



FINANSTILSYNET

THE FINANCIAL SUPERVISORY
AUTHORITY OF NORWAY

Liquidity Risk Module

Evaluation of management and control

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1. Introduction

Finanstilsynet uses modules as working tools for on-site inspections at banks, mortgage companies, finance companies and holding companies, hereinafter referred to as institutions, and for assessing the institutions' overall risk and capital needs, SREP (Supervisory Review and Evaluation Process). The liquidity risk module consists of a guidance on the assessment of the institution's liquidity and funding risk level and a guidance on Finanstilsynet's assessment of the institution's system for the management and control of liquidity and funding risk. The present document is the guidance on the assessment of the institution's management and control of liquidity and funding risk.

In its assessments, Finanstilsynet emphasises that management and control of liquidity and funding risk should be commensurate with the institution's size, complexity and risk profile. Reference is made to the separate chapter on proportionality in the module for internal governance.

The guidance is divided into chapters. Each chapter contains factors that Finanstilsynet focuses on when assessing the institutions. The assessment factors are based on laws or regulations, Finanstilsynets guidances and international guidelines. Certain assessments are referred to as best practice and are based on Finanstilsynet's experience and observations from inspections, etc.

1.1. Relevant references

Acts and regulations

- Act on Financial Institutions and Financial Groups (Financial Institutions Act)
- Regulations on Financial Institutions and Financial Groups (Financial Institutions Regulations)
- Regulations on capital requirements and the implementation of CRR/CRD regulations (CRR/CRD Regulations), in particular Part I Scope and incorporation provisions¹, Part V Liquidity risk management and Part X Risk management and internal control system.

Guidances etc.

- Finanstilsynet's methodologies for assessing risk and capital needs ('SREP Guidance')
- ORBOF (Public reporting for banks and finance companies www.ssb.no/innrapportering/orbof)
- Module for assessment of internal governance
- Finanstilsynet: Summary report for thematic inspections; stress testing of liquidity and funding risk

International guidelines from the EBA, the Basel Committee and others

- EBA (European Banking Authority) Guidelines on common procedures and methodologies for the supervisory evaluation process (SREP) and supervisory stress testing (EBA/GL/2022/03)
- EBA Guidelines on Institutions' Stress Testing, EBA/GL/2018/04
- CEBS (EBA) Guidelines on Liquidity Cost Benefit Allocation, 2010
- CEBS (EBA) Guidelines on Liquidity Buffers & Survival Periods, 2009

¹ Cf. Capital Requirements Regulation, CRR, (EU) 575/2013 with the latest supplement 2024/1623, and Commission Delegated Regulation (EU) 2015/61 ('LCR DA')

- Basel Committee: Principles for Sound Liquidity Risk Management and Supervision, bcbs144/2008 (hereinafter referred to as the Basel document) ²
- EBA Guidelines on internal governance under CRD, EBA/GL/2021/05
- Basel Committee: Sound Practices for Managing Liquidity in Banking Organizations, bcbs69/2000
- ECB Guide to the internal liquidity adequacy assessment process (ILAAP), 2018

Based on the factors reviewed in this module, the actual status of the institution and Finanstilsynet's assessments, questions and conclusions shall be summarised in a review form. Finanstilsynet's internal assessments of the institution's governance and control and risk exposure are graded from 1 to 4. These represent the descriptions 'low risk', 'low to moderate risk', 'less satisfactory' and 'unsatisfactory'. The classification and review form are not communicated externally.

2. Strategy, overarching guidelines and risk limits for liquidity and funding risk

2.1. Strategy and overarching guidelines

The purpose of this section is to set out criteria for assessing the institution's liquidity strategy, cf. the Financial Institutions Act, section 13-7, subsection (2), 'a financial institution shall ensure prudent liquidity management in accordance with policies established by the board of directors'.

The institution shall be run in a prudent manner and have appropriate policies and procedures for identifying, managing, monitoring and reporting risk to which the institution is, or may become, exposed, cf. the Financial Institutions Act, section 13-5. Policies and procedures shall contribute to ensuring that operations are conducted in line with the board of directors' strategy and risk appetite for liquidity and funding risk.

