Decision of the Board of the Financial Supervisory Authority on the application of macroprudential instruments

At its meeting on 29 March 2023, the Board of the Financial Supervisory Authority (FIN-FSA) decided that the countercyclical capital buffer (CCyB) requirement, as referred to in chapter 10, section 4 of the Act on Credit Institutions (610/2014), will remain at 0.0% and that the period of validity of the decision on a lower maximum loan-to-collateral (LTC) ratio, taken on 28 June 2021 pursuant to chapter 15, section 11 of the Act on Credit Institutions, will be extended. With the June decision, the maximum LTC ratio for new residential mortgage loans other than first-home loans was lowered by 5 percentage points, to 85%.

Pursuant to chapter 10, sections 4a and 4b of the Act on Credit Institutions, the FIN-FSA Board also decided to impose a requirement to maintain a systemic risk buffer (SyRB) covered by Common Equity Tier 1 (CET1) capital and amounting to 1.0% on Aktia Bank plc, Danske Mortgage Bank Plc, Fellow Bank Plc, Municipality Finance Plc, Nordea Bank Abp, Oma Savings Bank Plc, OP Cooperative, POP Bank Centre coop, S-bank Plc, Mortgage Society of Finland, Savings Banks' Union Coop and Bank of Åland Plc). The buffer requirement will apply at the Finnish banks' highest consolidation level. The decision is effective as of 1 April 2024.

The FIN-FSA Board will discuss the recognition of the SyRB requirement adopted on 16 December 2022 by the macropudential authority of Norway (Finansdepartementet), to be applied to Finnish credit institutions, after the European Systemic Risk Board (ESRB) has published an updated recommendation on the reciprocation of the requirement. In accordance with section 34 of the Administrative Procedure Act, credit institutions subject to the requirement are provided an opportunity to express their opinion on the planned decision.

Justification for the decision

Countercyclical capital buffer requirement

Global economic conditions have weakened further over the autumn and winter. High inflation, tighter financing conditions and the unusually low level of confidence and increased uncertainty among businesses and consumers are weighing on the global economic outlook. Russia's war in Ukraine and its impacts on the energy market are depressing economic growth, especially in Europe. According to the March 2023 staff macroeconomic projections of the European Central Bank (ECB), euro area GDP will grow by 1.0% in 2023. At the same time, euro area HICP inflation is projected to persist at high levels.

The impacts of the war and the energy crisis are also reflected in Finland. The Finnish economy contracted slightly in the third quarter of 2022. The Bank of Finland's March 2023 interim forecast foresees a

GDP contraction of 0.2% for 2023. The recession is expected to remain short-lived, however, and the economy will grow again in 2024 and 2025. High energy prices will continue to exert upward pressure on prices in 2023. At the same time, however, higher interest rates and waning aggregate demand will begin to rein in price inflation. From 2024 onwards, inflation is expected to moderate to just under 2%.

Available indicators suggest that the risk of overheating in the Finnish financial system is low. The primary risk indicator for setting the countercyclical capital buffer (CCyB) requirement – the credit-to-GDP gap – is still strongly negative. The sharp decline in the primary risk indicator largely stems from high inflation, which has pushed up nominal GDP.

The majority of the supplementary risk indicators are not signaling an overheating in the credit cycle, either. Private sector credit has continued to grow at a moderate pace as a whole, despite the brisk growth of lending to non-financial corporations in the latter half of 2022. Corporate lending growth was primarily attributable to higher collateral requirements in energy derivatives markets, which boosted the short-term liquidity needs of firms using energy derivatives.

Indicators of the external balance of the economy are the only ones pointing to increased risks. The current account deficit has risen to the highest level recorded since the recession of the early 1990s. This is due e.g. to growth in import volumes and higher energy prices. The Bank of Finland foresees the current account turning to a slight surplus in 2024, bolstered by stronger exports. On the basis of an overall assessment of the risk indicators, there are no grounds for the application of the CCyB requirement.

Maximum loan-to-collateral ratio

Households' historically high mortgage and total debt levels in relation to disposable income have long been identified as one of the key structural vulnerabilities in the Finnish financial system. The maximum loan-to-collateral (LTC) ratio was tightened in 2018 to mitigate the systemic risk related to households' high and rising debt levels. During the pandemic in 2020, the maximum LTC ratio was restored to its statutory standard level. The decision sought to counter the pandemic-induced cyclical risks jeopardising the proper functioning of the housing market. In 2021 the maximum LTC ratio was tightened again. The momentum in the housing and mortgage markets compared with developments elsewhere in the economy were conducive to increasing structural risks to an unprecedented extent in a situation where household debt-to-income ratios were record-high and were expected to rise further.

The housing market and the mortgage lending cycle have deteriorated substantially since spring 2022. The risks stemming from high indebtedness have already partly materialised and are materialising due to higher interest rates on new Euribor-linked and existing floating-rate loans. Interest-rate hedges, household savings and lenders' forbearance towards customers are helping mitigate an immediate threat to stability.

The recent slowdown in the housing and mortgage markets could support the restoration of the maximum LTC ratio to its statutory standard level. A smaller self-financing share could modestly stimulate home sales and purchases. This could in turn bolster financial intermediation and the functioning of the housing market.

The economic outlook has not changed substantially in the past quarter, however. Under the projected operating environment, the debt servicing capacity of households is expected to weaken but to largely remain good. Household debt levels have long been rising and could continue trending upwards in the next few years. If the recession is mild and short-lived and home buyers become less cautious, there may be a sharp release of the pent-up demand for housing that typically builds up in times of recessions and economic uncertainty.

As household debt-to-income ratios are very high and may rise further, it remains important to ensure, with the appropriate calibration of the maximum LTC ratio, that mortgage borrowers have sufficient financial buffers against higher loan service burdens and other living costs and lower collateral values. Uncertainties relating to the outlook for the economy and the housing market, in particular, should also be taken into account. Weaker-than-projected economic conditions may undermine ability of households to service their loans and maintain consumption. This would especially be felt by heavily indebted households, and would lead to a deterioration of economic and housing market conditions.

For these reasons, the FIN-FSA Board's decision of June 2021, effective in October, to set the maximum LTC ratio for new residential mortgage loans other than first home loans to 85% remains justified in terms of curbing the number of large housing loans in relation to collateral and ensuring the resilience of new borrowers. Therefore, the maximum LTC ratio for first home loans will be kept unchanged.

