



FINANSTILSYNET

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AUTHORITY OF NORWAY

Circular

Finanstilsynet's practices for assessing risk and capital needs

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1 Introduction

This circular and appendices describe the main elements of Finanstilsynet's assessment of institutions' overall risk level and need for capital (SREP¹), including Finanstilsynet's methodology for assessing capital needs under Pillar 2. The circular must be viewed in the context of the European Banking Authority's (EBA) SREP guidelines and the determination of capital needs under Pillar 2.² This circular replaces circular 12/2016.

Chapter 2 provides an overview of the various elements included in the SREP and how these are interconnected. Chapter 3 describes the division of institutions into categories that determines the frequency and scope of Finanstilsynet's SREP assessment and dialogue with individual institutions. Chapter 4 describes Finanstilsynet's ongoing monitoring of institutions' risk level and risk developments. Chapter 5 provides an overview of important assessment criteria and elements included in Finanstilsynet's analysis of institutions' business model, as well as business and strategic risk. Chapter 6 provides an overview of the key criteria emphasised by Finanstilsynet when assessing institutions' internal governance. Chapter 7 describes Finanstilsynet's assessment of institutions' various risk areas. Chapter 8 covers the assessment of institutions' level of capital and capital needs and describes the methodology used as a tool to support Finanstilsynet's assessment of institutions' need for capital under Pillar 2 for individual risks. The methodology is described in further detail in appendices 2-4. Chapter 9 provides an overview of the elements included in the overall SREP assessment and relevant supervisory measures and tools, including requirements for corrective measures and orders. Chapter 10 describes SREP assessments of cross-border groups.

In addition to the methodology and assessment criteria discussed in this circular, Finanstilsynet takes account of the institutions' own assessments of risk, capital needs and liquidity needs (ICAAP and ILAAP). Requirements relating to institutions' ICAAP and ILAAP are discussed in further detail in Appendix 1.

¹ SREP – Supervisory review and evaluation process

² [Directive 2013/36/ EU \(CRD\) art. 104 no.1 a](#) and [EBA/GL/2022/03](#)

2 The SREP framework

Finanstilsynet's SREP framework, as described in this circular, is based on the EBA's guidelines for the SREP (EBA/GL/2022/03), cf. Article 97 of Directive 2013/36/EU (CRD).

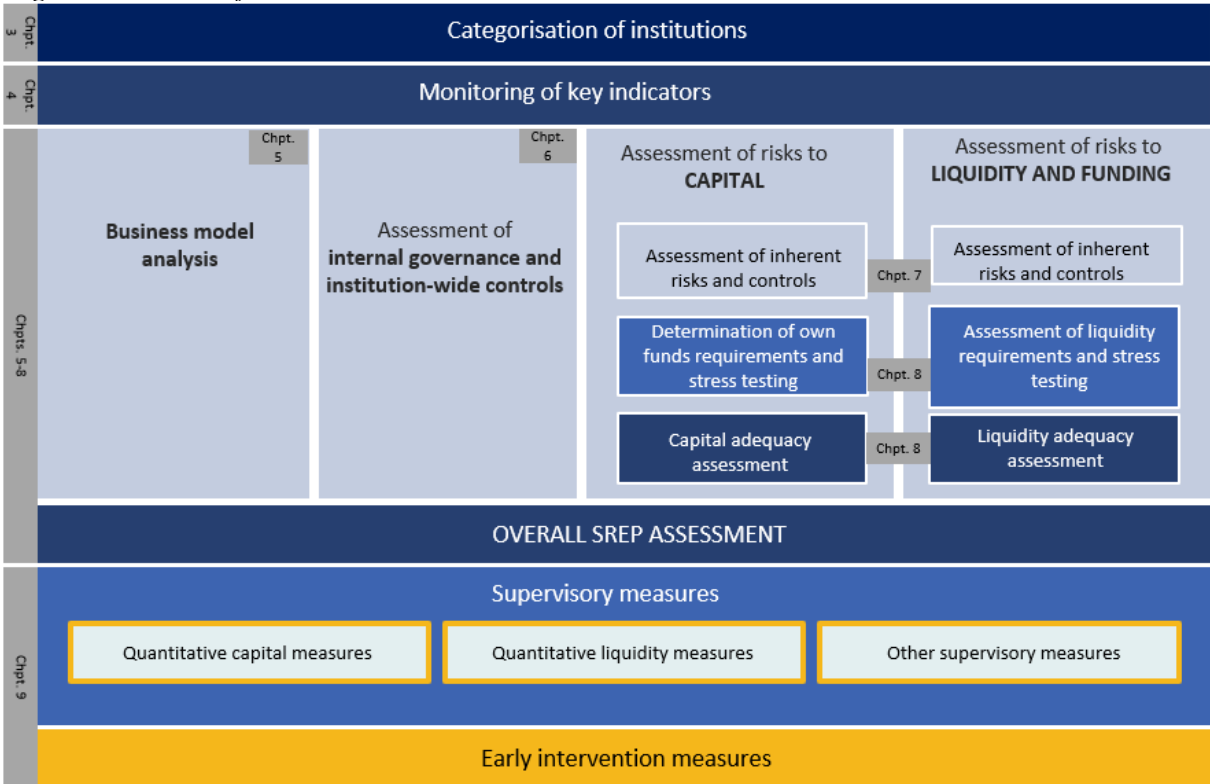
The framework for Finanstilsynet's SREP assessment, the elements and assessment criteria that are included and how the process is carried out are described below.

Elements included in the SREP:

- Dividing institutions into categories for SREP purposes
- Monitoring of key performance indicators
- Assessment of business model, including business and strategic risk
- Assessment of overall systems for internal governance
- Assessment of risk and capital needs and the institutions' capitalisation in light of this
- Assessment of risk related to the institution's liquidity and funding, as well as the institution's liquidity and funding needs

The above elements are summarised in an overall SREP assessment, where the need for supervisory measures is also assessed.

Figure 1: Overview of the various elements included in the SREP



About the SREP

Finanstilsynet summarises its assessment of the individual institution's risk and capital needs, including the need for capital under Pillar 2, in a letter sent to the institution's board of directors. The board is given the opportunity to comment on the assessment of the need for capital under Pillar 2 within a set deadline. After Finanstilsynet has received the board's comments, a final assessment of the institution's risk and capital needs (overall SREP review) is made, and Finanstilsynet determines the institution's Pillar 2 requirement. Finanstilsynet's decision on Pillar 2 requirements has a legal basis in the Financial Supervision Act, section 4 and the Financial Institutions Act, section 13-6 subsection (7).³

A letter to the institution is prepared, summarising and explaining Finanstilsynet's final SREP assessment.⁴ Finanstilsynet's decision on the Pillar 2 requirement is sent to the institution and published on Finanstilsynet's website.

Finanstilsynet's decision may be appealed within three weeks after the institution has received the decision. Any complaints must be sent to Finanstilsynet.⁵ The decision on the Pillar 2 requirement applies until a new decision has been made.

In its letter, Finanstilsynet also expresses an expectation as to the institution's Pillar 2 guidance (P2G).⁶

Finanstilsynet may, through its SREP feedback or in some other way, express its expectations concerning improvements or issue orders for improvements.⁷ In some cases, Finanstilsynet will lay down temporary Pillar 2 requirements.⁸ This is particularly relevant when other supervisory measures are considered insufficient or inappropriate. Finanstilsynet may also make decisions on temporary Pillar 2 requirements outside the ordinary SREP, cf. chapter 3. It is particularly relevant to lay down temporary Pillar 2 requirements for risk related to the institution's business model (chapter 5), internal governance (chapter 6), weaknesses in internal models (chapter 7.1) and compliance with the anti-money laundering (AML) legislation (chapter 7.3).

Consolidation level

For institutions that are part of a financial services group, the assessment of risk and capital needs will normally be carried out at the highest level of consolidation, and the Pillar 2 requirement will be set at consolidated level for the institution in question. When the Pillar 2 requirement also applies at solo level, this will be specified in the decision.⁹

³ Cf. CRD Article 104a

⁴ Cf. CRD Article 97

⁵ The appeal authority is the Ministry of Finance

⁶ Cf. CRD Article 104b no. 2

⁷ Cf. CRD Article 104a no. 1b, cf. Articles 73 and 74 and CRR Article 393. See also chapter 9 on supervisory measures

⁸ Cf. EBA/GL/2022/03 nos. 386, 387 and 549

⁹ An ICAAP must nevertheless be prepared for each institution, cf. Appendix 1

3 Principle of proportionality in the SREP

Finanstilsynet divides institutions into categories that determine the frequency and scope of SREP assessments and the dialogue with the institutions. The division into SREP categories will primarily be adapted to the categorisation of institutions according to CRR 2 Art. 4 nos. 145 and 146.

Category 1 will include systemically important institutions.¹⁰ As a rule, medium-sized and large institutions that are not included in category 1 are included in SREP category 2. Small and less complex institutions where there is no regular dialogue with the board of directors and management shall, as a rule, be included in SREP category 4. Other small and medium-sized institutions may be included in SREP category 3. When determining which category the institutions belong to, Finanstilsynet considers the institution's business model and type of business, as well as risk exposure. Finanstilsynet also takes other factors into account, such as whether the institution is newly established or has undergone structural changes (merger etc.).

Finanstilsynet assesses the classification criteria and the basis for assigning institutions to the various categories on an annual basis. If the criteria and/or the assignment to a specific category are changed, Finanstilsynet will inform the institutions concerned.

Table 2 summarises the categories of institutions, as well as the frequency and scope of SREP assessments and Finanstilsynet's dialogue with the institutions.

Table 2: Frequency and scope of SREP assessments and follow-up of the institutions

SREP – Finanstilsynet’s follow-up of the institutions				
Category	Monitoring of key perform. indicators	SREP and Pillar 2 decision	Risk assessment	Scope of contact with the institution
1	Quarterly	Annually	Annually	Regular dialogue with the institution's board and management
2	Quarterly	Every second year	Annually	Regular dialogue with the institution's board and management
3	Quarterly	Every third year	Annually	Regular dialogue with the institution's board and management
4	Quarterly	Every third year	Annually	Risk-based dialogue with the institution's board and management

The frequency of the SREP assessments may occasionally deviate from that shown in table 2. For example, there may be a need for a new SREP assessment earlier than the normal frequency would indicate when the institution's risk level has changed significantly, or when the institution has undergone major structural changes (merger, purchase/sale of portfolios

¹⁰ Cf. CRR/CRD IV Regulations Part VIII.

etc.) that have resulted in a material change in the overall risk level. A new review will normally cover all risk areas.

All institutions are obliged, regardless of the frequency of the SREP assessments, to prepare an ICAAP and an ILAAP at least annually. The ICAAP and ILAAP shall be integrated into operations, be carried out at the highest level of consolidation and be approved by the institution's board of directors. The ICAAP and ILAAP shall be sent to Finanstilsynet, generally by 30 April¹¹ as an attachment to Altinn form KRT 1172. In its SREP assessment, Finanstilsynet uses 31 December as a reference date for assessing risk and capital needs. Finanstilsynet will also take account of the institution's ICAAP and ILAAP when there is another reference date than 31 December. However, a higher level of discretion is required in cases where there are significant discrepancies between the institution's own assessment and Finanstilsynet's assessment.

The SREP assessment is based on the principle of proportionality. As a rule, Finanstilsynet's risk analyses of large and complex institutions are more detailed and include more risk elements than for small and less complex institutions. The risks described in chapter 7 may be less relevant for some institutions. In other cases, a more thorough risk analysis may be required for small and less complex institutions, or institutions with a simple business model but a high risk exposure.

¹¹ Finanstilsynet will base its assessment of risk and capital needs on the most recent available ICAAP and ILAAP. As a rule, the assessment is carried out in the second and third quarter of the year.

4 Ongoing monitoring

Finanstilsynet regularly tracks selected risk indicators and financial key figures for individual institutions, including key figures for capital, liquidity, funding, profitability, growth, credit risk and market risk. The indicators are based on the institutions' reporting to Finanstilsynet. Finanstilsynet monitors the level of the indicators and how the indicator values develop over time. The indicators are also compared across institutions by using selected reference groups.

In addition to assessing and analysing risk developments in individual institutions, Finanstilsynet monitors developments in the Norwegian and international economies and assesses financial trends that may affect risk in Norwegian institutions.¹²

5 Assessment of business model

As part of the SREP, Finanstilsynet assesses the institution's business model and overall strategy, including the business model's viability and sustainability in the short and long term. Finanstilsynet also assesses capital needs related to business and strategic risk, including ownership risk.

As a rule, the assessment covers the institution's entire operations, including relevant wholly and partly owned entities. In some cases, Finanstilsynet also carries out thematic assessments of groups of institutions.