Relevant factors to address in the assessment:

Documentation and process

- The institution shall have in place a documented liquidity strategy; cf. the CRR/CRD Regulations, section 12. The strategy shall be adapted to all relevant business areas, including any branches and subsidiaries, with an internal distribution of risk and costs. The board of directors shall review the strategy and compliance therewith at least once a year, and the board's assessments and conclusions shall be included in the board minutes.
- The strategy should be communicated to and understood by all entities that have a bearing on the institution's liquidity and funding risk. Employees with responsibility for risk management should maintain close contact with employees monitoring market developments as well as with employees with access to critical information from the credit business, cf. paragraph 15 of the Basel document.
- The experience from the stress tests shall be used when the board of directors assesses the liquidity strategy and adopts guidelines for liquidity and funding risk and

² <https://www.bis.org/publ/bcbs144.pdf>. In a press release issued on 17 January 2008, the Basel Committee (Basel Committee on Banking Supervision) stated that it had reviewed the 2008 document. The review confirmed that the principles in the document remained appropriate and valid, and no revision of the 2008 document was made.

the board's risk appetite, cf. the CRR/CRD Regulations, section 16 and principle 10 of the Basel document.

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- The strategy shall include guidelines and limits for managing the institution's liquidity and funding risk in accordance with the adopted risk appetite. The risk appetite determined by the board of directors defines the risk exposure the board is willing to accept in terms of liquidity and funding risk. The strategy shall set out the main principles to ensure that the institution manages its liquidity in normal times in such a way that it is able to withstand a prolonged period of stress, cf. the CRR/CRD Regulations, section 12 and principle 12 and paragraph 10 of the Basel document.
- The strategy shall include guidelines and limits for liquid assets and for stable long-term funding. It shall also include guidelines for methods and procedures for risk measurement, forecasts and monitoring, including stress tests, cf. the CRR/CRD Regulations, section 12.
- The strategy document shall describe the organisation and lines of responsibility, provisions on reporting to the board of directors and management and on independent control, cf. the CRR/CRD Regulations, section 12.
- Residential and commercial mortgage companies (covered-bond-issuing entities) are an important funding vehicle for most banks. The strategy document should therefore provide guidelines for the bank's use of such entities, the conditions set by the board of directors to ensure that the bank meets the requirements for an acceptable level of risk when loans are transferred to covered-bond-issuing entities, as well as conditions to be met to ensure a flexible liquidity position (including unencumbered negotiable assets and loans ready for transfer).
- Direct and indirect consequences of risks related to ESG (Environmental, Social and Governance) factors should be taken into account in the liquidity and funding strategy. The institution should consider how ESG factors may impact liquidity and funding risk, including the liquidity buffer. If the institution is considering raising funding with a specific label ('green' funding), it must ensure that there is a documented justification for the classification/label and that those providing the funding are well informed about the basis for it.³
- The strategy document shall contain the institution's overarching guidelines for liquidity management, cf. the CRR/CRD Regulations, section 2 and section 11 of the Basel document.
 - Guidelines for the institution's holdings of liquid assets, including the assets' negotiability, status as central bank collateral and eligibility for inclusion in the LCR.⁴
 - Guidelines for compliance with the minimum liquidity coverage requirement (LCR), cf. the CRR/CRD Regulations, section 2, second subsection (2). For monitoring purposes, the institution should define a governance system that ensures continuous compliance with the minimum requirement of 100 per cent for the total LCR and possible Pillar 2 requirements for LCR in significant currencies.⁵
 - Guidelines for liquidity risk across borders and in the various entities within the group (if called for by the level of activity and/or currency mismatch).

³ Reference is made to the work of the EU, EBA and ECB in this area, see www.eba.europa.eu, www.ecb.europa.eu (and www.finanstilsynet.no)

⁴ Liquidity Coverage Ratio

⁵ Guidance: Finanstilsynet's methodologies for assessing risk and capital needs, see chapter 11 ('SREP Guidance')

- Guidelines for compliance with the minimum stable funding requirement, NSFR, of 100 per cent.⁶
- Guidelines for meeting MREL requirements, including requirements for subordinated debt.
- Guidelines for diversification of funding sources.
- Guidelines and targets or limits for deposit-to-loan ratios. When assessing deposit-to-loan ratios, a bank that transfers loans to covered-bond-issuing entities should assess its deposit-to-loan ratio both (1) based on loans recorded by the bank only and (2) based on loans recorded by the bank plus loans transferred to covered-bond-issuing entities.
- Guidelines for the composition of deposits, including their size and customer groups, to avoid concentration risk in the deposit base. Assessment of an appropriate share of deposits covered by guarantee schemes. Assessment of how stable the different deposit categories are, for example in connection with an adjustment of deposit rates.
- Guidelines for using various online deposit platforms.
- Market making guidelines.
- The institution shall have guidelines that specify a process for assessing the risk associated with new products and services and other new activities, cf. the CRR/CRD Regulations Section 36, eighth subsection.

