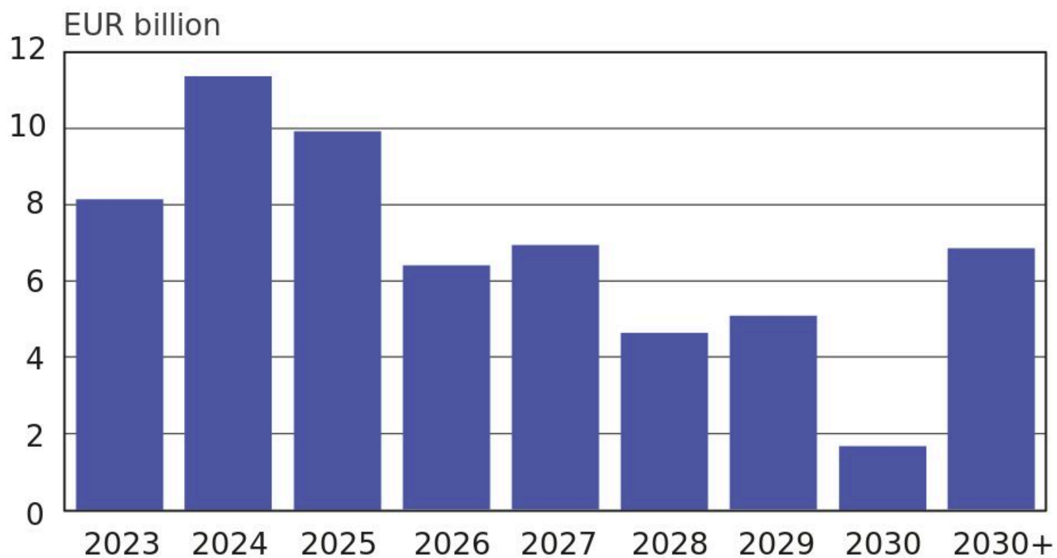
Outlook weakened in real estate investment market

The deteriorating operating environment has added uncertainty regarding the profitability, financing and valuation of real estate investments. Property occupancy rates fell during the pandemic years. The recent substantial rise in the costs of property maintenance and construction has increased the risks affecting real estate investors. At the same time, other structural changes in society, such as increased online shopping and remote working, also reduce the need for office space and business premises.

As in other countries, the outlook for real estate investment has weakened in Finland. According to KTI Property Information Ltd, Finnish investment properties lost an average of 3.4% of their market value in 2022. The biggest cause of this was that rising interest rates increased the return requirements on investment property. The number of real estate transactions made in January–March 2023 decreased by around 80% from the same period the previous year. The fall in housing prices will have an impact on the assets and the profitability of many real estate investment corporations, as residential properties are key investments for professional investors.

The downturn in the real estate sector has also been reflected quite strongly in the Nordic securities markets. Some real estate investment corporations' share and bond prices have fallen sharply, especially in Sweden. On average, Swedish real estate investment corporations have quite a high debt ratio, and many of them depend on market funding in addition to traditional bank financing. Swedish real estate investment corporations' risk premia have increased sharply compared to Swedish government bonds since Sveriges Riksbank started raising interest rates, which triggered investors' concerns about the consequences of increased costs in the real estate sector. Swedish real estate corporations' market funding will mature fairly evenly over the coming years, with the largest proportion of euro-denominated funding due for repayment in 2024 (Chart 5).

Chart 5.



The real estate market plays an essential role in financial stability, as commercial property financing accounts for a large share of banks' lending stock. In many countries, risks appear to be concentrated in small and medium-sized banks that specialise in real estate financing. Real estate financing also accounts for a major share of lending in many Nordic banks (see related article (in Finnish)).

So far, the volume of credit losses and non-performing loans in the real estate sector has remained low. At the end of 2022, non-performing loans to the real estate sector accounted for 1.8% of European banks' lending stock. In Nordic banks, the corresponding share was 0.1%–1.0%. The importance of banks as lenders to real estate corporations will increase, as corporations may have difficulties refinancing their bond-based market funding if investors continue to be cautious towards the sector.

Rising interest rates and higher living costs are testing households' resilience to risks

The interest rates on household loans have risen sharply since spring 2022. In February 2023, the average interest rate on new housing loans was 3.8%, compared with 0.9% a year earlier, and the average interest rate on the housing loan stock was 2.4%. The average interest rate on the housing loan stock will rise further this year in line with updates to loan reference rates. Almost the entire loan stock is tied to Euribor rates with a maturity of 12 months or less, which means the loan interest rates are updated at least once a year.

