

## Total loss-absorbing capacity, TLAC, and Swedish banks

Camilla Ferenius and Robin Tietz<sup>1</sup>

The authors work in the Financial Stability Department of the Riksbank

In the aftermath of the financial crisis, measures have been taken to avoid public money being used to save large troubled banks in the future, i.e. to end the too-big-to-fail problem. In contrast to the public “bail-outs” of banks, the new regime foresees a “bail-in” of failing banks. That is, the losses are absorbed by the bank’s shareholders and creditors, instead of taxpayers. The regulation on Total Loss-Absorbing Capacity, TLAC, aims to ensure that the global systemically important banks have sufficient capital and debt instruments available that can be “bailed-in” (written down or converted into equity to absorb losses and recapitalize). In short, this is done by determining what instruments are considered loss-absorbing and stipulating that global systemically important banks have to hold a minimum portion of these instruments.

In this commentary, we explain what the Total Loss-Absorbing Capacity, TLAC, entails and its proposed use in a bank resolution. This is followed by a discussion on the effects in Sweden.

### Resolution and bail-in

In the financial crisis, the so-called too-big-to-fail problem became apparent. When the really global large banks had problems, they were considered too systemically important for the authorities to let them default. The complexity of the large cross-border banks and the interconnectedness between them led to uncertainty on the implications and possible contagion effects should one bank fail. Normal insolvency proceedings did not take these issues into account and were therefore considered inadequate for large banks. To maintain the provision of critical financial services to society, several jurisdictions “bailed-out” the banks, i.e. capitalized banks with public money or provided state guarantees.

As part of the regulatory response to the crisis, measures have been taken to deal with failing banks more effectively. One of the most important features in the resolution procedure of failing banks is a “bail-in” in contrast to the public “bail-out”. In short, bail-in means that losses at a failing bank are absorbed by wiping out the bank’s equity and writing down a sufficient share of debt instruments. Subsequently, the resolution authority can recapitalize the bank by converting the bank’s debt instruments into new equity, to the extent necessary for the bank to fulfil the regulatory capital requirements and gain market confidence.<sup>2</sup>

To better understand the process of bail-in, it is worth recalling what a normal insolvency proceeding looks like. In this case, the assets of the firm are sold and the proceeds distributed to the stakeholders of the firm. If the losses are large, not all creditors, if any, will receive back the full amount of their claims. Therefore, it matters in which order the individual creditors will get paid. Those who are reimbursed earlier

1. The authors would particularly like to thank Albina Soultanaeva, Jonas Niemeyer, Anders Rydén, Eva Forssell, Olof Sandstedt and Marcus Petersson for their comments.

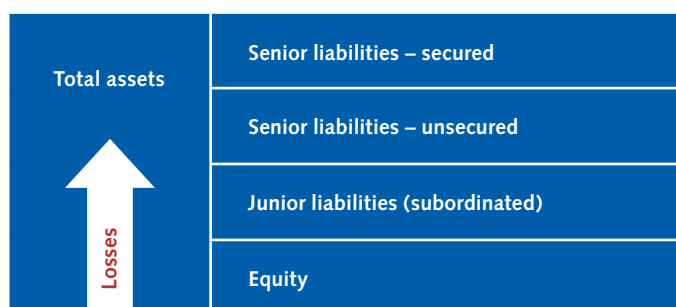
2. For more information, see The bail-in tool from a Swedish perspective by Elin Eliasson et al., Sveriges Riksbank Economic Review 2014:2.

In the aftermath of the financial crisis, global financial regulators have taken measures to ensure that banks are able to absorb their losses without stopping the provision of critical economic functions and without the need for financial support from the public sector. The regulation on Total Loss-Absorbing Capacity, TLAC, aims to ensure that the global systemically important banks have sufficient capital and debt instruments available that can be “bailed-in” (written down or converted into equity to absorb losses and recapitalize). That is, the losses are absorbed by the bank’s shareholders and creditors, instead of taxpayers. If the TLAC standard became binding today and were applied to all major Swedish banks, the Riksbank’s calculations show that the banks may need to raise their loss-absorbing capacity from current levels to comply with the twofold requirement. However, even with conservative assumptions on which of the banks instruments are TLAC eligible, it seems feasible for the banks to take action to comply with the requirement before it becomes binding in 2019.

are said to have a higher priority ranking in the hierarchy than those that get paid later. Simplified, creditors fall into two broad buckets: “Senior” and “Junior” creditors. Senior creditors have higher priority ranking than junior creditors and therefore get paid before junior creditors. Furthermore, creditors with claims that are secured (e.g. covered bonds) will not be exposed to losses in bail-in if the collateral amounts to or exceeds the value of the liability. The more exact order usually follows from national insolvency laws. However, one universal rule is that shareholders are paid out only after the claims of all other creditors are settled.

Similar to bankruptcy, the order in the hierarchy is also important in a bank bail-in. In this case, the ranking determines the order with which creditors have to absorb losses. The priority ranking of any stakeholder is in principle the same. A simplified illustration can be found in Figure 1. Losses are first absorbed by shareholders, then by junior creditors and last by senior creditors<sup>3</sup>. In this context, junior claims are referred to as “subordinated” to senior.