Assessment of business model and business and strategic risk

Finanstilsynet makes a comprehensive assessment of the institution's business model¹³, focusing on its weaknesses and vulnerabilities. For the largest institutions, the assessment includes:

- an overarching analysis of the business model and which areas should be subject to further consideration
- strategic, market and regulatory parameters
- links to third parties, including the scope of outsourcing, cooperation agreements and joint ownership with other entities
- how different customer segments and products contribute to the institution's profitability, risk profile, balance sheet structure, etc.
- strategy and financial plans, including planned changes in the institution's business model, growth and entry into new products and markets. Finanstilsynet also assesses whether the institution has incorporated ESG risks in its business model and strategy.

The risk of money laundering and terrorist financing is included in Finanstilsynet's assessment of the institution's business model. Some institutions' business model and/or operations may entail an elevated risk of money laundering and terrorist financing. The institution's customer base, geographical conditions, products and service offering are examples of relevant information that can be used as a basis for assessing the institution's business model.

¹² Finanstilsynet's assessment of the stability of the Norwegian financial system is published twice a year in the 'Risk Outlook' report.

¹³ EBA/GL/2022/03 chapter 4.

For other institutions, the assessment of the business model is less extensive.

Finanstilsynet also takes account of the measures implemented by the institution to mitigate risk and vulnerabilities based on the institution's business model and strategic choices, and of whether the institution's business model and strategy could entail reputational risk.

Assessment of ownership risk

Finanstilsynet also assesses risk associated with the institution's ownership interests in wholly and partly owned institutions in cases where the ownership is not regarded as a purely financial investment, but appears to be a strategic investment.¹⁴ In its assessment, Finanstilsynet considers whether ownership, directly or indirectly, may contribute to heightening risk due to changes in liabilities, earnings and profits. Finanstilsynet also factors in any financial and legal obligations between the institutions that may affect ownership risk. In some cases, ownership may also entail a risk of loss of reputation.

As part of the SREP, Finanstilsynet assesses whether the institution has proven that its business model is viable in the short, medium and long term.¹⁵

6 Assessment of internal governance

SREP includes an assessment of the institution's internal governance.¹⁶ The assessment is based on available documentation, including the institution's ICAAP, its reporting to Finanstilsynet, documentation from on-site inspections and publicly available information. Finanstilsynet assesses whether the institution's organisation and lines of responsibility, as well as its guidelines, mechanisms and processes for governance and management, are well adapted to the institution's risk profile, size, business model and complexity, and whether they are in compliance with relevant legislation and best practice. Finanstilsynet also assesses whether the framework for risk management and internal control covers all relevant risks¹⁷, and whether it is adequately documented and implemented and complied with throughout the institution/group. In addition to setting minimum requirements for guidelines and procedures for the various risk categories in compliance with section 36 of the CRR/CRD IV Regulations, Finanstilsynet assesses whether adequate and appropriate guidelines and procedures have been established to ensure that the institution complies with prevailing anti-money laundering and counter-terrorist financing requirements. Similarly, consideration will be given to whether adequate and appropriate guidelines and procedures have been adopted to ensure that sustainability (ESG) risks, including climate risk, are included in all risk assessments wherever relevant. Finanstilsynet also assesses whether the institution has incorporated targets and limits for ESG risks that are proportionate to the institution's risk appetite.

¹⁴ Equity price risk is assessed under market risk, cf. section 7.2

¹⁵ The EBA recommends that the institutions extend the time horizon for strategic planning to at least 10 years, cf. EBA Report on Management and Supervision of ESG Risks for Credit Institutions and Investment Firms (EBA/REP/2021/18)

¹⁶ See Finanstilsynet's module for internal governance (in Norwegian only)

¹⁷ Cf. EBA/GL/2022/03 chapter 5

Finanstilsynet assesses the organisation of independent control functions and the resources and expertise assigned to the various functions. In addition, any weaknesses identified in the review of the institution's recovery plan are taken into account. The institution's remuneration schemes may also be reviewed as part of the SREP, as may its corporate and risk culture.

When assessing risk culture and behavioural factors, Finanstilsynet will, in addition to observing conduct, take the institution's internal guidelines into consideration, including codes of ethics and guidelines for identifying and handling conflicts of interest, as well as rules for loans to and other types of transactions entered into with members of the board of directors and management and their close associates.

As part of its assessment of the institution's risk management system, Finanstilsynet will consider its approved risk appetite and how it correlates to the institution's overall business and risk strategy, as well as its risk management framework.

The board shall ensure that the institution has documented guidelines for ICAAP and ILAAP, that it prepares an ICAAP and ILAAP document¹⁸ at least annually, and that these documents function as important tools in the institution's risk identification and management process. The board is responsible for ensuring that the ICAAP and ILAAP and associated internal methodology and processes are proportionate to the institution's size, scope and complexity, and that the institution carries out complete risk assessments that are well integrated in the institution's governance and decision-making processes. The institution's ICAAP, ILAAP and recovery plan shall be consistently documented.

The board of directors shall ensure that the annual ICAAP and ILAAP documentation is evaluated by a body independent of the institution's administration, and that the independent evaluation is part of the basis for the board of directors' decisions with regard to the ICAAP and ILAAP. In Finanstilsynet's opinion, it is important that the board implements a process to ensure that the institution has sufficient capital relative to its overall risk profile. Particular emphasis will be placed on assessing whether the board fulfils its role in ensuring compliance with the institution's strategy and guidelines.

As part of the SREP, Finanstilsynet may also take a closer look at reporting to the board and management, including the scope, relevance and quality of the reporting, as well as the board and management's response and implementation of relevant measures. In this context, the institution's systems and procedures for handling and aggregating data may also be reviewed. Finanstilsynet also evaluates the institutions' stress tests, the procedures for conducting the stress tests and the results presented in the ICAAP and ILAAP, as well as in the institutions' risk reports. Finanstilsynet assesses whether the stress tests are in accordance with the EBA's guidelines on stress testing (EBA GL/2018/04) and whether the tests are adapted to the institution's operations and risk exposure. The results of the institution's stress tests in ICAAP will also be considered against Finanstilsynet's own stress tests.

Finanstilsynet also takes account of the institution's own assessments of risk and capital needs related to internal governance.

¹⁸ Cf. the Financial Institutions Act, section 8-6 and section 13-6 subsection (1)

7 Risk analysis

Pursuant to the Financial Institutions Act, section 14-6 subsection (2), Finanstilsynet shall assess all risks to which institutions are or may become exposed. The assessment of future risk to which the institution may be exposed will take the institution's strategy and the macroeconomic situation into consideration. As a rule, Finanstilsynet divides its assessment of the institution's inherent risks into the following subcategories: credit risk, market risk, operational risk, liquidity risk and funding risk, risk of excessive leverage and 'other risks'.

If weaknesses have been identified in the institution's management and control of the individual risk categories referred to in chapter 7, Finanstilsynet will take into consideration the risk this may entail for the institution. For small and less complex institutions, Finanstilsynet's assessment of risk related to the management and control of the individual risk categories is included in the assessment of the institution's internal governance, cf. chapter 6.

For a more detailed description of the assessment criteria that are emphasised in the assessment of the management and control of credit risk, market risk, liquidity and funding risk, as well as operational risk, see Finanstilsynet's guidelines (modules) published on Finanstilsynet's website (in Norwegian only) and EBA/GL/2022/03.¹⁹

This chapter specifies the assessment criteria that may be relevant in the assessment of the institution's risk exposure.

7.1 Credit risk

Portfolio quality

In its analysis of the institution's credit risk exposure, Finanstilsynet assesses the quality of and developments in the institution's various credit portfolios and their outlook. Finanstilsynet's module for assessing credit risk provides further guidance on which elements Finanstilsynet attaches importance to. See also EBA/GL/2022/03.²⁰

Finanstilsynet assesses the institution's actual risk exposure, as well as how the institution's credit risk is monitored and reported. The actual risk exposure is considered against the board's risk appetite, credit strategies and credit procedures. Finanstilsynet also assesses risk exposure in a forward-looking perspective in light of the institution's credit strategies, credit limits and the macroeconomic outlook.

In its assessment, Finanstilsynet attaches importance to:

- Non-performing exposures and how long they have been non-performing.²¹
- Forborne exposures.
- The institution's level of loan loss provisions, including provisions on the institution's performing high-risk portfolio and the level of provisioning on older non-performing

¹⁹ Cf. EBA/GL/2022/03, sections 6.2.3 (credit risk), 6.3.3 (market risk), 6.4.4 (operational risk) and 6.5.3 (market risk)

²⁰ [EBA/GL/2022/03 chapter 6.2](#)

²¹ A significant volume of exposures that have been non-performing for some time is considered to entail a higher risk for institutions with limited loan loss provisions.

loans. The assessments are made for both the overall portfolio and for relevant sub-portfolios. When assessing the volume of loan loss provisions, the level of existing collateral and their valuation are taken into account.

- Whether the institution's methodology for determining loan loss provisions is in accordance with the rules of IFRS 9.
- Whether the institution's granting and monitoring of loans is in line with the guidelines from the EBA.²²
- Compliance with the Lending Regulations.²³
- To what extent the institution's pricing of loans covers the cost of capital/funding costs, and whether there is sufficient differentiation between loan products and between customer segments.
- The institution's exposures to property development projects.²⁴
- Possible securitisation of portfolios and how this affects the risk to which the institution is exposed.
- Whether the institution has assessed ESG risks in its credit portfolio and in particular whether the institution has assessed the risk posed by climate change and the transition to a low-emission society.

For institutions whose IRB model has been approved, Finanstilsynet's general follow-up of the institutions' use of the models will be taken into account in the risk assessment. It will also be considered whether special measures are required as part of the SREP (model risk). This also includes an assessment of whether the maturity parameter (M) reflects the actual risk.²⁵

Finanstilsynet conducts regular stress tests of institutions' credit portfolios as part of its assessment of the prospective risk of losses in the institution's loan portfolio(s). Estimates of loan losses based on such stress tests are also included in the risk analysis.

Credit-related concentration risk

When assessing the institution's credit-related concentration risk, Finanstilsynet considers whether the institution's exposures are broadly diversified.²⁶ High concentration risk could make the institution particularly vulnerable to individual incidents. The analysis includes single-name concentrations, sectoral concentrations, geographical concentrations, product concentrations and collateral and guarantees concentrations. Finanstilsynet also assesses the volume of large exposures and their quality. See also the EBA's SREP guidelines.

7.2 Market risk

In its analysis of the institution's market risk exposure, Finanstilsynet assesses risk associated with items on and off the institution's balance sheet that may result in losses in the event of a change in market prices. The analyses of the individual types of market risk estimate potential losses, risk diversification and the liquidity of the positions in the event of sudden changes in material market risk factors. All material market risk is analysed. In addition to market risk

²² [EBA/GL/2020/06](#)

²³ Regulations of 9 December 2020 no. 2648

²⁴ Cf. circular 2/2021

²⁵ Cf. EBA/GL/2022/03 sections 182 and 229

²⁶ Cf. EBA/GL/2022/03 sections 183-189

covered by the EBA's description of market risk, interest rate risk in the banking book (IRRBB)²⁷ and property risk are also included in the analysis of market risk. Finanstilsynet's module for assessing market risk provides further guidance on which elements Finanstilsynet attaches importance to. See also the EBA's SREP guidelines.²⁸

Interest rate risk

Finanstilsynet analyses the institution's market risk associated with positions in fixed-income securities, including derivatives with fixed-income instruments as underlying assets. The assessment also includes the institution's investments in fixed-income funds, bond funds and money market funds. Interest rate risk associated with the banking book²⁹ (IRRBB) is assessed separately from interest rate risk in the trading book. IRRBB measurements are based on both the risk of changes in the economic value of equity (the EVE methodology) and the risk of changes in profits (NII methodology). In addition to effects on the interest margin, the risk analysis according to the NII methodology also includes changes in the value of securities, including any effects on the comprehensive income statement. Interest rate risk is assessed on the basis of the limits set by the institution's board of directors.

Equity risk

Finanstilsynet analyses the institution's market risk associated with positions in equity instruments, including derivatives with equity instruments as underlying assets. The analysis comprises positions in both the trading book and the banking book. The trading book is assessed on the basis of the limits set by the institution's board of directors. No limits are normally set for the banking book. As a rule, the assessment is based on the institution's reported positions.

Currency risk

Finanstilsynet analyses the institution's risk associated with exposures to various foreign currencies. The analysis comprises all financial instruments and other positions entailing currency risk. As a rule, the analysis is based on the limits set by the institution's board of directors for the banking book and the trading book.

Credit spread risk

Finanstilsynet analyses the institution's risk associated with changes in the market value of bonds, commercial paper and credit derivatives due to general changes in credit spreads. As a rule, the analysis is based on the market value of the institution's actual positions in both the trading book and the banking book.

