FI Analysis No. 39

Are the capital buffers fulfilling their purpose?

– The relationship between MREL and capital requirements

By: **Viktor Forsström, Niclas Lindegren and Ludvig Tingåker ***

Summary

A bank must have sufficient capital to cover the risks to which it is exposed. Banks are therefore subject to capital requirements, which include both minimum requirements and buffer requirements. The buffers provide an extra cushion of capital above the minimum requirement, allowing banks more capacity for continuing to issue loans and thus supporting the economy. This also allows the banks to absorb losses and gives them time to take measures to restore their capital, which reduces the risk that the banks will fail and be placed into resolution.

In order to manage banks that despite this still fail and are placed into resolution, there are rules that apply to systemically important banks to also meet a parallel requirement: the minimum requirement for own funds and eligible liabilities (MREL). MREL aims to ensure that a bank can be wound up or reconstructed without having to use public funds. The capital requirements and MREL may be met partly by using the same resources – the bank's own funds.

Because the framework is designed in such a manner that a bank can breach the resolution requirements before it breaches the capital requirements, MREL can become the bank's most restrictive requirement. This means that the bank will operate according to how much own funds and liabilities it is required to hold for resolution management. The capital buffers' aim to absorb losses and reduce the risk of the bank being placed into resolution becomes subordinate to the bank meeting the resolution requirements. This means that the bank may be forced to reduce its activity and shrink its balance sheet and in the long run face the risk of becoming subject to dividend restrictions or an intervention, even though it still meets its capital requirements. The impact is not as significant for a bank that meets MREL with a larger surplus of liabilities. A higher percentage of debt financing, however, leads to greater refinancing risks.

16 December 2022, FI Ref. 22-28337

* The authors would like to thank in particular Susanne Andersson, Björn Bargholtz, Johan Berg, Maria Blomberg, Henrik Braconier, Magnus Eriksson, Erika Goldkuhl, Pär Holmbäck, Lars Hörngren, Karin Lundberg, Stefan Palmqvist, Caroline Rygaard and Richard Williams.

The FI Analysis series has been presented at an internal seminar at FI. The report has been approved for publication by an Editors' Board.

A bank needs to have capital and liabilities

The capital adequacy regulation requires a bank[1] to meet two minimum capital requirements simultaneously: a risk-based capital requirement and a leverage-based capital requirement. The risk-based capital requirement also includes several capital buffers which together form a combined buffer requirement. The purpose of the capital buffers is for the banks to hold capital that can be used to maintain lending and manage unforeseen losses without running the risk of ending up in resolution.[2] It thus creates flexibility for both the bank and the supervisory authority responsible for assessing a bank's viability. As such, the capital requirements entail, via the buffers, a so-called going concern principle, where parts of the capital can be used if the supervisory authority assesses the bank to be viable.

A bank's total capital requirements may also include a so-called Pillar 2 Guidance. Through this guidance, Finansinspektionen (FI) can inform a bank of any additional own funds the authority considers the bank should maintain in addition to the other components in the capital requirement to cover risks and manage future financial pressures. The guidance applies to both the risk-based and the leverage-based capital requirements.

There are thus different components in the capital requirements – both in the risk-based requirement and in the leverage-based requirement – that a bank must fulfil with capital which should be usable in the event of, for example, incurred losses.

MREL is a parallel requirement on capital and liabilities

Following the global financial crisis, regulation was introduced both globally and in the EU to create a new procedure for dealing with insolvent banks. This procedure is called resolution and means that the state can take over control of a bank and reconstruct or liquidate it at the same time as the bank's shareholders and creditors bear the costs for losses incurred.[3] In order to ensure that the private sector can bear the costs of a bank that fails, the banks must – in addition to the capital requirements – meet a parallel requirement on own funds and eligible liabilities. This requirement is called MREL and is largely determined by the Resolution Act (2015:1016), which is the Swedish transposition of the BRRD

[1] In this report, banks and credit market companies are referred to collectively as *banks.*
[2] See FI (2020) for FI's view on usability.
[3] For the global crisis management rules, see Financial Stability Board (FSB) (2014). The rules have been implemented in the EU through the Bank Recover and Resolution Directive 2014/59/EU (BRRD).