**Figure 1. Stylized balance sheet with classes of liabilities in resolution.**



There are rules and conditions that specify which debt instruments a resolution authority can bail-in and which it cannot. In general, the resolution authority will follow the normal hierarchy and start by ensuring that equity covers the losses and then, if wiping out the equity is not sufficient, writing down junior (subordinated) claims. However, there are a number of claims that for various reasons (operational or political) are deemed inappropriate to bail-in, e.g. derivatives and deposits, and these might be explicitly or implicitly excluded from bail-in. More specific rules are determined by the individual resolution regimes in each jurisdiction.

In order for the bail-in tool to be effective, the bank must, when entering into resolution, have sufficient amounts of capital and debt instruments that the resolution authority can credibly bail-in. In other words, if a bank in resolution does not have enough capital and debt instruments that can be bailed-in<sup>4</sup>, the resolution authority would have no choice but to support the bank with public funds. In order to avoid this situation, regulators have decided to require banks to have a sufficient minimum amount of loss-absorbing capacity on their balance sheets.

On the European level, the bail-in concept has been introduced through the Bank Recovery and Resolution Directive (BRRD). To make sure that the banks have sufficient bail-in-able instruments (capital and debt instruments that can be written down or converted into equity) to cover losses, the directive includes a minimum requirement, called MREL (Minimum Requirement for Eligible Liabilities and own funds). In parallel, other jurisdictions have developed frameworks based on similar ideas.

On the global level, considering the need for a level playing field for the global systemically important banks (G-SIBs) whose failure could have large cross-

3. The hierarchy is broken down into more detail levels than senior and junior. Claims within each level (called *pari passu*) have the same rights and losses are distributed proportionally. As an example: If the resolution authority assesses that 60% of junior liabilities have to be written down to cover losses, this does not mean that 60% of the junior claims are written down completely and the rest is not touched, but instead that *all* junior claims are written down by 60% and that 40% of the value of all the junior claims remain.

4. E.g. the balance sheet can mainly be composed of liabilities that are secured or otherwise excluded from bail-in.

border effects, a standard has been developed by the Financial Stability Board, FSB<sup>5</sup>, with a purpose similar to the European MREL.<sup>6</sup> This internationally agreed standard is called TLAC and will have to be implemented into national regulation in individual jurisdictions. For Sweden, the first step is to conclude an agreement on implementation at the EU level. The agreed TLAC requirement applies to the 30 identified global systemically important banks (G-SIBs), including Nordea, but national regulators may decide to expand the scope to include domestic systemically important banks (D-SIBs).

The focus of this commentary is on this globally harmonized minimum standard, called TLAC (Total Loss-Absorbing Capacity).

## Capital and some debt instruments are considered loss-absorbing

The TLAC standard stipulates that a minimum portion of the banks' balance sheet has to be in the form of capital and bail-in-able debt instruments, to ensure that there are sufficient instruments available to absorb losses and recapitalize a bank in a resolution. The issue is what should be considered loss-absorbing and thus allowed to be included in this portion. The formula below gives a first, simplified idea of how the requirement is designed.

$$\frac{\text{TLAC}}{\text{Bank Assets}} = X \%$$

In the development of the framework, a key issue has been to strike a balance between promoting resilience and promoting resolvability. There are two types of loss-absorbing capacity. The capacity to absorb losses in "going concern"<sup>7</sup> increases the banks' resilience because it makes it less likely that a bank will fail and have to be resolved. In contrast, the gone-concern capacity of a bank makes it easier to deal with losses that exceed the going concern capacity, i.e. how to resolve a bank that has already failed. Capital in the form of equity (CET1<sup>8</sup>) can take losses both going and gone-concern while debt instruments can be written down only after the bank has entered resolution and thus has gone-concern loss-absorbing capacity.

Initially, the focus was purely on resolvability and the main aim was to make sure that banks have the capacity to absorb losses gone concern. The argument was that, when reaching the point of entry into resolution, losses might have already eroded the capital (CET1 and Additional Tier 1), while the bank was going concern. In this line of thinking, the TLAC standard would only add value to the regulatory framework if it ensured gone-concern loss-absorbing capacity. However, from a regulatory perspective, the bank would be considered safer if the additional requirement was filled with capital rather than debt instruments. Debt instruments would arguably help resolvability but decrease resilience.

Given that both types of loss-absorbing capacity seem important, the TLAC standard can be met by both capital and debt instruments. Since it includes both going- and gone-concern loss-absorbing capacity, it was named *total* loss-absorbing capacity. Consistent with the tradeoff between resilience and resolvability, there is an expectation, but no mandatory requirement, that at least 33 per cent of the TLAC will be satisfied by debt instruments.<sup>9</sup>

5. The FSB was established in April 2009, with a mandate by the Heads of State and Government of the Group of Twenty to promote financial stability. The Financial Stability Board (FSB) is an international body that monitors and makes recommendations about the global financial system. <http://www.fsb.org/>.