Systemic risk buffer requirement

Statutory basis for application – Under Article 133 of the Capital Requirements Directive (CRD), a Member State may introduce a systemic risk buffer (SyRB) in order to prevent and mitigate long term non-cyclical systemic or macroprudential risks not covered by the Capital Requirements Regulation (CRR) or other macroprudential instruments in the meaning of a risk of disruption in the financial system with the potential to have serious negative consequences to the financial system and the real economy in a specific Member State.

Under chapter 10, section 4b, subsection 2 of the Act on Credit Institutions, this additional capital requirement may be imposed if the risk arising from long-term, non-cyclical factors threatening the financial system or the macroeconomy call for higher capital buffers and this risk threatens or has the potential of threatening the smooth operation and stability of the financial system at the national level. In addition, the imposition of the requirement may only have a minimal negative impact on the operation of the financial systems in other countries, and the risks in question may not have already been covered by other additional capital requirements.

In imposing the additional capital (SyRB) requirement, the FIN-FSA shall take into account at least:

- the credit institutions sector's risk concentrations in lending, funding and other key banking activities;
- interconnectedness of domestic credit institutions in lending, payment transfers and other banking functions important to financial stability;
- interconnectedness of the credit institutions sector with foreign banking and financial systems, central counterparties and other financial market actors;
- interconnectedness of the credit institutions sector with risks to the financial systems of EU Member States and of other countries;
- size and concentration of the credit institutions sector as measured by the total assets of credit institutions, and concentration in lending and in acceptance of retail deposits;
- importance of the credit institutions sector in the intermediation of finance to the domestic private sector;
- indebtedness of credit institutions' largest customer groups;
- measures and facts mitigating the probability of severe disruptions in the financial system.[1]

FIN-FSA Board's previous decisions – In June 2022, the FIN-FSA Board adopted a decision on structural macroprudential capital buffers, as a result of which Nordea's and OP Financial Group's O-SII buffers were raised by 0.5 percentage points with effect from 1 January 2023. At that time, the Board decided to keep the SyRB rate at 0%. In the justification for the decision, the Board stated that stress tests and the research literature indicated that the level regarded as sufficient for the credit institutions sector's macroprudential capital buffers is, in times of average economic conditions, close to the pre-pandemic level or slightly above it. In addition, the Board stated that grounds existed for imposing both an O-SII and an SyRB requirement because of the divergent systemic risks and vulnerabilities covered by these buffers.

The June 2022 decision to keep the SyRB rate at 0% and to increase the O-SII buffers moderately was grounded on Russia's war in Ukraine and the pandemic, which were weighing on the economic outlook and

[1] In addition, a Ministry of Finance Decree supplementing the Act on Credit Institutions determines ten risk indicators for measuring the risk factors laid down in the Act.

fuelling uncertainty about the outlook and the functioning of the banking system. The FIN-FSA further stated that the level of the SyRB would be reviewed once the situation allowed and that the intention was to set the buffer rate to a level required by systemic risks and vulnerabilities as soon as possible.

In connection with the December 2022 macroprudential decision, the FIN-FSA Board announced that it was preparing to make a decision on imposing an SyRB requirement of no more than 1% in the first quarter of 2023 in order to strengthen the banking sector's risk resilience. In its decision, the Board stated that the structural systemic risks and vulnerabilities in the Finnish credit institutions sector justified the imposition of the SyRB and that the measure would not significantly weaken the banking sector's lending capacity, but would instead strengthen credit institutions' risk resilience. As a result of the pandemic-induced reduction in buffers in spring 2022, the total amount of the Finnish banking sector's macroprudential capital buffers was, on the basis of stress tests and other grounds guiding buffer imposition, below the level estimated as sufficient.

The FIN-FSA Board also added in December 2022 that, prior to its final decision, it would examine the fulfilment of the grounds for imposing the SyRB requirement, as well as the impact of the measure and projected economic conditions on the credit institutions sector and credit supply. Furthermore, the Board stated that the decision could be postponed if the measure was assessed to have a severe impact on the functioning of the credit markets in the short term.

Justification for imposition – The Finnish credit institutions sector is subject to many significant structural vulnerabilities which may lead to severe problems and crisis situations in the sector, thereby threatening the stability of the financial system as a whole. The risks posed by these threats require a sufficient level of capitalisation from the credit institutions sector, which constitutes a key criterion for setting the SyRB rate at above 0%. On the basis of the updated values of the risk indicators specified in the Ministry of Finance Decree and used in the quantitative assessment of the risk factors laid down in the Act on Credit Institutions, the Finnish credit institutions sector remains more vulnerable in terms of its structure than the credit institutions sectors of EU countries on average. The sector is structurally vulnerable especially because of its

- large size;
- cross-country interconnectedness;
- large risk concentrations relating to residential mortgage and real estate lending; and
- among its key customer groups, the high indebtedness of households in particular.

In addition, both in Finland and the peer countries, the credit institutions sector plays a major role in the supply of credit to the private sector. Out of the ten Finnish risk indicators, the values of six are above the median of the EU as a whole. The following table compares the values of each structural risk indicator with its respective EU median and its historical averages in Finland.

Table. Comparison of SyRB risk indicators with other EU countries and Finnish historical averages

Structural indicators – comparison of Finnish findings with the median for EU coutries and the average of Finnish findings

Indicator	Median of EU countries	Finnish historical averages
1. Housing loans granted to domestic households as a share of total loans granted by the credit institutions sector to the private sector	Higher	Not higher
2. Credit institution's claims on construction and real estate companies as a share of credit institutions' total assets	Higher	Not higher
3. Credit institutions' domestic government bond assets relative to credit institutions' total assets	Not higher	Not higher
4. Domestic MFIs' share of ownwership of bonds issued by domestic credit institutions	Not higher	Not higher
5. Credit institutions sector funding gap	Higher	Not higher
6. Aggregate balance sheet of subsidiaries and branches of foreign banks relative to GDP	Not higher	Not higher
7. Balance sheet of the credit institutions sector relative to nominal GDP	Higher	Higher
8. Loans granted by domestic credit institutions to households and non-financial corporation as a share of households' and non-financial corporations' total liabilities	Not higher	Higher
9. Household sector liabilities relative to household disposable income	Higher	Higher
10. Non-financial corporations' intebtedness relative to GDP	Higher	Higher

Based on data available on 2 March 2023.

