JOINT REPORT FOR THE GOVERNMENT

Interaction between the regulations on capital adequacy and crisis management

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Foreword

The purpose of the requirements set by Finansinspektionen and the Debt Office for firms in the financial sector is to maintain financial stability in Sweden. The regulations of the authorities are interconnected in how they are devised.

In the Letters of Appropriation for 2017, the Government commissioned the authorities to report, no later than 30 April, how the rules regarding capital adequacy and crisis management function and interact. The report was to focus on how the overall requirements affect firms' capital structure and conduct, financial stability and the effects on lending rates that could arise. Additionally, the report had to take into account current negotiations in the EU regarding amending the regulations on capital adequacy and recovery and resolution, and the consequences thereof (such as in terms of national flexibility).

Finansinspektionen and the Debt Office hereby present their results to the Swedish Government Offices (Ministry of Finance) in this joint report.

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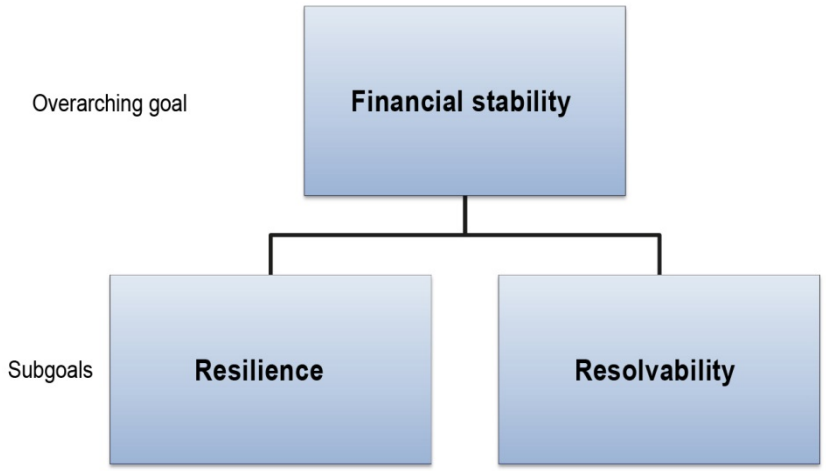
1. Summary

Finansinspektionen (FI) and the Swedish National Debt Office (the Debt Office) were commissioned by the Government to write a report presenting the authorities' view on the requirements for capital adequacy and crisis management. The assessment of the authorities is that the design of the Swedish regulations and associated requirements is appropriate for reducing the risk of financial crises and ensuring effective management if a crisis were still to occur.

The report includes an analysis of the proposals from the European Commission that could significantly alter the conditions for the national implementation of the regulations. The report shows that, from a Swedish perspective, the overall economic effect of the EU Commission's proposed amendments would primarily be negative.

FI and the Debt Office play important roles in maintaining financial stability in Sweden. FI is primarily tasked with ensuring that firms[1] are sufficiently resilient, thus preventing financial crises from occurring. The capital requirements that FI sets on firms are a central component in establishing this resilience. The Debt Office is primarily tasked with managing the financial crises that may still occur. This assignment includes ensuring that firms can be managed through a resolution procedure. This is achieved, for example, by the Debt Office requiring firms to hold a certain amount of capital and bail-inable debt, i.e. the minimum requirement for own funds and eligible liabilities (the MREL requirement).



[1] The term "firms" in this report refers to banks, other credit institutions, investment firms and certain other financial institutions subject to the regulations on capital adequacy and resolution.

Even if capital requirements and MREL requirements fulfil different purposes, these two regulatory frameworks are still closely interconnected. In order to achieve the goals of the overall regulation, it is necessary for the requirements to not only be appropriately designed and applied but also to complement one another.[2] FI and the Debt Office consider there to be certain fundamental principles that should guide the work in applying these frameworks:

• Capital requirements and MREL requirements should be designed to promote sound risk-taking by firms.

• The authorities should be transparent in how the requirements and any related regulations are applied.

• The design of the regulation and the requirements should provide the firms and their stakeholders with the opportunity to resolve problems on their own, provided that an effective outcome can be achieved.

• The requirements should be designed so the authorities have sufficient flexibility to take situation-specific measures.

• The requirements should take into account the financial system's features and functions.

• The requirements should be designed in such a way as to clearly distinguish between resources that are used to ensure resilience and those that are used to ensure resolvability.

FI and the Debt Office consider the existing capital requirements and MREL requirements to fulfil these principles and that the requirements interconnect in a way that contributes to the overall goal of financial stability. However, the analysis in the report shows that the proposed amendments to the current EU regulations overall would be negative for Sweden compared to the current framework.

[2] The two regulatory frameworks in this report refer primarily to the legislation that regulates the design and application of the capital requirements and the MREL requirements.

2. Introduction

The services provided by financial firms serve an important purpose in the modern economy. At the same time, both individual firms and the broader financial system have been subject to financial crises of varying severity at times. In turn, these have often had major adverse implications for the rest of the economy.[3] For this reason, financial firms have been subject to more extensive requirements than most other industries. In the past, it has mainly been done by setting the amount of equity that firms must hold. In the past few years, new regulations have emerged. These include the Bank Recovery and Resolution Directive (BRRD)[4] adopted by the EU in the spring of 2014. This directive established a new framework for planning for and managing financial crises. For instance, a specific resolution authority shall be appointed, and also a number of new duties and powers have been bestowed on the supervisory authority, i.e. FI.

In Sweden, the National Debt Office has been the resolution authority since February 2016. The resolution authority is responsible for managing failing firms through a specific wind-up and reorganisation procedure, known as resolution. Part of the responsibility of the resolution authority is to place demands on financial firms so that they can be put into resolution in the event they fail or, in the case of comparatively small and less complex firms, dealt with through an ordinary insolvency procedure. An important element is setting MREL requirements for each individual firm that is subject to the resolution regulations. The purpose of the requirement is to enable efficient bail-in, thus ensuring that it will be the firm's shareholders and creditors – not taxpayers – that bear the cost of the resolution process. According to the rules, the requirement shall be set based on the capital requirements which, in Sweden, are set by FI according to the capital adequacy regulations.

In view of the links between the capital requirements and MREL, for instance in that MREL shall be set based on the capital requirements, the government commissioned FI and the Debt Office, no later than 30 April 2017, to jointly describe the following in a report:

- how various designs of the overall requirements in the regulations regarding capital adequacy and crisis management affect the capital structure of financial entities,

[3] Adamczyk, G. and Windisc, B. (2015) "State Aid to European Banks: Returning to Viability", Occasional papers by the Competition Directorate–General of the European Commission.
[4] Directive 2014/59/EC of the European Parliament and of the Council of 15 May 2014.

- the changes in behaviour to which different designs of the requirements could lead,
- how different designs affect financial stability, and
- the effects on lending to corporations and households that could be prompted by the requirements.

Both the capital adequacy and crisis management regulations are under renegotiation regarding certain parts, and the European Commission presented a proposal for revisions in November 2016.[5] Therefore, in the report the authorities shall consider current EU negotiations and their expected consequences, such as in terms of financial stability and national flexibility.

Limitations and structure

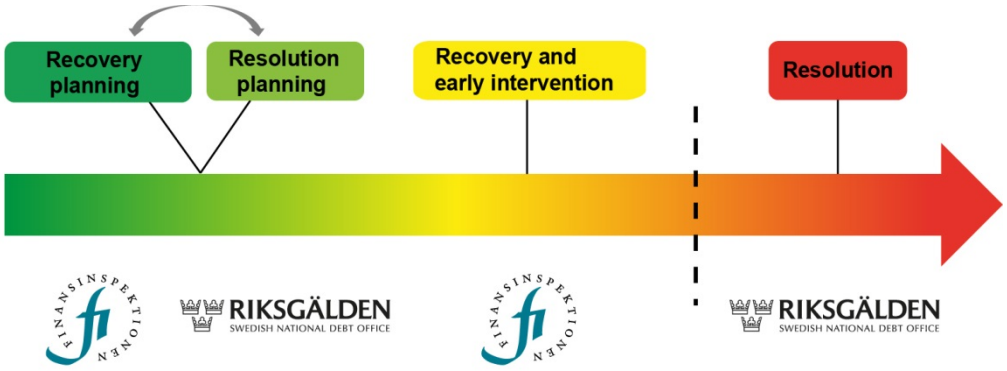
The supervisory and crisis management regulations are extensive and address many different types of powers and requirements. This report is primarily limited to capital adequacy rules and requirements for bail-inable debt. For this reason, the report only addresses to a limited extent matters pertaining to liquidity risks, and how the authorities will work together before and during a crisis. Broader resolution planning work and the actions and requirements of other authorities are not addressed either. However, a general description of the broader implications and interaction of the regulations is provided in the box below.

The report is structured as follows. Sections 3 and 4 describe the emergence, functioning and design of the capital and MREL requirements. Section 5 presents the principles which FI and the Debt Office consider serve as a guide for the design of the overall regulations. Section 6 presents the implications that different designs of the requirements would have for the firms concerned, their customers and financial stability at large.

[5] See the Commission's proposals from 23 November 2016 (COM(2016) 854 final, COM(2016) 850 final, COM(2016) 852 final and COM(2016) 853 final).

The roles of FI and the Debt Office during and outside of times of crisis

Figure 1. The authorities' roles during and outside of times of crisis



FI's primary task is to contribute to a stable financial system that is defined by a high level of confidence and well-functioning markets that meet the needs of households and corporations for financial services, while at the same time providing comprehensive protection for consumers. The task of contributing to a stable financial system is executed by ensuring as part of its regulation issuance and supervision that appropriate requirements (for example capital and liquidity requirements) are imposed on financial firms, and that the firms comply therewith.[6] Although FI has important duties in the event of a crisis, the primary task of the authority is to *prevent* crises from occurring, for instance by ensuring that the resilience of financial firms is good. Part of this involves FI reviewing and assessing the recovery plans which the firms are obliged to prepare. Recovery plans will need to be activated when the firm comes under severe stress. The plans shall describe the measures the firms can take themselves in such a situation to preserve or restore their financial position. With a view to preventing a crisis, FI can, at an early stage of financial stress, also take measures in relation to firms to avoid further deterioration that would necessitate resolution measures (known as early intervention). Recovery and early intervention will be needed in the yellow area of the illustration.