6. G20 Summit in November 2015 <http://www.fsb.org/2015/11/total-loss-absorbing-capacity-tlac-principles-and-term-sheet/>

7. Banks can absorb losses through their equity by diminishing the value of shareholder capital. Unless the minimum capital requirements for a bank are breached, this can happen while the bank's business is still ongoing. Therefore these instruments are called going-concern loss-absorbing capacity. Banks can also absorb their losses indirectly, by writing down or converting a debt instrument into equity. This usually requires that the bank is put into resolution, which means that the banks' ability to run its normal business is gone. For this reason, such debt instruments are called gone-concern loss absorbency.

8. Common Equity Tier 1 (CET1) is the most loss-absorbing form of capital and is mainly composed of common shares and retained earnings.

9. US proposes to implement this debt requirement on their G-SIBs.

## Not all debt instruments can be counted as TLAC

It has to be certain that the instruments included in TLAC can bear losses when needed, i.e. when entering resolution. Because it is highly uncertain that some liabilities could be bailed-in, for political or operational reasons, they have been explicitly excluded from TLAC eligible liabilities. Most importantly, insured deposits and derivatives are excluded; the left hand panel of Figure 2 shows further details.

It also has to be credible that the loss-absorbing capacity for the bank to manage losses is available when entering resolution, does not disappear at the first sign of problems, and can be bailed in smoothly and without litigation risk. Hence, there are certain criteria that instruments have to fulfill to be TLAC eligible, and these are outlined in the right-hand panel of Figure 2.

Figure 2. TLAC eligibility, excluded liabilities and criteria

List of liabilities excluded from TLAC e.g.	Instruments must fulfill certain criteria to be TLAC eligible e.g.
<ul style="list-style-type: none"><li>• Insured deposits</li><li>• Derivatives (incl. structured notes)</li><li>• Liabilities not arising from contract e.g. tax liabilities</li><li>• Liabilities which are preferred to senior unsecured (i.e. secured)</li><li>• Liabilities excluded from bail-in or that cannot be bailed-in without risk of legal challenge</li></ul>	<ul style="list-style-type: none"><li>• Be unsecured</li><li>• Have a remaining maturity of at least one year</li><li>• Generally must absorb losses prior to excluded liabilities i.e. they must be subordinated</li></ul>

The most important criteria are that they must be unsecured and have a residual maturity of at least one year. They also have to be subordinated (junior) to all excluded liabilities (like derivatives or deposits) so as not to give rise to legal uncertainty.<sup>10</sup> As mentioned before, subordination refers to the position in the hierarchy among creditors which determines the sequence by which, in case of bankruptcy, creditors get paid. In this context, a key issue is the subordination of senior unsecured debt, that otherwise would rank equal to some excluded liabilities, such as derivatives.

The subordination can be statutory, contractual or structural.

- In *statutory* subordination, the rank of a creditor is based on provisions in law. This means that the national law specifies the hierarchy among certain creditors, thereby clarifying who has to absorb losses in resolution.
- In *contractual* subordination, the rank of a creditor is determined through the debt instrument contract. The contract could for example specify that, in the event of bankruptcy, the creditor agrees to postpone any claims until more senior creditors are paid.
- *Structural* subordination refers to where in the organizational structure of the banking group the debt is issued. In this context, it means that a debt security issued from the holding company is always structurally subordinated to a debt security issued from an operating company under this holding company. This follows from the fact that a creditor to the holding company only gets access to the operating company's assets after all creditors to the operating company have been paid.

10. Claims in each level of the insolvency hierarchy should take losses proportionally. If one type of claims is excluded, the other claims will have to bear a larger share of the losses and there is a material risk of legal claims against the authorities.

Most of the G-SIBs in the US, the UK and Switzerland have holding company structures and hence debt instruments issued from those will be structurally subordinated and therefore TLAC eligible if meeting all other criteria. On the contrary, Germany and Italy have decided to accomplish subordination the statutory way. While the legal approach is different for the two countries, they have in common that they have adjusted their law so that it clarifies in which order the creditors will have to absorb losses in a resolution. Hence, the banks in these countries do not have to take any actions concerning the subordination requirement. Subject to meeting all other eligible criteria, their senior unsecured debt becomes TLAC eligible because of the change in law.

Regarding the contractual alternative, the banks could either wait until their senior debt matures and then replace it with senior debt whose documentation includes terms that subordinate it in the hierarchy to the excluded senior debt or issue the TLAC eligible instruments in advance of that.<sup>11</sup>