Source: European Central Bank.

Changes in the risk factors and related indicator values suggest that the systemic risks stemming from the structural vulnerability of the Finnish credit institutions sector are at least at the same level as in 2020, when the SyRB was previously applied. The time series of the indicators are provided in the memorandum appended to this decision.

As regards the risk factors that are especially conducive to increasing structural vulnerabilities:

- The *large size of the credit institutions sector* increases the costs of banking crises and other severe financial system disruptions for the real economy and general government. This increases systemic risks and the need to guard against shocks with capital buffers.

- The *interconnectedness of the credit institutions sector with foreign* financial systems is partly due to the fact that credit institutions cover their large funding gaps mainly by raising debt funding in the international financial markets. In the event of crises and severe shocks, market funding typically dries up faster than deposits, which increases systemic risks. Solid capital adequacy of the credit institutions sector reduces the risk that market funding dries up.
- The *credit institutions sector's large risk concentrations relating to residential mortgage and real estate lending* expose credit institutions to credit losses from housing loans and loans to construction and real estate companies. This increases systemic risks. Sharp fluctuations in the housing market and mortgage lending have been among the factors underlying many financial crises. Sharp housing market downturns have in many crisis situations caused large credit losses to banks from loans granted to non-financial corporations in the construction and real estate industries. Therefore, in the event of severe shocks, large exposures to these firms can substantially weaken credit institutions' capital adequacy and lending.
- *High household indebtedness* exposes credit institutions to high direct and indirect (via other borrower sectors) risks of credit losses in the event of crises and other severe shocks. This increases systemic risks because of the higher probability of banking crises and their effects.

In September 2022, the European Systemic Risk Board (ESRB) issued a general warning on vulnerabilities in the EU financial system and emphasised the need to preserve and enhance its resilience. In November 2022, the Governing Council of the ECB issued a statement on macroprudential policies, endorsing the ESRB's warning and highlighting the need to ensure the banking sector's resilience with macroprudential measures. Furthermore, in autumn 2022, the International Monetary Fund (IMF) issued a recommendation in the context of the Financial Sector Assessment Program (FSAP) analysing Finland's financial system and related risk, stating that Finland's SyRB should be increased once circumstances allow. Pursuant to chapter 10, section 4c, subsection 5 of the Act on Credit Institutions, in imposing the SyRB, the recommendations and warnings of the European Systemic Risk Board are to be taken into account insofar as they concern the financial markets in Finland.

The imposition of the SyRB requirement is justified for containing the risk arising from long-term, non-cyclical factors threatening the financial system or the macroeconomy. The risk has the potential of threatening the smooth operation and stability of the financial system at the national level. The SyRB will only have a minimal negative impact on the operation of the financial systems in other countries because it will be applicable to credit institutions registered in Finland and only the higher one of the Finnish SyRB and of the corresponding requirement set by other countries will apply. In addition, the risks in question have not been covered by other additional capital requirements. The total amount of required additional macroprudential capital buffers have been calculated on the basis of stress tests and the research literature, and the SyRB covers part of it (for more details, see 'Level of the SyRB')

Exposures targeted by the SyRB – Legislation stipulates that the SyRB may be introduced on the basis of the total risk exposure amount, or one or several large exposures, or the combination of these ('sectoral SyRB').

The SyRB applicable only to domestic exposures would apply to individual credit institutions in a very different way than the general SyRB applicable to all exposures. The risk factors guiding the imposition of the SyRB requirement are also strongly interlinked with credit institutions' foreign exposures, which supports the application of the requiremen to these exposures, too. Assessments of the evolution of financial system vulnerabilities and credit losses imply that the most significant consequences of household indebtedness can indirectly – via consumption effects – feed further into corporate credit and credit institutions' other exposures and related losses. Therefore, the general SyRB requirement, which is set on the basis of the total risk exposure amount, is also justified because of the increased vulnerabilities stemming from mortgage loans and household indebtedness.

Level of the SyRB – An overall assessment of the risk factors and risk indicators suggests that financial crises can be more severe in Finland than in other countries. This supports the imposition of the SyRB requirement. The calibration of the SyRB is founded on estimating the sufficient level of required macroprudential capital buffers. According to the FIN-FSA's analysis, in an environment of average cyclical risks, the sufficient level of the credit institutions sector's additional capital requirements set for macroprudential purposes is close to the pre-pandemic level or slightly above it (6–7% of risk-weighted assets). The estimate of the sufficient level of required macroprudential capital buffers is based on stress tests of the Bank of Finland (BoF) and the FIN-FSA and on the research literature on the sufficient level of credit institutions' capital requirements. The estimate is in line with the one implied by the IMF's FSAP for Finland, which was published in January 2023.[2] The sufficient level means the level of capital that the credit institutions sector should hold to cover losses from serious disruptions in the economy or the financial system in order to remain operational and continue supplying credit to the real economy even after loss absorption.

In the stress scenario of the BoF–FIN-FSA stress tests, the Finnish credit institutions sector faces a broad-based financial market disruption and a global recession. These will lead to a severe housing market-

[2] IMF (2023) *Finland: Financial Sector Assessment Program-Technical Note on Macroprudential Policy Framework and Tools*.

driven crisis in the Nordic countries.[3] The stress scenario is based on the adverse scenario of the European Banking Authority (EBA). As the EBA's original scenario does not take into account financial market interlinkages and related channels of crisis contagion between the Nordic countries, the scenario has been adjusted to better account for the strong interconnectedness of the Finnish economy and financial system with the other Nordic countries, and for other structural vulnerabilities (particularly household indebtedness). In practice, the GDP paths for Finland, Denmark and Norway under the original scenario have been adjusted downwards to better correspond with that of Sweden. Nordic households have high debt-to-income ratios on average and debt levels have also risen sharply. There is evidence that an exuberant accumulation of household debt predicts financial crises.[4] In addition, an analysis by the Bank of Finland implies that an increase in household indebtedness and other financial stability vulnerabilities in other Nordic countries also increases the risk of a deeper-than-normal recession in Finland.[5] The adjustments to the BoF–FIN-FSA stress scenario seek to better account for these vulnerabilities and channels that amplify and propagate the effects of shocks. In addition to economic variables, risk premia on Nordic government bonds and corporate market funding have been adjusted upwards from the original scenario. This serves to account for the assumption that a housing market crisis and a deep recession in all Nordic countries leads to weaker confidence among international investors and to doubts about the Nordic countries' safe-haven status.

