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A framework for advice on the systemic risk buffer

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A. Introduction

The systemic risk buffer (SyRB) is a part of banks' total capital requirements and one of the macroprudential instruments used in Norway. The SyRB is intended to increase banking system resilience by ensuring that banks hold a capital buffer based on the level of structural vulnerabilities in the financial system. The SyRB was introduced following the financial crisis as part of the EU/EEA capital framework (CRD IV and CRR) implemented in Norwegian law (Financial Institutions Act with regulations). In Norway, the SyRB was activated in 2013.

The Ministry of Finance sets the SyRB rate. Norges Bank is responsible for preparing a decision basis and providing advice on the SyRB rate to the Ministry of Finance at least every other year.[1] The decision basis is to contain analyses based on relevant indicators, recommendations and guidance from the European Systemic Risk Board (ESRB) and Norges Bank's assessment of structural vulnerabilities and other systemic risks of a long-term nature. In this work, information and assessments are to be exchanged with Finanstilsynet (Financial Supervisory Authority of Norway).

This paper describes the framework for Norges Bank's advice on the SyRB and is organised as follows: Section B explains what the SyRB is and how it relates to other capital requirements. Section C describes the principles followed by Norges Bank when it provides advice on the SyRB rate. Section D provides a description of the information basis for Norges Bank's advice on the SyRB rate. A detailed description of indicators is provided in the Appendix.

B. The systemic risk buffer – a part of banks' total capital requirements

Experience shows that the financial system can trigger and amplify economic downturns. Financial system vulnerabilities can amplify shocks, leading to more serious consequences for the economy. The risk that the financial system cannot perform its functions and hence contribute to a severe downturn in the real economy is called systemic risk.

[1] See Regulation No 2657 of 3 September 2021 on Decisions on the Countercyclical Capital Buffer and Advice on the Systemic Risk Buffer.

Capital requirements for banks increase financial system resilience. The requirements comprise minimum requirements and a number of buffer requirements (Chart 1) and follow from the EU/EEA capital framework.[2] Banks in breach of the total buffer requirements are to submit a plan for strengthening their capital ratios and may also be subject to restrictions on dividend and bonus payouts.

The capital buffers differ in their purpose. The countercyclical capital buffer (CCyB) is intended to strengthen banks' solvency and mitigate the risk that banks' lending standards amplify an economic downturn. Experience shows that economic downturns are typically amplified following a period of high credit growth and sharply rising asset prices, which are typical measures of system-wide cyclical vulnerabilities. The CCyB is intended to ensure that banks hold a capital buffer that corresponds to the level of cyclical vulnerabilities in the financial system.[3]

The SyRB is also intended to strengthen banks' solvency during a downturn, but the level of this buffer is to be set based on more long-term, structural vulnerabilities, such as high debt levels or a closely interconnected banking system.

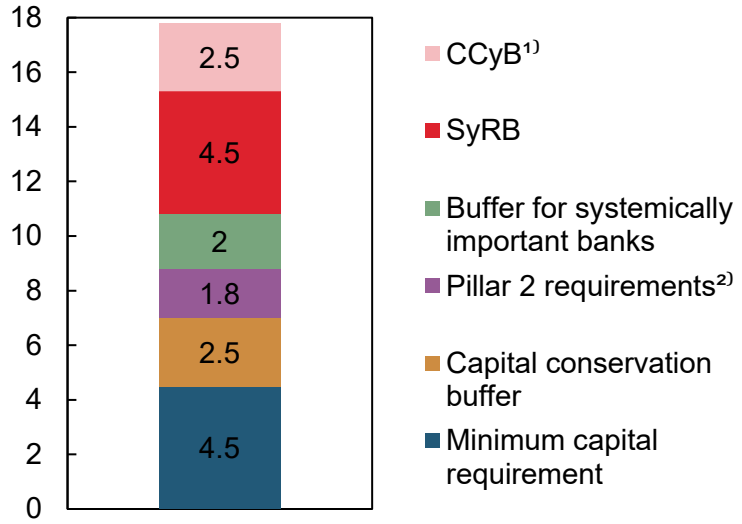
In addition, banks designated as systemically important are required to maintain larger buffers. The reason is that a problem in a systemically important bank can in itself have severe negative consequences for the economy. The capital conservation buffer is a fixed buffer intended to prevent capital ratios from falling below the minimum requirement when large credit losses are incurred.

It is natural to view the capital requirements, especially the CCyB and SyRB, in relation to each other. It is difficult to make a clear distinction between cyclical and structural financial system vulnerabilities, and different vulnerabilities can amplify one another.