(2014/59/EU).[4] In Sweden, the Swedish National Debt Office (SNDO) is the responsible resolution authority and decides on MREL when establishing the resolution plan for a bank. The SNDO also monitors that the bank complies with MREL.[5]

MREL aims to ensure that enough resources are available to restore capital so that a bank that has undergone resolution meets its capital requirements again. MREL is therefore based on the capital requirements. Just like there is a risk-based and a leverage-based capital requirement, there is a risk-based and a leverage-based MREL. MREL is calculated as the sum of a loss-absorption amount and a recapitalisation amount (see Table 1). Like the capital requirements, a bank must comply with MREL at all times. Otherwise, both FI and the SNDO can take action (see the fact box Consequences of non-compliance with requirements).

In addition, there are separate requirements in the Resolution Act that part of MREL must be fulfilled with subordinated instruments. Subordinated instruments consist of own funds and subordinated liabilities (see the fact box Eligible liabilities). The so-called subordination requirements are thus part of MREL and cannot exceed the risk-based or leverage-based MREL. Just like MREL, they are expressed in a risk-based and a leverage-based requirement.[6] The subordination requirements are laid down in the act, but the SNDO has some scope for determining the design of MREL. Below we show the parts of the capital requirements that are included in the calculation of MREL and the subordination requirements according to the SNDO's application (see Table 1).

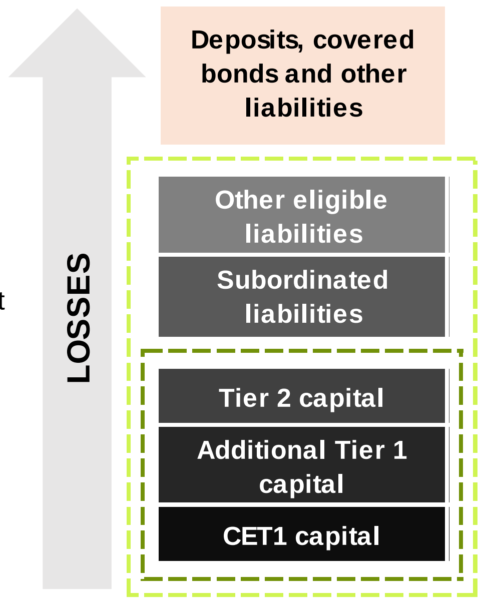
[4] For more information on how resolution process is carried out, see Riksgälden (2018).
[5] The SNDO has described its application of MREL in more detail in Riksgälden (2021).
[6] The MREL levels we are discussing are decided by the SNDO and will apply as of 1 January 2024. Until then, lower target levels apply to the requirements in order to phase in the new requirements and give the banks time to issue the necessary instruments. The double counting ban, see more below, also applies during the phase-in period.

Table 1. Average MREL and subordination requirements for the three major Swedish banks

	Loss-absorption amount	**Recapitalisation amount**
Risk-based MREL (% of REA)	Sum of Pillar 1 minimum requirement and Pillar 2 requirement (9.83)	The bank's total capital requirement excluding countercyclical buffer (17.83)
Leverage-based MREL (% of LRE)	Minimum leverage ratio requirement (3.00)	Minimum leverage ratio requirement (3.00)
Risk-based subordination requirement (% of REA)	Twice the loss-absorption amount (19.67)	
Leverage-based subordination requirement (% of LRE)	8% of the bank's total liabilities and own funds (TLOF) but a maximum of 6% of the leverage ratio exposure (LRE) (6.00)	

Source: FI and the SNDO.
Note: REA stands for risk exposure amount and LRE stands for leverage ratio exposure. MREL and subordination requirements are based on the requirements that will apply as of 1 January 2024. The numbers in parentheses indicate the level of the requirements if MREL has been based on the capital requirements that applied as of Q2 2022.

Fact box – Eligible liabilities



Banks finance themselves to a large extent through deposits or market funding, both of which are classified as liabilities on a bank's balance sheet. In resolution, certain debts can be written down or converted to share capital. They are called eligible liabilities. Liabilities that are not eligible are, for example, deposits covered by the deposit guarantee or covered bonds. Eligible liabilities are typically debt instruments that a bank issues as part of its regular market funding (often so-called *senior unsecured funding*). The Resolution Act states the order in which different creditors can have their claims written down or risk having them converted to shares. Eligible liabilities can also be *subordinated* (so-called *senior non-preferred funding*). This is a category of liabilities that has a lower priority than other eligible liabilities and which therefore will bear losses (in the form of conversion or write-down) second only to equity and other own funds instruments. They will thus be utilised before other eligible liabilities. The purpose of this distinction is to make it clear to the bank's investors and other actors which level of risk that is potentially associated with different forms of investments.[7]

Several requirements must be met at the same time

A bank has several different requirements to adhere to. These requirements must be met with partly the same and partly different forms of capital and liabilities. The bank needs to have sufficient capital to meet its capital requirements. At the same time, the bank needs to have sufficient capital and subordinated liabilities to fulfil the subordination requirement. Finally, the bank also needs to have sufficient capital and eligible liabilities to fulfil MREL (see the green dashed lines in Figure 1).