The BoF–FIN-FSA stress tests imply that Finnish banks' CET1 ratio weakens at most by 4.7 percentage points over the time horizon of the adverse scenario. The stress test results are contingent on credit loss modelling assumptions related to input data and the length of the time horizon, as well as to the assumption of the banks' approach to recognising credit losses on non-performing assets. Most of the estimated decline in capital adequacy is due to a substantial growth of credit losses and a rise in the risk weights on assets. The materialisation of market risk (e.g. a fall in stock prices and widening bond yield spreads), lower returns and expected profit distributions also weaken banks' capital adequacy. The losses to credit institutions in the stress scenario stem from external shocks to the Finnish credit institutions sector, the effects of which are amplified by the sector's structural vulnerabilities. The stress test does not include an assessment of the magnitude of losses to the system from potential problems or shocks of individual Finnish credit institutions. In the event of a severe financial crisis, both of these risks could materialise simultaneously. For this reason, in estimating the total level of required macroprudential capital buffers, account should be taken of both the losses implied by the stress tests and the risks arising from individual systemically important credit institutions (O-SIIs), which are covered by

[3] Bank of Finland Bulletin 1/2022: *Large structural risks require banks to hold buffers for a rainy day*.
[4] See e.g. Nyholm and Voutilainen (2021) *Quantiles of growth – household debt and growth vulnerabilities in Finland*.
[5] Bank of Finland Bulletin 1/2022: *Nordic housing market risks can affect Finland's economy*.

O-SII buffers. O-SII buffers have been calibrated on the basis of the dedicated principles[6] published by the FIN-FSA. As of 1 January 2023, the O-SII buffer is 2.5% for Nordea, 1.5% for OP Financial Group and 0.5% for Municipality Finance. In practice, the estimated sufficient level of required buffers is derived by adding the banking sector's average O-SII level (approx. 2.0%) to the estimated decline in the capital adequacy ratio implied by the stress tests (at most 4.7 percentage points).

In addition to stress tests, the sufficient level of required macroprudential capital buffers has been estimated based on the research literature on the appropriate (or optimal) level of capital requirements. Estimates for the required buffers have been obtained by substracting Pillar 1 minimum requirements and the average level of Finnish banks' Pillar 2 requirements from the appropriate (or optimal) level of capital requirements identified in the literature. The resulting estimates are presented in the table below. In comparing individual research findings, it should be noted that the findings are partly based on divergent regulatory frameworks, methods and assumptions and are therefore not necessarily directly comparable.

Research paper[7]	**Appropriate capital level[8] (quality of capital)**	**Derived estimate of required buffers**
Miles et. al. (2013)	18% (CET1)	12.5%
BoE (2015)	12% (Tier 1)	4.6%
BIS (2016)	10.5% (CET1)	5.0%
IMF (2016)	19% (total assets)	9.2%
FED (2017)	19% (Tier 1)	11.6%
ECB (2020)	15% (total assets)	5.2%
IMF (2023)	-	7.4%

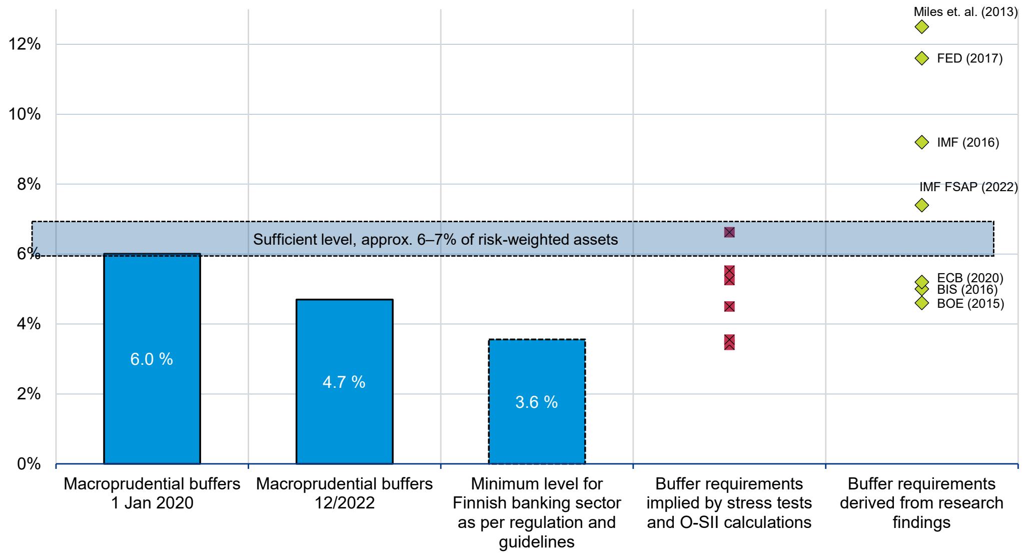
In the light of an overall assessment based on stress tests and research findings, in an environment of average cyclical risks, the sufficient level of macroprudential capital buffers for the Finnish banking sector is approximately 6–7% of risk weighted assets. Due to methodological

[6] Financial Supervisory Authority (2022) Principles for identifying other systemically important credit institutions (O-SIIs) and setting additional capital requirements.
[7] Miles, Yang & Marcheggiano (2013) Optimal bank capital; Bank of England (2015) Measuring the macroeconomic costs and benefits of higher UK bank capital requirements; BIS (2016) Adding it all up: the macroeconomic impact of Basel III and outstanding reform issues; IMF (2016) Benefits and costs of Bank Capital; FED (2017) An Empirical Economic Assessment of the Costs and Benefits of Bank Capital in the US; ECB (2020) Twin default crises; IMF (2023) Finland: Financial Sector Assessment Program –Technical Note on Macroprudential Policy Framework and Tools.
[8] Where the appropriate capital level has been presented as a range, the table shows the midpoint of the range.

differences and uncertainty relating to the calculations, it is appropriate to determine the estimated sufficient level as a range rather than a point estimate. The level corresponds to the level of capital requirements implied by BoF–FIN-FSA stress tests and O-SII buffers, and roughly to the average level of required buffers derived from research findings.[9] In the event of an increase in cyclical or other severe stability threats, it might be justified to apply higher buffer requirements.