Property risk

Finanstilsynet analyses the institution's risk associated with positions in and direct ownership of property, including business premises owned by the institution (e.g. bank buildings and properties used by employees), property companies and repossessed properties. The analysis also includes the institution's investments in property fund units. As a rule, the analysis is based on the market value of the institution's actual holdings.

²⁷ For the IRRBB, the risk of changes in profits is also assessed

²⁸ EBA/GL/2022/03 chapter 6.3.

²⁹ EBA/GL/2018/02 and the Basel Committee's document: 'Standards – Interest rate risk in the banking book, April 2016'

Other market risk

All other material market risk to which the institution is exposed is analysed, including, but not limited to, risks associated with international funding that is not otherwise covered in the analysis of market risk.

Finanstilsynet will also take the institution's own assessments of other types of market risk into account. For large institutions, Finanstilsynet will also assess how the institution monitors the effect of ESG risks on its market risk positions and whether the institution has a suitable ESG strategy for market risk.

7.3 Operational risk

Finanstilsynet considers whether any extraordinary circumstances or significant changes may heighten the institution's operational risk by affecting the management of the institution or the utilisation of the institution's resources, or heighten the risk of manual errors. The institution's use of subcontractors and partners, as well as management and control of outsourced activities, new and changed products, activities, processes and systems, are taken into consideration in the assessment of operational risk. In addition, Finanstilsynet reviews the institution's contingency plans aimed at ensuring its ability to operate on an ongoing basis and limit losses in the event of severe business disruptions.

Finanstilsynet takes account of the institution's own assessments of risk and capital needs related to operational risk, past losses (potential and actual losses), experience from on-site inspections, reporting of incidents and other external reporting, as well as other reporting from and contact with the institution. Finanstilsynet's module for assessing operational risk provides further guidance on relevant elements that may be included in the assessment. See also the EBA's SREP guidelines.³⁰

Finanstilsynet considers whether operational events and actions that may undermine confidence, including lack of or weak consumer protection, are likely to result in higher losses and reduced profitability in the long term.

In the analysis, it is particularly relevant to emphasise:

- ICT risk, including the risk of cyber attacks (cyber risk)³¹
- Compliance risk
- Risk of fraud
- Legal risk
- Money laundering and terrorist financing risk
- Risk associated with the follow-up of outsourced services
- ESG risks, including physical and transition risks associated with climate change and the transition to a low-emission society
- Risk of internal and external reporting of inadequate quality
- Risk of inadequate contingency / business continuity plan
- Risk of errors in the development and use of internal governance models

³⁰ EBA/GL/2022/03 chapter 6.4.

³¹ See EBA/GL/2022/03 section 305 h.

In its assessment, Finanstilsynet attaches particular importance to potential consequences in the event of weak or inadequate management and control of the above-mentioned risks.

Behavioural risk

It could also be relevant to assess risk related to the institution's behaviour, including whether the bank's activities ensure an adequate level of consumer protection. Behavioural risk and inadequate, or weak, consumer protection entail increased operational risk in the form of loss of confidence and possible liability. Finanstilsynet considers the bank's behavioural risk, partly on the basis of the number of and changes in customer complaints. Finanstilsynet also assesses risk associated with other incidents or actions that could undermine confidence. An example could be lack of confidence as a result of non-compliance with ESG standards for the institution's products, or weak compliance with the AML legislation.

7.4 Liquidity and funding risk

In the analysis of the institution's liquidity and funding risk, it is relevant to consider whether the institution's liquidity and funding strategy, guidelines, limits, processes and models are proportionate to its size, activities and complexity. Finanstilsynet places emphasis on assessing how well prepared the institution can be considered to be in a liquidity crisis and/or funding crisis that affects the institution and/or the market in general. Furthermore, it is relevant to clarify whether the institution is exposed to the risk of money laundering and terrorist financing from a liquidity and/or funding perspective.

Liquidity risk

Finanstilsynet analyses the institution's development and the status of the liquidity coverage ratio, LCR, in total and per significant currency, at all levels of consolidation. Furthermore, the institution's other liquidity reserves, including spare covered bond capacity, are assessed. Finanstilsynet expects the institution's framework and compliance therewith to address risks posed by concentrations of liquid assets, mismatches between currency flows and intraday liquidity risk.

Funding risk

Finanstilsynet analyses the institution's framework for, developments in and status of stable, long-term and diversified funding by using the indicator for stable funding (NSFR), deposit-to-loan ratio, deposit composition, the share of market funding and the average remaining maturity of market funding, as well as concentrations in maturity structure and funding sources. The assessment of market funding includes an evaluation of possible requirements imposed on the institution with respect to subordinated debt (MREL).

For some institutions, it is also relevant to consider the significance of ESG risks for the institution's current status and future liquidity and funding challenges.

7.5 Risk posed by excessive leverage

Finanstilsynet assesses the risk that the institution's obligations will increase too much relative to the institution's equity, taking the institution's business model, business strategy and growth ambitions into consideration. Finanstilsynet also assesses the level of, and changes in, the institution's Tier 1 capital ratio over time and compares the institution's leverage ratio with

a reference group. It will also be relevant to assess the level of the institution's exposure measure relative to risk-weighted assets (see also section 8.2).

Developments in the institution's leverage ratio in Finanstilsynet's stress tests will be given weight in the risk assessment.

7.6 Other risk areas

Risk associated with pension obligations

Finanstilsynet assesses the risk associated with the institution's future pension obligations and whether this may give rise to unexpected future costs for the institution. Institutions that sponsor pension funds or have non-funded pension schemes for their employees (including contractual early retirement schemes – AFP) and institutions with defined benefit pension schemes and hybrid occupational pension schemes are considered to be subject to risk related to their pension obligations.

Other risks

Finanstilsynet may also assess material risks other than those mentioned above when this is relevant and in accordance with the prevailing SREP guidelines from the EBA.

Overall risk assessment

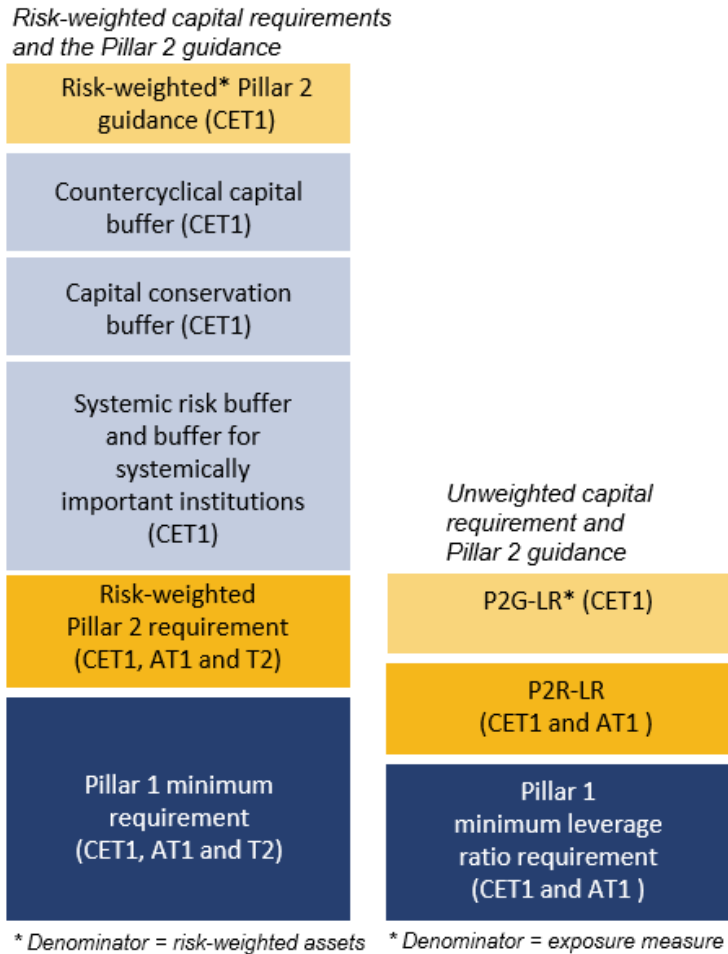
In the risk assessments described in chapter 5 (business model), chapter 6 (internal governance) and chapter 7 (assessment of risk areas), Finanstilsynet ranks the institution's risk in one of four categories: 'low risk', 'low to medium risk', 'medium to high risk' or 'high risk'. Liquidity and funding risk is ranked separately from the other risk areas. Together, Finanstilsynet's assessments form the basis for an overall SREP score that gives Finanstilsynet a starting point for comparing and assessing risk and capital needs across different institutions and groups of institutions. The overall assessment forms the basis for forming a view on the viability of the institution's business model in the short and long term.

8 Assessment of overall capital needs

Finanstilsynet's assessment of the institution's business model (chapter 5) and internal governance (chapter 6), together with the risk assessment of the institution's capital and liquidity situation (chapter 7) form the basis for assessing the institution's overall capital need, its capital need under Pillar 2 and its Pillar 2 guidance.

Figure 2 is an illustration of the institution's total capital requirements and Pillar 2 guidance. The figure also illustrates the Pillar 2 requirement for the risk of excessive leverage (P2R-LR) and the Pillar 2 guidance for the risk of excessive leverage (P2G-LR).

Figure 2: Overview of capital requirements and Pillar 2 guidance



CET1 = common equity Tier 1 capital, AT1 = other eligible Tier 1 capital, T2 = Tier 2 capital

8.1 Assessment of capital needs under Pillar 2

Capital needs for risks that are not covered, or are only partially covered, by the minimum and buffer requirements under Pillar 1 shall be set as institution-specific capital requirements (Pillar 2). This section describes the type of capital that can be used to meet the Pillar 2 requirement and Finanstilsynet's procedure for determining the Pillar 2 requirement.

The Pillar 2 requirement applies at the highest level of consolidation unless otherwise specified in Finanstilsynet's decision. Capital used to meet the minimum requirement and the overall buffer requirement under Pillar 1 cannot be used to cover the need for capital under Pillar 2. Capital used to meet the risk-weighted Pillar 2 requirement shall consist of a minimum of 56.25 per cent CET1 capital and 75 per cent Tier 1 capital, which corresponds to the capital composition requirement under Pillar 1.³² Finanstilsynet may set stricter requirements for the composition of capital for individual institutions when this is necessary in order to maintain the institution's capital adequacy.³³ For example, it may be appropriate to set

³² Effective on 1 June 2022

³³ Cf. CRD Article 104a no.4

stricter requirements for the composition of capital to ensure compliance with the Pillar 2 requirement if the institution has a risk profile that may cause rapid and significant fluctuations in its CET1 capital ratio, or if the institution's ownership structure may have a strong impact on the institution's access to (common equity) Tier 1 capital. This may also be relevant for institution that for other reasons are assumed to have particular challenges raising new capital. Finanstilsynet will take account of any legal, operational and financial factors that may affect the institution's capital level and/or ability to raise Tier 1 capital. The requirement for the composition of capital under Pillar 2 will be set out in Finanstilsynet's decision for the individual institution and will apply until a new decision is made.

Based on the risk assessment referred to in chapter 7, Finanstilsynet assesses the individual institution's capital needs under Pillar 2. For each risk type, an assessment is made of whether the capital allocated under Pillar 1 is sufficient to cover the risk to which, in Finanstilsynet's opinion, the institution is exposed. For certain types of risk that are not covered or not sufficiently covered under Pillar 1, Finanstilsynet has developed a calculation methodology that is used as a support tool in the assessment of capital needs. The methodology is described in further detail in the appendices to this circular. This applies to:

- Credit risk – see appendix 2 for further details
- Market risk – see appendix 3 for further details
- Ownership risk related to ownership in insurance undertakings – see appendix 4 for further details

Together with the criteria referred to in chapter 7 and the criteria set out in Finanstilsynet's modules, this methodology forms the basis for Finanstilsynet's overall assessment of the institution's capital needs, including capital needs under Pillar 2. In its assessment, Finanstilsynet also takes account of the institution's internal capital adequacy assessment process (ICAAP).

If the institution fails to comply with requirements concerning its internal governance or recovery plan³⁴, assessments of risk and overall capital needs³⁵, or the rules on large exposures³⁶, and other supervisory measures are not considered appropriate, Finanstilsynet will lay down a Pillar 2 requirement.³⁷ Requirements concerning institutions' ICAAP are discussed in further detail in appendix 1.

8.2 Leverage ratio

Capital needs arising from the risk of excessive leverage are assessed separately from the other risk categories. The leverage ratio is a solvency indicator that supplements the risk-weighted minimum requirements and is intended to function as a backstop for risk-weighted exposures that restricts institutions' leverage during upturns.³⁸ Finanstilsynet shall set minimum leverage ratio requirements under Pillar 2. The Pillar 2 requirement for the risk

³⁴ Cf. the Financial Institutions Act, chapter 13 and section 20-5, cf. CRD Article 74.