There are also limitations on how much of the capital that may be used to cover MREL and the subordination requirement. The Capital Buffers Act (2014:966) requires that the capital a bank uses to meet the combined buffer requirement may not be used to also meet the risk-based MREL or the risk-based subordination requirement.[8] This is called the double counting ban and in practice this means that the combined buffer requirement must be complied with in addition to the risk-based subordination requirement and the risk-based MREL (see Figure 1 where the combined buffer requirement is superimposed on MREL and the subordination requirement). The purpose of the double counting ban is to enable a certain part of the capital to be released so that a bank can make losses without breaching either the risk-based minimum capital requirement or the risk-based MREL.

Fact box – Consequences of non-compliance with requirements

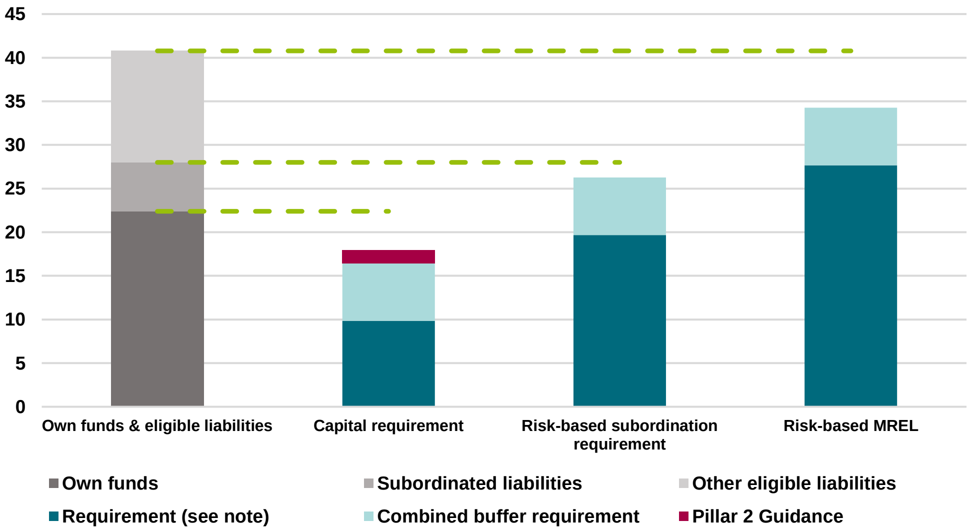
As a general rule, FI must intervene against a bank that does not have enough capital to comply with the capital requirements. FI determines which measures are to be taken depending on which parts of the requirements the bank violates and the wider circumstances at hand. Furthermore, according to the regulation, a bank is subjected to automatic restrictions on certain distributions if it does not have enough capital to meet the combined buffer requirement, for example restrictions on dividends and coupon payments on Additional Tier 1 instruments. In such a situation, the bank must also submit a capital conservation plan to FI describing how to restore its capital. Under certain conditions, FI also has the option to take

[7] Swedish National Debt Office (2017) and Holmbäck Adelwald (2021).
[8] See Chapter 2, section 1, third paragraph, point 2 of the Capital Buffers Act. In the diagram, the double counting ban is illustrated by superimposing the combined buffer requirement onto the subordination requirement and MREL in accordance with Chapter 4, section 29 of the Resolution Act.

action if a bank does not maintain sufficient level of own funds to fulfil the Pillar 2 Guidance.