The following chart presents an overview of macroprudential buffers and the buffer requirements implied by stress tests and research findings. The chart also presents the minimum level of average macroprudential capital requirements for the Finnish banking sector determined by regulation and EU-level guidelines. The minimum level has been calculated as the sum of the capital conservation buffer (2.5%) and the average level of O-SII buffers under the ECB's floor methodology for O-SII buffer rates.[10]

Finnish banks' macroprudential capital buffers and buffer requirements implied by stress tests and research literature



Sources: BoF–FIN-FSA calculations, BoE, ECB, IMF, BIS and FED.

[9] The median of required buffers implied by research findings is 7.4% and the average is 7.7%, if outliers (lowest and highest) are excluded.
[10] The ECB floor methodology establishes a minimum level for the additional capital buffer requirements of individual O-SIIs, which is determined based on each institution's O-SII score. When applying Article 5 of the SSM Regulation, the capital requirements set by the national macroprudential authority are assessed against this minimum level. If the O-SII buffer requirements set by the national macroprudential authority fall below the minimum level indicated by the floor methodology, the ECB may raise them. For Finnish O-SIIs, the minimum buffer level indicated by the floor methodology is 1.5% for Nordea and 0.5% for OP Financial Group and Municipality Finance. Calculated based on these minimum levels, the average level of the Finnish banking sector's O-SII buffers is approximately 1.1%.

In determining the benchmark buffer rate for the SyRB, the FIN-FSA has substracted other macroprudential buffer requirements in effect or announced from the estimated sufficient level of required macroprudential capital buffers. The reason for this is that other macroprudential buffer requirements can also be used in addition to the SyRB to cover losses posed by severe economic or systemic disruptions.[11] Consequently, the SyRB only covers the part of systemic risks that is not covered by other additional capital requirements. Based on the calculation presented in the following table, for ensuring sufficient resilience of the Finnish banking sector, the SyRB rate should be set at 0.2–1.2% of risk-weighted assets. Considering that the significant systemic risks in the Finnish financial system justify setting the SyRB rate above 0% and that, under the Act on Credit Institutions, the SyRB may be calibrated in steps of 0.5 percentage points, in practice a more appropriate benchmark rate would be 0.5–1.5% of risk-weighted assets. Hence, an SyRB rate calibrated at 1.0% corresponds to the midpoint of the range of the benchmark rates. The calculation also takes into account the possible average impact on Finnish banks of the recognition of Norway's SyRB requirement, even though the decision on the recognition of the requirement will be taken at a later stage.

Capital requirement	**Calibration (% of risk-weighted assets)**
(1) Estimated sufficient level	6–7
Capital conservation buffer	2.5
O-SII buffers (average)	2.0
(4) Institution-specific countercyclical capital buffer (average)	0.9
(5) Norwegian systemic risk buffer (average impact on Finnish banks)[12]	0.4
(6) Benchmark rate for the systemic risk buffer ((6) = (1)-(2)-(3)-(4)-(5))	**0.2–1.2**

Long-term non-cyclical risks may impose serious consequences for the financial system and the real economy in Finland in the immediate years ahead. Based on stress tests and the values of the risk indicators specified in the Ministry of Finance Degree, the risk threatening the financial system or the macroeconomy is so high that it justifies setting the SyRB rate at 1.0% instead of the 0.5% proposed by the Director General of the FIN-FSA. The Finnish credit institutions sector is one of the largest relative to the national economy in the EU. Individual Finnish

[11] Capital conservation buffer, the impact of the countercyclical capital buffers set by other Nordic countries on credit institution-specific countercyclical capital buffer requirements, O-SII buffers effective as of 1 January 2023 and the SyRB applicable to Finnish banks' exposures in Norway.
[12] Due to the overlap of the risks covered by the Norwegian SyRB (4.5% of exposures in Norway) and the Finnish national SyRB (1.0% of all exposures), in applying the SyRB requirement, only the higher one of the two will be considered. Therefore, instead of 4.5 percentage points, the Norwegian SyRB will increase Finnish banks' capital requirements for exposures in Norway by 3.5 percentage points. Relative to the total amount of risk-weighted assets, the increase is approximately 0.4%.

multinationals have significant cross-country interlinkages. Credit institutions' risk concentrations are significantly in mortgage and real estate lending in an environment where household indebtedness is historically high. Pursuant to the Act on Credit Institutions, the SyRB requirement may amount to no more than 5% of the consolidated total risk exposure amount of the highest Finnish parent company in the credit institution's consolidation group or of the amalgamation of deposit banks.

The calibration of the SyRB at 1.0% instead of 0.5% is also supported by the fact that the most conservative estimate for the banking sector's capital requirements indicated by the BoF–FIN-FSA stress tests, and the research findings-derived average estimate for the sufficient level of buffer requirements, is closer to 7% than 6%. A further factor in support of the SyRB rate of 1.0% is that the systemic risks stemming from the structural vulnerability of the Finnish credit institutions sector are at least at the same level as before the pandemic in 2020, when an SyRB rate of 1.0% was applicable to credit institutions other than the largest ones. An SyRB requirement of 1.0% is estimated to raise the total level of the Finnish banking sector's macoprudential capital buffers to about 6.8%.

Relationship between the SyRB and other macroprudential tools and measures – Borrower-based macroprudential tools (maximum LTC ratio) primarily affect new agreements (new loans) and do not therefore prevent or limit systemic risks. Of the additional capital requirements, the O-SII buffer for other systemically important credit institutions primarily covers risks to the financial system arising from the systemic importance of individual credit institutions. The SyRB primarily addresses risks to individual credit institutions arising from the vulnerabilities in the financial system.

The countercyclical capital buffer (CCyB) is intended for mitigating cyclical systemic risks stemming from excessive growth of credit to the private sector and its consequences. Therefore, the CCyB is not appropriate for mitigating systemic risks arising from structural vulnerabilities in the banking system, which are typically long-term in nature.

The maximum LTC ratio, risk-weight floors on housing loans referred to in Article 458 of the Capital Requirements Regulation (CRR) and measures of the Capital Requirements Directive (CRD) to raise the risk-weight floors only address credit institutions' mortgage lending. Hence, they do not sufficiently cover the additional capital requirements related to the Finnish credit institutions sector's large size, cross-border interconnectedness, indebtedness of the key customer groups and the sector's importance.