The primary task of the Debt Office in financial stability is to manage failing financial firms. To fulfil this task, the authority has several tools and powers that can be applied in the event of a crisis, either as part of a resolution procedure or the government deposit guarantee. To enable effective recovery and resolution, the Debt Office also has important duties and powers outside of times of crisis. As the resolution authority, the Debt Office shall conduct planning work aimed at ensuring that the firms are resolvable, i.e. that dealing with them using the resolution framework is possible. For each individual firm, the Debt Office shall therefore prepare individual plans for how to manage a crisis at the firm, known as resolution plans. A number of powers are linked to this planning work, including the obligation to decide on the MREL requirement and, if needed, direct measures applied to individual firms in order to remove substantial obstacles to resolution. Such measures could, for instance, consist of a requirement for firms to change their business in some respect.

[6] This report primarily focuses on the stability aspect.

3. Capital requirements

The function of capital requirements in society

The economy relies on the ability of the financial system to grant credit and mediate payments. If the system cannot continue to provide these services, major socioeconomic costs would be incurred.[7] At the same time, financial firms (primarily banks) have relatively high indebtedness compared with non-financial firms, i.e. equity is low in relation to other funding.

For the financial system to be stable, it is important that these firms hold sufficient capital for absorbing losses, irrespective of the cause of the losses. At the same time, resilience of the firms reduces the risks of problems spreading to other parts of the financial system. This applies in particular to problems at systemically important firms. In the past, financial firms, both due to the expectation of government support measures in the event of default ("the implicit government guarantee"), and also due to explicit guarantees such as the deposit guarantee, have tended to have lower solvency and higher risk-taking than is desirable from a socioeconomic point of view. It is in light of this that that capital adequacy rules have emerged. The rules require the firms to have a certain level of capital, and for this capital to be of good quality to cover unexpected losses.

The emergence of the capital adequacy rules

The Basel Committee on Banking Supervision (the Basel Committee) issues recommendations for globally harmonised minimum standards for banks. In 1988 the first global agreement was published regarding capital requirements, also known as Basel I. In subsequent years, the regulations were updated several times so that they also covered, for instance, capital requirements for market risk and operational risk.

With the growing complexity of credit markets, the framework had to be developed to further strengthen the banking system and promote harmonisation. This resulted in the Basel II Accord[8], published in 2005 and implemented in Swedish law in 2007. Basel II introduced a higher risk sensitivity and a possibility for firms, following authorisation from the supervisory authority, to use internal models in which the capital requirement depends on the risk in the underlying exposures.

[7] Credits are mainly mediated by credit institutions, i.e. banks and credit market companies.
[8] Basel II: International Convergence of Capital Measurement and Capital Standards: A Revised Framework, updated November 2005.

One reason for why the financial crisis that broke out in 2007 turned out to be so severe was that the banking sectors had grown in many countries while, at the same time, risk-taking and complexity on the financial market were high. The capital adequacy of banks was insufficient, both in terms of the size and quality of the capital, making it difficult for them to absorb losses and restore their financial position. In the wake of the crisis, several initiatives were taken to strengthen financial stability. One of the results was that, in 2010, the Basel Committee agreed on the Basel III Accord.[9] According to this standard, the banks needed to hold more capital, the capital had to be of better quality[10], the capital requirements had to take account of systemic risk, and new liquidity requirements were introduced.

In the EU, the Basel III Accord was implemented through binding rules in 2014. Parts have been introduced in a directly applicable regulation[11], while other parts have been implemented through a directive.[12] The directive has then been implemented in Swedish law. Compared with the Basel Accord, which is a minimum standard, the EU regulations mean more far-reaching harmonisation. Nonetheless, there are specific provisions which, in some cases, provide possibilities and also obligations for the national authorities to apply stricter rules.

Some parts of the Basel III Accord are not complete at the time of writing. The remaining discussion pertains to limitations on the internal models, such as the introduction of less risk-based capital requirements, such as an output floor for the risk-weighted assets**.** Internal models may be used subject to assessment by the supervisory authority, which also supervises the model. The models have the advantage of making the risk weights (and thus the capital requirement) more risk-based. Hence, the firms improve their risk management and capital is better allocated to viable investments. At the same time, there is a risk that models are used to minimise risk weights, since it is in the banks' interest for the capital requirements to be low. Also, to a great extent, internal models are based on the assumption that historical data reflects the future, with is not always the case. By ensuring through supervision that the models produce appropriate outcomes regarding the probability of default and determining the classes of exposures

[9] Basel III: A global regulatory framework for more resilient banks and banking systems, December 2010, and the update in June 2011.
[10] That is, a higher share of common equity, which is the capital that decreases first in the event of losses. Losses affect earnings, and hence equity. It is normally simpler for banks to suspend profit distribution than it is to suspend coupon payments on other own funds instruments.
[11] Regulation (EC) No. 575/2013 of the European Parliament and of the Council of 26 June 2013
[12] Directive 2013/36/EC of the European Parliament and of the Council of 26 June 2013.

that may be modelled, the benefit of internal models in terms of the risk reflection is retained, while at the same time the incentive-related problems are minimised.[13]

Design of the requirements

The Basel regulations are based on the banks having to hold a certain share of capital in relation to the risk-weighted exposures in the form of a minimum requirement. In addition, the Basel Committee has also introduced a number of "macroprudential tools" to enable countries to manage systemic risks arising as a result of procyclicality and through the interconnection in the banking system. This was introduced in the form of buffers[14] which can be used in stressed conditions, i.e. capital requirements which the banks are permitted to breach, but with certain restrictions emerging. A buffer creates headroom to the minimum requirements, so that a "cushion" emerges that can absorb losses. The buffers included in the EU regulations can, in somewhat simplified terms, be divided into a systemic risk buffer, a buffer for systemically important institutions, a countercyclical buffer and a capital conservation buffer. Together, the buffers imposed on a firm are called "the combined buffer requirement".[15]

The supervisory authority shall also perform an individual supervisory review and evaluation for each firm. Unlike minimum requirements and buffer requirements, which are often called "Pillar 1 capital requirements", the capital surcharge that emerges through the individual supervisory review and evaluation is called "Pillar 2 capital requirements". The Pillar 2 requirement includes risks of losses that are not included in or fully captured by Pillar 1, and the risks to which the firm exposes the financial system, i.e. systemic risks.

Table 1 describes the capital requirements schematically. The description does not take account of the floor to the capital level (the "Basel I floor")[16] or of the capital planning buffer which, in some cases, can have a bearing on the total capital requirement.[17]

[13] See FI's new methods for banks' risk weights and capital requirements, May 2016.
[14] Some macroprudential tools can be introduced as minimum requirements, such as through changes in assumptions regarding the probability of default and loss given default.
[15] The buffer for systemically important institutions and the systemic risk buffer overlap only in the case where the systemic risk buffer is applied solely on exposures in Sweden.
[16] The purpose of the Basel I floor is to ensure that own funds do not fall below 80% of the capital requirement according to the Basel I regulations.
[17] For more information, see Capital requirements for Swedish banks, September 2014.

Table 1. Breakdown of capital requirements and buffers

	Firm-specific risk	**Systemic risk/Macroprudential**
Pillar 1	Minimum requirements Capital conservation buffer	Countercyclical capital buffer Systemic risk buffer Buffer for global systemically important institutions
Pillar 2	15% risk weight floor for mortgages Pension risk Interest rate risk in the banking book Concentration risk	15–25% risk weight floor for mortgages Systemic risk surcharge

Note: The requirements and buffers in the table are not exhaustive.

Firms also usually voluntarily hold a capital level above the regulatory requirements, in order to avoid breaching the requirements due to commonly occurring fluctuations in capital requirements and in the value of assets and liabilities. This is usually called a "management buffer".

Design of the capital requirements in Sweden

The Swedish calibration and application are based on the following:

- Capital requirements shall be risk-based. This is important for incentivising sound risk management and avoiding the circumvention of rules and excessive risk-taking.

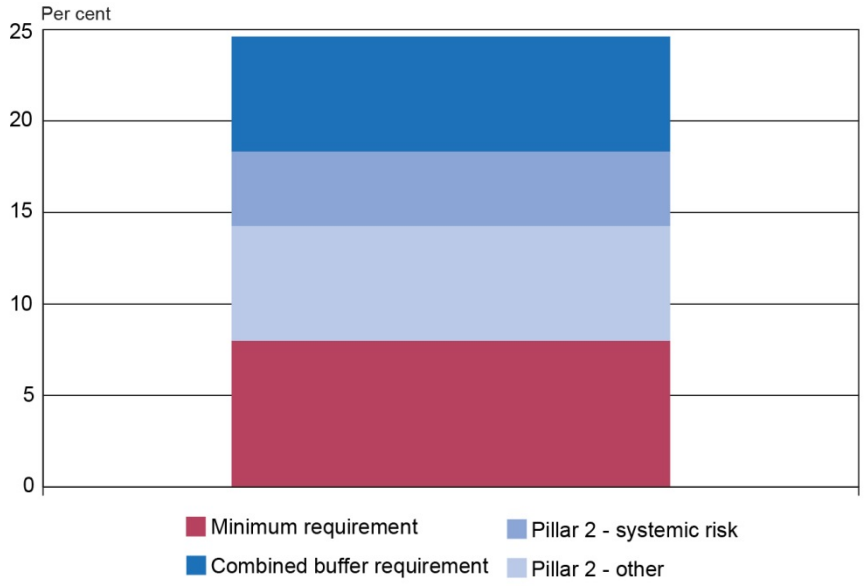
- Capital requirements shall reflect systemic risk. This means that the total capital levels must be sufficiently high to cover the risks in the Swedish financial system bearing in mind its size, interconnectedness, cross-border activity and reliance on market funding.

- Capital requirements shall include a sufficient buffer element to provide firms with scope for managing high unexpected losses without overly drastic consequences, and to ensure that the supervisory authority has sufficient flexibility for managing the situation in the circumstances.

- The design and levels of the capital requirements shall be transparent in relation to banks, consumers and investors in order to increase predictability on the market.