2.2. Risk limits

The purpose of this section is to specify criteria for assessing the limit structure established by the institution to manage its liquidity and funding risk levels.

Relevant factors to address in the assessment:

- The board of directors shall, based on the adopted risk appetite, set limits for the various business areas. The sum of distributed risk limits shall not exceed the total risk appetite, cf. the CRR/CRD Regulations, section 13: 'The institution shall have satisfactory rules and procedures for controlling and limiting liquidity risk'. Experience gained from stress tests shall be taken into account when the board of directors adopts liquidity risk limits, cf. the CRR/CRD Regulations, section 16. The risk limits shall be assigned to the CEO together with instructions for any further delegation. The board of directors shall assess the limits at least once a year, cf. the CRR/CRD Regulations, section 12.
- The limits must be set to ensure that the institution complies with the minimum liquidity coverage ratio (LCR) and the net stable funding ratio (NSFR), as well as – for covered-bond-issuing entities – the over-collateralisation requirement and the 180-day liquidity coverage requirement.
- To ensure satisfactory maturity of the institution's funding, amount limits shall be set for various time horizons, including intraday, cf. the CRR/CRD Regulations, section 13.
- The limits should ensure diversified funding sources, investor groups, instrument types and geographical markets, including funding in foreign currency and in foreign markets, cf. paragraph 65 of the Basel document.
- If the bank has linked up with online deposit platforms in Norway or abroad, the board of directors must establish guidelines and, where relevant, set limits for such activities, including any allocation by currency.
- Possible delays in inflows and outflows shall be taken into account, cf. the CRR/CRD Regulations, section 13. In order to take account of possible outcomes of unexpected

⁶ Net Stable Funding Ratio

events, the institution shall establish limits ensuring that it has a sufficient holding of liquid assets. Such assets shall be of good quality and unencumbered, and the institution shall ensure that the assets can rapidly be disposed of or used for funding purposes. The institution's liquid assets that are not included in the LCR should also be of such a nature that they can be used to obtain liquidity within the assumed time frames without being subject to legal, regulatory or operational impediments, cf. principle 12 of the Basel document. The institution should take account of legal and/or operational impediments to the assets being used to obtain liquidity within the assumed time frames.

- In addition to the Pillar 2 requirement for LCR per significant currency, the aggregate need for foreign currency reserves and acceptable currency mismatches should be determined. Allowance should be made for potential constraints in times of stress, cf. paragraph 43 of the Basel document.
- The institution should assess and take into account the need for liquid assets to cover margin requirements that may arise from agreements entered into directly or indirectly with clearing houses and in Credit Support Annex (CSA) agreements for derivative contracts.
- Established limits should be measurable and not unnecessarily complex. Limit utilisation should be monitored regularly, and the board should receive reports on the utilisation of the risk limits.
- In the event of repeated breaches of limits, etc., it should be ascertained whether this is due to a lack of understanding of limits as a management instrument, a weak culture for complying with limits and procedures, or the fact that the first-line systems and tools for uncovering errors and breaches of limits are not satisfactory.

2.3. Contingency plans

The purpose of this section is to set out the criteria for assessing the institution's contingency plans for liquidity crises.

Relevant factors to address in the assessment:

Documentation and process

- The institution shall have in place a documented contingency plan to address liquidity crises. The plan shall have been adopted by the board of directors, cf. the CRR/CRD Regulations, section 14.
- The board of directors shall regularly revise the contingency plan in light of stress test results, and the plan should be in accordance with the assumptions used in these tests, cf. the CRR/CRD Regulations, section 14 and paragraph 112 of the Basel document. The plan should be regularly tested to ensure that it is operational, cf. principle 11 of the Basel document.
- Finanstilsynet accepts that the contingency plan is included as a separate chapter or as an annex to the institution's recovery plan, provided that the requirements of the CRR/CRD Regulations are observed.

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- The contingency plan shall set out procedures for dealing with liquidity problems due to institution-specific events as well as liquidity shortfalls in the market, cf. the CRR/CRD Regulations, section 14. It should be taken into account that liquidity needs in Norwegian kroner and foreign currency resulting from margining agreements etc. (cf. CSA agreements) may increase in a situation where the institution has had to implement the contingency plan.
- The contingency plan should contain clear activation and escalation procedures, cf. principle 11 of the Basel document. A set of early warning indicators should be

established to identify increased risk or vulnerabilities, cf. paragraphs 53 and 54 of the Basel document.