The benefit of higher capital requirements is a lower risk that the financial system will contribute to an economic downturn. Capital requirements can also entail costs. If higher capital requirements increase banks' funding costs, the knock-on effect can be higher lending rates and lower economic growth. In assessing capital requirements, the costs should be weighed against the benefits of the requirements as a whole.

[2] The buffer rates are applied to each bank's total risk-weighted assets. Banks must also satisfy a leverage ratio requirement as a backstop to avoid risk-based capital requirements that are too low because risk weights determined by banks using the internal ratings-based approach are too low.
[3] For a detailed description of the CCyB, see "A framework for decisions on the countercyclical capital buffer", Norges Bank (2022).

Chart 1. Capital requirements for Norwegian banks. Percent



1) A CCyB of 1.5 percent applies from 30 June 2022, of 2.0 percent from 31 December 2022 and of 2.5 percent from 31 March 2023.
2) Pillar 2 requirements are a weighted average for the seven largest Norwegian banks (DNB, Sparebank 1 SMN, Sparebank 1 SR-Bank, Sparebank 1 Nord-Norge, Sparebank 1 Østlandet, Sparebanken Vest and Sparebanken Sør).
Sources: Finanstilsynet, Ministry of Finance and Norges Bank

No specific criteria have been laid down in the EU capital framework for deciding on the SyRB rate, but the rate must be justified on the basis that risks are not sufficiently addressed by the other capital requirements. The SyRB may be applied to the entire banking sector or set individually for specific banks. The SyRB may also be applied to banks' exposures to particular sectors, eg residential real estate or commercial real estate.[4] When a decision is made to increase the SyRB, banks must normally be given 12 months to adjust before the new rate comes into effect. In special cases, this period may be shortened.[5]

The SyRB rate shall be set in gradual or accelerated steps of adjustment of 0.5 percentage point. There is no upper limit for the SyRB, but rates above 3 percent must be approved by the European Commission.[6]

It is up to the authorities in each country to consider whether to recognise the SyRB rates of other countries (reciprocity) and thus allow their banks' exposures in other countries to be subject to these countries' SyRB rates. A country with an SyRB rate can request that the ESRB recommend reciprocation of this SyRB rate. The ESRB has for

[4] CRD V allows for the SyRB to be applied to a subset of sectoral exposures to address systemic risk associated with specific sectors.
[5] See Section 28 of Regulation No 2111 of 19 December 2019 on capital regulation and national implementation of CRR/CRD IV.
[6] For SyRB rates between 3 percent and 5 percent, the European Commission must provide its opinion, and the macroprudential authority in that member state must comply with that opinion or give reasons for not doing so ("comply or explain"). SyRB rates above 5 percent require the authorisation of the Commission before implementation (See Article 133 of CRD V). For non-EU EEA countries such as Norway, such SyRB rates require the authorisation of the EFTA Standing Committee.

example recommended that the Norwegian SyRB rate of 4.5 percent be recognised by other countries that have banks with exposures in Norway of a certain size.[7] With reciprocity, the same rate applies to all bank loans in a given country, ensuring a level playing field.

C. Principles for Norges Bank's advice on the systemic risk buffer

Norges Bank provides advice on the SyRB rate in accordance with the following principles:

The systemic risk buffer should reflect the assessment of structural vulnerabilities in the financial system. Structural vulnerabilities are persistent features of the financial system that change rarely or little from year to year. Vulnerabilities may, for example, reflect high debt levels or banking sector interconnectedness. Structural vulnerabilities increase the risk that negative shocks will have more serious consequences for the financial system and the Norwegian economy. The SyRB is not intended to reflect vulnerabilities that can be fully addressed by other capital requirements.

The systemic risk buffer is intended to contribute to ensuring that banks hold sufficient capital to weather future downturns. The SyRB rate is based on an assessment of the total need for capital in the banking sector. In this assessment, other capital requirements and the economic costs of the capital requirements should be taken into account. In the event of a pronounced downturn, the SyRB rate can be lowered if a CCyB rate reduction is insufficient. The SyRB should only be reduced if the banking system is assessed to be sufficiently capitalised to weather the downturn.

The systemic risk buffer should as a main rule apply to all exposures in Norway. This is because the effect of structural vulnerabilities on banks in a downturn is uncertain. However, in situations where vulnerabilities in individual sectors are particularly high and where more targeted measures are insufficient or unavailable, an SyRB for a subset of sectoral exposures can be considered.