³⁵ Cf. the Financial Institutions Act, chapter 13-6, cf. CRD Article 75. See appendix 1

³⁶ Cf. the Financial Institutions Act, section 13-12, cf. section 44 of the CRR/CRD IV Regulations, cf. CRR Article 393 and EBA/GL/2017/15

³⁷ Cf. CRD Article 104a no. 1 b

³⁸ Cf. CRR, section 8 of the preamble

of excessive leverage is intended to cover risks that are not covered, or are only partially covered, by the Pillar 1 requirement for the risk of excessive leverage.³⁹ In its assessment, Finanstilsynet places emphasis on vulnerabilities in the institution's operations, business model, strategies, forecasts and growth plans that are not captured by the risk-weighted capital requirement.⁴⁰ Finanstilsynet also assesses whether there are any signs of adjustments in exposures around the reporting dates that indicate that a Pillar 2 requirement should be set for the leverage ratio. In addition, Finanstilsynet assesses developments in the institution's leverage ratio over time.

Finanstilsynet assesses the overall level of the institution's leverage ratio in light of the intention to reduce excessive leverage.

8.3 More about the Pillar 2 guidance

Pillar 2 guidance

A financial institution shall in the overall capital assessment in the ICAAP specify its need for capital in the short and long term, and assess how this capital need can be met (Financial Institutions Act, section 13-6 subsection (3) and the Securities Trading Act, section 9-47 subsection (3)). Hence a capital plan must exist. Finanstilsynet's assumption and expectation is that the institution will set both its capital target and actual level of capital in such a way as to ensure an ample margin to the overall capital requirement consisting of the minimum requirement and buffer requirement under Pillar 1 and the Pillar 2 requirement for inherent risks. When determining the institution's capital target, the board of directors of the particular institution should attach importance to the institution's business model, its room for manoeuvre in a forward-looking perspective, its ability to maintain normal lending growth, and the need for capitalisation to support access to capital markets also under difficult market conditions.

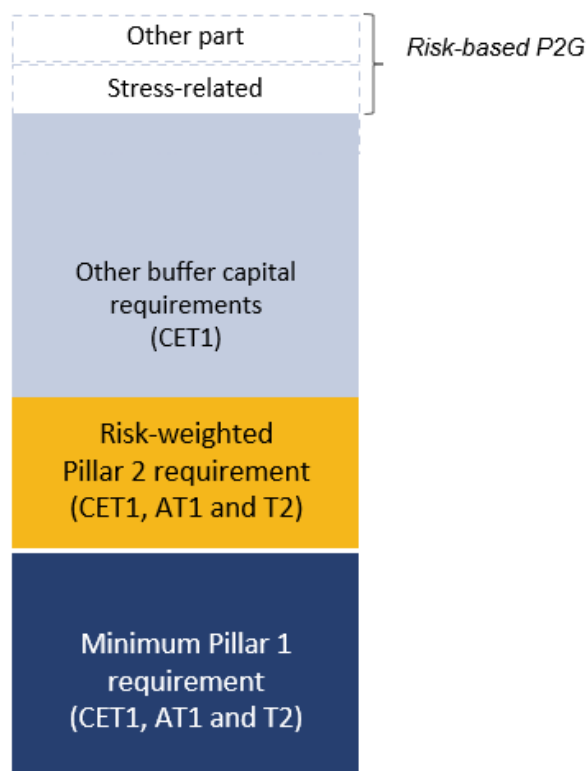
Finanstilsynet will, on the basis of the institution's assessment and its own assessments, communicate an expectation regarding the Pillar 2 guidance.⁴¹ Finanstilsynet's expectation concerning the Pillar 2 guidance is based on an individual assessment of each institution and is communicated to the institution along with the decision on the institution's Pillar 2 requirement. The P2G shall consist of CET1 capital. Figure 3 illustrates capital requirements and the Pillar 2 guidance.

³⁹ Cf. CRD Article 104a no. 3

⁴⁰ EBA/GL/2022/03 section 7.3

⁴¹ Cf. CRD Article 104b, cf. EBA/GL/2022/03 chapter 7.7.1 and annex 2

Chart 3: Illustration of capital requirements and the Pillar 2 guidance



Finanstilsynet uses stress tests to assess the level of own funds the institution is expected to hold in excess of its capital requirement. As a simplification, sensitivity analyses etc. can also be used.⁴²

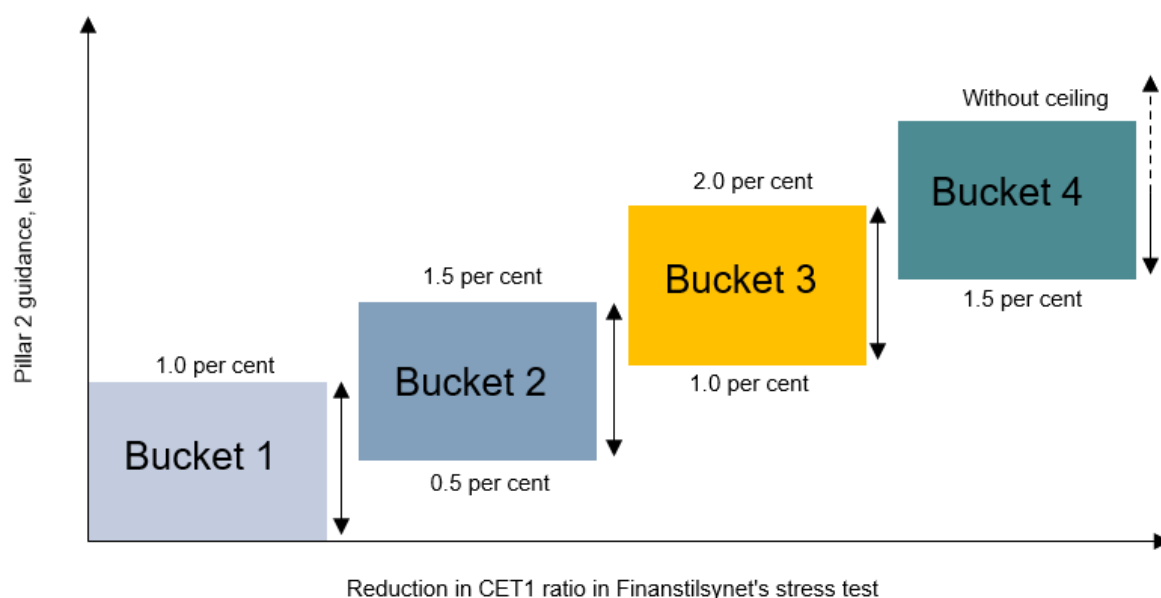
Based on the results of Finanstilsynet's stress test or sensitivity analyses (offsetting a decline in the CET1 capital ratio against the capital conservation buffer), each institution is placed in one of four buckets. Each bucket represents a lower and upper reference point that provides a basis for assessing the level of the institution's P2G. The buckets overlap and reflect that only institution-specific factors that are not covered by the stress test can be taken into account. In its assessment, Finanstilsynet will take into account stress test results over time, as well as the institution's characteristics, risk profile, the institution's own stress test framework and other stress test results (see separate section on stress tests below).

The division of institutions into buckets in connection with Finanstilsynet's P2G expectations:

- Bucket 1:** The expected P2G represents up to 1.0 per cent of risk-weighted assets.
- Bucket 2:** The expected P2G represents between 0.5 per cent and 1.5 per cent of risk-weighted assets.
- Bucket 3:** The expected P2G represents between 1.0 per cent and 2.0 per cent of risk-weighted assets.
- Bucket 4:** The expected P2G represents minimum 1.5 per cent of risk-weighted assets.

⁴² [EBA/GL/2022/03](#) section 426.

Figure 4: Buckets for expected P2G



In extraordinary cases, Finanstilsynet may communicate a P2G level outside the relevant bucket.

Use of stress tests in assessments of expected P2G

When assessing the level of the P2G for individual institutions, Finanstilsynet takes account of the institution's own stress tests and Finanstilsynet's stress tests. If relevant, Finanstilsynet also takes other stress tests into consideration, for example stress tests conducted by the European Banking Authority (EBA) and the International Monetary Fund (IMF). Finanstilsynet also uses the various stress tests in its assessment of the P2G-LR.

Among other things, Finanstilsynet assesses the assumptions on which the institution's own stress tests are based, and whether the assumptions are based on sufficiently long time series to cover previous relevant crises. With respect to Norwegian banks' credit activities, this will in practice mean data series covering the banking crisis in the early 1990s. Finanstilsynet also assesses the results of the bank's various stress scenarios and compares these with the results of Finanstilsynet's own stress tests. If the institution expects to implement risk-mitigating measures or communicates this in its own stress tests, Finanstilsynet assesses whether the measures seem relevant and whether they are possible to implement during the stress period. Finanstilsynet also considers whether the institution's stress tests are adequate to reveal weaknesses in the business model. When assessing stress tests and stress test results, Finanstilsynet may also take the institution's recovery plan and the assessment of the institution's recovery capacity into consideration.

Finanstilsynet uses a separate stress test to assess developments in the institution's profits and capitalisation under the assumption of severe stress in the Norwegian economy. Finanstilsynet's calibration of the stress test assumptions is based on projections in

Finanstilsynet's macro model, NAM-FT⁴³. This ensures consistency between Finanstilsynet's assessments of systemic risk and the effects of a steep recession at macro level, and the impact on the individual institution's financial performance, balance sheet and capital adequacy. Finanstilsynet's solvency stress test covers most Norwegian banks, as well as mortgage companies. The stress tests are prepared annually and are based on macro stress scenarios using detailed micro information, such as specific information about virtually all of the banks' loan exposures and the probability of default for non-financial corporations. The stress tests cover credit risk, uncertainty attending developments in net interest income, market risk⁴⁴ and behavioural/operational risks, as well as other elements that may affect the institution's earnings. The stress tests are adapted to the institutions' existing business models, which primarily include lending to personal and corporate customers as well as some market activity, and cover a 4-5 year projection period. Finanstilsynet assesses, on a discretionary basis, whether the stress tests are well suited for the individual bank's business model and stress testing framework. If Finanstilsynet's stress test is not suitable for the institution, Finanstilsynet may base its assessment on various sensitivity analyses when assessing the expected P2G. Finanstilsynet may also take into account other factors that may cause variations in the bank's CET1 capital ratio.

9 Supervisory measures

As part of the SREP, Finanstilsynet assesses whether it is necessary to implement institution-specific measures to compensate for, or reduce, the risk to which the institution is exposed. Measures may also be necessary to correct significant weaknesses, errors or deficiencies that have been identified during on-site inspections and that have not been sufficiently remedied. Relevant measures may include the setting of Pillar 2 requirements. Other examples are closer dialogue with the institution, requirements for more frequent reporting, on-site inspections at the institution or other supervisory measures such as orders for corrective measures. In special cases, more invasive measures may also be relevant.

Finanstilsynet considers possible measures in light of the institution's size, complexity and business model. Finanstilsynet also assesses the severity of each case. Under normal circumstances, identified weaknesses, errors and deficiencies will require immediate action only in exceptional cases.

Ordinary supervisory measures, including orders for corrective measures

Finanstilsynet regularly applies relevant supervisory measures as part of its ordinary supervisory activity, including SREP and off-site and on-site inspections. The Financial Supervision Act, the Financial Institutions Act, sections 10-6, 13-6 and 14-6 provide the legal basis for Finanstilsynet's authority and use of policy measures.⁴⁵ Finanstilsynet may communicate that the institution should improve its internal governance, reduce its risk exposure, increase its loan loss provisions or implement other risk-mitigating measures. Finanstilsynet may also state that the institution should implement measures to improve liquidity, set higher LCR and NSFR requirements, or change the composition of its funding.

⁴³ Publication of Finanstilsynet's stress tests: <https://www.finanstilsynet.no/en/publications/risk-outlook-reports/>

⁴⁴ The largest banks reporting their securities exposure to Finanstilsynet in connection with the authority's overall risk assessment

⁴⁵ See details on extended authority in special situations below

Finanstilsynet may order the institution to rectify deficiencies, strengthen its capital adequacy (or not weaken it through dividends payments) or report more frequently.

The Financial Institutions Act, section 14-6 subsection (3) discusses supervisory measures when institutions fall short of requirements. If the institution's total CET1 ratio is below the sum of the minimum requirement, the Pillar 2 requirement and the overall buffer requirement, the institution shall immediately implement the necessary measures to rectify this. Where an institution falls short of requirements or buffer requirements or is likely to do so in the near future, Finanstilsynet may order the institution to change the organisation, management and control of the business, strategies, processes, policies and procedures, change or scale down the institution's activities and/or risk exposure or implement measures to strengthen capital adequacy, for example by limiting dividend payments and the scope of the institution's remuneration schemes.