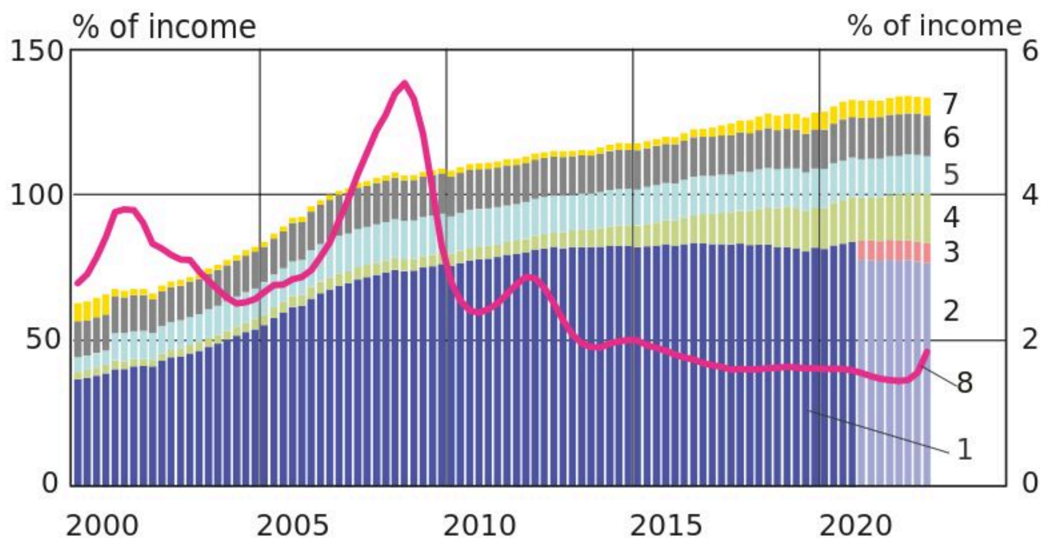
In the latter half of 2022, households took fewer new housing loans with interest rate hedging than in the first half of the year or in 2021 (see the article 'Strong rise in interest rates puts strain on mortgage borrowers'). The share of fixed rate mortgages remained very small. Interest rate hedges, such as interest rate collars or caps, are more common in annuity loans and first-home loans than in other loans. In June 2022, approximately 25% of the stock of Finnish housing loans was hedged against rising interest rates. New mortgage borrowers with the highest debt levels have used interest hedging less than mortgage borrowers with smaller debts.

Household indebtedness in relation to income is higher than ever before, amid fast rising interest rates. Household indebtedness decreased slightly in the latter half of 2022 but is still at a historically high level (Chart 6). The stock of housing loans has contracted a little since autumn 2022, and in February 2023 the loan stock grew at an annual rate of just 0.6%.

Chart 6.

Household indebtedness fallen slightly but still historically high

1. Housing loans (until 2020Q4)
2. Owner-occupied housing loans (until 2021Q1–)
3. Investment property loans (2021Q1–)
4. Loans via housing companies
5. Consumer credit from credit institutions in Finland
6. Other loans from credit institutions in Finland
7. Other loans from Finland and abroad
8. Total interest expenses (right-hand scale)



Finnish households' debts and interest expenses as a ratio of disposable income.
Sources: Statistics Finland and Bank of Finland.

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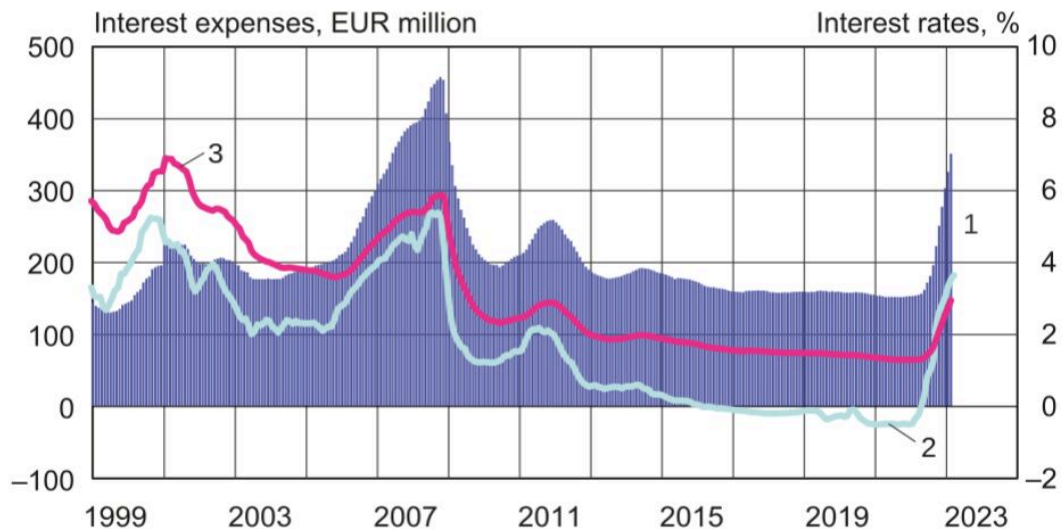
Given the higher levels of indebtedness, the rise in interest rates is pushing up households' interest expenses – both monthly costs and those for the entire loan term – compared with periods when mortgages were significantly smaller and had a shorter maturity (Chart 7). The rise in interest rates and in prices also affects the capital and maintenance charges for housing company loans paid by homeowners. Not all these impacts are visible yet, as cost rises involve time lags.

Chart 7.