The supervisory measures available for the FIN-FSA and the ECB enable the imposition of requirements on credit institutions to cover institution-specific risks and remedy shortcomings in their operations, for example (Pillar 2 requirement, P2R). However, the P2R is not meant for limiting financial stability-related systemic risks.

In addition to the actual capital requirements, Pillar 2 guidance (P2G) can be set for credit institutions. The P2G is a credit institution-specific recommendation on the level of capital expected to be maintained in addition to binding capital requirements. Its purpose is to cover for losses in stress situations, taking into account the credit institution's risk profile. Unlike the Pillar 2 requirement and macroprudential capital buffers, the Pillar 2 guidance is not a legally binding capital requirement. The P2G level of an individual credit institution is determined on the basis of its results in EU-wide stress tests carried out by the FIN-FSA. Hence, particular attention is given to institution-specific risk factors and profiles. In the stress tests applied by the FIN-FSA and the Bank of Finland for calibrating macroprudential buffers, credit institutions' ability to bear losses and the sufficiency of their buffer levels are evaluated at the level of the entire financial system. The stress test framework considers system-wide vulnerabilities (particularly household indebtedness and credit institutions' interconnectedness with the other Nordic countries) which can amplify disruptions in the economy or the financial system. The credit institution-specific, non-binding Pillar 2 guidance does not cover these risks that threaten the stability of the financial system. Therefore, the SyRB and the P2G cannot be regarded as overlapping requirements that cover the same risks.

Impact of the imposition of the SyRB – The FIN-FSA has assessed the impact of the SyRB requirement of 1.0% and other announced changes in capital requirements[13] on credit institutions' lending capacity over a two-year period 2023–2024 by analysing how the requirements affect the amount of own funds in excess of capital adequacy requirements. This own funds surplus denotes the extent to which credit institutions can cover losses, increase credit supply and risk taking and distribute profits before falling short of their macroprudential buffer requirements. In addition, the FIN-FSA has also assessed the impact of the credit institutions sector's estimated performance and capital adequacy positions on the own funds surplus under a baseline macro-financial scenario. This assessment was made using the BoF–FIN-FSA stress test framework, on the basis of the baseline scenario of the EBA 2023 EU-wide stress test.

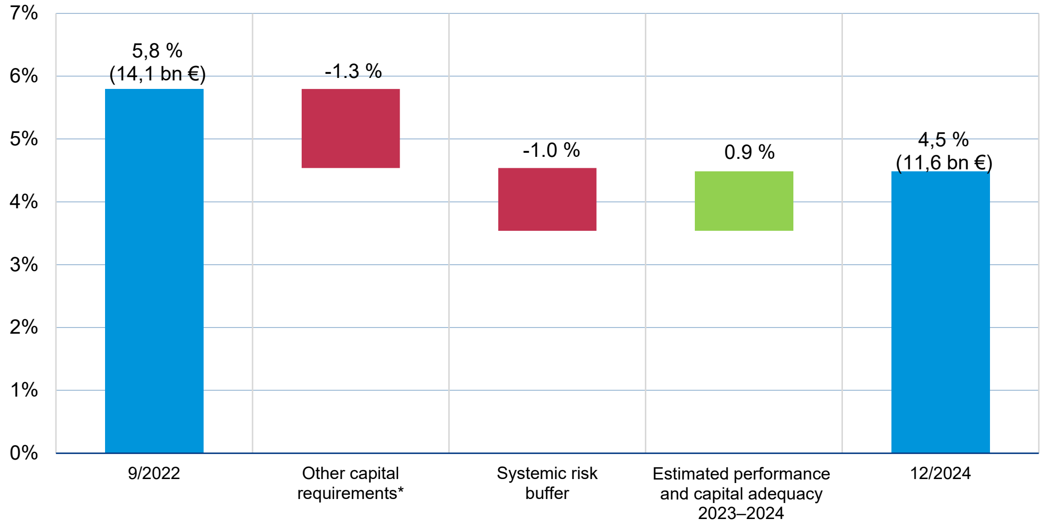
As a result of the anticipated and announced changes in capital requirements and the estimated performance and capital adequacy positions, the Finnish banking sector's average own funds surplus in relation to risk-weighted assets is estimated to contract by 1.3 percentage points, to 4.5%, by the end of 2024. The tighter O-SII buffer requirements effective as of 1 January 2023, the countercyclical capital buffer requirements set by other Nordic countries and effective in the course of 2023, and the full application of the Norwegian SyRB to Finnish banks will reduce the own funds surplus by a total of 1.3 percentage points. This calculation also takes into account the possible

[13] Increase in the CCyBs of other Nordic countries in accordance with the macroprudential decisions already taken (Sweden 2.0%; Denmark 2.5%; Norway 2.5%), an increase of 0.5 percentage points in Nordea's and OP Financial Group's O-SII-buffers as of 1 January 2023 and application of the Norwegian SyRB requirement to Finnish credit institutions in respect of their exposures in Norway.

impact on Finnish banks of the recognition of Norway’s SyRB requirement, even though the decision on the recognition of the requirement will be taken at a later stage. Without the impact of the reciprocation of Norway’s SyRB requirement, the combined effect of the changes in the requirements described above is smaller than estimated in the calculation (0.4 percentage points). Finnish banks’ performance and capital adequacy positions are estimated to strengthen the own funds surplus by just under a percentage point. The estimated evolution of the own funds surplus is presented in the chart below.

For all Finnish banks, the current level of own funds (9/2022) is sufficient for covering the estimated higher capital requirements. Finnish banks’ net interest income is estimated to grow markedly in 2023–2024 as a result of rising interest rates and their higher levels compared to the previous years, and only moderate losses are expected on loans granted in Finland. Hence, in general, the capital adequacy of Finnish banks is assessed to strengthen in 2023–2024, which will compensate for the impact of the higher capital requirements and will, for the majority of banks, strengthen the own funds surplus compared with the current situation.

Finnish banking sector’s own funds surplus relative to most restrictive risk-based capital requirements



Sources: Financial Supervisory Authority and Bank of Finland.