If a bank does not have enough capital and liabilities to meet both MREL and the combined buffer requirement (the double counting ban), the bank may be subject to decisions prohibiting distributions such as dividend restrictions. Such a decision is made by the SNDO. FI may also intervene if a bank violates the risk-based or leverage-based MREL and the subordination requirements.[9]

1. Average risk-based requirements for the three major Swedish banks
Percentage of REA



Source: FI and the SNDO.
Note: *Requirement* corresponds to Pillar 1 minimum requirements and Pillar 2 requirement as well as MREL and the subordination requirement. Own funds, liabilities and the capital requirement refer to the levels that applied as of Q2 2022. MREL and subordination requirement refer to fully phased-in requirements that will apply as of 1 January 2024. The combined buffer requirement is not part of the subordination requirement or the MREL requirement but is visualised as above to show the total need for capital and liabilities resulting from the so-called double counting ban. The green dashed lines illustrate how much the bank exceeds each requirement.

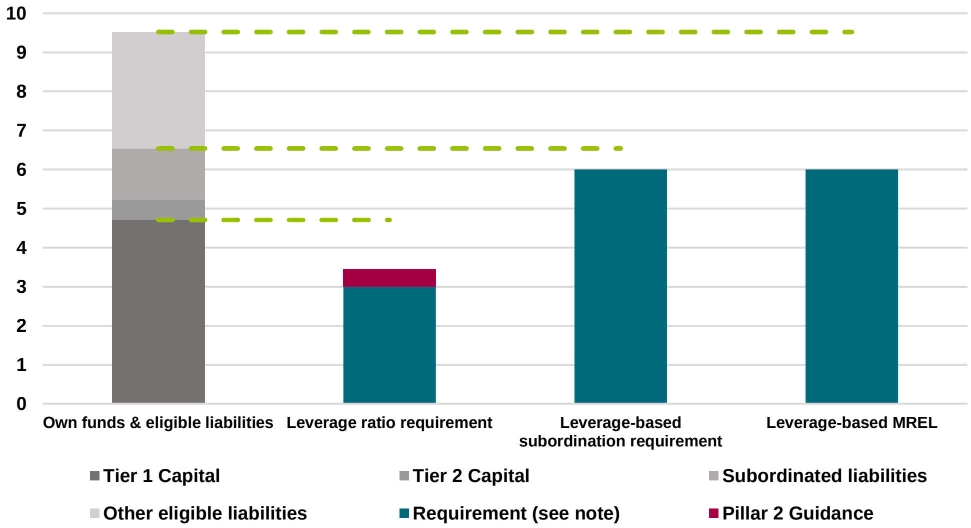
The same applies to the leverage ratio requirement as well as the leverage-based MREL and subordination requirement. The bank needs to have enough capital to meet the leverage ratio requirement. In addition, the bank is required to have capital and subordinated liabilities for the subordination requirement but also enough capital and eligible liabilities for MREL (see Figure 2). Averaged across the major banks, the lowest margin relative to requirements is for the subordination

[9] See Chapter 4, section 33 of the Resolution Act (2015:1016) and Chapter 15, section 1 of the Banking and Financing Business Act (2004:297).

requirement, both among the risk-based and leverage-based requirements (see the difference between the requirements and the green dashed lines in Figures 1 and 2).

2. Average leverage-based requirements for the three major Swedish banks

Percentage of LRE



Source: FI and the SNDO.

Note: *Requirement* corresponds to Pillar 1 minimum requirement as well as MREL and the subordination requirement. Own funds, liabilities and the leverage ratio requirement refer to the levels that applied as of Q2 2022. MREL and subordination requirement refer to fully phased-in requirements that will apply as of 1 January 2024. Tier 2 Capital cannot be used to meet the leverage ratio requirement but may be used for MREL and the subordination requirement. The green dashed lines illustrate how much the bank exceeds each requirement.