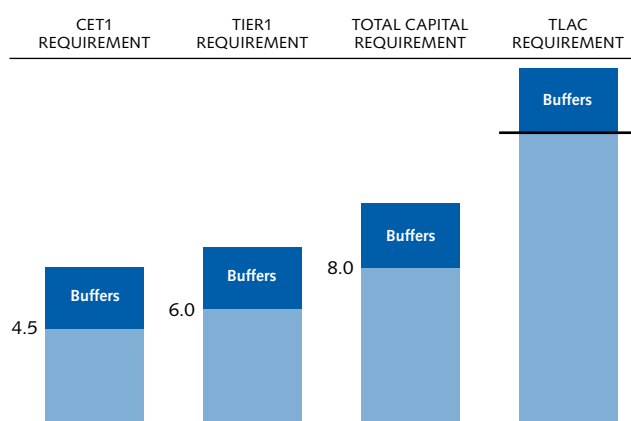
In some cases (e.g. the EU), the resolution authority has the legal power under exceptional circumstances to differentiate among creditors of the same class, i.e. instead of distributing losses proportionally within the same level in the hierarchy, the authority can decide on other distributions. Under these circumstances, TLAC regulation allows for full or partial exemption from the subordination requirement. Hence, European banks are allowed to use senior unsecured debt up to an amount corresponding to 2.5 per cent of risk-weighted assets to satisfy the TLAC requirement, even though they are not subordinated. In 2022, when the exemption is fully phased-in, this amount will be raised to 3.5 per cent of risk-weighted assets.<sup>12</sup>

## Special rules for the capital counted as TLAC to ensure sufficient loss absorbency and consistency with capital regulations

The TLAC standard is an additional requirement to the minimum regulatory capital requirements. Capital instruments that are used to satisfy the regulatory capital requirement can also be used to satisfy the TLAC requirement. In addition, capital in excess of the regulatory requirement can be included in TLAC.

This is illustrated in Figure 3.

**Figure 3. Capital requirements, TLAC and capital buffers**



According to the regulatory capital regulation, total capital must be 8 per cent, *whereof at least 6 per cent has to be Tier 1, and Tier 1 has to be 6 per cent, whereof at least 4.5 per cent must be CET1.* In the same line of thinking, TLAC has to consist of *at least 8 per cent total capital.* Hence, the levels of the requirements are increasing

11. However, the way the contracts of currently outstanding subordinated debt instruments are formulated might complicate the process of reissuing new types of subordinated debt instruments.

12. The use of these exemptions will be subject to discussion in the individual Crises Management Groups, CMGs, and in the FSB Resolution Assessment Program, RAP.

from left to right, but the additional capital can be met with an increasing range of instruments.<sup>13</sup>

Added to the minimum risk-weighted requirement is – as in the capital regulations – the Basel III capital buffers (i.e. the capital conservation, counter-cyclical buffer and G-SIB surcharge). In Figure 3, the buffers are drawn on the top to illustrate that, when losses occur, the buffer requirements will be breached first. The idea is that banks should be able to use the capital buffers to absorb losses in a period of stress without immediately breaching the minimum capital and TLAC requirements.

A breach of these TLAC requirements should, according to the TLAC standard, be treated as seriously by the authorities as a breach or a likely breach of the minimum capital requirements.

## Design and level of TLAC

One lesson from the financial crisis was that there was too little capital in the banks and no effective way of dealing with a failing bank. In addition, national banking supervisors had sometimes not addressed the riskiness of banks appropriately. Accordingly, the TLAC standard includes a *common* minimum requirement which is the same for all G-SIBs. National supervisors may set the requirement higher but not lower.

The amount of TLAC a bank must hold is set both as a portion of the risk-weighted assets as well as in relation to total (non-risk-weighted) exposures.

Thus, **starting from January 2022, G-SIBs must have TLAC corresponding to at least:**

- 18 per cent of risk-weighted assets, RWA and
- 6.75 per cent of total assets (as measured by the leverage ratio, LD<sup>14</sup>).

There is a phase-in stage from January 2019 with TLAC requirements corresponding to 16 per cent of RWA and 6 per cent of total assets (LD).

The G-SIBs have to fulfill both these requirements, making the highest one binding.

13. The FSB impact assessments found that long-run annual output costs for G-SIBs of meeting the requirements can be estimated at 2 to 2.8 basis points of GDP. However, even with the most conservative assumptions, the benefits of TLAC arising from the reduced likelihood and cost of crises exceed these costs. <http://www.fsb.org/2015/11/tlac-economic-impact-assessment-report/>.

14. LD = Leverage ratio denominator.



## Box 1. TLAC is closely related to a similar European regulation (MREL)

The European framework for crisis management, the Bank Recovery and Resolution Directive (BRRD), includes a minimum requirement for own funds and eligible liabilities (MREL). Just like for TLAC, the objective is to ensure that a sufficient amount of “bail-in-able” instruments is still available in the banks when entering into resolution, thereby avoiding the need to use taxpayers’ money. Notwithstanding their similar purposes, there are some differences between the MREL and TLAC. It must be noted, however, that the exact form of MREL will be determined by the national implementations of the BRRD, therefore some of the differences we will now discuss could disappear in some countries.