Interest expenses growing rapidly as lending rates rise

1. Households'average interest expenses
2. 12-month Euribor
3. Average interest rate on the stock of household loans



Interest expenses are calculated on the basis of households' stock of loans and the average interest rate on the loan stock. The loan stock includes household loans from credit institutions (excl. housing company loans).

Sources: Bank of Finland and Refinitiv.

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Higher interest rates are driving up expenditure by mortgage-indebted households and reducing their financial margin, especially where housing loans are large relative to income. Many indebted households also hold significant wealth, however. Livelihood problems and financial distress are more common among low-income households, which usually do not have a housing loan (see related analysis article on the Bank of Finland's Euro & talous website and a Ministry of Finance report; both in Finnish).

If the recession is mild and short-lived as suggested by forecasts, households' ability to service their debts is not expected to be at risk on a broad scale. The employment situation will remain favourable, providing support to loan servicing. So far, there have been no alarming signs of an

increase in debt servicing difficulties. The statistics are not pointing to unusually high levels of loan renegotiations. The proportion of non-performing mortgages and housing corporation loans[5] has remained small. Banks' credit and impairment losses on unsecured consumer credit have grown slightly since spring 2022.

Large housing company loans for new-build construction and the high proportion of variable rate loans have fuelled the risks to households from housing company loans. So far, there have been no clear signs of the realisation of credit risks (see the article 'Risks associated with housing company loans are increasing – Regulatory reforms will restrict use of housing company loans in the future'). The risks may grow and materialise after a time lag, however, as interest rates and housing property maintenance and repair costs increase. In addition, for some housing companies the ending of long interest-only periods will come at the same time as the reset date of the loan reference rate.

The rising loan servicing costs and increase in essential consumption spending are weakening the ability of households to maintain their previous spending levels and accumulate savings. Households' deposits decreased in January–February 2023. The household savings rate fell below zero in 2022, which means that household spending exceeded income. Some highly indebted households, in particular, may have to markedly reduce spending if the disruptions in the economy drag on and intensify.

If private consumption decreases substantially, this would have significant consequences for the real economy (Chart 8). The recession would be deeper than forecast and the recovery would be slower.[6] If sales of products and services decrease significantly, the capacity of companies to invest and employ workers would deteriorate. If companies' liquidity problems and bankruptcies increase, there would be a substantial increase in banks' credit losses on loans to businesses and households. Such a situation could weaken the ability of banks to grant loans and thereby support sustainable economic growth.

Chart 8.

Broad-based increase in corporate credit risks

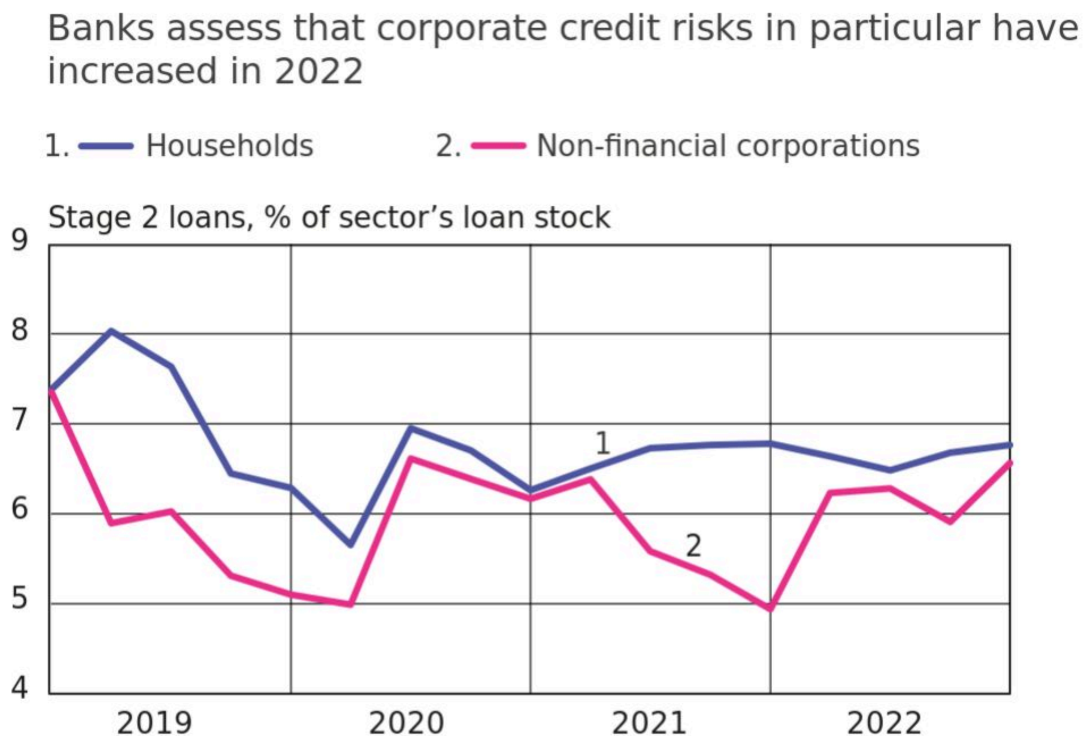
Several successive crises and rapid changes in the operating environment have tested the resilience of businesses. The financial buffers of smaller businesses, in particular, were already depleted during the COVID-19 crisis. Since last year, Russia's war in Ukraine and the energy crisis have weakened the capacity of many companies to operate. Fast-rising inflation has also been eroding the profitability of those businesses that cannot fully pass higher costs on to the prices of their final products. The critical question for businesses is how much households cut back on their spending because of the strain caused by rising interest rates and living costs.