[7] See ESRB (2021).

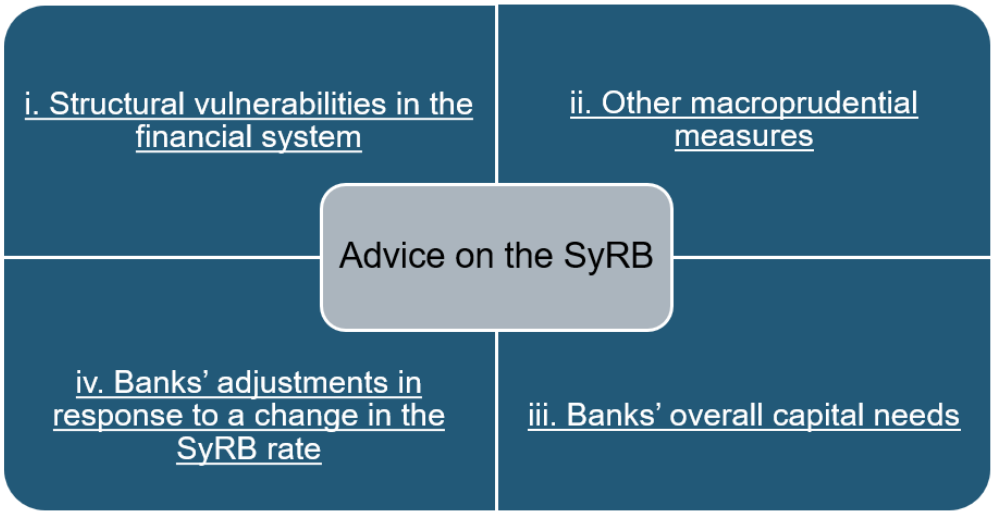
D. Information basis for advice on the SyRB

Advice on the level of the SyRB is based on four assessments (Chart 2) and on the principles for the SyRB described in Section C. The four assessments are:

i. *Structural vulnerabilities in the financial system.* Assess persistent features of the financial system that could trigger or amplify a pronounced downturn.
ii. *Other macroprudential measures.* Assess whether macroprudential measures other than the SyRB are better suited to addressing the vulnerabilities.
iii. *Banks' overall capital needs.* Assess whether banks are sufficiently capitalised to avoid amplifying a downturn.
iv. *Banks' adjustments in response to a change in the SyRB rate.* Assess banks' response and related effects on the economy before any advice is given on changing the SyRB rate.

The four assessments will be based on a broad set of indicators and analyses. There will not be a mechanistic relationship between Norges Bank's advice on the SyRB and developments in indicators and analyses. Advice on the level of the SyRB is also based on judgement. The information basis will be updated as data volumes expand and new methods and indicators are developed.

Chart 2: Assessments forming the basis of Norges Bank's advice on the SyRB



i. Structural vulnerabilities in the financial system

Structural vulnerabilities are persistent features of the financial system that could trigger or amplify a sharp downturn. The assessment of structural vulnerabilities comprises three main elements: a) how shocks propagate and are amplified within the financial system, b) structural features of the banking sector and c) influence of the real economy on the banking sector. See the Appendix for an overview of the indicators Norges Bank will use as a starting point for its assessment of structural vulnerabilities.[8]

How shocks propagate and are amplified within the financial system depends on banks' response to those shocks. A closely interconnected banking sector can increase the risk of propagating and amplifying shocks. Interconnectedness can be both direct, through interbank exposures, and indirect, in that banks hold the same or similar securities, for example. Vulnerabilities may also arise when banks have similar exposures, such as when a large number of banks have substantial exposures to customers exposed to the same risk. Furthermore, vulnerabilities can arise if banks' use the same business model, for example if they rely on the same funding source.

Structural features of the banking sector as a whole can entail vulnerabilities. If the banking sector is large and important to financing economic activity, shocks that impact banks will have more severe economic consequences. If many of the banks have substantial foreign exposures, shocks arising in other countries can rapidly spread to Norway. On the other hand, these banks can help dampen shocks that primarily impact Norway.