As at Q4 2016, the four major Swedish banks'[18] capital requirement is 24.6% as an unweighted average. This is high in an international context.[19]

Chart 1. Unweighted capital requirements for the major banks, Q4 2016



Source: FI

An important milestone in devising the current structure was when FI imposed on the major banks a higher capital requirement in the form of a systemic risk buffer of 5%.[20] Based on the design of the regulations, the requirement was implemented as 3% in the Pillar 1 buffers, and a further 2% as a Pillar 2 surcharge. In addition to the compulsory capital conservation buffer, each quarter FI sets the countercyclical buffer rate which has the purpose of creating, in periods of high economic growth and in periods of excessive credit growth, capital buffers for times of financial unease.[21]

In Pillar 2, FI has also introduced capital requirements both for risks not covered by the Pillar 1 requirements, and risks not fully covered. An essential part of the Pillar 2 capital requirement is a higher risk weight for mortgages.[22] This surcharge on mortgages largely targets the systemic risk in this type of exposure.[23]

Just as systemic risk can vary over time, capital requirements for systemic risk can be changed before, during and after a systemic crisis. One reason is

[18] Nordea, SEB, Svenska Handelsbanken, Swedbank.
[19] FI, Stability in the financial system (2016:2).
[20] Applicable since 1 January 2015.
[21] Since 19 March 2017, a countercyclical buffer rate of 2% is applied in Sweden.
[22] The risk weight floor for mortgages is currently 25%. Up to 15% thereof is due to the fact that credit risk is not fully captured in the capital requirements, while 15–25% is due to the systemic risk currently posed by the high indebtedness of households.
[23] FI, Stability in the Financial System (2016:1).

that the firms' behaviour is strongly procyclical, i.e. they have high lending volumes in boom times, and restrict lending in tougher times. If, for example, the systemic risk surcharge curbs credit supply, or if systemic risk has materialised, there may be reason to reduce the capital requirement to ensure financial stability. If the systemic risk or the systemic importance of the large firms increases, there may, conversely, be grounds to maintain high capital requirements to reduce the risk of default. Therefore, the capital requirement level for systemic risk must be evaluated in the specific situation. The design of buffer requirements for systemic risk in Pillar 1 and the management of the surcharge in Pillar 2 enable addressing the situation in this way, and create flexibility for adapting the capital level to the progression of risk over time.

Breach of the capital requirements

To gain a better understanding of the boundaries of *going concern* (i.e. when the firm is still viable), and of how application in Sweden works in practice, it is important to know the consequences of breaching the various capital requirements.

A firm that breaches the combined buffer requirement is subject to automatic restrictions including limitations on the distribution of dividends and paying coupons on certain debt instruments. The firm shall also submit a capital conservation plan to FI regarding how the firm is to meet the combined buffer requirement. If FI finds that the capital conservation plan does not restore own funds, FI is obliged to intervene through an injunction or by deciding on further limitations on the firm's right to make distributions, such as dividends. Hence, the buffers provide the firm with scope to restore its capital through different types of measures under FI's oversight.

At present, FI has not made any formal decision regarding Pillar 2. However, through quarterly disclosures, it is known how large the requirements would be for the largest firms if a decision were taken on them. Insofar that a formal decision has not been made, the capital requirement under Pillar 2 does not affect the level at which the automatic restrictions linked to the combined buffer requirement come into effect. In the event of FI formally making a decision regarding Pillar 2 requirements, these would be included in the minimum capital requirement. If a firm is in severe financial stress, its risk profile can change rapidly, however. For example, certain risks that have been included in the assessment of the Pillar 2 requirements might have materialised, which could mean there are no longer grounds for requiring the bank to hold capital for them. FI can then

adapt its decision on Pillar 2 requirements to the prevailing circumstances. Therefore, in practice, this structure means that large parts of the Pillar 2 requirements can be considered as an additional capital buffer.[24]

In the event of a breach of the minimum capital requirement in Pillar 1 (or the Basel I floor), FI is obliged to take measures. Therefore, a minimum requirement constitutes a binding lower limit. The Banking and Financing Business Act (2004:297) provides FI with a number of different intervention options, the most far-reaching being authorisation withdrawal. However, a firm can be put into resolution instead, i.e. an orderly reorganisation or liquidation under Government control. This can occur if FI finds that the firm is failing, or will probably fail, and given a number of other conditions examined by the Debt Office (see section 4 for more on this). In that case, after the Debt Office has judged that the conditions for resolution are not in place, FI can decide on withdrawing the firm's authorisation. In such a case, FI has the right to decide on how the business of the firm is to be wound up.

Recovery plans

In its capacity of supervisory authority, and through the implementation of the BRRD, a number of new powers were bestowed on FI, while at the same time the firms were subjected to a series of new requirements. In this respect it is a case of an obligation for both authorities and firms to undertake various crisis contingency measures in order to reduce the risk and the scope of default. As part of these crisis contingency measures, firms shall prepare recovery plans describing how their financial position can be preserved or restored in financial stress. The assumption is that a firm shall bring itself out of a stressed situation on its own initiative.[25] A firm entering a recovery phase need not mean that it has been in breach of the capital requirements. In the recovery plans, firms shall identify a number of indicators showing that the firm is in, or is entering, severe stress. The plans shall contain a broad spectrum of measures which can be taken in the event of the indicators showing that the firm's financial position and viability are under threat.

The Government has appointed FI as the responsible authority for requesting, reviewing and assessing the credibility of the firms' recovery plans. As part of the review, the Debt Office has the possibility of analysing whether the measures set out in the plan pose an obstacle to resolution, and based thereon, submitting recommendations for measures to FI.

[24] FI, Stability in the financial system (2016:1).
[25] A stressed situation can for instance emerge due to capital or liquidity problems.

4. MREL requirements

A new order for managing failing financial firms

Since 1 February 2016, Sweden has had a new order for the recovery and resolution of banks, investment firms and certain other firms. According thereto, the Government can, through the Debt Office – if needed to preserve financial stability – deal with such firms through a resolution procedure.

When the financial crisis broke out in 2007 there were many countries, including Sweden, that lacked a specific crisis management framework equal to that now introduced. The alternatives available to the authorities were therefore either to allow crisis-stricken firms to default and deal with them through the insolvency procedures that apply to firms in general, or to provide the firms with different types of financial support. In light of the fact that regular insolvency procedures cannot be applied to large financial firms without serious disruptions occurring at the same time in the basic functions of the financial system (such as continuous access to current accounts, payment services and credit for households and non-financial corporations), most countries opted to provide financial support. These means of support partly came in different forms, but in many cases entailed that shareholders, and not least creditors, got off comparatively lightly.

Although the support measures mitigated the effects of the crisis on the economy, it was often taxpayers, and not the firms and their financiers, which had to foot the bill of dealing with the crisis (*bail-outs*). In many countries, the direct expenses for the government were considerable.[26] Besides the obvious problem of taxpayers having to bear the risks and in many cases major losses, there is also a serious and structural problem in that expectations of government bail-outs distort incentives for the firms and their investors. This risks leading to excessive risk-taking and ultimately a financial system that does not function as well. This could result in financial crises being more frequent and more costly when they actually occur.

In light of the lessons learned from the crisis, work commenced on preparing internationally harmonised recovery and resolution rules. The *Financial Stability Board,* a G20 body, completed a set of principles in 2011 regarding how failing financial firms should be dealt with.[27] These

[26] The total government support for the recapitalisation of banks in the EU between 2008 and 2015 was around SEK 4,300 billion. See the compilation of the European Commission: http://ec.europa.eu/competition/state_aid/scoreboard/index_en.html.
[27] Financial Stability Board (2011), "Key Attributes of Effective Resolution Regimes

principles have been developed over time and gradually implemented in most countries. In the EU, the principles have been implemented through the Bank Recovery and Resolution Directive, adopted in 2014. It is through the implementation of this directive in Swedish law that the new Swedish resolution regulations have been created.[28]

With these regulations, a specific order is established for winding up crisis-stricken financial firms. It allows the authorities, in an orderly manner, to manage failing firms while maintaining critical functions at the same time. The main principle in the regulations is that the resolution process shall be carried out such that losses and recapitalisation needs are covered by the firm's own resources, and not by a forced Government bail-out.

In summary, it can be said that the resolution framework has three purposes:

1. Ensuring that taxpayers avoid bearing the direct costs of managing crisis-stricken firms.
2. Ensuring that financial crises can be managed more effectively by sustaining critical operations and hence reducing the indirect costs to taxpayers and the economy at large.
3. Increasing the incentive of creditors to monitor the firms' risks and hence bolstering market discipline, thus reducing the frequency and scope of future crises.

The resolution authority (in Sweden, the Debt Office) is responsible for the application of these regulations. Besides managing the resolution process if a firm fails, the resolution authority has the task of conducting comprehensive planning work, with the purpose of ensuring that the authority is well-prepared if a failure occurs. Firm-specific preparations are made mainly through the resolution authority preparing a resolution plan for each firm.

Minimum requirement for own funds and eligible liabilities (the MREL requirement)

The bail-in tool is at the disposal of the Debt Office for covering the firm's losses and its recapitalisation need with the firm's own resources. In this process, the firm's share capital and liabilities are written down to the extent needed to cover its losses. Also, debt is converted to the extent needed to

for Financial Institutions". Subsequently supplemented through Financial Stability Board (2015), "Principles on Loss-absorbing and Recapitalisation Capacity of G-SIBs in Resolution. Total Loss-absorbing Capacity (TLAC) Term Sheet".

[28] The BRRD has mainly been implemented in Swedish law through the Resolution Act (2015/1016).

restore the firm's equity, and hence to secure the going concern of the continuing operations.[29]

A condition necessary for bail-in to occur effectively is that the firm has sufficient capital and liabilities that can cover losses and/or, in the case of debt, converted into share capital.

Unlike capital, it can sometimes be difficult or inappropriate to write down or convert certain liabilities. For this reason, the regulations contain provisions setting out that certain types of debt shall always be exempted from write-down and conversion, such as deposits protected by the deposit guarantee and secured liabilities. Also, the Debt Office can, in exceptional circumstances, exempt, on a discretionary basis, other types of debt that would otherwise have been eligible for bail-in.

Because of the existence of these exemption rules, firms could finance themselves in a way that means there is insufficient bail-in-able debt to carry out resolution. To avoid this happening, the Resolution Act stipulates that firms shall fulfil a specific minimum requirement for own funds and eligible liabilities (the MREL requirement).