- **Scope:** Only G-SIBs have to fulfill the TLAC requirement, while all banks in the EU are within the scope of MREL.
- **Minimum standard:** While TLAC will be a binding international minimum requirement that authorities can add firm-specific requirements to, MREL is set on a case-by-case basis by the national resolution authority but based on common criteria in consultation with the competent Supervisory Authority.
- **Level:** TLAC requirement refers to a consolidated level. But MREL is set on a group-consolidated basis, in the case of a large banking group, as well as on the level of individual subsidiaries.
- **Treatment of subordination:** Both requirements are conceptually calculated as the amount of equity and eligible liabilities. For a liability to be eligible, it has to have many of the same characteristics. The main difference is that the MREL does not include the subordination criteria as an explicit requirement, even if the resolution authorities have the possibility to require it. Generally, this implies that there is a potentially larger part of the banks’ balance sheets that meets the MREL criteria than the TLAC criteria.
- **Denominator:** TLAC is expressed in terms of both risk-weighted assets and the leverage ratio denominator. In contrast, MREL is only expressed as a percentage of total liabilities and own funds, which is roughly equal to total assets.
- **Treatment of buffers:** As mentioned, the buffers are excluded from the TLAC RWA requirements, but are included in MREL.
- **Implementation:** TLAC will be implemented in two phases starting in 2019. The MREL was supposed to be implemented on January 1, 2016 with a possibility of a transitional period.

Table 1 provides a brief summary of similarities and distinctions between TLAC and MREL:

Table 1. Differences between TLAC and MREL

	TLAC	MREL
Scope	G-SIBs	All banks <sup>15</sup>
Common minimum	Yes	No
Subordination requirement	Yes	Optional
Requirement for sub-group level	No <sup>16</sup>	Yes
Firm-specific	Yes – add on	Yes
Penalty for breach	Yes, like Basel III	Non regulated
Requirement set with respect to	RWA and LD	Total liabilities and own funds
Debt expectation	Yes, at least 33% <sup>17</sup>	Optional

## There are additional rules to avoid uncoordinated cross-border actions and contagion

Another lesson from the financial crisis was that in many cases there was enough capital in the large banking groups, but in the wrong places. It was not possible in the

15. Mortgage institutions without deposits are exempted.

16. Depends on the authorities’ point of entry – the resolution entity, see next section.

17. There is an expectation that at least 33 per cent of the TLAC minimum requirement should be met with debt instruments to ensure gone concern loss-absorbing capacity. TLAC Term sheet Section 6.

short term to reach and move capital cross-border to those parts of the bank-groups where the losses occurred and where the capital was needed. Instead, host authorities in different countries took actions with respect to their part of the cross-border bank-groups, in order to protect their respective taxpayers, with unnecessary defaults and value destruction as a result.

In order to avoid this kind of value destruction the next time around, it is important to have a cross-border coordinated resolution strategy either for the group as a whole or for its parts. The entity that is the authorities' point-of-entry for resolution actions, like bail-in (normally an operating parent company or a holding company), is called the resolution entity and should issue all the TLAC debt instruments needed to cover the TLAC needs for the entire group.<sup>18</sup> The reason is to avoid debt issued by a subsidiary being converted to equity in the middle of the crisis, bringing in new owners and complicating a coordinated group resolution.

The next step, for these cross-border banks with large networks of subsidiaries, is to make host authorities confident that the loss-absorbing capacity is distributed effectively within the group and available in their jurisdiction in a crisis. This is done by requiring the resolution entity to pre-position so-called internal TLAC to all material sub-groups. The internal TLAC should correspond to 75-90 per cent of what the subsidiary would need on a stand-alone-basis, leaving the rest at resolution entity level to provide flexibility should funds be needed elsewhere in the group.<sup>19</sup>

In order to avoid contagion, G-SIBs and other large international banks' holdings of each other's TLAC instruments should also be restricted. Authorities may be reluctant to write down the debt instruments of one bank, if it resulted in other banks taking the losses. Cross-holdings are intended to be de-incentivized by demanding the large banks to subtract holdings of TLAC-instruments issued by other G-SIBs from their own capital and thereby affecting their capital ratios.<sup>20</sup>

In addition, G-SIBs have to disclose their amount, maturity and composition of issued external and internal TLAC for each resolution entity.

## TLAC implementation details still to be finalized in a Swedish context

It is as yet unclear which Swedish banks will be within the scope of the TLAC framework. The FSB foresees that the TLAC requirement will apply to the banks identified as G-SIBs. Hence, the requirement would only apply to Nordea, as it is the only Swedish G-SIB. However, it is currently unclear whether or not the standard will be extended to more banks in the EU context. Even if it is not extended in the EU context, there is still the possibility to do so in Sweden.

According to the BRRD, the national resolution authority (which in Sweden is the National Debt Office, Riksgälden), has to set MREL (described above) for each bank. Depending on whether the EU decides to implement the TLAC standard through BRRD or through other regulation, the National Debt Office might also play a role in the implementation of TLAC requirements in Sweden.

## Four largest Swedish banks most likely not seriously challenged by TLAC

In the following, we illustrate how the four largest Swedish banks would be able to comply with the TLAC requirement if enforced today. For this purpose, we consider data that the banks have published in their reports for the third quarter of 2015. We compare the amounts of TLAC eligible instruments that the banks currently have

18. Resolution authorities can also agree on a multiple-point-of-entry (MPE) strategy for a banking group and therefore there might be more than one resolution entity (e.g. one in each key region).