Economic downturns can be amplified if shocks to the real economy impact banks in such a way that forces them to curtail lending. Shocks can be amplified by household and corporate vulnerabilities, such as high debt levels among those adversely affected by a downturn in the real economy.[9] A small open economy like Norway can experience substantial fluctuations in economic activity. An undiversified business sector may increase vulnerabilities. In addition, other structural features, such as aspects of climate-related risk and cyber risk, can increase the risk of shocks and amplify downturns.

ii. Other macroprudential measures

In assessing the SyRB, consideration should be given to other macroprudential measures. Under the EU capital framework, the SyRB is not intended to be used to address vulnerabilities covered by other buffers such as the CCyB and the buffer for systemically important

[8] The set of indicators is based on assessments in ESRB (2017), ESRB (2018), Ministry of Finance (2019), and Mæhlum and Riiser (2019).
[9] Highly indebted households, for example, may reduce their consumption more than other households in the event of a shock. See, for example Mian, Rao and Sufi (2014).

banks. In addition, the SyRB should not address systemic risks covered by other capital requirements.

Different macroprudential measures are intended to address different vulnerabilities, and assessments of these vulnerabilities are to a large degree based on different indicators. Nonetheless, it can be difficult to draw a clear distinction between vulnerabilities: vulnerabilities can for instance amplify one another. The assessment of the SyRB must therefore also be based on judgement.

The SyRB rate should as a main rule be applied to all exposures in Norway. In certain situations, advising the application of a sectoral SyRB may be considered. This may be the case when vulnerabilities are assessed as particularly high in certain sectors and when more targeted measures are insufficient or unavailable and a general SyRB is not considered appropriate.

iii. Banks' overall capital needs

The SyRB is designed to help banks hold sufficient capital to weather future downturns. The SyRB is set based on an assessment of structural vulnerabilities and is thus a key component of banks' capital requirements in the longer term. It is therefore particularly relevant to consider the long-term benefits and costs of banks' total capital requirements when assessing the SyRB rate.

The economic benefit of higher capital levels for banks is a lower risk of a severe downturn. At the same time, more solvent banks can reduce the depth of a potential downturn. Capital requirements can also entail costs. If higher capital requirements increase banks' funding costs, the knock-on effect can be higher lending rates and lower economic growth.

Estimates of the costs and benefits of capital requirements are uncertain. These estimates often show a range for the level of capital that should be held based on various underlying assumptions.[10] The SyRB rate should not mechanically follow such estimates. The analyses have a long-term or equilibrium perspective. The assessment of current structural vulnerabilities may therefore indicate a different SyRB rate than implied by the analyses in isolation.

Stress tests should be included in the information basis for the assessment of the SyRB rate. Stress tests are based on banks' capital ratios, earnings and loss prospects in a downturn given the assessment of cyclical and structural vulnerabilities in the financial system. Stress tests can therefore shed light on whether banks hold sufficient capital to weather a severe downturn with large losses without amplifying the downturn by tightening credit conditions. Furthermore, stress tests with network analyses can be useful for analysing the mechanisms behind

[10] For an overview of analyses in different countries, see for example BCBS (2010) and an updated analysis in BCBS (2019). For an updated analysis based on Norwegian data, see Andersen and Juelsrud (2022, forthcoming).

banking sector interconnectedness. Losses at one bank can lead to direct losses for other banks. Indirect losses can for example arise from banks' fire sales of securities, and a fall in securities prices can inflict losses on other banks that own similar securities.

iv. Banks' adjustments in response to a change in the SyRB rate

When Norges Bank is considering issuing advice on changing the SyRB rate, banks' options for adjusting to the change and the effects of the change on the economy in the near term must also be assessed. In considering whether to increase the SyRB rate, an assessment is made of banks' need to raise capital, adjust their dividend policy or increase earnings by raising lending rates. Such an assessment can be based on banks' capital ratios, earnings and lending growth. There is a range of empirical evidence regarding the effects of these adjustments in different situations (see "A framework for decisions on the countercyclical capital buffer", Norges Bank (2022)).

The SyRB rate can be reduced in the event of a severe downturn when a reduction of the CCyB rate is not sufficient. Any reduction of the SyRB will be based on the same assessments as a reduction of the CCyB (see Norges Bank (2022)). In such a situation, it must be assessed whether a reduction of the SyRB rate will dampen the downturn, and at the same time whether banks are sufficiently capitalised to weather the downturn. Stress tests and loss prospects can contribute to this assessment. Banks' access to wholesale funding, the buffer's interaction with other capital requirements and potential dividend restrictions must also be considered. Furthermore, the effect of a reduction will be influenced by banks' expectations as to when the SyRB rate will be increased again. To give banks predictability, when Norges Bank advises a reduction in the SyRB rate, the Bank will indicate the earliest date on which advice to raise the SyRB rate again is expected to be given.

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