Corporate financing costs follow movements in market interest rates and increase rapidly as rates rise. Banks and investors have reacted to the weakened business outlook, which, in addition to the upward trend in interest rates, is further tightening corporate financing conditions. Banks have been tightening their credit standards since the first quarter of 2022.[7] In the case of large enterprises, weaker investor demand in the debt securities market also contributes to tightening financing conditions.

The weaker operating environment has led to a broad-based increase in the corporate sector's credit risks. The proportion of bank loans with a significant increase in credit risk (Stage 2 loans) has grown over the past year (Chart 9). Banks' corporate credit risks have increased in almost all

industries and in all company size categories. So far, the higher credit risks have not resulted in credit losses. The share of Finnish banks' non-performing corporate loans has decreased over the past year. If the economy develops as forecast, the corporate sector's debt servicing capacity is not expected to deteriorate to an extent that would threaten the stability of the Finnish financial system.

Chart 9.



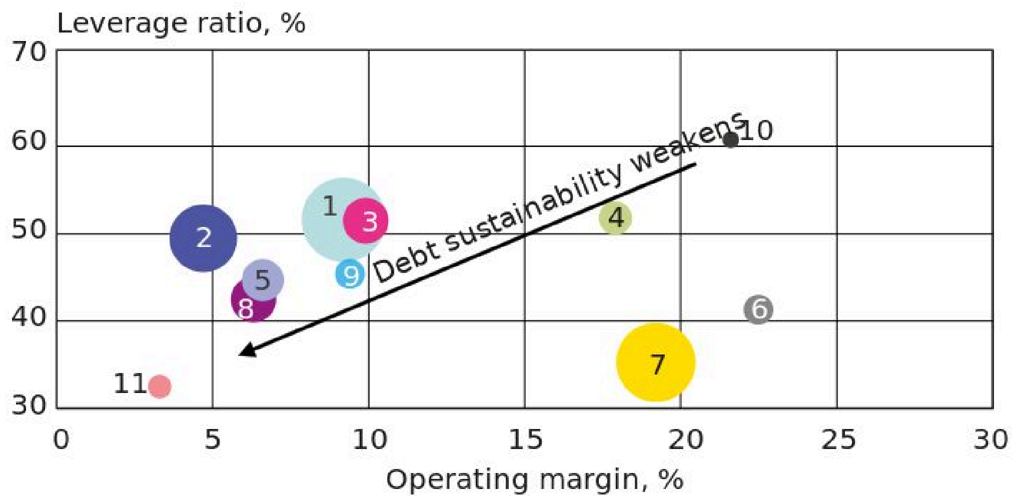
The ability of businesses to withstand higher interest rates and other challenges in the operating environment varies across industries (Chart 10). Profitability is weak and leverage ratios are low especially in accommodation and food service activities, which were hit badly by the pandemic, and in the construction sector, which is vulnerable to the dampening of the housing market. According to Suomen Asiakastieto Oy, Finnish bankruptcies increased in January–March 2023 by 30% year on year. This was the highest level in 15 years, which is the entire period for which

comparable data are available. The number of bankruptcies was particularly high in the most vulnerable industries.

Chart 10.

The most vulnerable industries in terms of debt sustainabil
account for a small share of domestic corporate credit stoc

1. Manufacturing
2. Trade
3. Professional, scientific and technical activities
4. Information and communication
5. Transportation and storage
6. Water supply and waste management
7. Energy
8. Construction
9. Administrative and support service activities
10. Mining and quarrying
11. Accommodation and food service activities



The x-axis describes the operating margin of the industry, and the y-axis leverage ratio. The size of the circle describes the industry's share of the of credit to domestic non-financial corporations in February 2023. The fir statements data are from 2021.
Sources: Statistics Finland and Bank of Finland.