19. In short, it is contemplated that the subsidiary issues internally TLAC directed to the parent company. It ends up in the parent's balance sheet as an asset (loans to subsidiary) and in the subsidiary in liabilities (debt to the parent). If the subsidiary makes large losses, internal TLAC instruments are triggered that allow the parent to either convert their bonds to new shares in the subsidiary, or simply write off the debt. The debt write-down in the subsidiary can be used to cover the losses.

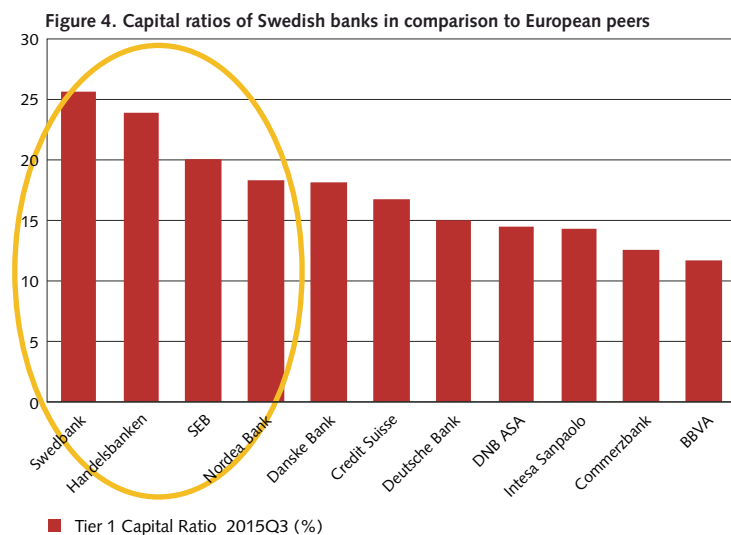
20. Basel Committee Consultation on Treatment of Holdings.



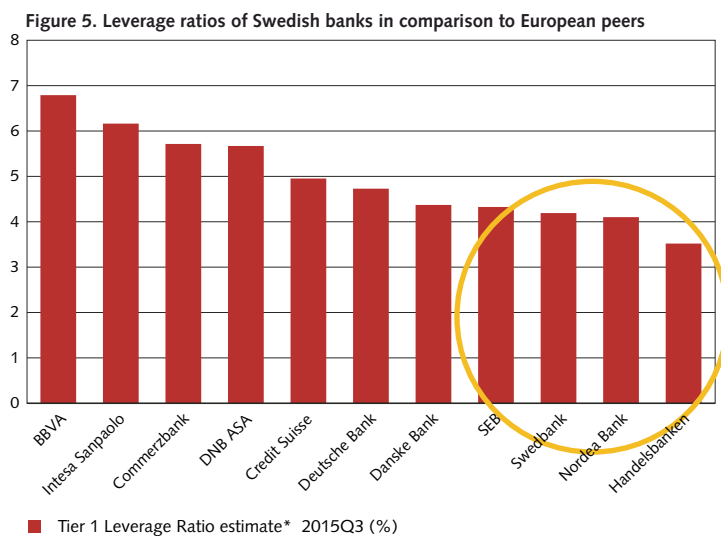
issued with the amount that will be required in January 2019, i.e. at least 16 per cent of their risk-weighted assets (TLAC RWA ratio) or 6 per cent of the leverage ratio denominator (TLAC LD ratio)<sup>21</sup>.

Given that the TLAC standard entails a requirement with respect to risk-weighted assets as well as with respect to the leverage ratio denominator, it is worthwhile considering the capital and leverage ratios of the four largest Swedish banks.

In Figures 4 and 5, the risk-weighted capital and leverage ratios of the four banks are displayed, alongside their European peers.



Source: SNL Financial

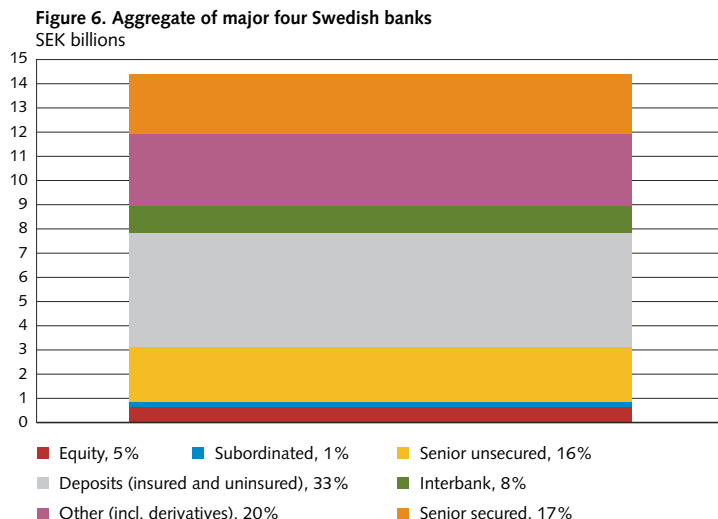


\*The measure has been defined by SNL Financial as an estimate of banks' leverage ratio and refers to Tier 1 capital in relation to total assets, excluding derivatives.  
Source: SNL Financial

The banks are ordered from highest to lowest ratio, from left to right. One observation is that the Swedish banks have high capital ratios in risk-weighted terms compared to their peers but relatively low leverage ratios. One of the explanations for this is that their balance sheets include a large portion of assets that have low risk weights, e.g. mortgages. This suggests that the TLAC requirement with respect to the leverage ratio denominator might be relatively more challenging to meet for the Swedish banks than the requirement with respect to risk-weighted assets.