Scenario analysis

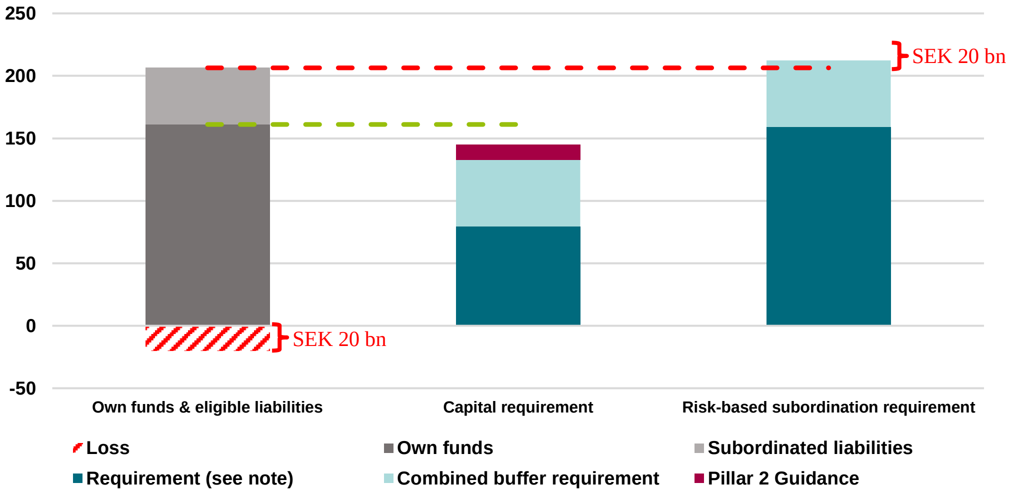
For a bank's buffers to be usable for maintaining its lending and reducing the risk of resolution, a bank must be able to use its buffers without triggering significant restrictions. In this respect, however, the usability is limited if the capital the bank maintains for its buffers needs to be used to fulfil another requirement. In this scenario analysis, we examine how this impacts an average major Swedish bank based on available capital and liabilities as of the second quarter 2022.[10]

Banks risk breaching the resolution requirements first

If the bank initially makes a loss of SEK 20 billion, own funds are reduced by the corresponding amount. In such a scenario, the bank does not have enough capital and subordinated liabilities to meet the risk-based subordination requirement (see the red dashed line in Figure 3). The bank now falls below the threshold for when the SNDO can decide on a ban on distributions. At the same time, the bank has enough capital to meet its capital requirements, including the capital buffers (see the green dashed line in Figure 3).

[10] The results of the scenario analysis refer to an average major bank. For individual banks, the situation is different.

3. The amount of own funds decreases by SEK 20 billion
SEK billion

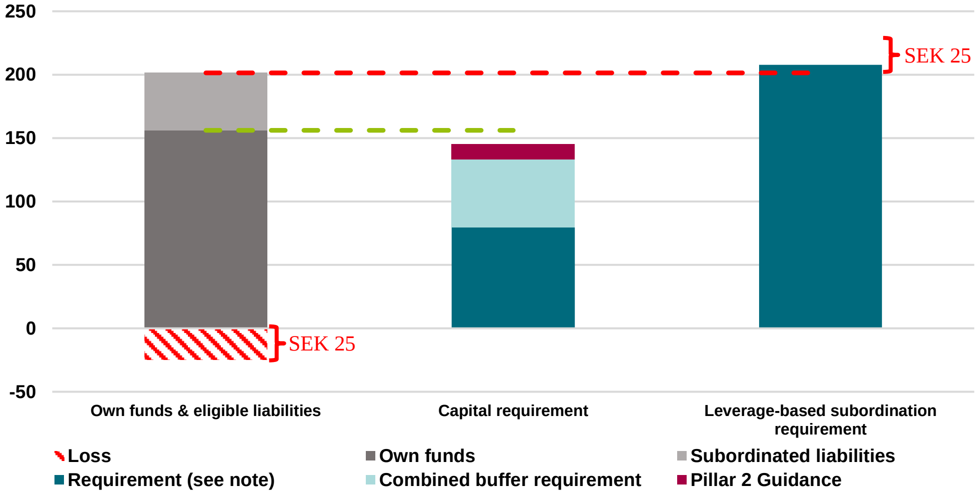


Source: FI and the SNDO.
Note: A bank's risk-based capital and subordination requirements following a decrease in own funds by SEK 20 billion. *Requirement* corresponds to Pillar 1 minimum requirement and Pillar 2 requirement as well as the subordination requirement. Own funds, liabilities and capital requirements refer to the levels that applied as of Q2 2022. The subordination requirement refers to the fully phased-in requirement that will apply as of 1 January 2024. All numbers refer to an average of the three major Swedish banks. The combined buffer requirement is not part of the subordination requirement but is visualised as above to show the total need for capital and liabilities resulting from the so-called double counting ban. The red and green dashed lines illustrate that the bank violates the risk-based subordination requirement while fulfilling the capital requirement.