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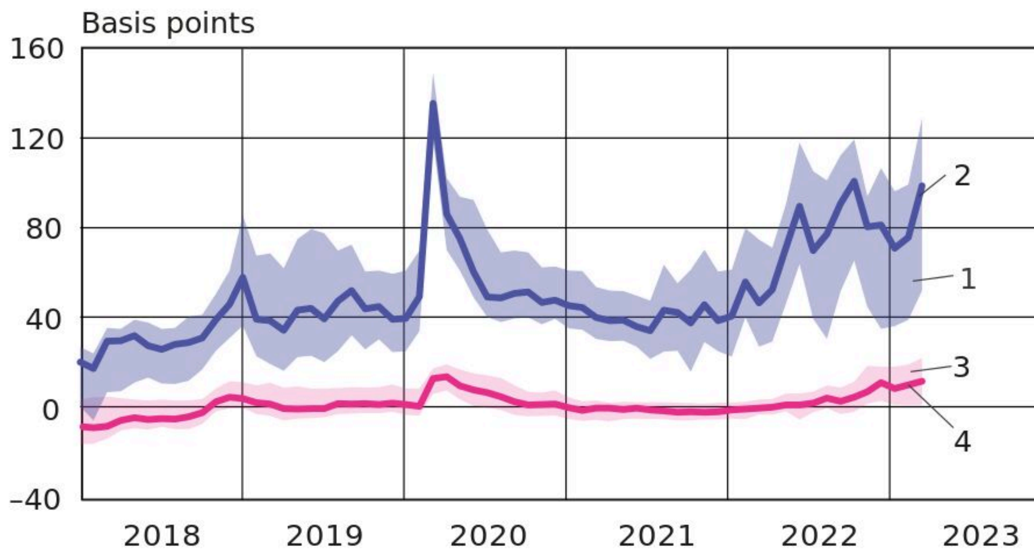
Volatile market situation weighs on banks’ funding outlook

The cost of market funding for banks has increased rapidly over the past year, in step with market interest rates. Financial market uncertainty has also increased and banks’ credit risk premia have risen slightly and have fluctuated more widely than before (Chart 11). There is also greater dispersion in credit risk pricing between banks, especially in the case of unsecured bonds.

The near-term outlook for bank funding has deteriorated. Higher interest rates are generating pressure for banks to raise deposit rates. Maturing TLTRO[8] loans, MREL requirements and the discontinuation of the ECB’s covered bond purchase programmes are fuelling the need for Europe’s banks to acquire more funds in the financial markets, which will intensify competition in the deposit and debt securities markets.

Chart 11.



Domestic banks' dependence on market funding elevates their funding risks in a volatile market situation (see 'Pankkien varainhankinnan hallinta korostuu rahoitusolojen kiristyessä' (in Finnish)). The good reputation of Finnish banks is based on solid capital positions and high-quality assets, which has ensured their access to international financial markets even in times of market disruptions.

In its Financial Sector Assessment Program (FSAP) for Finland, the International Monetary Fund (IMF) drew attention to the high reliance of banks on market funding (see related blog post on the Bank of Finland's Euro & talous website, in Finnish). The price and availability of market funding typically react to shocks in the real economy and financial markets faster than retail deposits,

which are regarded as a more stable form of funding. Severe market disruptions could have a significant negative impact on the price and availability of market funding, which could result in a deterioration of banks' liquidity positions and lending capacity.

Crisis resilience of government and banks helps safeguard financial stability

The Finnish financial system incorporates significant structural vulnerabilities. These include the strong focus on housing and real estate loans in credit institutions' lending; the interconnectedness with foreign banking and financial systems; the large role of banks in financial intermediation; and high household indebtedness. These vulnerabilities may amplify crises or other disruptions in the banking sector.

The presence of such structural vulnerabilities means it is important that in the event of disruptions in the economy the banking sector's capital position is solid. The Board of the Financial Supervisory Authority imposed, in March 2023, a requirement on Finnish credit institutions to maintain a systemic risk buffer (SyRB) amounting to 1.0%. This was an important and well-founded decision. When setting the SyRB requirement, the FIN-FSA Board took into consideration not only the structural risks and vulnerabilities of credit institutions, but also the joint Bank of Finland/FIN-FSA stress test calculations estimating the resilience of the banking sector in exceptionally severe crisis situations affecting the Finnish economy and banking system.[9]

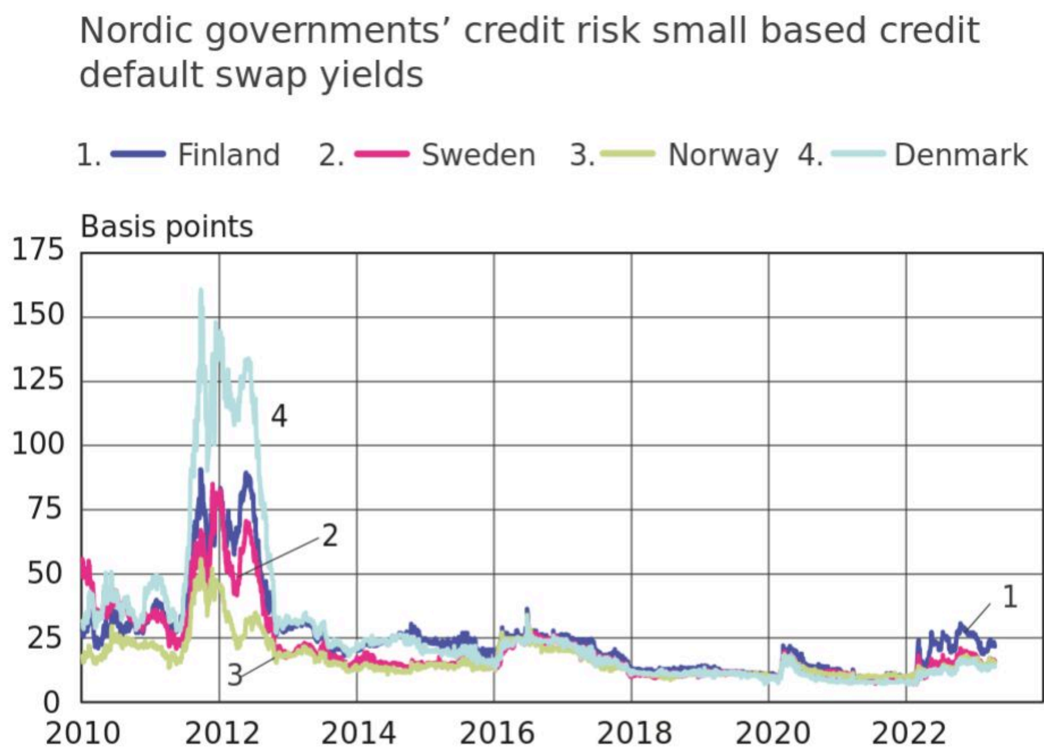
In December 2022, the Bank of Finland published an Assessment of Public Finances, according to which the forecast trajectory of Finland's public debt ratio is both divergent and concerning in comparison to euro area peer countries. Finland's debt-to-GDP ratio has grown almost continuously since the global financial crisis, and this upward trend is forecast to continue unless a correction is made to the trajectory of the public finances. A robust level of public debt sustainability and strong public finances are also important for financial stability.