21. As from 2022, the requirements will rise to 18 per cent of RWA and 6.75 per cent of LD.

To further introduce the analysis, the graph in Figure 6 shows the aggregate liabilities of the four banks.



Note. All data is from end-September 2015.  
Sources: Banks' reports and authors' own calculations

The largest type of liabilities is deposits, which are excluded from TLAC. Another important source of funding, which is also excluded, is senior secured bonds, mainly covered bonds. Senior unsecured liabilities make up 16 per cent of total liabilities.

Calculating the amount of TLAC eligible instruments requires assumptions as to which instruments are TLAC eligible and which are not. In order to keep this preliminary analysis simple, we consider as TLAC eligible only those instruments for which it is obvious that they fulfil all the criteria for eligibility set out in the TLAC term sheet<sup>22</sup>. Therefore, we might underestimate the true amount of TLAC eligible instruments issued by the banks.

We count the following amounts as TLAC eligible: Regulatory capital instruments (Common Equity Tier 1, Additional Tier 1 and Tier 2) and the amount of senior unsecured liabilities that equals 2.5 per cent of risk-weighted assets, as the Swedish resolution authority possesses sufficient resolution powers to justify the exemption that was explained in more detail earlier.

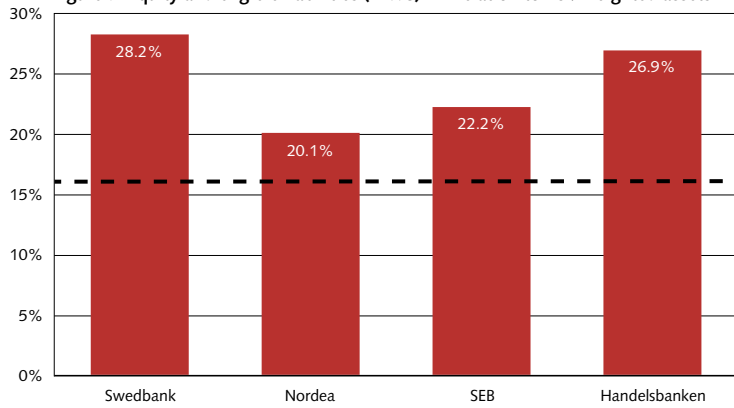
For the TLAC RWA ratio, after adding up these amounts, we subtract the capital used to satisfy the Basel III capital buffer requirements (capital conservation buffer, the counter-cyclical capital buffer and the G-SIB surcharge).

As a percentage of risk-weighted assets, the four large banks' loss-absorbing capacity already exceeds the minimum requirement of 16 per cent. The Figure 7 shows the results for the individual banks.

22. <http://www.fsb.org/2015/11/total-loss-absorbing-capacity-tlac-principles-and-term-sheet/>.



Figure 7. Equity and eligible liabilities (TLAC)\* in relation to risk-weighted assets\*\*



Note. All data is from end-September 2015.

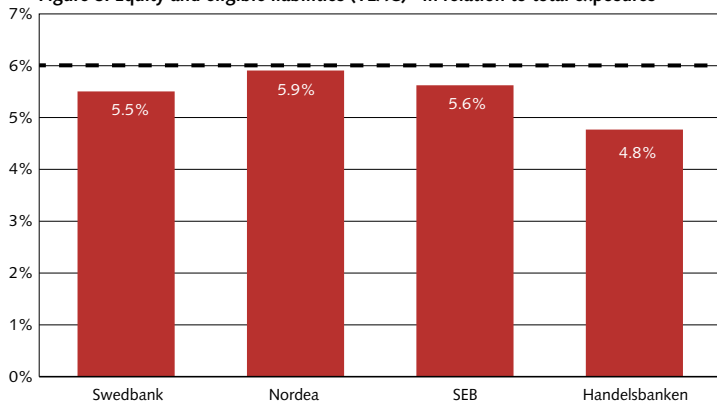
\*The calculations include CET 1, Additional Tier 1 and the Tier 2 that is included in the capital base. Furthermore, unsecured debt corresponding to 2.5 per cent of RWA is included. Other subordinated liabilities are not included, which implies a potential underestimation of the total loss-absorbing capacity.

\*\*The capital held to meet the requirement for the Basel capital buffers has been excluded from the ratio to risk-weighted assets.

Sources: Banks reports and authors' own calculations

Regarding the TLAC LD ratio, banks do not yet comply with the minimum requirement of 6 per cent. The individual ratios are displayed in Figure 8.

Figure 8. Equity and eligible liabilities (TLAC)\* in relation to total exposures



Note. All data is from end-September 2015.