* O-SII buffers, CCyB requirements of other Nordic countries, Norway’s SyRB requirement. järjestelmäriskipuskurivaatimus

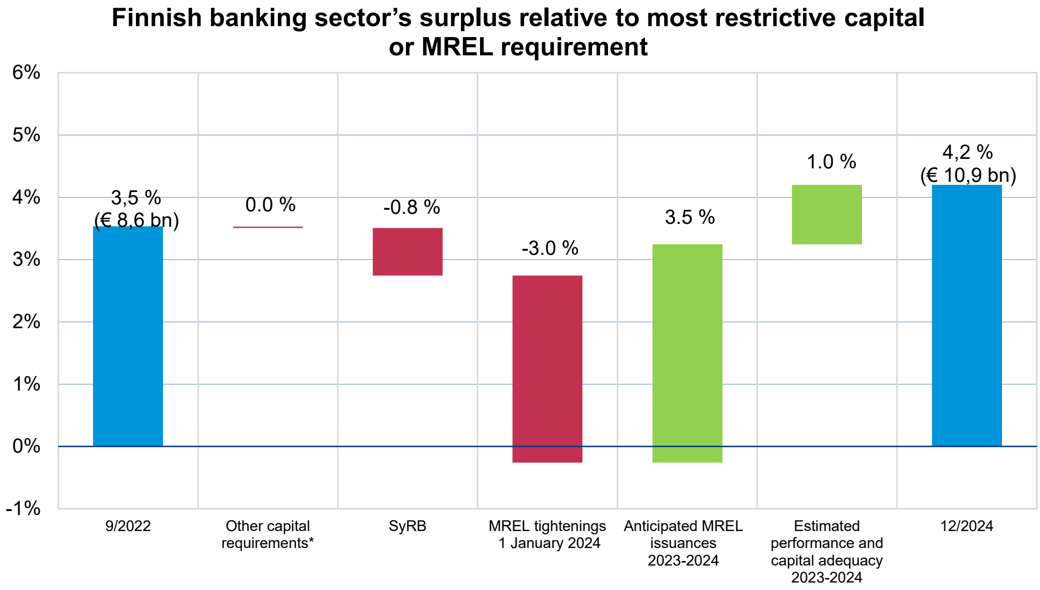
For some Finnish banks, the leverage ratio requirement or the MREL requirements are more binding than the risk-based capital requirements. As a result, banks’ flexibilities regarding breaches of the statutory limits triggering macroprudential supervisory measures may be smaller than suggested by the size of the additional capital buffers relative to the risk-based capital requirements. The impact assessment calculations therefore take into account the impact of the buffer requirements and the estimated developments in capital ratios also on the leverage ratio as well as on the amount of surplus with regard to the MREL and subordination requirements.

If the calculations take into account, in addition to the risk-based capital requirements, also Finnish banks' flexibility as regards the leverage ratio and the MREL and subordination requirements, the banking sector's average surplus relative to the most binding capital or MREL requirement would increase from 3.5% to approximately 4.2% of risk-weighted assets by the end of 2024. The chart below describes an estimate of the development of the banking sector's surplus relative to the most restrictive capital or MREL requirement.

The tightening of buffer requirements already announced or anticipated other than the SyRB hardly have an impact on the banking sector's flexibility relative to the most restrictie capital or MREL requirement. This calculation, too, takes into account the possible impact on Finnish banks of the recognition of Norway's SyRB requirement, even though the decision on the recognition of the requirement will be taken at a later stage. This is based on the fact that initially, the leverage ratio requirement based on the non-risk-weighted exposures or the MREL or subordination requirement calibrated on the basis of non-risk-weighted exposures is in the case of some banks tighter than the risk-based requirements. Changes in the buffer requirements do not have an impact on these non-risk-based requirements. When the buffer requirements reach a sufficient level, the risk-based requirements become more binding than the non-risk-based requirements. Therefore, Finnish banks' average surplus relative to the capital or MREL requirements will shrink only as a result of the SyRB requirement.

In addition to the SyRB requirement, the already announced tightening of the MREL requirements, entering into force at the beginning of 2024, will decrease Finnish banks' average surplus relative to the most binding requirement. The impact of the tightening requirements is compensated by the estimated issuances in 2023–2024 by banks of debt instruments eligible for MREL and subordination. Banks' surplus relative to the requirements is bolstered also by retained earnings, which build up the banks' capital base.

In the case of all the banking groups, the current amount of own funds and MREL-eligible debt instruments as well as the issuances estimated for 2023–2024 and retained earnings would be sufficient for covering the estimated higher requirements.



Sources: Financial Supervisory Authority, Bank of Finland, Financial Stability Authority and bank disclosures.

*O-SII additional capital requirements, CCyB requirements of other Nordic countries, Norway's SyRB requirement.

Based on impact assessment calculations, a SyRB rate of 1% is not estimated to markedly weaken Finnish credit institutions' lending capacity under the projected economic conditions. The calculations show that Finnish credit institutions are able to cover their capital needs and their need for MREL-eligible debt instruments arising from the CyRB requirement and other anticipated changes in requirements with their current own funds and MREL-eligible debt instruments and the estimated retained earnings in the coming years, and with the already planned issuances of MREL-eligible debt instruments. The significantly higher interest rates than in previous years and the continued rise in interest rates are estimated to increase Finnish credit institutions net interest income notably in the years ahead, which will support credit institutions' profitability and ability to build up their capital base.

The FIN-FSA however takes into account that developments in the economy and the operating environment remain subject to significant downside risks, the materialisation of which could increase Finnish banks' credit losses significantly more than estimated. In such a situation, the imposition of the SyRB could have a negative impact on credit institutions' lending capacity and on financial intermediation in the short term. The FIN-FSA will monitor banks and their lending capacity and will update its impact assessment in the event of unexpected changes in economic conditions or the credit cycle. The assessments will take into account the results of the forthcoming stress tests by the EBA and the FIN-FSA. The decision on the SyRB may be changed if available data indicate that the buffer requirement would markedly increase the risk of a contraction in credit supply.