If the institution does not have a sufficient P2G to meet Finanstilsynet's expectations, or if the level of capital has repeatedly been lower than the sum of the minimum requirement, buffer capital requirement and P2G, Finanstilsynet may, pursuant to the Financial Institutions Act, section 13-6 subsection (7) and the Financial Supervision Act, section 4 subsection (4), set a higher Pillar 2 requirement.⁴⁶

The Financial Institutions Act, section 10-6 gives Finanstilsynet the authority, when necessitated by the institution's financial position, to order the institution to pay less dividend or not to pay dividend. Finanstilsynet may also order the institution to maintain higher own funds than the statutory minimum requirement, cf. the Financial Supervision Act, section 4 subsection 4. Automatic restrictions on overall disbursement of dividends and interest on Tier 2 capital and performance-based remuneration, see the CRR/CRD IV Regulations section 10, are triggered by failure to comply with the minimum requirement, the Pillar 2 requirement for inherent risk and the buffer requirement under Pillar 1.

Early intervention

The Financial Institutions Act, sections 20-11 and 20-12 provide the legal basis for more invasive measures aimed at preventing financial problems in individual institutions from developing into a crisis and possibly spreading to the rest of the financial system, so-called 'early intervention'.

Just like section 14-6, section 20-11 of the Financial Institutions Act is also applicable when the institution infringes statutory requirements or is likely in the near future to infringe such requirements. However, the supervisory measures under section 20-11 are somewhat different and in some cases more invasive than the measures warranted in section 14-6, and are primarily used in situations where there is a risk of a rapid deterioration in the institution's financial position or serious administrative failures have been identified in the institution. As noted in Prop. 159L (2016-2017) section 6.7.1.1 (in Norwegian only), situations may arise where there may be grounds for intervention pursuant to both section 14-6 and section 20-11 of the Act. According to the proposition, this may be relevant in situations where infringement of requirements for continued satisfactory operation other than capital requirements, is likely. In such cases, the conditions for intervention under the two provisions

⁴⁶ Cf. CRD Article 104a no.1e

will be met simultaneously, and Finanstilsynet will be able to take whatever measures it deems appropriate based on the prevailing situation.

If necessary, Finanstilsynet may, pursuant to the Financial Institutions Act, section 20-11, ask the institution to update its recovery plan or implement specific measures to restore the institution's position, draw up an action plan for such measures, and convene the general meeting at shorter notice than laid down in the articles of association. Finanstilsynet may also ask the institution to draw up a plan for restructuring of debt and present a statement of financial position or engage independent experts to examine and assess the institution's financial situation.

The measures warranted in section 20-12 will only apply where there is a significant deterioration in the institution's financial situation or where there are serious infringements of Acts or regulations and the measures under section 20-11 are not considered sufficient to rectify the situation. Pursuant to the Financial Institutions Act, section 20-12, Finanstilsynet may then issue an order requiring changes to be made to the composition of the board of directors or senior management, and Finanstilsynet may appoint an administrator to take charge of the activity of the institution for a period of up to 12 months.

10 SREP assessment for institutions that are part of foreign groups for which supervisory colleges have been established

With regard to cross-border groups for which supervisory colleges have been established drawing participants from a number of European countries' supervisory authorities, Finanstilsynet's work adheres to the relevant European guidelines⁴⁷, including guidelines for the SREP. The SREP for cross-border groups is based on the same elements and assessments as those described in this circular. In addition, the distribution of tasks between the various supervisory authorities is specified. Assessments and decisions are documented in separate templates that follow European standards.

The home country's supervisory authority conducts a preliminary risk assessment of the parent company and the group. The supervisory authorities in the relevant host countries conduct a similar risk assessment of the group's activities that are subject to their supervisory authority (subsidiaries at the solo or sub-consolidated level, as well as some branches of foreign institutions⁴⁸). The preliminary analyses and assessments form the basis for the college's joint assessment. The assessment forms the basis for the supervisory college's joint decision on the group's overall risk level, capital needs, liquidity and funding needs, both at group level and for underlying subsidiaries. The supervisory college also considers the further follow-up of the group, including relevant measures for the various entities included in the group.

⁴⁷ Based on Articles 113 and 116 of EU Directive 2013/36/EU

⁴⁸ Cf. CRD Article 51

Appendices:

The appendices to the circular are published on Finanstilsynet's website in the same place as the circular.

Appendix 1 Documentation of risk profile and capital needs (ICAAP and ILAAP)

Appendix 2 Finanstilsynet's assessment of Pillar 2 capital needs for credit risk

Appendix 3 Finanstilsynet's assessment of Pillar 3 capital needs for market risk

Appendix 3 Finanstilsynet's assessment of capital needs under Pillar 2 related to ownership in insurance undertakings

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Finanstilsynet's circular 3/2022 – Appendix 1

REQUIREMENTS FOR INSTITUTIONS' ICAAP AND ILAAP

Institutions shall assess risk and the associated capital needs on a regular basis, cf. the Financial Institutions Act, section 13-6, subsections (1) to (3). The institution shall have own funds appropriate to the risk inherent in and the volume of the activities carried on by the institution and ensure prudent liquidity management, cf. the Financial Institutions Act, section 13-7 and part V of the CRR/CRD IV Regulations.

Capital needs shall be assessed at consolidated level and include all group entities, cf. the CRR/CRD IV Regulations, section 23. The names of all group entities must be stated in the ICAAP and ILAAP. The ICAAP and ILAAP shall show the distribution of risk and capital needs for the entire group and for each of the main entities in the group. Finanstilsynet expects the ICAAP to include an overall schematic overview of risk and capital needs broken down on each risk element and each entity covered by the ICAAP. In addition to group entities, the ICAAP shall also include an assessment of risk and capital needs related to ownership interests in affiliates and cooperating groups, cf. the Financial Institutions Act, section 17-13.

The institution's evaluation of liquidity and funding risk (ILAAP) may be conducted as part of the ICAAP and included as a separate chapter in the same document.

The institution's ICAAP and ILAAP shall be in keeping with its recovery plan.

The documentation shall include an overall assessment of the institution's financial situation, including its strategic and market position, the quality of its assets and its likely profit growth over the next few years. The institution shall comment on significant risks and explain why the level of risk is acceptable and, if not, specify planned risk-mitigating measures.

For each risk type, the institution shall describe the key methods and assumptions underlying the assessment, and explain the calculations made, including an assessment of various scenarios. An account shall also be given of the calculations and assumptions that form the basis for assessing the operations of the group entities, affiliates, undertakings in cooperating groups and business areas, or for special business strategies. The institution shall use the most updated data possible and specify the reporting date for the figures that form the basis for the assessments. The ICAAP and ILAAP shall also provide an overview of events that have occurred after the reporting date that are of relevance to the assessment of risk, capital needs, liquidity or funding needs.

If the analysis reveals important themes that require further analyses and decisions, these must be specified. The documentation shall contain information on agreements and other important aspects that may affect the institution's access to capital or funding, and its opportunity to transfer capital or liquidity between business units or companies. Any obligations that may affect the institution's capital situation must also be disclosed.

The institution must state who has prepared the document, who has made the assessments, how the analysis has been carried out and checked, and at what level the document has been approved, by whom and on what dates. Furthermore, the institution shall provide information on the board of directors' consideration of the ICAAP and ILAAP, specify whether the ICAAP and ILAAP have

been evaluated by an independent body, and communicate any conclusion from the independent assessment.

The ICAAP shall include information on:

- The overarching targets for risk and risk appetite¹ that underlie the institution's ICAAP. Risk tolerance shall, as far as appropriate, be stated for individual risks
- Whether the institution's risk management systems and processes for managing and controlling the risk to which the institution is exposed are considered to be of sufficient quality, and whether the institution has implemented special risk-mitigating measures in the relevant risk area
- The actual capital level and the composition of own funds relative to the institution's risk profile, measured as a percentage of the consolidated basis for calculation
- Expected changes in the operating environment and business profile, business strategies and plans, and the likely trend in the institution's economic and financial position
- The institution's capital plan and plans for managing its level of capital, including planned sources of increased capital ahead, as well as its dividend strategy
- The institution's need for capital related to various risks. In the case of a group, clear documentation should be provided of how all material portfolios and business areas are covered. The risk level and capital need for individual risks shall be specified, distributed on the various entities covered by the ICAAP. The capital need shall be compared with the minimum requirement for the relevant risk under Pillar 1. The ICAAP shall, as a minimum, cover:
 - Business and strategic risk, including reputational risk
 - Ownership risk, including:
 - Risk of fluctuations in profit contributions
 - Other risk/obligations related to the institution's ownership interests in other financial institutions
 - Other risk/obligations related to the institution's ownership interests in insurance undertakings
 - Risk associated with weaknesses in the institution's systems for management and control of each of the risk areas
 - Credit risk, including:
 - Portfolio quality²
 - Counterparty risk
 - Residual risk³
 - Concentration risk (individual customers, sectors)

¹ How much risk the board and the institution are willing to assume. The institution's risk appetite may for example be described via limits set for loss potential, exposure limits, a description of acceptable profit fluctuations during a given period of time etc.

² In connection with the assessment of portfolio quality, a more detailed assessment should be made of the extent of forbearance and a thorough assessment of provisions on non-performing loans and the uncertainty associated therewith. A special assessment should also be made of the quality of the institution's financing of property development projects.

³ Residual risk is defined as the risk that collateral taken into account when determining the capital requirement for credit risk will be less effective than expected.

- Growth in lending, including growth in new markets/outside the core area
 - Market risk in the trading book and banking book, including:
 - Equity price risk
 - Interest rate risk⁴
 - Spread risk
 - Currency risk
 - Property risk⁵
 - Operational risk, including:
 - Summary of the institution's self-assessment of management and control of operational risk (risk related to ICT, outsourcing, changes in products/systems/market area, behavioural risk, model risk, inadequate compliance with internal and external regulations, etc.)
 - Event history (potential and actual losses)
 - Description of the institution's systems, processes and procedures for monitoring and reporting risk indicators as well as procedures for assessing key controls
 - The extent to which internal models are used to quantify operational risk
- Scenario analyses with descriptions of any corrective measures aimed at avoiding/reducing risk
- Risk associated with pension obligations, including risk related to defined-benefit and defined-contribution pensions, any sponsorship obligations related to pension funds and contractual early retirement (AFP) schemes
- Risk of excessive leverage, including risk factors that may affect developments in the institution's leverage ratio over time
- Analysis of any fluctuations in the institution's leverage ratio
- ESG risks, including climate risk, are expected to be assessed under the individual risk areas
- The risk of money laundering and terrorist financing is expected to be assessed under the individual risk areas
- The institution's total need for risk-weighted capital. The institution must assess whether its total need for risk-weighted capital seems reasonable in light of relevant sensitivity analyses and stress scenarios.
- The institution's need for unweighted capital. The institution must assess whether its overall leverage ratio requirement seems reasonable in light of relevant sensitivity analyses and stress scenarios.

⁴ Institutions must also assess how changes in interest rate levels may affect the outcome (NII method). The EBA's IRRBB guidelines describe the assumptions to be applied. Small institutions may use simplified assumptions in their analysis. Institutions in categories 1 and 2 are also expected to prepare interest rate shocks adapted to the institution's business model. The shock should be a possible but unlikely macro stress. If the stresses developed by the institution or stresses according to the NII method for calculating interest rate risk in the banking book (IRRBB) show a higher risk exposure than the standard stresses under the EVE method, the institution is expected to consider whether more capital should be set aside for interest rate risk in the banking book.

⁵ Institutions must document or substantiate the market values of significant positions, preferably in the form of a relatively new external valuation.

- The institution's capital target, measured as a percentage of both the basis for calculation and the leverage ratio
- The main features of the recovery plan of relevance to the institution's capital planning, with particular emphasis on the institution's overall recovery capacity

The ILAAP shall include a summary of:

- The board's risk tolerance for liquidity and funding risk
- Limits and benchmarks as well as the institution's actual liquidity situation and funding risk measured against these
- Forecasts for liquidity developments
- Results of liquidity stress tests
- The organisation and quality of the management and monitoring of liquidity and funding risk
- Factors that may challenge the board's risk tolerance in the long term, including ESG risks, as mentioned under the ICAAP

A further account can be found in Finanstilsynet's module for liquidity and funding risk, guidance for management and control.

Specifics on capital needs in a forward-looking perspective

The institution must specify its capital need in the short and long term. Finanstilsynet assumes and expects institutions to adapt both their capital target and their actual level of capital to ensure an ample margin to the sum total of the minimum requirement, the Pillar 2 requirement and the total buffer requirements. When determining the Pillar 2 guidance, Finanstilsynet expects the board to make an assessment of all significant risk factors that may affect the institution's financial performance or capital situation. The board should inter alia give due weight to the need for adequate flexibility to be able to maintain normal lending activity during downturns and for the capitalisation to support access to capital markets also under difficult market conditions.