In a scenario where the average major bank incurs even bigger losses, for example SEK 25 billion, the bank no longer has enough capital and subordinated liabilities to fulfil the leverage-based subordination requirement. The leverage-based subordination requirement is not covered by the double counting ban, and when the bank breaches the requirement, it therefore directly breaches a minimum requirement (see the red dashed line in Figure 4). Even in this scenario, the average major bank fulfils its capital requirement (see the green dashed line in Figure 4). The capital buffers – which are supposed to be used to ensure the bank's survival (*going concern*) – are instead used to fulfil the resolution requirement in the form of the leverage-based subordination requirement. This means the bank may be forced to cut back on its lending and reduce the balance sheet in a situation where it still has a margin to its capital requirements, and in the long run become subject to intervention from FI.

4. The amount of own funds decreases by SEK 25 billion

SEK billion



Source: FI and the SNDO.

Note: A bank's risk-based capital requirement and leverage-based subordination requirement following a decrease in own funds by SEK 25 billion. *Requirement* corresponds to Pillar 1 minimum requirement and Pillar 2 requirement as well as the subordination requirement. Own funds, liabilities and capital requirements refer to the levels that applied as of Q2 2022. The subordination requirement refers to the fully phased-in requirement that will apply as of 1 January 2024. All numbers refer to an average of the three major Swedish banks. The red and green dashed lines illustrate that the bank violates the leverage-based subordination requirement while fulfilling the capital requirement.

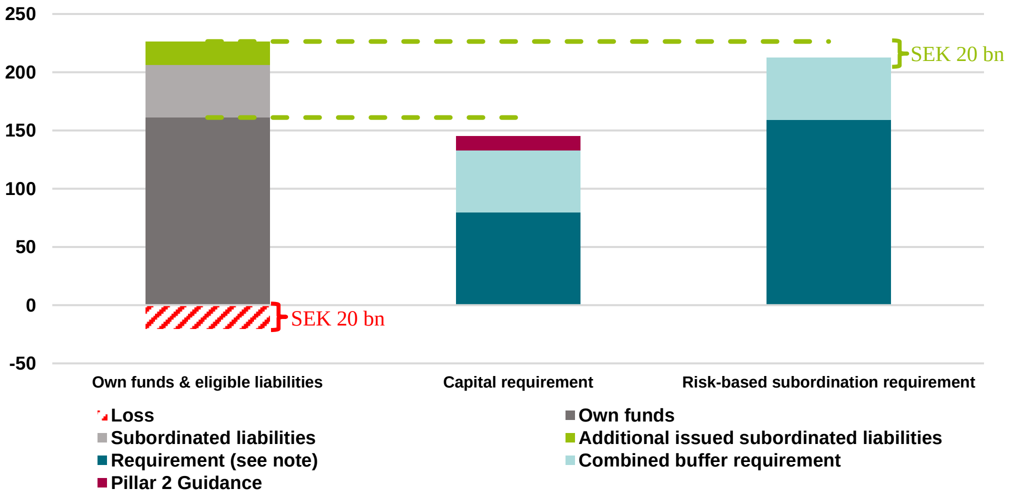
A greater share of liabilities can create a larger margin...

A greater amount of subordinated liabilities mean that the bank is further away from the risk-based subordination requirement. This creates a margin relative to the requirements and consequently the bank faces a greater possibility of fulfilling both MREL and the combined buffer requirement if the bank starts making losses. Compared to the previous scenario (see Figure 3), a bank that has a greater amount of subordinated liabilities at the outset, has a larger margin to its subordination requirement if the bank makes a corresponding loss of SEK 20 billion (see Figure 5).

Capital-consuming losses do not become as problematic because the bank fulfils both the capital requirement and the subordination requirement (see the green dashed lines in Figure 5). Hence, the bank does not risk prohibition of distributions as a consequence of the double counting ban. As such, the capital that the bank uses to meet the combined buffer requirement, can act as a shock absorber for the capital requirements if the bank were to make further losses. Obviously, the same applies if the bank maintains more excess capital to fulfil MREL. However, building up equity or issuing capital instruments is generally more expensive than issuing subordinated debt.

5. The amount of own funds decreases by SEK 20 billion, but the bank has another SEK 20 billion in subordinated liabilities

SEK billion



Source: FI and the SNDO.