An estimate of the impact of the approach applied by credit institutions in capital adequacy calculations on the capital requirement - The approach applied by credit institutions determines the risk weights of their assets. The average risk weights of Finnish credit institutions that have adopted the IRB Approach are typically lower than those of credit institutions applying the Standardised Approach. The level of the risk weights, in turn, determines the euro impact of the SyRB requirement on each credit institution. As a result, the euro impact of a buffer requirement of a given percentage is larger for credit institutions that have larger risk weights. On the other hand, the risk weights have an impact on the euro level of macroprudential additional capital requirements relative to risk-weighted assets for all other credit institutions, too.

A 1% SyRB requirement is estimated to increase the capital requirements of credit institutions applying the IRB Approach by some EUR 1.5 billion and those of credit institutions applying the Standardised Approach by some EUR 0.9 billion. If the differences in the average risk weights of these credit institutions are taken into account, the SyRB requirement results in a relatively higher increase, in euro terms, for credit institutions applying the Standardised Approach (see Table).

If also the other macroprudential buffer requirements in effect or announced are taken into account, credit institutions applying the IRB Approach are required to hold relatively more capital for fulfilling the macroprudential buffer requirements than credit institutions applying the Standardised Approach. This is due to the fact that the macroprudential buffer requirements for credit institutions applying the IRB Approach are on average higher. In practice, for fulfilling the macroprudential buffer requirements, credit institutions applying the IRB Approach have to hold approximately EUR 2.2 in capital for each EUR 100 asset item, compared to EUR 1.8 in the case of credit institutions applying the Standardised Approach.

Type of credit institution	**1% systemic risk buffer**		**Total macroprudential buffer requirements**	
	EUR million	**% of non-risk-weighted assets**	**EUR million**	**% of non-risk-weighted assets**
IRB approach	1,509	0.3%	11,982	2.2%
Standardised approach	896	0.4%	4,269	1.8%
TOTAL	**2,405**	**0.4%**	**16,251**	**2.1%**

The memorandum appended to this decision describes in detail the justifications of the SyRB requirement, the indicators guiding the imposition of the requirement and the information provided on the decision pursuant to the Ministry of Finance Decree (409/2021).

Responses to the hearing pursuant to section 34 of the Administrative Procedure Act – On 28 February 2023, in the hearing letters sent in accordance with section 34 of the Administrative Procedure Act, the FIN-FSA Board announced that it was considering imposing a requirement on credit institutions to maintain a systemic risk buffer (SyRB) as referred to in chapter 10, section 4a of the Act on Credit Institutions. As announced by the FIN-FSA, the SyRB would be covered by Common Equity Tier 1 (CET1) capital and would correspond to 1.0% of the consolidated total risk exposure amount of the highest Finnish parent company in the credit institution's consolidation group or of the amalgamation of deposit banks. The Board's decision regarding the SyRB would enter into force on 1 April 2024. The FIN-FSA received written responses from Nordea Bank Abp, Aktia Bank Plc and Danske Mortgage Bank Plc.

According to Nordea Bank Abp, the analysis and justifications presented in the hearing for the imposition of the systemic risk buffer requirement do not meet the requirements of the law for the imposition of such a requirement. All of Nordea Bank Abp's risks are adequately covered by capital requirements applicable in the Nordic markets. In addition, the planned decision is procyclical and would affect lending operations in other countries.

Nordea Bank Abp finds that the ESRB warning referred to in the hearing letter is of a general nature and directed at EU member states; it does not concern Finland in particular due to the solid capital adequacy of the credit institutions. As regards the indicators specified in the Decree of the Ministry of Finance, which are to be considered in the decision, only three out of ten exceed the EU average by any clear margin. More exact justifications for the setting of a systemic risk buffer at 1.0% have not been presented in the context of the hearing. In addition, the indicators used are partly overlapping with the O-SII indicators. The overlap of the risks is also evidenced by the fact that the Pillar 2 Guidance is established on the basis on stress tests, similarly to the systemic risk buffer requirement.

In relation to the abovementioned considerations, the FIN-FSA finds that the justifications required by the law for the imposition of the planned systemic risk buffer requirement have been stated in the hearing letter. The justifications are presented in more detail in the decision. In the FIN-FSA's view, all of Nordea's risks are not adequately covered by existing capital requirements. This is evident in the justifications for the decision.

According to forecasts, economic development is not expected to deteriorate significantly. The ESRB's warning also concerns Finland as part of the EU. According to the FIN-FSA's analysis, six of the risk indicators exceed the EU median, and four of them exceed it by a clear margin. Three out of the four indicators below the EU median are close to it.

More detailed justifications for the imposition of the systemic risk buffer requirement at 1.0% are stated in the decision. The O-SII capital requirements cover the risk caused by the credit institution to the system, whereas the systemic risk buffer requirement covers the risk caused by the system to the credit institution. Pillar 2 Guidance is a capital requirement in the nature of a recommendation, which covers an individual credit institution’s risk.

According to Aktia Bank Plc, the justifications presented in the hearing letter for raising the SyRB requirement are discussed in insufficient detail. Aktia Bank Plc also considers that more detailed justifications should be presented for the FIN-FSA Board’s decision to set the SyRB requirement at 1%. The justifications why macroprudential risks are at the same level or slightly higher than in spring 2020 are not according to Aktia Bank Plc's response described in the hearing letter and the comparison of risk levels has not been quantified. In addition, the hearing letter does not include justifications for the statement that the risks in question are not covered with other macroprudential measures.

On the facts presented by Aktia Bank Plc, the FIN-FSA states that the justifications presented in the hearing letter for the planned imposition of the SyRB requirement meet the requirements of the law for the imposition of such a requirement. The justifications are discussed in more detail in the Board's decision. More detailed justifications for setting the SyRB rate at 1.0% are also presented in the decision.

The response submitted by Danske Mortgage Bank Plc states that, in imposing capital requirements, the authority must take into account the total impact of regulation. From the perspective of Danske Mortgage Bank Plc, the SyRB requirement seems unnecessary, because Danske Mortgage Bank Plc has prepared well for credit risk inherent in the loan stock. In addition, the Financial Stability Authority has imposed on the Bank an internal MREL requirement, which requires the Bank to hold claims that are convertible to equity to cover the capital requirement. The decision by the FIN-FSA Board should provide justifications for the imposition of the requirement and what such risk it covers that have not yet otherwise been covered.

On the facts presented, the FIN-FSA states that the justifications presented in the hearing letter for the planned imposition of the SyRB requirement meet the requirements of the law for the imposition of such a requirement. The justifications are discussed in more detail in the Board's decision.