The price at which domestic companies and banks obtain market funding is usually based on the prevailing yield on government bonds. Changes in the risk level of a country's government debt will have an impact on the banking sector, and a decline in a country's credit rating will typically cause a downgrade in banks' credit ratings. A robust level of debt sustainability is an essential condition for financial stability, especially for a country like Finland whose banking sector is concentrated, interconnected and comparatively large in relation to the national economy, and relies on funding which is strongly based on refinancing from the international financial markets.

Finland has paid low credit risk premia on its sovereign debt. Risk premia can be measured on the

basis of the yields on sovereign credit default swaps (CDSs) or by comparing sovereign bond yields against the equivalent yields for countries with lower credit risk. The risk premia on Finnish government debt have risen slightly in the past year compared to the other Nordic countries (Chart 12). The credit rating agencies Fitch Ratings and S&P Global Ratings have assigned Finland's long-term government debt the second highest rating, with a stable outlook. It is important that Finland actively seeks to maintain its status as a country with low credit risk by conducting credible fiscal policies with a persistent, long-term approach.

Chart 12.



Use of capital buffer requirements in macroprudential toolkit should be more flexible

The risk-bearing capacity of banks can be improved by introducing a systemic risk buffer (SyRB) requirement and other discretionary capital buffer requirements impacting the size and composition of credit institutions' capital buffers. An important question is how these requirements should be adjusted in a crisis or other serious disruption, and how they can be adjusted (See the article 'Capital buffer requirements in the macroprudential toolkit are supporting the risk-bearing capacity of banks').

The Board of the FIN-FSA may, if necessary, support banks' lending capacity by lowering the capital requirements, for example in a situation where a severe disruption in the economy is causing losses to banks or otherwise weakening their capital position. In the event of a disruption, banks could, in the worst case, even reduce lending to improve their capital ratios.

In such a situation, it might be justified to lower credit institutions' capital requirements temporarily in order to break a downward spiral in the economy. The easing could be done primarily by lowering the countercyclical capital buffer (CCyB) requirement – a tool for preventing cyclical risks to the financial system – for credit institutions.

Many EU countries apply more flexible criteria than Finland for setting the CCyB rate. This enables the countries to prepare better for unexpected developments in the economy or the financial markets. The conditions for setting a CCyB requirement should therefore be augmented in Finnish legislation. (See the article 'How can Finland's use of the countercyclical capital buffer requirement be further developed?')

Cap on debt service-to-income (DSTI) ratio would improve households' debt sustainability