Note: A bank's risk-based capital and subordination requirements following a decrease in own funds by SEK 20 billion and an additional SEK 20 billion in subordinated liabilities. *Requirement* corresponds to Pillar 1 minimum requirement and Pillar 2 requirement as well as the subordination requirement. Own funds, liabilities and capital requirements refer to the levels that applied as of Q2 2022. The subordination requirement refers to the fully phased-in requirement that will apply as of 1 January 2024. All numbers refer to an average of the three major Swedish banks. The combined buffer requirement is not part of the subordination requirement but is visualised as above to show the total need for capital and liabilities resulting from the so-called double counting ban. The green dashed lines illustrate that the bank fulfils both the risk-based subordination and capital requirement.

…but refinancing risks can create problems

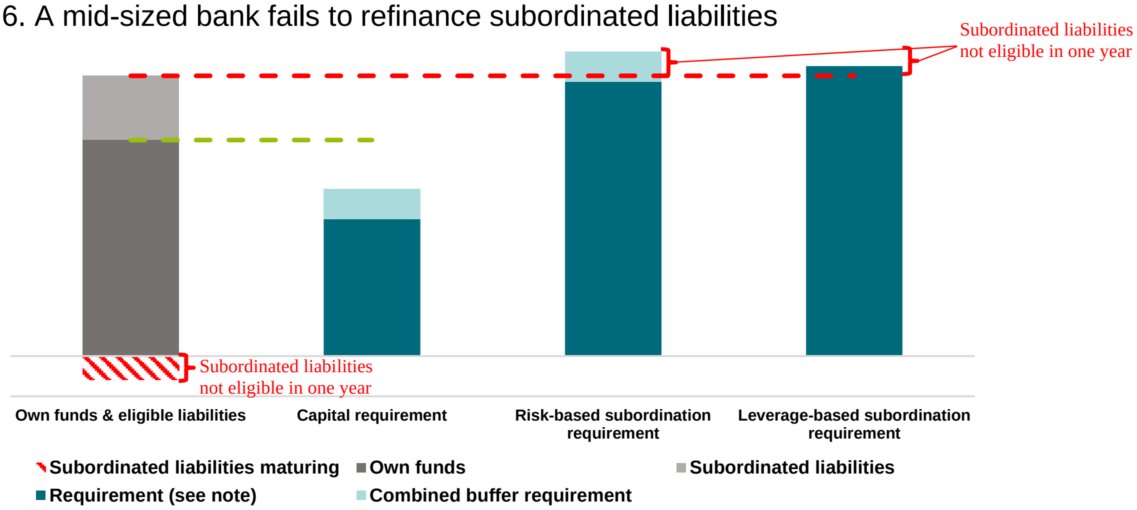
A greater amount of subordinated liabilities can therefore result in that the capital buffers can be used to a greater extent to ensure the bank's survival if unexpected losses occur. However, unlike Common Equity Tier 1 capital, liabilities have a fixed term. Fulfilling MREL and the subordination requirements with a larger share of liabilities therefore simultaneously increases refinancing risks (the risk of not being able to replace liabilities that fall due for payment). There can be many reasons for why a bank's ability to issue debt is impaired. The market's view of the individual bank's financial position may have changed, for example if the bank has started to make losses or has small margins to its capital requirements. But it could also be due to changes in the view of the entire sector or that the general appetite for risk have shifted.

If there are general changes in the market's appetite for risk, all banks – regardless of their financial situation – may find it difficult to refinance liabilities that fall due. In the end, this could mean that a bank that fulfilled MREL by issuing more subordinated liabilities still risks breaching MREL if the bank finds it difficult to refinance its liabilities.[11] A larger share of liabilities at the outset is therefore no guarantee that the capital buffers can be used in the event of unexpected losses, even if this creates a margin to the subordination requirements (which are currently the requirements to which the banks have the lowest margin).

Currently, some banks have not issued subordinated liabilities to the extent required to create margins so that the capital buffers do not need to be used to meet the subordination requirements. In particular, this applies to the mid-sized banks. As an example, it is therefore shown how a mid-sized Swedish bank fulfils the capital requirements and the subordination requirements. In the example, we have excluded the subordinated liabilities that have such a short term that they need to be refinanced in the coming year. We have therefore assumed that the bank has not succeeded in refinancing these liabilities. In this scenario, the bank violates the leverage-based subordination requirement and may be subject to intervention (see the red dashed line in Figure 6)[12] despite the bank not violating its capital requirement, including the combined buffer requirement (see the green dashed line in Figure 6).