The Debt Office sets the size of the MREL requirement individually for each firm based on the regulations set out in Swedish law and relevant EU rules.[30]

Design of the MREL requirement

Size of the requirement

The main purpose of the capital requirements imposed by FI on the firms is to reflect their risks of loss. The MREL requirement is also intended to capture risks of loss, but shall also reflect the recapitalisation need expected to arise if the firm needs to undergo resolution.

Hence, the MREL requirement supplements the capital requirements insofar that firms, in addition to the loss-bearing capital, shall hold sufficient further capital or bail-in-able debt to be able to restore, if needed, the firm's own funds, so that its critical operations can be sustained throughout and after

[29] As an alternative to bail-in, the Debt Office can also leave parts of the firm's business to be wound up through bankruptcy, once the critical operations have been sold or transferred to a new principal. Although this procedure is different from bail-in, the same effect as in bail-in is attained, i.e. the firm's losses are borne by its shareholders and creditors.
[30] See the Debt Office's report "Application of the minimum requirement for eligible liabilities" for more information about application of the requirement in Sweden.

resolution. The resolution occurs, as described above, through parts of the firm's liabilities being written down or converted into equities.

The MREL requirement thus reflects both the loss-absorbing and recapitalisation need that is considered present at each individual firm in the event of default. The requirement therefore consists of two subcomponents: a loss-absorbing amount which, roughly speaking, shall equal the firm's capital requirement, and a recapitalisation amount, which shall equal the amount needed to restore the capital to the requirement levels which the authorities consider will apply to the firm after resolution, and which are necessary for sustained market confidence. Both amounts shall be calculated based on both risk-weighted and applicable non-risk-weighted capital requirements (Basel I floor and applicable leverage ratio requirements).

The point of departure is that the amounts shall equal the total capital requirement, which means that the MREL requirement as a main rule shall amount to double the capital requirement, risk-weighted or non-risk-weighted.[31] However, the regulations allow for the Debt Office to deduct certain capital requirement components when calibrating the risk-weighted MREL requirement.

As set out in section 3, the capital requirements consist of three main elements (minimum capital requirements, Pillar 2 requirements and buffers). The Pillar 2 requirements and the buffers are in turn divided into a number of different components. These elements and components have different functions and not all are relevant to consider when the loss-absorbing and recapitalisation amount is determined. Therefore, in its calibration, the Debt Office has opted to use the possibility of excluding certain parts of the capital requirements.

- *The loss-absorbing amount* shall reflect the capital requirements intended to cover firm-specific risks of loss in resolution. For this reason, all capital buffers and the parts of the Pillar 2 requirements intended to cover macroprudential risks are excluded when calculating the loss-absorbing amount.

- *The recapitalisation amount* shall reflect the capital need following resolution, including the capital requirements that must be met to conduct operations and, if deemed applicable, the capital considered necessary to maintain sufficient market confidence following resolution. In view of

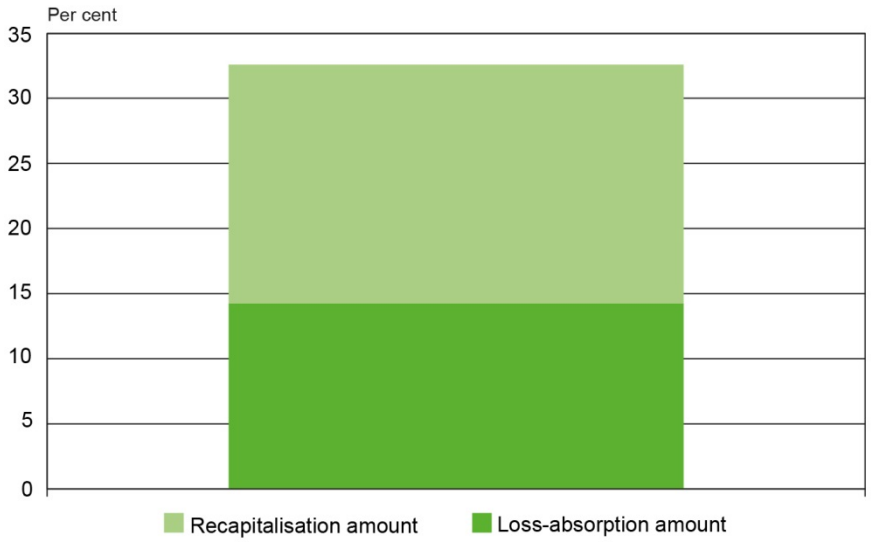
[31] Commission Delegated Regulation (EU) 2016/1450 of 23 May 2016 supplementing Directive 2014/59/EU of the European Parliament and of the Council with regard to regulatory technical standards specifying the criteria relating to the methodology for setting the minimum requirement for own funds and eligible liabilities .

this, all capital buffers are excluded from the recapitalisation amount. However, no Pillar 2 components are excluded, the reason being that, even though it is probable that some of these components will no longer be applicable following resolution, it cannot be ruled out that this will always be the case.[32]

In the model decided by the Debt Office, the MREL requirement is not based on leverage ratio because existing capital requirements in Sweden are not currently established in this way. The Basel 1 floor is not considered either because it is being phased out.

The Debt Office has not yet decided on individual MREL requirements for Swedish firms. Had the model decided by the Debt Office in February 2017 been applied as at Q4 2016, the MREL requirements of the four major Swedish banks would, as an unweighted average, have been 32.6% of risk-weighted assets.

Chart 2. Unweighted MREL requirements for the major banks based on the Debt Office's model, Q4 2016



Source: FI and the Debt Office

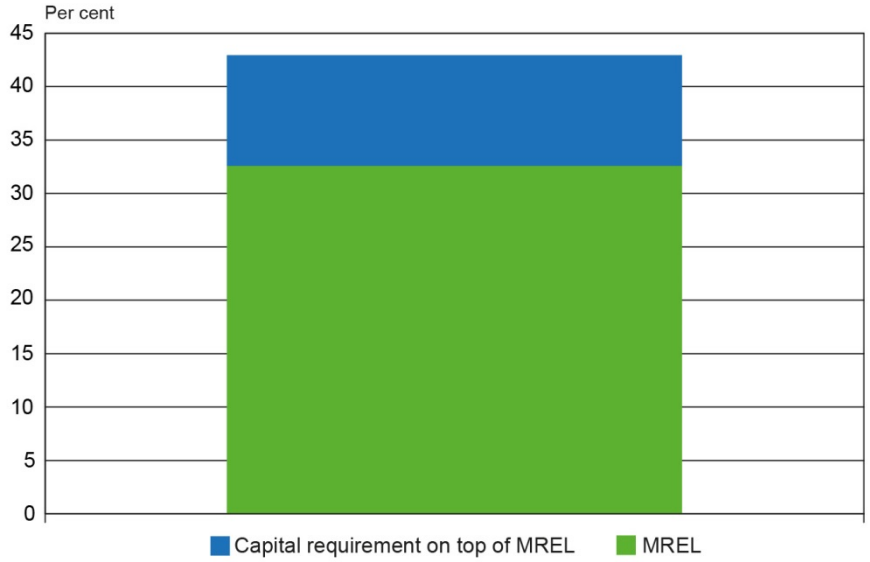
Fulfilling the requirement

A condition for carrying out resolution using the bail-in tool is that the MREL requirement is met with financial instruments that can be written down or converted without prompting serious shocks in the financial system. For this reason, certain demands are imposed on how the requirement shall be met, and which characteristics liabilities shall have to be eligible for fulfilling the requirement.

[32] See section 3 for a more detailed description of how the Pillar 2 requirements work.

In terms of the composition of the requirement, the Debt Office applies a principle setting out that the MREL requirement should be met using a certain share of debt, i.e. the requirement may not only be fulfilled using own funds instruments (hereinafter "the share of debt principle"). This principle serves two purposes: it helps to preserve the loss-absorbing function[33] of the capital buffers, and it streamlines the two subcomponents of the MREL requirement – one part consisting of own funds instruments to cover losses, and one part consisting of eligible liabilities that can be used for restoring own funds. With the share of debt principle, firms will, because of the capital requirements, have a certain volume of capital that cannot be used to fulfil the MREL requirement. So, the total requirement imposed on firms will be higher than the decided MREL requirement. Based on the same data as in Chart 2, this effect is shown in Chart 3 below.

Chart 3. Unweighted total requirement for the major banks, Q4 2016



Source: FI and the Debt Office

In terms of the characteristics of the eligible liabilities, a number of criteria must be met in order to count towards eligible debt: the liabilities must have a minimum outstanding maturity and be subordinated, i.e. bear losses before ordinary, non-prioritised claims such as deposits from large corporations

[33] The loss-absorbing function of the capital buffers is preserved because the firms will not be able to count all of their existing capital to meet the MREL requirement. Because, in this way, it will not be possible to count the capital twice, the buffer requirement is placed on top of the minimum requirement in practice. Consequently, it will normally be possible for the firms to use capital buffers without breaching the MREL requirement. In this way, the capital buffers are allowed to fulfil their intended purpose (see section 3 for a more detailed description of how the capital buffers work).

and non-subordinated bonds.[34] The subordination requirement creates clarity about which types of liability will be subject to bail-in in the first instance. This is an important component for the incentivising effect of the requirement to be fully effective.

Because the MREL requirement is allowed to be met with liabilities with a set minimum maturity, this poses an inherent refinancing problem in the regulations as such, i.e. the risk of a firm breaching the MREL requirement in the event of its inability to refinance eligible liabilities. The extent of these refinancing risks will be a function both of the size of the requirement and the maturity profile of the firm's eligible liabilities. The basis for devising the MREL requirement is to ensure that firms have sufficient loss-absorbing and recapitalisation capacity. It is thus not appropriate to manage refinancing risks by compromising on the size of the requirement.