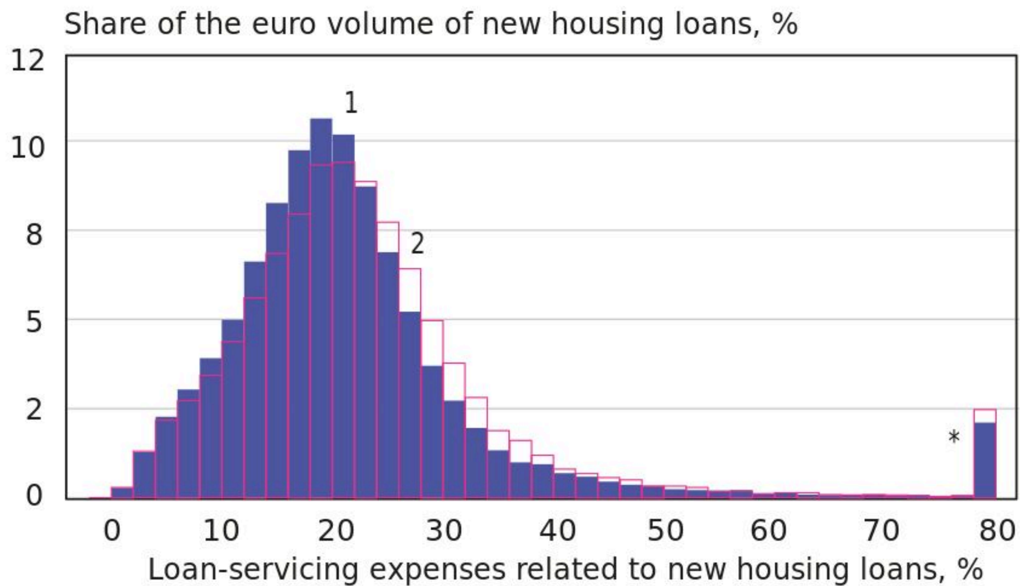
The loan-servicing costs of new housing loans taken out by households increased in 2022 from the previous year, despite the decrease in the size of loans relative to income (Chart 13). A working group appointed by the Ministry of Finance assessed in spring 2023 the risks related to household indebtedness in an environment of rising interest rates. The working group's recommendation for a binding cap on the debt service-to-income (DSTI) ratio is particularly important for financial system stability. The requirement would impose an upper limit on how much of a household's income could be taken up by debt servicing costs. The calculation of debt servicing costs would be based on a higher interest rate than the rate prevailing at the time the loan is taken out, and a separately specified maximum maturity for loans.

The cap on the DSTI ratio would be an important tool for preventing problems caused by high household indebtedness and for improving households' debt-servicing ability in an environment of rising interest rates or rising costs of living. The DSTI cap would have the same effects as the earlier proposed cap on the debt-to-income (DTI) ratio, i.e. the debt cap. The calculation of the cap on debt-servicing costs could take into account, in more detail than the debt cap, the differences in interest rates between the various types of debt, for example.

Chart 13.

Households' debt-servicing burden has grown with the rise in interest rates

1. Year 2021
2. Year 2022



* Outliers of the right-hand tail have been added to the haircut value 8
The chart describes the distribution of housing loans based on borrowe
loan-servicing burden (annual servicing expenses of new housing loans
relative to net income).
Sources: Financial Supervisory Authority and calculations by the Bank of Finland.

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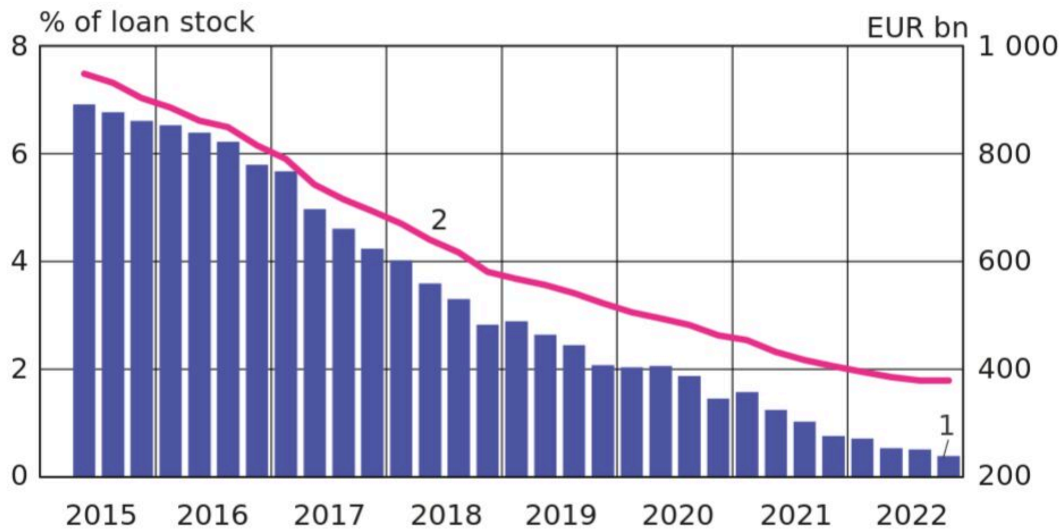
Completion of the banking union is important

The European banking union is made up of the Single Supervisory Mechanism (SSM) and the Single Resolution Mechanism (SRM) for banks. The third pillar of the banking union, a common European deposit insurance scheme (EDIS), is still absent. A common deposit insurance would increase public confidence in the banking system, prevent deposit runs and reduce harmful links between banks and their home countries. Completion of the banking union should be promoted in a determined manner.

Progress with a common European deposit insurance scheme has had to wait for legislative reforms on bank resolution and depositor protection. The development of common deposit insurance has also been slowed by demands to reduce the risks in the European banking sector. The non-performing exposures that have burdened banks' balance sheets since the global financial crisis and the euro area sovereign debt crisis have decreased significantly in recent years. In less than ten years, the amount of non-performing exposures in the balance sheets of large European banks has decreased from nearly EUR 1 trillion to some EUR 350 billion, which is only about 2% of the banks' total stock of loans (Chart 14).

Chart 14.