[11] For FI's previous opinions on refinancing risks, see FI (2016a).
[12] The capital adequacy regulations require liabilities that may be used to meet MREL and the subordination requirement to have a remaining term of at least one year (see Article 72c.1 of Regulation (EU) No. 575/2013 on prudential requirements for credit institutions).

6. A mid-sized bank fails to refinance subordinated liabilities



Source: FI and the SNDO.

Note: A mid-sized Swedish bank's own funds, subordinated liabilities and subordination requirements, assuming that subordinated liabilities that fall due as eligible liabilities in one year are not refinanced. *Requirement* corresponds to Pillar 1 minimum requirement and Pillar 2 requirement as well as the subordination requirements. Own funds, liabilities and capital requirements refer to the levels that applied as of Q2 2022. Subordination requirements refer to fully phased-in requirements that will apply as of 1 January 2024. The combined buffer requirement is not part of the risk-based subordination requirement but is visualised as above to show the total need for capital and liabilities resulting from the so-called double counting ban. The red and green dashed lines illustrate that the bank violates the leverage-based subordination requirement while simultaneously fulfilling the capital requirement.

The purpose of capital buffers is at risk

Based on the scenarios we have presented, in which we apply the allocation of capital and liabilities the banks reported in the second quarter 2022, a bank could breach MREL before breaching the combined buffer requirement in the capital requirement. FI has previously shown that the leverage ratio requirement can limit the capital buffers' usability.[13] Now we show that the same applies to MREL.

The design of the regulatory framework of MREL, and the fact that MREL is set at a higher level than the capital requirements, results in that a bank may need to use more capital to meet MREL or, for that matter, not to risk dividend restrictions in case of possible losses. Hence, MREL can become the most restrictive requirement, which can lead to the bank breaching the resolution requirements before it breaches the capital requirements. In other words, the bank may come to operate according to how much capital it needs to be managed in resolution and not according to how much capital it needs to avoid resolution (the so-called *going concern principle*). In such cases, there is a risk that the bank will feel forced to cut back on its lending and reduce its balance sheet even though it has a margin to its capital requirements.

As for the leverage ratio requirement, the requirement limits parts of the capital buffers for some banks. However, MREL can limit the entire buffer. In addition to their capital requirements, the banks also maintain capital for a so-called management buffer, but this does not necessarily mean that the banks have the flexibility in relation to their capital requirements that their own buffer is supposed to create. Our scenarios indicate that this capital may also have to be used to meet MREL, since the banks have a buffer to their capital requirements when they breach MREL.

The subordination requirement is the requirement to which the banks have the lowest margin. Based on the current level of subordinated liabilities in the banks, the subordination requirement limits the capital buffers' ability to handle unforeseen losses. However, MREL is not fully phased in until 1 January 2024. The banks thus have the opportunity until then to issue more subordinated liabilities, or capital, to create room to manoeuvre and mitigate the impact of losses that absorb capital.

[13] FI has previously pointed out that the leverage ratio requirement, when designed as a minimum requirement, reduces the usability of the risk-based capital buffers; see Finansinspektionen (2016b).

References

FI (2016a). Response to the Swedish National Debt Office's memorandum Application of the Minimum Requirement for Eligible Liabilities (Reg. no RG 2016/425), *Consultation response*, 2016-05-31, FI Ref. 16-6777.

FI (2016b). Leverage ratio as a minimum requirement reduces banks' buffers, *FI Analysis No 7*. Finansinspektionen.

FI (2020). New Capital Requirements for Swedish Banks, *Memorandum*, 2020-11-20, FI Ref. 20-20990.

FSB (2014). Key Attributes of Effective Resolution Regimes for Financial institutions. http://www.fsb.org/wp-content/uploads/r_141015.pdf.

Holmbäck Adelwald, P. (2021). From bailout to bail-in: making banking a legitimate part of the market economy. *Economic Affairs, 48*, 430-441.

Riksgälden (2017). Application of the minimum requirement for own funds and eligible liabilities, *Decision memorandum,* 2017-02-23, Reg. no RG 2016/425.

Riksgälden (2018). Crisis management of banks and other institutions, *Report,* 2018-06-11, Reg. no RG 2018/518.

Riksgälden (2021), *Kravet på kapitalbas och kvalificerade skulder (MREL) – MREL-policy* [The minimum requirement for own funds and eligible liabilities (MREL) – MREL policy], Reg. no RG 2021/26.