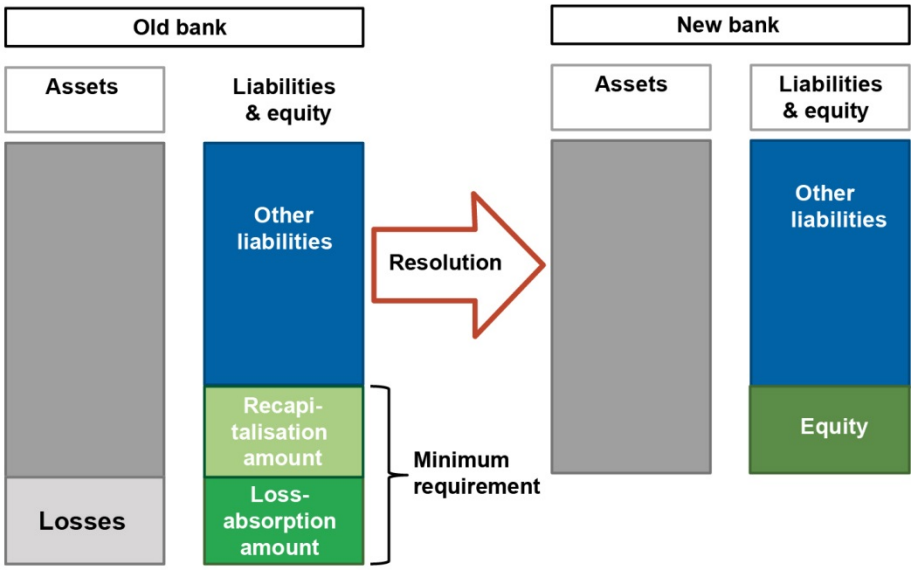
However, The Debt Office has, in some other respects, considered these risks when devising the requirements. First, the subordination requirement means that it is a certain type of debt that primarily bears the write-down risk. While this does not mean that the refinancing risk for such liabilities decreases, it does mean that other types of debt instrument (which are primarily not those that will be written down in resolution) will not be as exposed to refinancing risks because they are higher up in the creditor hierarchy.

Second, the share of debt principle is devised such that inability to refinance maturing eligible liabilities will not be addressed in the same way as the breach of the decided MREL requirement. Instead, the Debt Office will commence an assessment of whether breaching the debt share requirement poses an obstacle to resolution and, based thereon, decide on needs for measures. The flexibility afforded by this process ought to facilitate the conditions for firms to refinance eligible liabilities.

Also, the Debt Office will, as part of its resolution planning work, continually monitor the maturity profile of the firms' eligible liabilities to ensure that the firms do not carry excessive refinancing risks.

[34] Deposits that are within the maximum compensation amount of the deposit guarantee (SEK 950,000) may not be written down in any circumstances. Deposits from private individuals and SMEs above this amount have a general right of priority, meaning that they only bear losses once all subordinate and non-prioritised receivables have been written down.

Figure 2. Schematic depiction of bail-in



Note: LA is an abbreviation of "loss-absorption amount" and RA of "recapitalisation amount"

The illustration above provides a schematic depiction of the process of bail-in for a firm whose entire operations are reconstructed and continue. In the example, losses are incurred at the bank equalling the entire loss-absorption amount, meaning that the bank's own funds are completely consumed and the bank defaults. Because the firm is considered to be of considerable importance to the financial system, it is put into resolution by the Debt Office which, in accordance with the decided resolution plan for the firm, conducts bail-in to restore own funds. The amount converted equals the recapitalisation amount which, following conversion, constitutes the equity of the reconstructed firm.

5. Important principles for the overall regulation

Section 3 and 4 have described the emergence, functioning and design of the capital requirement and MREL requirement. In this section, a description is provided of the role played by both of these requirements in the overall financial stability framework, and how they interact with each other. Based thereon, a number of principles are then presented which, according to FI and the Debt Office, ought to govern the design and application of the overall regulation in Sweden.

Purpose and objective of the overall regulation

Financial crises are costly for the economy. The framework surrounding the financial sector is therefore primarily devised based on the goal of upholding the stability in the financial system, while at the same time safeguarding efficient financial markets. The ultimate purpose of the framework is to help attain sound economic development.

The framework consists of several different components aimed at bolstering *resilience* in the financial system, and ensuring the *resolvability* of financial firms. Resilience and resolvability can thus be seen as sub-goals of the overarching financial stability objective (see the illustration below). The purpose of the respective sub-goals is to 1) reduce the risk of financial crises emerging (resilience) and 2) reduce the costs of crises that nevertheless occur (resolvability).

The sub-goals are attained by employing different means. The primary purpose of the capital requirements imposed on firms is to ensure resilience in the financial system, while the primary purpose of the MREL requirement is to ensure that a resolution procedure can be applied to the firms.

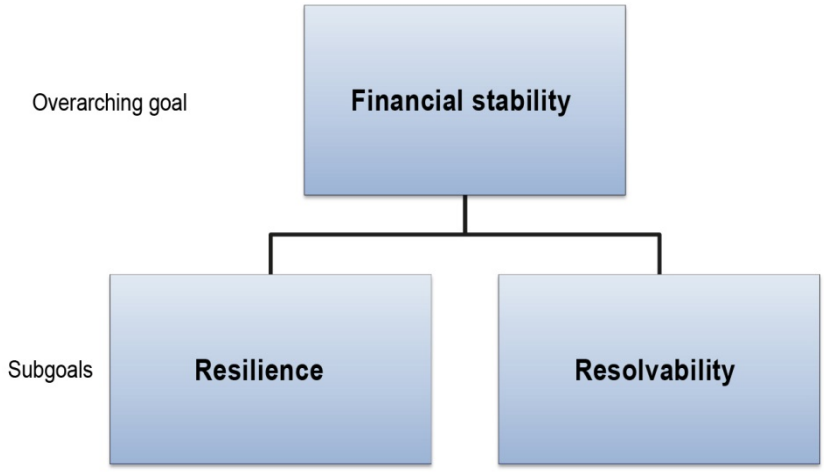
Resilience and resolvability, and the means used to reach the goals, can thus be seen as two different lines of defence for upholding financial stability. Both requirements are imposed in going concern, but shall normally manage losses and recapitalisation needs sequentially.

Because the requirements differ in their purpose and design, they complement each other while at the same time their ultimate purpose is to bolster the viability of firms.

Resilience and resolvability are however not only attained by means of the requirements ensuring that firms hold a certain volume of capital and eligible liabilities. The design of the regulations also helps promote market

discipline by creating incentives for financial firms that are consistent with the overarching objective of financial stability.

Figure 3. Goal and sub-goals of financial stability



Principles for the design of the overall regulation

In order to achieve the goals of the overall regulation, each of the requirements must not only be appropriately designed and applied; they must also complement one another. FI and the Debt Office find that the following principles should serve as a guide:

- The capital requirements and MREL requirement should be devised so as to promote healthy risk behaviour by firms and their owners and creditors, that is consistent with the overarching goal of financial stability. This is manifested in, for instance, risk-based capital requirements and a clearly defined creditor hierarchy.

- The authorities should be transparent about how the requirements and related regulations are applied, in relation to firms, market participants and the broader general public. This applies in both normal times and times of crisis.

- The design of the regulation and the requirements should provide the firms and their stakeholders with the opportunity to resolve any problems on their own, provided that an effective outcome can be achieved. This is attained through the firms' recovery planning and the authorities appropriately acting on their respective powers to intervene.

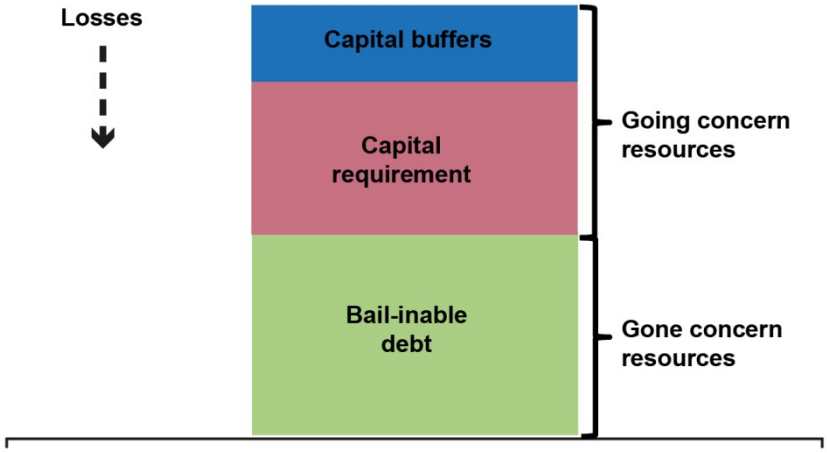
- The requirements should be devised so as to provide the authorities with sufficient flexibility to take the measures appropriate to the specific situation. The requirements should therefore contain a significant buffer element that enables the firms to absorb losses, and gives them scope for recovery. A distinction should therefore be made between breaching the

minimum requirements, and breaching the buffer requirements. The Swedish application of the Pillar 2 requirements, and the design of the share of debt principle in MREL, is partly based on this principle.

- The requirements should take into account the financial system's features and function. The size and concentration of the Swedish financial system, and the large share of market funding, are examples of characteristics that should govern how the requirements are devised. A decision on the design of the requirements should be based on an impact assessment explaining how the purpose of the requirements is achieved, and their effects. In addition, the requirements should be subject to continual follow-up and evaluation.

- The requirements should be devised so as to clarify as far as possible which resources are intended to ensure resilience and resolvability, respectively. Furthermore, the requirements should be devised so that these resources are consumed in the right order, i.e. as a main rule capital is consumed before bail-inable liabilities. This can be illustrated as below.[35]

Figure 4. Requirement hierarchy



[35] As described in section 4, there is a certain inherent refinancing problem linked to the minimum requirement for eligible liabilities. The implication of this is that eligible liabilities can be depleted before capital in cases where firms are unable to refinance their eligible liabilities. In such a scenario, the firms will in the first instance breach the share of debt principle applied as part of the MREL requirement. When this occurs, the Debt Office has the duty of assessing the extent to which the lack of eligible liabilities poses an obstacle to resolution and, based on that assessment, determining which measures the firm should take. It is only in cases when there is a severe shortfall in eligible liabilities that firms risk breaching the decided MREL requirement.

Interaction between the regulations and the authorities

- Individual firms being sufficiently resilient is not synonymous with them being resolvable. Resilience and resolvability are two different sub-goals that are satisfied with partially varying means, so appropriate requirements must be set for both elements.