\*The calculations include CET 1, Additional Tier 1 and the Tier 2 that is included in the capital base. Furthermore, unsecured debt corresponding to 2.5 per cent of RWA is included. Other subordinated liabilities are not included, which implies a potential underestimation of the total loss-absorbing capacity.

Sources: Banks reports and authors' own calculations

## Shortfalls are manageable and banks have time to adapt

Given that the banks do not reach the minimum amount according to the TLAC LD requirement, the first row in Table 2 shows how much TLAC each bank has to raise, in order to reach the minimum amount. The absolute shortfall ranges from approx. 3.9 billion SEK to 36 billion SEK.

To further put these numbers into context, it is important to recall that we have included only those liabilities, which definitely meet all the eligibility criteria. In addition, the banks still have three years to work towards fulfilling the requirement. With this in mind, the shortfall identified above does not seem a major challenge for the banks.

**Table 2. Absolute shortfalls and in relation to outstanding senior unsecured liabilities.**

	SWEDBANK	NORDEA	SEB	HANDELSBANKEN
Shortfall, SEKm	10 974	3 877	10 160	36 253
Shortfall, relative to senior unsecured**	6.9%	0.9%	6.0%	11.8%

Note. All data is from end-September 2015. The calculations include CET 1, Additional Tier 1 and the Tier 2 that is included in the capital base. Furthermore, unsecured debt corresponding to 2.5 per cent of RWA is included. Other subordinated liabilities are not included, which implies a potential underestimation of the total loss-absorbing capacity.

\*\*Senior unsecured excluding commercial papers and certificates of deposits. The set of included debt instruments might differ between banks and a direct comparison of the relative shortfalls is therefore not straightforward.

Sources: Banks reports and authors' own calculations

All the banks have currently issued large amounts of senior debt, which do not fulfil the subordination criterion. Thus, one way of adjusting their balance sheet would be to subordinate part of these senior unsecured liabilities, e.g. by contractual subordination. In this case, the banks' capacity to adjust to the regulation would depend on how much of the senior liabilities mature within the next three years<sup>23</sup>. Table 2 sets the shortfalls identified for Swedbank, Nordea, SEB and Handelsbanken in relation to their currently outstanding senior unsecured securities. They range between approx. 1 per cent and 12 per cent of outstanding senior unsecured securities. The Riksbank's calculations further indicate that, for each of the four banks, a sufficiently large fraction of these senior unsecured liabilities matures before January 2019. However, the contractual subordination is only one way to meet the subordination requirement as we have discussed above. Instead of issuing eligible debt, the banks could, of course, also raise their regulatory capital levels in order to comply with TLAC.

In summary, if the twofold TLAC requirements became binding today and were applied to all major Swedish banks, the Riksbank's calculations show that the banks would need to raise their loss-absorbing capacity from current levels to comply with the 6-per cent LD requirement. In these basic calculations, the shortfalls relative to the globally agreed minimum levels are relatively small. The shortfalls seem even less concerning when considering that these calculations are based on strict eligibility assumptions. Moreover, the banks have three more years to take actions and restructure their balance sheet so that they comply before the first level of requirements becomes binding in January 2019.

## Conclusion

The TLAC standard aims to ensure that banks are able to absorb their losses without stopping the provision of critical economic functions and without the need for financial support from the public sector. It requires banks to fund themselves through instruments that can be exposed to losses in the least harmful way possible. Recognizing the tradeoff between resilience and resolvability, TLAC includes both going- and gone-concern loss-absorbing capacity. This means that banks can satisfy the requirement with both capital as well as debt instruments. To ensure that the debt instruments are available to absorb losses when needed, they must fulfil certain criteria; e.g. be unsecured, long-term and subordinated to excluded liabilities.

In designing the framework, many lessons from the recent financial crisis have been taken into account. The TLAC features elements that will prevent supervisors from exercising forbearance towards national banks and avoid cross-border disputes.

There are now ongoing discussions in Europe on how the TLAC framework is to be implemented and its relationship with the similar MREL requirement. One of the issues that is still unclear is which Swedish banks will be affected. The original scope (G-SIBs only) may be extended to include D-SIBs in European implementation. In this case, all of the four major Swedish banks would have to comply with the requirement. If the TLAC requirement became binding today and were applied to all major Swedish banks, the Riksbank's calculations show that the banks may need to raise their loss-absorbing capacity from current levels to comply with the twofold

23. The banks could also contact the holders of outstanding senior debt and ask for premature redemption. This however would likely be too costly for the Swedish banks.

requirement. However, it seems feasible for the banks to take action to comply with the requirement until it becomes binding. A key issue will be to fulfil the subordination criteria.

In addition to the scope of the requirement in Sweden, the TLAC standard leaves room for several other policy issues which will become relevant in the phase of national implementation that is just beginning. Importantly, there is scope to impose a national requirement that is higher than the global common minimum. Moreover, it needs to be decided how the national capital buffers should be treated, how resources should be divided within the banking groups and whether to require that a certain proportion of the TLAC requirement is fulfilled with debt instruments.