In this connection, institutions shall conduct stress tests that incorporate all material risks to which the institution is, or might become, exposed. The stress tests cannot be based on the assumption that the authorities will initiate remedial measures during the stress period. See the EBA's guidelines for stress testing for more information about requirements for the institution's own stress tests.⁶ The stress tests shall reflect a very severe, but not unlikely, scenario spanning a period of at least three years. The institution must specify which assumptions in models and calculation methods have the greatest impact on its need for capital and show how important key figures develop during the stress period, including the CET1 ratio, the leverage ratio and the institution's liquidity and funding situation. In particular, the institution shall assess how changes in exchange rates may cause volatility in the institution's future capital situation. If the stress test results in the institution breaching one or more of the institution's recovery indicators, this must be specified.

The ICAAP shall document how stress testing is employed in the institution's capital planning. As part of the stress test, the institution may document relevant measures that can help reduce negative effects. However, the result of the stress test should be assessed and shown, both with and without such measures.

⁶ <https://eba.europa.eu/regulation-and-policy/supervisory-review-and-evaluation-srep-and-pillar-2/guidelines-on->

Reporting of ICAAP and ILAAP

With effect from 2021, annual reporting of ICAAP and ILAAP has been introduced for all institutions covered by Circular 3/2022. The institution's ICAAP and ILAAP shall be prepared on the basis of the situation at the end of the year. When the institution's ICAAP and ILAAP have been reviewed and adopted by the board, the documentation and appendices thereto shall be submitted to Finanstilsynet as soon as possible, preferably by 30 April.⁷ The institution shall use Altinn form KRT-1172 and provide all figures at the highest consolidation level.⁸

⁷ Unless the institution's deadline has been postponed or it has been exempt from reporting for other reasons

⁸ Both the numerator and the denominator in capital adequacy calculations must be specified at the highest level of consolidation and in NOK 1,000

Finanstilsynet's circular 3/2022 – Appendix 2

ASSESSMENT OF PILLAR 2 CAPITAL NEEDS FOR CREDIT RISK

This appendix describes the methodology used to support the assessment of the institution's capital need for credit risk under Pillar 2, including credit-related concentration risk.

Finanstilsynet's assessment of capital needs for credit risk under Pillar 2 is supported by a calculation method assuming persistently high lending growth and unused credit lines with a 0 per cent conversion factor.

For concentration risk, Finanstilsynet uses a calculation method for assessing capital needs under Pillar 2 for single name concentration (corporate market) and sector concentration.

Persistently high lending growth

Growth in lending entails an increased need for capital under Pillar 1 as loans are included in the institutions' balance sheets. However, the Pillar 1 capital requirements do not capture the higher risk of losses resulting from negative selection when the institution's lending growth is higher than market growth over time. Finanstilsynet has therefore established a methodology that captures the risk associated with institution-specific lending growth. The methodology distinguishes between loans to personal borrowers and loans to corporate borrowers. Loans in both wholly and partly owned subsidiaries (cf. residential mortgage companies) are included, and Pillar 2 add-ons are calculated on a consolidated basis.¹ Loans to municipalities (local government administration) and financial institutions are not included. The methodology is based on the assumption that institutions with average lending growth over two years² (annualised geometric average) of more than 6 per cent will have an increased need for capital under Pillar 2 related to high lending growth. The level at which the Pillar 2 add-on for high lending growth is triggered is based on historical credit growth.

$$K_{Vpm} = \text{Max}[E_{pm}(1 - e^{2(0.06 - V_{pm})})0.02 ; 0]$$

$$K_{Vbm} = \text{Max}[E_{bm}(1 - e^{2(0.06 - V_{bm})})0.05 ; 0]$$

$$V = \left(\frac{E_t}{E_{t-2}}\right)^{0.5} - 1$$

K_{Vpm} = capital need for lending growth, household portfolio

K_{Vbm} = capital need for lending growth, corporate portfolio

E = total loan portfolio (drawn down loans – reported to ORBOF/FINREP)

V = lending growth over two years – annualised (geometric average)

¹ No capital needs under Pillar 2 are assumed for lending growth in wholly and partly owned mortgage companies .

² For institutions reporting FINREP, the data sources are F18.00 [c010r150+c010r197+c010r22] (PM) and F06.01 (BM). For other institutions, the data source is ORBOF.

The method can estimate capital needs related to the household portfolio and the corporate portfolio of maximum 2 per cent and 5 per cent, respectively, of the loan portfolio.

Finanstilsynet also makes a discretionary assessment of the estimate. For example, the methodology does not distinguish between organic growth and growth achieved through acquisitions and mergers. Nor does the methodology factor in overall growth in the institution's portfolio or risk arising from high growth and increased exposure outside the institution's defined core geographical area.

Undrawn credit lines with a 0 per cent conversion factor

The methodology is primarily intended to cover undrawn credit card facilities with a conversion factor of 0 per cent. In many cases, such facilities will be categorised as mass market exposures.

$$K_u = E * 0.1 * 0.75 * 0.125$$

E = Exposure with a 0 per cent conversion factor

Conversion factor = 10 per cent

Risk weight = 75 per cent

Capital add-on = 12.5 per cent

* based on line 010, column 160 of COREP reporting form C 07.00, 008 'institutions', 009 'mass market exposures', 010 'Exposures secured on property' and 017 'Other exposures'.

In Finanstilsynet's opinion, the chosen factors in the methodology entail, overall, a moderate need for capital for the risk associated with undrawn credit lines.

Single name concentration (corporate market)

The starting point for the methodology is that concentration is measured by the Herfindal-Hirschman index (HHI).³ In addition, the fact that some borrowers are affiliated with the same customer group is captured by using an adjustment factor.

$$K_e = E_{BM}(1 - e^{-10 * G * HHI_e})0.1$$

$$HHI_e = \sum_{i=1}^n s_i^2$$

$$s_i = \frac{E_i}{\sum_{i=1}^n E_i}$$

$$E_{BM} = \sum_{i=1}^n E_i$$

K_e = capital need for single name concentration

E_i denotes the institution's exposure to entity *i*

E_{BM} is the overall corporate market exposure

In the case of groups the calculations are made at consolidated level. Hence, loan exposures to subsidiaries are not included in the calculations whereas corporate exposures of subsidiaries (for

³ The simplified approach can be applied to all institutions that report data on corporate exposures at the end of the year. Finanstilsynet's calculations are based on Gordy and Lütkebohmert's methodology. See Appendix 1 for a more detailed description of the methodology.

example wholly-owned commercial mortgage companies) to external clients are included. Loan exposures to joint venture entities that are not incorporated in the consolidated accounts are also included. However, exposures to financial institutions and housing cooperatives are excluded from the calculations. Because the HHI is a convex function at ever higher portfolio concentrations, the capital need based on this methodology will in many cases be lower where a well-diversified sub-portfolio is included in the calculation, for example a mass market portfolio.

The calculation of the HHI is based on loan commitments to individual customers. The relevant concentration risk should, however, be based on exposures to customer groups. Every year, Finanstilsynet obtains information on institutions' exposures to corporate clients ('ENGDATA'). The institutions are asked to identify single-name exposures belonging to the same customer group. Although the quality of the identification process has improved, some banks still do not identify exposures according to the template. Until further notice, Finanstilsynet will therefore continue to calculate HHI at single name level, adjusted by a common group adjustment factor (G) set at 1.3.

Sector concentration

Finanstilsynet's methodology aims to capture increased capital needs related to sector concentration risk.⁴

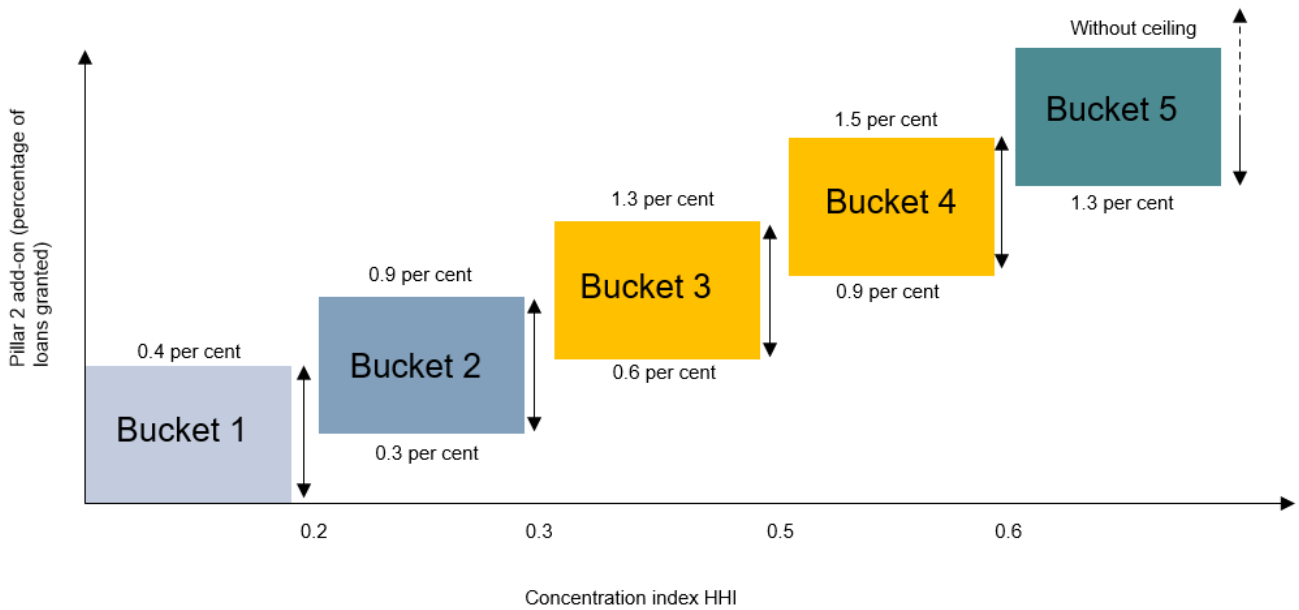
The calculation of capital add-ons for sector concentration is based on the standard formula for HHI:

$$HHI = \sum_{i=1}^n w_i^2$$

Where w_i denotes the exposure to sector i .

The index will range from 0 to 1, where 1 indicates that the entire portfolio is invested in one sector. The calculation is based on 22 sectors. Finanstilsynet places institutions in different buckets based on the concentration index:

⁴ Classification into 22 sectors



To support the determination of capital add-ons for sector concentration, Finanstilsynet uses the following formula:

$$\rho = 12.5(1 - e^{-5 \times HHI^{1.5}})$$

ρ in the above formula provides a maximum capital requirement for sector concentration in per cent of loans granted. ρ is multiplied by 12.5 per cent of loans granted. Finanstilsynet may set higher or lower capital add-ons for sector concentration, cf. the above-mentioned division into buckets.

An increase in the systemic risk buffer addresses general systemic risk related to Norwegian financial institutions' concentration in property-related sectors.⁵ In Finanstilsynet's assessment, loan portfolios with a sector concentration below 0.15 (HHI) can be considered to be sufficiently diversified. In principle, there is no need to set a Pillar 2 add-on for sector concentration in such cases.

For portfolios with an estimated HHI index ≥ 0.15 , the capital add-on for sector concentration will be based on an overall assessment of the mathematical calculation, using the above formula as well as a discretionary assessment. A capital add-on will generally be set within the bucket to which the institution belongs, cf. the table above.

Exposures to financial sector entities and housing cooperatives shall not be included in the calculation of capital add-ons for sector concentration.

⁵ [Endring i CRR/CRD IV forskriften](#) (in Norwegian only)

APPENDIX 1

Single name concentration – discussion of Gordy and Lütkebohmert's approach

The method for calculating single name concentration is partly based on an article by Michael B. Gordy and Eva Lütkebohmert (*Granularity Adjustment for Regulatory Capital Assessment*), which also underlies the models for calculating capital needs under Pillar 2 used by, among others, the supervisory authorities in Sweden and the UK.

Gordy and Lütkebohmert's model is discussed below.

Granularity adjustment – theoretical basis

The formula for IRB-approved portfolios in the methodology is based on the assumption of a homogeneous and well-diversified portfolio. Equally, under the standardised approach, no account is taken of single name concentration when setting the capital requirement under Pillar 1. The capital need for single name concentration must accordingly be assessed under Pillar 2.