- The respective requirements should be allowed to fulfil their intended functions. This is achieved by means of clarity about which resources are intended to be used for loss absorption and recapitalisation, respectively. To this end, the share of debt principle applied in the MREL requirement is important because it means that the loss-absorbing function of the capital buffers is protected, while at the same time recapitalisation capacity is secured.[36]

- At the same time as the capital and MREL requirements are designed to partially serve different purposes, it is important that, together, they make up a well-functioning whole. If requirements are are set at levels that cause a clear deterioration in the firms' ability to function as financial intermediaries, economic development will be curbed. An excessively low combined requirement, on the other hand, risks leading to an unstable system with frequent crises and major economic costs.

- Setting the requirements separately, and partially fulfilling them using different types of instrument (capital and eligible liabilities), does not mean that the requirements should be disconnected from each other in calibration. On the contrary, it is reasonable for the capital requirements that reflect firm-specific risks of losses and which are applicable at all times to form the basis for calculating the MREL requirement. The authorities find that this provides a more accurate and predictable basis for calibrating MREL than e.g. proceeding on the basis of estimations of past losses.

- A component in the interplay between the regulations is the interaction between recovery and resolution plans, and their bearing in a stressed situation in practice. The authorities find that the recovery plans are important in order for firms themselves to deal with problems. It is crucial that recovery plans be allowed to play their part as long as they are executed with effective results and the firm has a reasonable possibility of redressing the situation. It is not until the firms' own recovery measures and other supervisory actions do not suffice to deal with the problems that the

[36] Protection of the loss-absorbing function of the capital buffers is not unlimited. In the event of serious refinancing problems, the buffer functionality decreases, to cease entirely if the refinancing problems are so extensive that the decided MREL requirement is breached.

resolution plans shall be activated. However, this must occur at a point in time that allows resolution to be conducted effectively.

6. Effects of the MREL and capital requirements

The Swedish legislator and FI have introduced capital requirements that are higher than the minimum requirement according to EU regulations. This applies primarily to systemically important firms. The method for setting the MREL requirement has not yet been established in many EU countries.[37] In view of the method decided by the Debt Office and available information about forthcoming frameworks in other jurisdictions[38], it appears likely, however, that the requirements in Sweden will be higher in this respect too.[39] In the previous section, the authorities have described why it is reasonable for the requirements in Sweden to be designed this way.

All regulation entails different types of effects. In connection with the decision on the method for the MREL requirement, an analysis was presented on the overall effects of the requirement. That analysis shows that the additional costs brought about by the MREL requirement for firms is limited, and considerably lower than the economic gains from the same requirements.[40]

This section describes a base-case scenario and the effects that a number of alternative designs of the requirements would have on the conduct and capital structure of the firms concerned, and on their customers and financial stability. The alternative designs are based on the changes to existing capital requirements and MREL requirements proposed by the European Commission in November 2016.

The section commences with a general description of the effects of the requirements on the conduct of firms, and hence on financial stability. Then, a base-case scenario is described, and how the alternative designs would affect the firms' balance sheets, besides potential consequences in terms of conduct and financial stability. Finally an analysis is provided of how lending rates and GDP would be affected if the requirements were devised as in the alternative scenarios.

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[37] An exception besides Sweden is the UK. See Bank of England (2016), "The Bank of England's approach to setting a minimum requirement for own funds and eligible liabilities (MREL)".

[38] See, for example, Single Resolution Board (2016) – Approach taken in 2016 and next steps.

[39] This applies to the firms that will be covered by a MREL requirement that exceeds the capital requirement. The majority of all firms covered by the resolution framework will not be subject to MREL requirements that exceed the capital requirements. For such firms, the MREL requirement will not have any direct implications in terms of the capital structure.

[40] See the impact analysis in the Debt Office's report "Application of the minimum requirement for eligible liabilities".

Effects on firms' conduct and financial stability

The purpose of capital requirements and MREL requirements is to regulate the liability side of firms' balance sheets so that they can absorb losses (either while the firm is still viable, or after it has failed) and be recapitalised if needed.

The capital requirements are largely risk-based. This means that the firms manage the risk in lending by holding more capital for riskier exposures. This benefits financial stability by discouraging firms from taking on excessive risks. If they do so nevertheless, they have better resilience for covering any unexpected losses. The capital requirements also have a significant buffer element that reduces the risk of the firms breaching the minimum requirements. It means that losses can be managed more flexibly in a given situation. Because the firms themselves and the authorities concerned are able to take appropriate measures, the firms can bear losses without overly drastic consequences. If requirements consisted only of minimum requirements, this could lead to a self-amplifying course of events in which firms that come under stress encounter difficulty in their funding or capital procurement, which could aggravate the situation and cause a negative spiral. Although buffer requirements do not fully eliminate this effect, the risk is minimised.

The fact that firms' creditors now run a greater risk of bearing losses through the resolution regulations and the MREL requirement gives further incentives for creditors to monitor the risk-taking of firms. In turn, this gives better market discipline in that expectations about different types of government support for financial firms is lower. Furthermore, because the MREL requirement must be fulfilled with a certain share of debt, the buffer element in the capital requirements is upheld. If the firm suffers losses, the buffer requirements can thus absorb these without a breach of the MREL, provided compliance with the share of debt. The subordination of the liabilities used to meet the MREL requirement facilitates bail-in because it gives greater predictability about who will bear losses in resolution, and about creditor hierarchy. At the same time, it will mean that the liabilities side of firms will change in the sense that part of current funding must be replaced by subordinated liabilities. The subordination requirement is also in line with the proposal of the European Commission.

Effects on the firms' capital and liabilities structure

The financial effects of the capital requirement and MREL requirement described in this chapter are based on aggregate data for the major Swedish

banks as at Q4 2016.[41] Combined, these banks account for around 85% of the total assets of the Swedish banking system. The analysis aggregates the balance sheets of all major banks and thus does not highlight the effects for each individual bank. The banks are assumed to meet the requirements exactly and are thus not assumed to hold capital in excess of the requirements.

In November 2016 the European Commission published a number of proposals that would considerably alter the conditions for the national discretion in the design of capital requirements and the MREL requirement. The proposal contains the introduction of a leverage ratio requirement, which affects both the capital requirement and the MREL requirement. According to the proposal, breaching the leverage ratio requirement would equate to breaching the minimum capital requirements. Additionally, the European Commission proposes that it shall no longer be possible to consider macroprudential risks in the Pillar 2 requirements.[42] The proposal is under negotiation at the European Council and Parliament.

In the following, the effects that the most important changes in the Commission's proposal would have on capital requirements and MREL are analysed. The analysis proceeds on the basis of how the requirements are currently applied based on present regulations (below, "base-case scenario"). A basis of the analysis is that the authorities' requirements and actions are otherwise not altered, which need not be the case in reality. Subsequently, three different scenarios are given that describe the implications of different parts of the Commission's proposal.

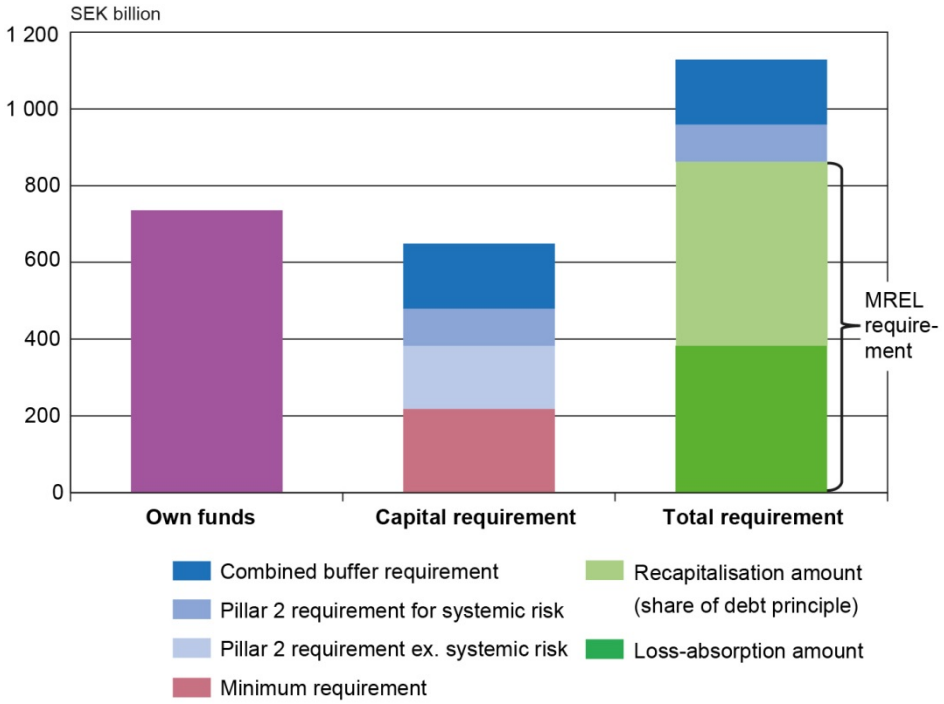
To sum up, the following scenarios are analysed:

- Base-case scenario: Actual outcome of capital requirements and MREL requirement based on how FI and the Debt Office have devised the requirements based on existing legal frameworks.
- Scenario 1: Introduction of binding leverage ratio requirement.
- Scenario 2: Elimination of the possibility to include a surcharge for systemic risk in Pillar 2, and that Pillar 2 requirements must be formally decided.
- Scenario 3: Introduction of the possibility for the authorities to apply Pillar 2 and MREL guidance, which can include a systemic risk surcharge.

[41] The Swedish banks' capital requirements, Q4 2016.
[42] According to the proposal, it could still be possible to consider systemic risk in the Pillar 1 requirements, although through a much more complex decision-making process than in Pillar 2.

Base-case scenario: Existing capital and MREL requirements

Chart 4. Actual outcome of capital requirements and MREL for the major banks based on existing legal frameworks



Note: The loss-absorption amount equals the minimum capital requirements and Pillar 2 requirements excluding systemic risk. The other two components of the capital requirement – the Pillar 2 surcharge for systemic risk and the combined buffer requirement – are reported above the MREL requirement as a consequence of the share of debt principle.

Source: FI and the Debt Office

Chart 4 shows own funds and the capital requirement, as well as the size of the MREL requirement based on this information and using the model adopted by the Debt Office.