Occasional crises should not prevent the promotion and completion of regulatory initiatives

The implementation of Basel III reforms on bank capital requirements in the EU is entering the final phase. The final package of reforms to be implemented in EU legislation may well differ significantly from the initial recommendations by the Basel Committee on Banking Supervision. Bank capital regulation in the EU will therefore be less tight, in some respects, than international regulations.

The initial objective of improving the comparability of banks' capital ratios and promoting a level playing field internationally is not about to be achieved. The new rules will nevertheless improve

the transparency of banks' risks and reduce unjustifiably large differences in the risk weights of assets of banks applying the internal ratings based approach and in the risk-weighted capital requirements of these banks.

The capital markets union being prepared in the European Union would help investors diversify risks and, for example, finance green investments. Although the capital markets union has made slow progress, recently it has moved ahead is several areas. Positive progress has been achieved in the regulations on, for example, securities clearing services, the harmonisation of corporate bankruptcy legislation, streamlining the listing process for SMEs[10], and European long-term investment funds (ELTIF).[11]

Other European regulatory initiatives promoting financial stability include revisions to the scope for national macroprudential authorities to set capital buffer requirements for credit institutions (revision of the macroprudential framework), and creating legislation on markets in crypto assets.

In recent years, new EU regulations have been developed to help authorities and the financial industry to prepare for cyber-attacks on financial firms and financial market infrastructure and other severe operational disruptions (see 'Financial sector contingency planning will help ensure continued functioning of society in all circumstances'). In 2022, Finnish authorities created a backup system to ensure daily payments can still be made if bank customers cannot access their accounts due to a serious disruption or emergency in the country.

Russia's war in Ukraine speeded up the green transition by forcing countries to decouple from Russian fossil fuels and move to renewable energy sources. Financial sector entities will have to carefully assess their customers' business if it is strongly focused on non-renewable energy sources.

The Bank of Finland is a member of the Network for Greening the Financial System (NGFS), a global forum formed by central banks and financial supervisors, which works actively for the identification of climate change-related transition risks and physical risks[12] and the development of climate scenarios used in risk assessment. The European Commission adopted in 2022 a Complementary Climate Delegated Act on the definition of sustainable business activities[13], and the ECB has published climate-related statistical indicators[14]. Development of the macroprudential toolkit in relation to climate risks must also be assessed in the future.

Footnotes

1. Residential property prices are expected to continue declining in 2023. In their reviews

made early in the year, banks operating in Finland predicted that housing prices will fall by around 5%–7% in the Helsinki metropolitan area and by slightly less across the whole country, on average. Sveriges Riksbank has forecast that Swedish housing prices will fall by around 20% from the 2022 peak (Monetary Policy Report February 2023). ↑

2. See Bank of Finland blog post (in Finnish). ↑
3. See Housing prices and the housing market – Etuovi.com (in Finnish) (retrieved: 3 April 2023). ↑
4. The decline in residential property prices will reduce the net wealth of mortgage borrowers in particular, i.e. the difference between their assets and liabilities, or, in simpler terms, the difference between the current market value of their home and the outstanding amount of their mortgage. ↑
5. Housing corporations include all corporation forms of housing units: housing companies, housing cooperatives, residential real estate companies, right of occupancy associations and other housing corporations, as well as companies engaged in renting, ownership and management of housing (excluding management of real estate on a fee or contract basis). ↑
6. See Household consumption could be hard hit in the energy crisis – Bank of Finland Bulletin. See also Kärkkäinen, S. and Silvo, A. (2023), Household debt, liquidity constraints and the interest rate elasticity of private consumption, BoF Economics Review 2/2023. ↑
7. See 'Bank lending survey – Results for Finland Q4/2022' (suomenpankki.fi) (in Finnish). ↑
8. Targeted longer-term refinancing operations (TLTROs) are operations in which the ECB provides longer-term financing to banks to stimulate lending to households and businesses. The minimum requirement for own funds and eligible liabilities (MREL) aims to ensure that banks hold an adequate amount of own funds and liabilities which can be used in the event of a bank resolution to cover the bank's losses and recapitalisation capacity. ↑
9. The calculations made using the joint Bank of Finland/FIN-FSA stress test framework are available in the appendix to the FIN-FSA Board's macroprudential decision of 29 March 2023. ↑
10. See Capital Markets Union: new proposals on clearing, corporate insolvency and company listing to make EU capital markets more attractive (europa.eu). ↑
11. See Capital markets union: Council adopts revised framework for European long-term investment funds - Consilium (europa.eu). ↑
12. Transition risk refers to risks that lead to a loss of business profitability or the failure of a business in transitioning towards a low-carbon economy. Physical risk refers to direct financial losses from climate change that are incurred by e.g. non-life insurance

companies that have to compensate policyholders for the damage caused by climate change. ↑

13. EU Taxonomy: Complementary Climate Delegated Act (europa.eu). ↑
14. ECB publishes new climate-related statistical indicators to narrow climate data gap (europa.eu). ↑

Key words

financial stability, housing markets, liquidity risk, macroprudential toolkit, systemic risks