Assume that losses (L) in a loan portfolio depend in part on one common risk factor (X) and in part on idiosyncratic risk attending each exposure. The regulatory capital requirement is the conditional expectation of losses given a very unfavourable value for the systematic risk factor

$$E[L|X=\alpha_q(X)] - E[L]$$

where α_q denotes the q quantile and q in this case is 99.9 per cent. However, in order for the capital requirement to be said to cover the losses at a given confidence level, the quantile of the actual losses $\alpha_q(L)$ is the relevant variable, and this cannot be set equal to the expectation value if we wish to factor in single name concentration. Arriving at a suitable granularity adjustment requires calculation of

$$\alpha_q(L) - E[L|X=\alpha_q(X)]$$

Under reasonable assumptions, Gordy and Lütkebohmert conclude that the granularity adjustment (as a share of the aggregate exposure amount) can be calculated as follows:

$$(\sum_{i=1, \dots, n} s_i^2 \cdot (0.25 + 0.75 \text{LGD}_i) \cdot (4.83 \cdot (K_i + \text{EL}_i) - K_i)) / 2K^* \quad (1)$$

where n is the number of exposures, s denotes each exposure's share of the total exposure, the capital requirement (K) and expected loss (EL) are stated as a share of the exposure amount, and * denotes the weighted average of all exposures in the portfolio ($K^* = \sum s_i K_i$). The constants 0.25 and 0.75 derive from estimates for the variance in LGD, while 4.83 can be derived from the assumptions in the risk weight formula. The Swedish FSA uses this formula when setting capital add-ons (IRB institutions). A drawback to the formula is that it requires knowledge of the risk parameters for each individual exposure and that it in practice can only be applied to IRB institutions.

If the risk parameters are the same for all exposures, the numerator can be simplified to

$$(0.25 + 0.75 \text{LGD}) \cdot (4.83 \cdot (K + \text{EL}) - K) \sum_{i=1, \dots, n} s_i^2$$

where the final summation is the Herfindahl-Hirschman index (HHI) value.

Since expected loss is consistently far lower than the capital requirement, we can assume that

$$(4.83 \cdot (K + \text{EL}) - K) \approx 4K$$

so that the granularity adjustment in the homogeneous case can be calculated by

$$4K \cdot (0.25 + 0.75LGD) \cdot HHI / 2K^* = 2 \cdot (0.25 + 0.75LGD) \cdot HHI \text{ (because } K=K^*)$$

Assuming an average LGD of 35 per cent, the Herfindahl-Hirschman index will provide a good approach to granularity adjustment (exposure volume multiplied by HHI).

The assumption of homogeneous risk parameters will fit fairly well within each risk class, so a possible approach is to consider each risk class collectively, so that (1) is

$$(\sum_{j=1, \dots, k} HHI_j \cdot (0.25 + 0.75LGD_j) \cdot (4.83 \cdot (K_j + EL_j) - K_j)) / 2K^* \quad (2)$$

where j is the number of risk classes and the parameters are exposure-weighted class averages. Thus, under this approach, the Herfindahl-Hirschman index is multiplied for each class by a factor which increases with the risk present in the class. If we in addition assume that the Herfindahl-Hirschman index remains constant across the risk classes, the granularity adjustment can be calculated based on ENGDATA.

Calculations

The table below from Gordy and Lütkebohmert's article shows the results of calculations of granularity adjustment for a reference portfolio P and various bank portfolios by size. The granularity adjustment is stated in per cent of the exposure amount so that the adjustment for the reference portfolio (P) is 0.15 per cent, which diverges less from the Herfindahl-Hirschman index than suggested above.

Portfolio	Number of Exposures	HHI	Granularity Adjustment	GA/UL
P^*	5,289	0.0002	0.02	0.37
P	5,289	0.0013	0.15	3.07
Large	4,000–8,999	≤ 0.0012	0.12–0.13	2.37–2.71
Medium	1,000–3,999	0.001–0.011	0.14–0.96	3.17–17.27
Small	500–999	0.004–0.011	0.36–1.14	6.57–18.65
Very Small	250–499	0.005–0.031	0.48–3.81	7.99–40.18

Source: Gordy og Lütkebohmert. Table 3: 'Granularity for German Bank Portfolios', on page 33 in *International Journal of Central Banking*, September 2013: <https://www.ijcb.org/journal/ijcb13q3a2.htm>

Finanstilsynet has also performed calculations on an actual Norwegian commercial portfolio in which formula (2) above is used. In other words, homogeneous risk factors are assumed within each risk class. The calculations show that the granularity adjustment as a share of exposure volume and as a function of HHI increases the higher the risk class (higher PD), but that the overall granularity adjustment for the entire portfolio matches the results stated above. Finanstilsynet has also performed corresponding calculations based on average PD for the entire portfolio. However, under a further simplified assumption of this nature, the granularity adjustment is approximately the same as when calculations are done per risk class. This confirms the above results. Calculations on

the overall portfolio thus appear to provide a satisfactory result and hence also the opportunity to utilise the following very simple model to set the capital add-on under Pillar 2 (K_e):

$$K_e = HHI_e * E_{BM}$$

where E_{BM} is overall exposure volume in the commercial portfolio and HHI is the Herfindahl-Hirschman index calculated on the same portfolio.

The HHI will be calculated for individual customers. To make allowance for the need to make calculations for grouped exposures, a common group adjustment factor G can be entered, producing the following capital add-on model:

$$K_e = HHI_e * G * E_{BM}$$

This method will in the great majority of cases produce a reasonable calculation of capital needs. However, in some cases, in the first instance for very small portfolios, the HHI value could prove very high – producing an unreasonable calculation of capital needs. Finanstilsynet has therefore opted to adjust the model so that the capital need calculated according to the methodology approaches a maximum level at very high HHI values.

$$K_e = E_{BM}(1 - e^{-10 * G * HHI_e})0.1$$

Finanstilsynet's circular 3/2022 – Appendix 3

ASSESSMENT OF PILLAR 2 CAPITAL NEEDS FOR MARKET RISK

Finanstilsynet carries out a supervisory review and evaluation process (SREP) on the basis of the institution's ICAAP and includes capital needs that are not covered, or are only partially covered, by Pillar 1 (Pillar 2 risks). Interest rate risk in the banking book (IRRBB) is included in the assessment of market risk.

In this context, Finanstilsynet will employ supervisory benchmarks to quantify capital needs for certain Pillar 2 risks in the market risk area. The methodology for assessing and determining Pillar 2 capital needs for market risk starts out from a calculation of loss potential estimated by stress testing risk factors relevant to the portfolios included in the Pillar 2 assessment. In addition, qualitative assessments are made of portfolio concentration and liquidity, and of risk management and control. Finanstilsynet's SREP assessment will be based on information from the institutions' ICAAP and annual report, existing reporting to Finanstilsynet (such as ORBOF and COREP), as well as reporting to Finanstilsynet of specific information on risk limits and the various portfolios' positions and holdings.

Market risk not covered by Pillar 1

The EBA's SREP guidelines¹ require supervisory authorities at minimum to evaluate market risk in the trading book, as well as interest rate risk, spread risk and equity risk in the banking book. Under Pillar 1, capital needs are calculated for equity and interest rate risk in the trading book, and for currency and commodity risk in the overall portfolio; see table 1 below.

Table 1: Risk factors under Pillar 1 and Pillar 2

<i>Pillar 1</i>	<i>Pillar 2</i>
<ul style="list-style-type: none"> • General interest rate risk in the trading book • Specific interest rate risk (spread risk) in the trading book • General equity risk in the trading book • Specific equity risk in the trading book • Currency risk in the overall portfolio • Commodity risk in the overall portfolio • CVA risk • AVA 	<ul style="list-style-type: none"> • General interest rate risk in the banking book • Specific interest rate risk (spread risk) in the banking book • General equity risk in the banking book • Property risk in the banking book • Risk related to non-traded equity limits and interest rate risk in the trading book, and currency risk in the overall portfolio • Swap spread risk • Liquidity and concentration (qualitative assessments) • Management and control (qualitative assessments)

In the case of equities and bonds in the banking book, no capital needs are calculated under Pillar 1 for market risk, but these portfolios are included in the Pillar 1 calculation of capital for credit risk.

¹ EBA/GL/2022/03.

Equities are included in the basis for calculation at 100 per cent, whereas bonds are included in the basis for calculation at 0 to 100 per cent, depending on the issuer's risk weighting. No capital needs are calculated for interest rate risk in the banking book under Pillar 1. Under Pillar 2, market risk in the banking book will be assessed, but with a deduction in respect of the capital requirement under Pillar 1 for the portfolios considered by Finanstilsynet. Table 1 shows which risks are covered under Pillar 1, and which risks Finanstilsynet includes in its Pillar 2 assessment.

Where Pillar 1 fails to adequately capture risk in the trading book (e.g. due to complex products, illiquid positions or the like), Finanstilsynet seeks to take this into account in Pillar 2. In the present context this also entails making a qualitative assessment of securities holdings' concentration and market liquidity in both the trading book and the banking book, and the bank's management and control of market risk.

Basis for calculation: limits vs actual exposure

Pillar 1 requirements are set with a basis in actual positions. For most risk factors, institutions have established limits for the maximum acceptable exposure. As exposure in the trading book may be subject to frequent fluctuations, a potential full utilisation of the limit is taken into account in the Pillar 2 assessment. With respect to exposure in the banking book, it is less common for the board to set limits, except in the case of interest rate risk and currency risk. Moreover, adjusting exposure in the banking book will normally take somewhat longer than in the case of positions in the trading book. Hence, for the banking book, except in the case of interest rate risk and currency risk, there is less reason to utilise limits.

In order to take account of the loss potential inherent in non-traded risk limits, Finanstilsynet will 'scale up' the capital requirement under Pillar 1 for, respectively, equities and fixed-income instruments in the trading book based on the actual utilisation of the exposure limit at the reporting date. In other words, where 50 per cent of the limit is utilised, a need for capital under Pillar 2 is calculated for positions in the trading book corresponding to the Pillar 1 requirement. For trading books, VaR limits are treated identically to other types of limits. Here too the degree of utilisation forms the basis for scaling up the Pillar 1 requirement. The methodology entails that the Pillar 2 capital need for equities and fixed-income instruments in the trading book corresponds to the estimated capital need based on full utilisation of the limit less the capital requirement under Pillar 1. This complies with the principle that Pillar 2 shall cover risks not covered by Pillar 1, i.e. that there is no recalibration of Pillar 1 requirements. Where positions in the trading book are illiquid, this should be taken into account in Pillar 2 since the Pillar 1 methodology assumes liquid positions.

In the banking book, Finanstilsynet will use actual positions as a basis for assessing capital needs under Pillar 2, except in the case of interest rate and currency risk, where the limit is utilised as a basis for the assessment.

Stress factors

Finanstilsynet's assessment of the Pillar 2 capital need for market risk is based on a calculation of the estimated potential for loss due to sudden changes in the most important market risk factors. In the SREP assessment, the loss potential related to equity risk, interest rate risk, currency risk, spread risk and property risk is measured by stressing the institutions' portfolio holdings. Swap spread risk is calculated using the same confidence level as that used for other types of market risk. The stress scenarios are applied only to positions in the banking book, and for currency risk, which feature

both in the banking book and in the trading book. Commodity risk has thus far accounted for a limited portion of the institutions' overall market risk and will only be included on a discretionary basis in Pillar 2 in cases where actual exposure is of some significance.

Confidence level and time horizon

Finanstilsynet assumes that the various stress scenarios should have approximately equal probability. Capital needs related to credit risk and operational risk under Pillar 1 are calibrated to 99.9 per cent VaR over a one-year horizon, whereas the capital need for market risk is calibrated to 99.0 per cent VaR over a ten-day horizon. The difference can be explained by the fact that activities in the trading book have a different time horizon than the activities in the banking book.² In its standard on interest rate risk in the banking book³, the Basel Committee assumes a confidence level of 99.0 per cent and a time horizon of six months.

In reviewing the level of capital need for market risk under Pillar 2, Finanstilsynet has had an eye to the above-mentioned consideration of the calibration level.

Solvency II for insurance undertakings, to which reference is made below in the paragraph on spread risk, sets a confidence level of 99.5 per cent over one year. Finanstilsynet's assessment of spread risk is based on the Solvency II methodology, but with a revised-down stress level corresponding approximately to the calibration level underlying the Basel Committee's treatment of interest rate risk in the banking book.

Equity risk

An equity price fall of 45 per cent is employed as a stress factor. The market value of actual holdings of equities and equity capital instruments on the assessment date is used as a basis for calculating loss potential. Positions in subsidiaries (consolidated owner positions), affiliates and strategic owner positions related to the operation of banking activities are not included in the basis for calculation of the Pillar 2 assessment for equity risk.