The binding minimum capital requirement makes up approximately 35% of the total capital requirement. This means that there are large buffers, in the form of the combined buffer requirement, systemic risk surcharge in Pillar 2, and the other undecided Pillar 2 surcharges.

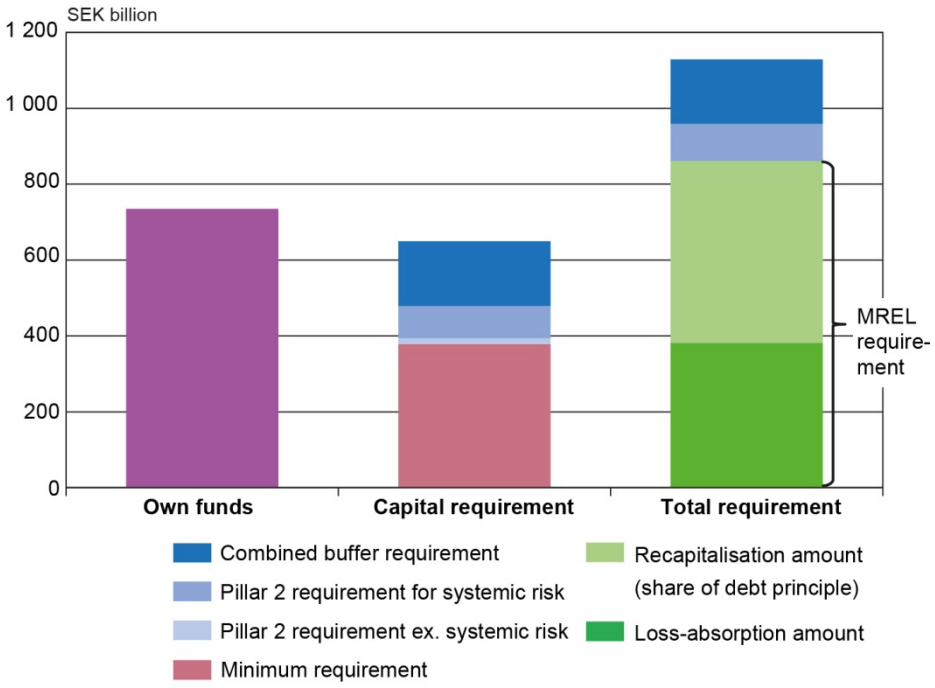
The total requirement, including both capital requirements and MREL requirements, totals around SEK 1,100 billion for the major banks. The MREL requirement is devised such that a certain proportion of the requirement (the recapitalisation amount) can only be met with subordinated liabilities. For this reason, the banks cannot use parts of own funds to meet their MREL requirement. In practice, the total requirement will be higher

than the decided MREL requirement and will consist of the sum of the total capital requirement and the part of the MREL requirement (the recapitalisation amount) that is to be met with subordinated liabilities. The effect of this is that the banks can normally consume the capital buffers without breaching MREL. In the chart above, this is illustrated by means of the parts of the capital requirement that can be consumed without breaching the MREL requirement being placed on top of MREL.

The major Swedish banks currently have few or no subordinated liabilities that can be used to fulfil the share of debt of MREL. The deficit amounts to around SEK 500 billion. In order to fulfil the requirements, the banks will need to issue subordinated debt equalling at least this amount. However, the authorities do not expect that this will lead to an increase in the total liabilities of banks. Instead, it is expected that existing debt, once it matures, will be replaced with subordinated liabilities within ordinary maturity, and there would hence be no impact on the size of balance sheets.[43]

Scenario 1: Leverage ratio requirement

Chart 5: Effect on capital requirements and MREL requirements for the major banks, with account taken of the leverage ratio requirement



Note: The calculation of the binding level has been simplified, with the assumption that the leverage ratio can also be covered by Tier 2 capital. In the MREL proposal of the European Commission, the requirement will be 6.75% of the exposure amount for Nordea

[43] See the impact analysis in the Debt Office's memorandum "Application of the minimum requirement for eligible liabilities".

instead of the double leverage ratio requirement of 3%. This is in line with the global standards (Total Loss Absorbing Capacity (TLAC)) set for global systemically important institutions, which currently include Nordea. The Pillar 2 requirement does not decrease in reality; however, because the leverage ratio requirement is a parallel requirement, only the part of Pillar 2 that has an impact is shown.

Source: FI and the Debt Office.

Chart 5 shows the effect on capital requirements and MREL requirements from the introduction of a binding leverage ratio of 3%. Neither the total level of the capital requirement nor the MREL requirement, nor the combined requirement, is affected by the introduction. This is because the capital requirement expressed in risk-weighted terms in absolute amounts currently exceeds the amount given by the requirement expressed as leverage ratio. However, the major difference will be that the minimum capital requirement is increased from around 35% to around 60% of the total capital requirement, and a large part of the buffer functionality of the Pillar 2 requirements will hence be lost. When the minimum requirements are increased at the expense of buffers, the effect will be an increased probability of a bank breaching the minimum requirements. This will also have implications for the ability of firms to obtain funding under stress since a drop in own funds to the level of the minimum requirements will naturally result in a less stable potential investor base. Another effect of higher non-risk-weighted capital requirements is that firms gain an incentive to take higher risks than with more risk-based requirements.

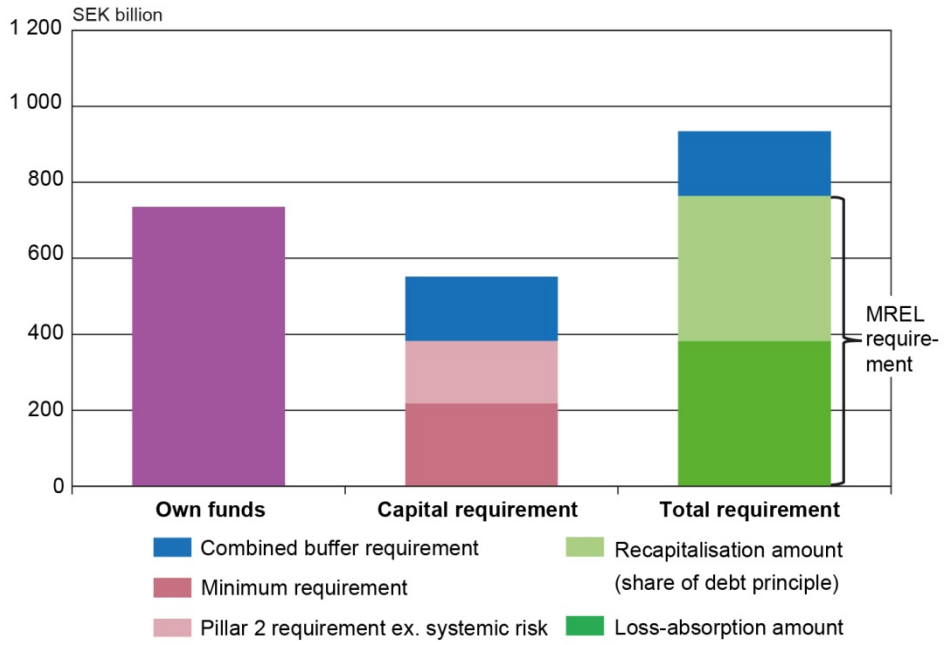
The introduction of a leverage ratio would currently not have any impact on the MREL requirement, the reason being that the MREL requirement based on leverage ratio is below MREL based on the risk-weighted capital requirement. If MREL based on leverage ratio is higher than the risk-weighted requirement, the buffer functionality attained through the share of debt principle will, however, be reduced or eliminated.

In this context, it can also be mentioned that discussions are under way in the Basel Committee to introduce a floor to the level of risk-weighted assets.[44] If such an output floor is introduced and made binding, this could, in a way similar to the leverage ratio requirement, incentivise greater risk-taking by firms, and a reduced buffer element in the capital requirements.

[44] BIS (2016) Reducing variation in credit risk-weighted assets – constraints on the use of internal model approaches – consultative document, Bank for International Settlements.

Scenario 2: Changed Pillar 2 requirement

Chart 6. Elimination of the possibility to include a surcharge for systemic risk in Pillar 2, and the introduction of requirements for the Pillar 2 requirements to be formally decided for the major banks



Note: The chart focuses on the risk-weighted requirements and thus does not take account of the introduction of a leverage ratio requirement.

Source: FI and the Debt Office

Another part of the Commission's proposal pertains to the application of Pillar 2 requirements. According to the proposal, the Pillar 2 requirement may no longer cover systemic risks. Furthermore, the Commission proposes that the Pillar 2 requirements be formally decided for each firm, which is not currently the case in Sweden. If systemic risk in Pillar 2 is removed, the total capital requirement decreases by around SEK 100 billion, despite no change in the underlying risks. All else equal, this reduces the resilience of firms. The two proposed changes will also increase the minimum requirement and the decided Pillar 2 requirement from the current level (base-case scenario) of around 35% to around 70% of the capital requirement.

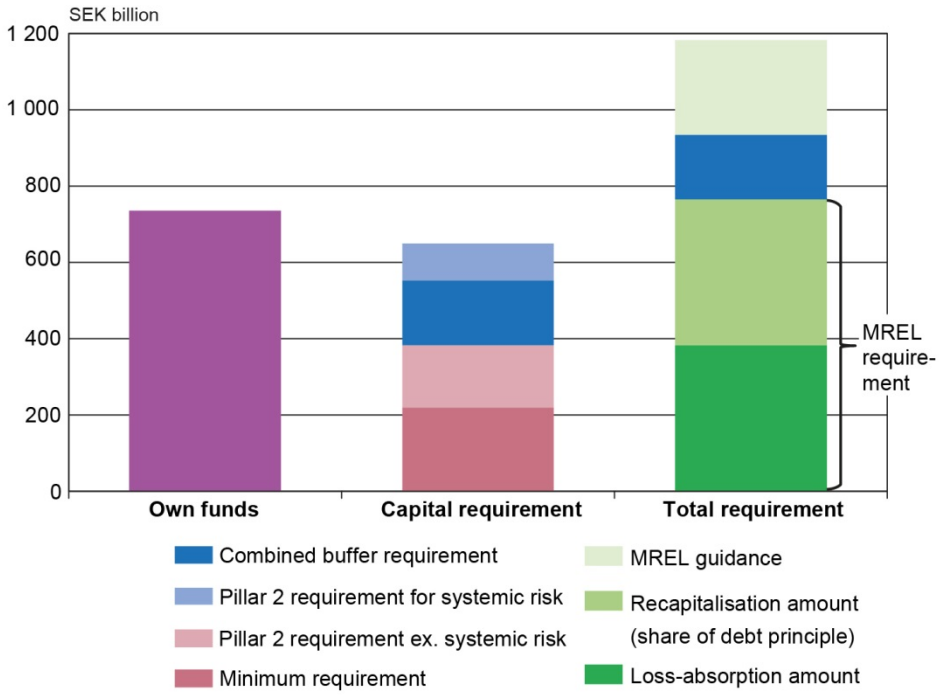
The proposed changes will also cause the total requirement to drop by around SEK 200 billion, i.e. the double capital requirement effect, since the recapitalisation amount may no longer include the Pillar 2 surcharge attributable to systemic risk today.

Through this proposal, the possibility for authorities to consider the specific circumstances prevailing for the Swedish financial market could be sharply

limited, particularly in terms of systemic risks. Because Sweden is a country with a large financial system, the authorities have found it appropriate for higher requirements to apply for large Swedish firms and for certain exposures. This is because the consequences of large financial firms defaulting, or problems on certain markets, would have severely adverse implications for financial stability. The capital requirements would be lower than today, increasing the probability of a financial crisis, either because a large financial firm fails, or due to problems affecting several firms at the same time. The obligation to decide the Pillar 2 requirements also reduces flexibility for the authorities and the firms.

Scenario 3: Application of guidance amounts

Chart 7. Introduction of the possibility for the authorities to apply Pillar 2 and MREL guidance that includes systemic risk



Note: The chart focuses on the risk-weighted requirements and thus does not take account of the introduction of a leverage ratio requirement. The application of the share of debt principle as regards MREL guidance could affect the size of the total requirement. The diagram illustrates the case of the share of debt being equal to the recapitalisation amount.

Source: FI and the Debt Office

Based on scenario 2, i.e. with decided Pillar 2 requirements and the elimination of systemic risk from Pillar 2, but with the possibility for systemic risk in Pillar 2 to instead remain in the form of an undecided

requirement from the supervisory authorities[45] (Pillar 2 guidance), the current total capital requirement could be maintained. At the same time, the share of buffers in the capital requirement would increase compared with scenario 2, because the minimum requirement and the decided Pillar 2 requirement would drop from around 70% to around 60% of the capital requirement. The buffer element is however still much lower than today's level, with the minimum requirement being around 35%.

The decided MREL requirement is not affected by the change compared to scenario 2. However, the European Commission's proposal entails the introduction of a rule implying that the same capital may not be used to meet both the MREL requirement and the combined buffer requirement. Because of this, the buffer requirement is placed on top of the MREL requirement (in the same way as is achieved through the share of debt principle). Also, a possibility is introduced for the resolution authority, in the same way as the supervisory authority, to apply a guidance amount (MREL guidance). The guidance amount provides scope for the resolution authority to devise the MREL requirement such that it enables firms in resolution, if needed, to be recapitalised to a level that practically equals the entire existing capital requirement, including buffers. If the possibility of setting MREL guidance is fully utilised, the total requirement will increase.[46] Maximum MREL guidance would, according to the proposal, amount to the sum of Pillar 2 guidance decided by the supervisory authority, and the combined buffer requirement (excluding the countercyclical capital buffer).

This scenario resembles the base-case scenario in that the total capital requirement will be the same, and the MREL requirement ends up at around the same level as today. Also, parts of the buffer functionality created by existing Pillar 2 requirements are preserved. However, because a decision will be needed on certain Pillar 2 requirements, buffer functionality and flexibility will be lower than is the case today which, for the aforementioned reasons, is negative for financial stability. At the same time, with the possibility of applying MREL guidance, the conditions for ensuring the resolvability of firms are better than in scenario 2.

[45] This variant of the European Commission's proposal includes systemic risk and allows for Pillar 2 guidance to be decided by the supervisory authority. The variant is not entirely in line with the Commission's proposal.

[46] The possibility of the resolution authority to apply MREL guidance is governed according to the Commission's proposal – and in this scenario – partly by the supervisory authority's application of capital guidance. Therefore, the requirement need not necessarily be as high as shown in Chart 7. For illustrative purposes, however, the guidance assumed to be fully utilised in both elements.

Effects on the economy

The analysis of the effects of the requirements on the economy assumes the base-case scenario, i.e. current capital requirements and the MREL requirements that would follow from the Debt Office's adopted model.[47] The differences described are thus the marginal effects that would arise from shifting from the base-case scenario to the alternative scenarios. The authorities have performed a simplified calculation in order to illustrate how different designs of the requirements affect lending rates and GDP. The assumptions that form the basis of the model are described in Annex I. The quantitative model estimates the relative change in the funding cost for banks in the alternative scenarios, compared with the base-case scenario. The model assumes that the costs are entirely transferred onto the bank's borrowers. In turn, the altered funding cost entails altered lending rates and hence GDP effects. This effect has been calculated according to the same model used by the Debt Office in its MREL report.

Compared with the base-case scenario, it is scenario 2 (removal of systemic risk in Pillar 2) and scenario 3 (Pillar 2 and MREL guidance) which, according to the calculation model employed, bring about changes to the total capital and MREL requirement. If requirements for systemic risk in Pillar 2 were no longer applicable, the capital requirement and hence the recapitalisation amount in MREL will decrease. On the whole, the combined requirement decreases by around SEK 200 billion, leading to a drop in lending rates of around 0.1 percentage points. In the case of it being possible to place systemic risk in Pillar 2, and MREL guidance being introduced and applied to the maximum extent (scenario 3), this would lead to a slight increase in lending rates.[48] This is because the combined requirement (due to changed MREL, including the maximum guidance amount) increases by around SEK 50 billion.

The authorities have, using an econometric model, estimated the effect of the altered lending rates on the GDP level. Because lending rates decrease, the GDP effect in scenario 2 will be slightly positive (0.04 percentage points). The GDP effect in scenario 3 is negligible.

[47] In the Debt Office's report "Application of the minimum requirement for own funds and eligible liabilities", it was estimated that the Swedish MREL requirements entail an increase in the banks' lending rates of around 0.03 percentage points, and a lower GDP level of around 0.01 percentage points over time.
[48] Increase of around 0.01 percentage points.

Summary of effects

Table 2 summarises the effects described above, i.e. the effects on the requirements' absolute levels and composition, how the banks' resilience and resolvability are affected, and what the direct macroeconomic effect will be (on a stand-alone basis).

Table 2. Effects of the scenarios of overall capital and MREL requirements

	Effects on the requirements		Effects for society		Effects for financial stability	
	Total requirements, SEK	Share of minimum capital requirement, %	Effect on lending rates	Effect on GDP	Resilience	Resolvability
Base-case scenario	Approx. SEK 1,100bn	Approx. 35				
Scenario 1	Unchanged	Increases to approx. 60	-	-	↓	-
Scenario 2	Decreases approx. SEK 200bn	Increases to approx. 70	-10 bps	+0.04 percentage points	↓	↓
Scenario 3	Increases approx. SEK 50bn in full application	Increases to approx. 60	+ 1bp	+/- 0 percentage points	↓	~0

Overall assessment

FI and the Debt Office find that the current overall requirements, with a strong element of resilience and resolvability, and in which the firms and their stakeholders are encouraged to consider the risk in the underlying business, are well-balanced. Combined, they contribute to the ability to fulfil the overall objective of financial stability.

The analysis in this report shows that the quantitative effects on the banks' funding costs, and hence on lending rates and the economy, would be small or negligible if the regulations regarding capital and MREL requirements were amended as the Commission has proposed. While slight positive GDP effects can be estimated in one of the models, at the same time the model does not take account of the fact that the altered requirements could have a substantial impact on the probability and costs of future crises – and hence on long-term economic development.[49]

[49] For more extensive rationale on the positive effects in this respect, see e.g. the impact analysis in the Debt Office's report "Application of the minimum requirement for eligible liabilities".

The changes would have comparatively far-reaching consequences for how FI and the Debt Office can devise their respective requirements. As described above, the authorities find for instance that a greater minimum requirement element (reduced buffer element) would risk giving a greater probability of shocks in the financial system and ultimately also a greater probability of crises. In addition, lower levels for capital requirements and MREL requirements would, all else equal, reduce both the resilience and resolvability of firms.

The overall assessment of the authorities is therefore that the combined economic effect of the scenarios analysed would largely be negative from a Swedish perspective. Besides increased uncertainty, to which lower capital requirements lead, the flexibility created by the buffers would be lost. Also, the resilience and resolvability of Swedish firms would deteriorate. These considerations should be taken into account in the ongoing negotiations regarding amendments to the regulations on capital and MREL requirements.

Annex I – Model assumptions

Assumptions in the model

- The capital cost of capital instruments (based on market data with certain assumptions): 8%.
- Funding cost for MREL instruments: 50 basis points higher than the equivalent cost for senior unsecured funding.
- Funding cost for senior non-subordinated debt (based on prevailing market rates): 0%.
- In the case of the capital requirement increasing, the additional cost is assumed to be the difference between the capital cost for capital instruments and the funding cost for senior unsecured debt.
- If the banks must change their balance sheet, it is assumed that they keep the size of the balance sheet constant, and instead replace their existing funding with other funding.
- The model does not assume that altered capital adequacy changes the funding cost for other debt, which is the opposite to what can be assumed according to the Modigliani-Miller theorem on capital structure. For example, it is probable that the funding costs for non-subordinated liabilities would decrease as a result of the introduction of the MREL requirement or of increased capital requirements. This means that the consequences described in this section could be smaller in reality.
- The credit portfolio of the major banks (based on their balance sheets): SEK 8,000 billion.
- The analysis assumes that an increase to the total funding cost is entirely transferred onto the banks' borrowers, and vice versa if the borrowing cost decreases. This is manifested in altered lending rates. Insofar that costs are not entirely transferred, the reported effects on lending rates and GDP will be lower.