Owner positions in financial sector undertakings, as defined in Article 4 (27) of the Capital Requirements Regulation (CRR), are as a rule deducted from common equity Tier 1 (CET1) capital cf. Article 36 (1) (h) and (i) of the CRR. However, reference is made to the exception rules for so-called 'free quotas' in Articles 46 and 48 of the CRR. This means that in cases where such owner positions are nevertheless included in the basis for calculation, these items shall be included in the basis for the Pillar 2 assessment. Other equity positions in the banking book, with the exception of property exposures, are included in the assessment. With respect to equities that are not carried at fair value, any excess values will be subject to a discretionary assessment if it can be documented that their book value is substantially lower than fair (market) value.

Calibration of the stress factor for equities is done with a basis in historical quoted prices. Equity positions in the banking book will often be far less liquid, calling for an increase in the stress factor level by a further 10 percentage points, corresponding to the difference between type 1 and type 2 equities under the Solvency II regime for insurance undertakings. Rather than further increasing the stress factor, Finanstilsynet has opted to give weight to discretionary assessments of risk

² It should be noted that institutions are themselves responsible for judging whether the premise that the securities can be sold within a ten-day horizon is realistic. Illiquid paper should be subject to a higher capital **charge**.

³ BCBS: Standards – interest rate risk in the banking book, April 2016.

diversification and market liquidity in the equity positions. Potential add-ons to the loss potential based on a qualitative assessment of exposures' concentration and liquidity are described in further detail below.

Equity positions are included in the basis for calculation for Pillar 1 capital needs at 100 per cent. This Pillar 1 capital need is accordingly deducted from the loss potential that is calculated.

Property risk

Many financial institutions have direct holdings in properties or property companies on their banking book. Under Solvency II property is assigned a stress factor of 25 per cent. Properties in the banking book are often repossessed in the wake of defaulted credit exposures, which may call for somewhat more stringent calibration than in the case of insurance undertakings' investment portfolios. Finanstilsynet accordingly retains a stress factor of 30 per cent for property.

Loss potentials are calculated on the basis of the market value of actual holdings on the date of assessment. Property exposure that is part of the basis for calculation includes owner positions and participations in commercial property, property companies, property funds as well as direct ownership of property, including a bank's own buildings and property for own use or for the use of employees. With respect to equities that are not carried at fair value, any excess values will be subject to a discretionary assessment if it can be documented that their book value is substantially lower than fair (market) value. The Pillar 1 capital need is deducted from the loss potential that is calculated in the same way as for equities.

Interest rate risk

Interest rate risk in the banking book (IRRBB) shall be assessed on the basis of a stress factor level of a 2 percentage point parallel shift in the yield curve, cf. the EBA's guidelines.⁴ The calculation factors in the impact on equity (EVE methodology). The basis for calculation will be the institutions' risk limit for interest rate risk in the banking book.

According to the EBA's guidelines, an assessment shall also be made of how shifts in the yield curve affect the bank's potential for losses. When assessing these effects, Finanstilsynet will in addition apply six standardised interest rate shock scenarios to measure interest rate risk, as defined in the EBA's guidelines, Annex III, which in turn are based on the Basel Committee's standard for managing interest rate risk in the banking book.⁵ Institutions shall themselves calculate the effect of six different scenarios on their cash flows: a parallel shock up and down, a steeper yield curve (short rates down and long rates up), a flatter yield curve (short rates up and long rates down) and short rates up and down. The bank's positions and cash flows shall be divided into 19 time intervals ('maturity buckets'). The effect of the interest rate shock to be used for NOK is 200 bp for parallel interest rate shifts, 300 bp for short-term interest rates (up to two years) and 2 bp for long-term interest rates (from seven years and longer). Material base risk and option risk are included in the analysis. The ongoing reference rate reform entails basis risk that should be assessed by the institutions. It is logical that institutions set limits for EBA stress that is relevant for and have a major impact on the institution, not just for the impact of the two parallel shocks. When assessing the capital need for interest rate risk, institutions' risk limits for interest rate risk in the banking book

⁴ 2018/02 EBA/GL/19 Guidelines on the management of interest rate risk arising from non-trading activities, 19 July 2018.

⁵ BCBS: Standards – interest rate risk in the banking book, April 2016.

is used if the limits cover the stresses described above. If the limits only cover the two parallel **stresses**, actual positions at the time the interest rate risk was at its highest over the past 12 months are used.

The scenario that shows the greatest losses, the standard shocks of 2 percentage points or one of six different scenarios will determine the need for capital.

Institutions must also assess how changes in interest rate levels may affect the outcome (NII method). The EBA's IRRBB guidelines describe the assumptions to be applied. Small institutions may use simplified assumptions in their analysis. Institutions in categories 1 and 2 are also expected to prepare interest rate shocks adapted to the institution's business model. The shock should be a possible but unlikely macro stress. If the stresses developed by the institution or stresses according to the NII method for calculating interest rate risk in the banking book (IRRBB) show a higher risk exposure than the standard stresses under the EVE method, the institution is expected to consider whether to set aside more capital for interest rate risk in the banking book.

Spread risk

The method used to assess spread risk builds on the methodology of Solvency II for insurance undertakings. A loss potential is calculated as a function of rating level and duration, see table 2 below. The stress factors are calibrated based on historical data for actively traded corporate bonds denominated in euro. There is insufficient basis for a calibration based specifically on Norwegian data. To allow for the fact that the calibration level under Solvency II is higher than other stress factors, Finanstilsynet has revised down the stress level by 40 per cent when calculating loss potential using the Solvency II spread matrix. The calculated loss potential is multiplied by a factor of 0.6, and the result constitutes the Pillar 2 need for spread risk. No deduction for Pillar 1 capital is calculated using this methodology since it is assumed that the Pillar 1 requirement covers credit risk that is not spread risk (i.e. default/bankruptcy risk).

Table 2: Spread risk, link between rating and assumed spread change

Rating ⁶	Risk category	Change in spread
AAA	1	0.9%
AA	1	1.1%
A	2	1.4%
BBB	3	2.5%
BB	4	4.5%
B	5	7.5%
Lower than B	6	7.5%
Not rated (minimum duration of 1 in the calculation)	-	3.0%
'0 weightings' excluding government bonds with AA and AAA ratings	-	0.3%
Covered bonds (AAA)	1	0.7%
Covered bonds (AA)	1	0.9%

⁶ Standard & Poor's rating classes are included in the table as an illustration.

The actual portfolio of interest-bearing securities in the banking book is used as the basis for calculation. Market values on the assessment date shall be used in the calculation. With respect to portfolios which for accounting purposes are entered at amortised cost (portfolios that are held to maturity), spread changes will as a rule not affect equity. In a stressed situation, however, it may become necessary to sell the securities. Finanstilsynet accordingly considers that these portfolios must also be included in the evaluation at market value. In the valuation, allowance will need to be made for any excess/deficit values that are not included in the accounting value.

Positions in covered bonds issued by wholly or partly owned mortgage companies are excluded ('own' covered bond holdings). Reference is made to the market risk module.⁷ Finanstilsynet will make discretionary assessments, inter alia in situations where the institution has large holdings of covered bonds issued by wholly or partly owned mortgage companies. Reference is made to the paragraph below on qualitative assessments of the portfolio's liquidity and concentration.

Government bonds issued by OECD states (in their own currency) with ratings equivalent to minimum AA- are not included in the calculation. For other issuers with a 0 per cent risk weight according to Articles 114, 115, 117 and 118 of the Capital Requirements Regulation (CRR), a 0.3 per cent change in the spread is assumed.⁸ This applies to institutions in EU member states where the authorities have recognised 0 per cent risk weighting of the bonds. Any short positions in corresponding instruments issued by the same issuer are deductible.

As a simplification, use is made of the average residual maturity for the portfolio in each rating class in the calculation. Positions in fixed-income funds and bond funds shall be included in the basis for calculation. Where the average duration and rating of the fund are not specified, a maturity of three years will be utilised and it will be assumed that the holding is not rated. Finanstilsynet's methodology does not cover spread risk related to the institutions' own borrowings.

In its ICAAP, the institution should specify the rating used, as well as sources. Under the CRR, only ratings by external credit assessment institutions are accepted, cf. Article 120 of the CRR, cf. Article 4 no. 1 (98).

Currency risk

Finanstilsynet employs a stress factor level of a 25 per cent change in foreign currency rates in its SREP assessment of currency risk. Under Pillar 1 capital charges for currency risk are calculated only if the institution's aggregate net foreign currency position exceeds 2 per cent of own funds. Net currency risk under Pillar 1 is based on the higher of, respectively, the sum of short and the sum of long positions across all currencies. The basis for calculation for Finanstilsynet's stress test in the Pillar 2 assessment is the institution's risk limit for its aggregate net position in foreign currency, calculated according to Article 352 of the CRR, less 2 per cent of own funds. Any Pillar 1 charge for currency risk is also deducted.

Swap spread risk in basis swaps

A number of large institutions, mainly in categories 1 and 2, finance large parts of their operations in foreign markets and therefore hold significant positions in basis swaps. In the wake of the

⁷ <https://www.finanstilsynet.no/tilsyn/arkiv-fellessider-tilsyn/modul-for-markedsrisiko/> (in Norwegian only)

⁸ The level is based on observed changes in spreads in 2020 relative to covered bonds.

financial crisis, there have periodically been major changes in the pricing of basis swaps. Due to the fact that the secured instrument (funding) is not exposed to these changes in value, the changes in the value of the derivatives pose a risk for the institutions. Finanstilsynet assumes that institutions with large positions in basis swaps assess the need for capital for this risk. The calculation should be based on a confidence level similar to those used in the other loss assessments related to market risk.

Qualitative assessment of portfolios' concentration and liquidity

A qualitative assessment of exposures' concentration and market liquidity will be conducted. See further details in the module for market risk⁹. Following a qualitative assessment of the portfolios, an add-on is assigned to the loss potential for the exposures' concentration and liquidity for each risk factor of 0 per cent (low risk), 10 per cent (moderate risk) or 20 per cent (considerable risk). The maximum overall qualitative add-on to the loss potential for a given risk factor is accordingly 40 per cent. In general, portfolios considered to have a 'satisfactory' risk profile will not be assigned an add-on to their loss potential.

Overall loss potential

The overall loss potential under Pillar 2 is calculated by summarising the loss potential for each of the risk categories, including any qualitative add-ons.

⁹ Finanstilsynet's risk modules are updated on an ongoing basis. <https://www.finanstilsynet.no/tilsyn/arkiv-fellessider-tilsyn/modul-for-markedsrisiko/> (in Norwegian only)

Finanstilsynet's circular 3/2022 – Appendix 4

ASSESSMENT OF CAPITAL NEEDS UNDER PILLAR 2 RELATED TO OWNERSHIP IN INSURANCE UNDERTAKINGS

This appendix describes Finanstilsynet's method for assessing capital needs under Pillar 2 related to ownership risk and institutions' ownership in wholly and partly owned insurance undertakings. Finanstilsynet emphasises that the ownership and the associated risks represent more than a mere share investment and are thus assessed to represent strategic ownership risk.

The method is based on the insurance undertaking's solvency capital requirement (SCR). Solvency capital is an element in the assessment of capital needs after adjusting for the valuation of the holding (adjustment for book value). There should be consistency between the two with regard to the handling of planned dividend payments. According to the method, an adjustment is made for the book value of the holding and other paid-in capital. Finanstilsynet uses the book value from the consolidated financial statements for banks reporting capital adequacy at a consolidated level, and the book value for the parent bank for banks that report capital adequacy at an unconsolidated level. In cases where ownership of the insurance undertaking is indirect, Finanstilsynet considers making an adjustment for other assets and liabilities in the balance sheet of the intermediate undertaking. According to this method, the solvency capital requirement is multiplied by a factor allowing for the fact that the actual capital adequacy ratio will normally be higher than the solvency capital requirement. Finanstilsynet has chosen not to use this factor, which means that the actual capital requirement is included in the calculation.¹

When assessing the capital need related to ownership in insurance undertakings, an adjustment is made for capital requirements calculated under Pillar 1. The Pillar 1 rules entail that the book value of the holding is included in the basis for calculation within a certain quota (known in Norway as the 'free quota'), cf. the Capital Requirements Regulation (CRR) Articles 46 and 48, while the excess amount is deducted from the parent banks' capital.² Please note that several investments may be included in the free quota. With respect to any paid-in own funds, the Pillar 1 charge is taken into account by risk weighting the basis for calculation and/or capital deductions.

In summary, the method of assessing capital under Pillar 2 is as follows:

Capital need_{total} = [solvency capital requirement * factor – solvency capital] * Ownership share + BV

Capital need_{Pillar 2} = capital need_{total} – capital need_{Pillar 1}

BV = book value of the holding and other paid-in capital
Solvency capital = eligible SCR capital

¹ The factor is set at 100 per cent

² Please note that goodwill included in the valuation of unconsolidated financial sector entities (significant investments) cannot be included in the free quota, but must be deducted from common equity Tier 1 capital, cf. Article 37 of the CRR.