- The contingency plan should set out guidelines for addressing various stress situations and assuring a flexible response, cf. principle 11 and paragraph 111 of the Basel document. Supplementary reporting requirements should be imposed to ensure that all relevant parties are given an updated analysis of liquidity developments and an overview of the current status and implemented crisis measures.
- The contingency plan should describe a diverse set of funding measures and the amount of funds an institution estimates can be derived from these sources, cf. paragraph 111 of the Basel document. The plan should also detail the lead time needed to tap funds from each of the contingency sources, cf. paragraph 111 of the Basel document. The plan should include steps to meet unexpected large disbursements on an intraday basis, cf. paragraph 119 of the Basel document.
- An institution should, when called for by its structure and activities, be aware of the operational procedures needed to transfer liquidity and collateral across different entities and systems and any impediments to such transfers, cf. paragraph 120 of the Basel document.
- There should be a clear specification of roles and responsibilities for dealing with emergency situations, including the designation of alternates for key employees, cf. paragraph 114 of the Basel document. The plan should set out what issues shall be escalated to more senior levels in the organisation and procedures for assuring effective coordination and communication across the institution's different business areas and locations, cf. paragraph 115 of the Basel document.
- The contingency plan should address how to communicate internally and externally to support the general confidence in the institution and maintenance of customer relationships. Communication should be clear, reliable and occur sufficiently frequently and in a timely manner. The plan should ensure good communication with counterparties of great significance of the institution's access to liquidity, cf. paragraph 116 of the Basel document.

2.4. ILAAP

The purpose of this section is to set out the criteria for assessing the institution's ILAAP (Internal Liquidity Adequacy Process). The ILAAP shall primarily be an internal process for the institution, and it is up to the individual institution and its board of directors to design the ILAAP based on the complexity and scope of its operations. General principles for institutions' ILAAP:

- The institution's board of directors is responsible for ensuring that the institution has an adequate ILAAP.
- The ILAAP shall be an integral part of operations.
- The ILAAP is intended to lay a foundation to ensure that the institution maintains adequate liquidity and funding given various challenges.
- All material risks shall be identified and taken into account in the ILAAP.
- The significance of ESG factors for the institution's current status and future liquidity and funding challenges should be specified, cf. description under Strategy.
- Results of stress tests in the relevant field, cf. chapter 4.2, should be described and analysed.
- The institution's liquidity buffer(s) and liquidity sources shall be of high quality and clearly defined.
- The methods for identifying and quantifying risks in the ILAAP shall be adapted to operations and be consistent and quantifiable.

- Regular stress tests shall ensure that the institution has sufficient liquidity in difficult situations, cf. chapter 4.2 below.

For further information on requirements and expectations concerning ILAAP, see Finanstilsynet's practices for assessing risk and capital needs ('SREP Guidance').

3. Organisation and responsibilities concerning liquidity and funding risk

3.1. The board of directors' role and responsibilities

The purpose of this section is to set out criteria for assessing the organisation and division of responsibilities concerning the institution's liquidity and funding, cf. the Financial Institutions Act, section 8-6 and the CRR/CRD Regulations, section 35.

Relevant factors to address in the assessment are outlined below. Reference is also made to the module for internal governance for more detailed expectations to the board of directors.

- The board shall approve and regularly review strategies, the risk appetite, plans and policies for identifying, managing, monitoring, controlling and reporting liquidity and funding risk.
- The board shall ensure that it has access to risk information by determining the scale, format and frequency of reporting, cf. the CRR/CRD Regulations, section 35. The board shall be provided with relevant reports related to liquidity and funding.
- The board should have good competence within liquidity and funding risk.
- The board should give due consideration to the importance of risk culture for the organisation.
- The board shall ensure that the institution has satisfactory internal control in the domain of liquidity and funding.

3.2. Organisation, staffing and control

According to the CRR/CRD Regulations, section 35, the institution shall have policies and procedures in place for managing and controlling liquidity risk. Its liquidity and funding situation should be actively monitored within and across legal entities, business areas and currencies, cf. principle 6 of the Basel document. Senior management should receive and review information about the institution's liquidity developments and funding status on an ongoing basis, cf. principle 3 of the Basel document.

3.2.1. Resources, expertise and remuneration schemes

The purpose of this section is to set out criteria for assessing the institution's resources, expertise and remuneration schemes within liquidity and funding.

Relevant factors to address in the assessment are outlined below.

- The responsibility for the ongoing management and control of the institution's overall liquidity position shall be clearly defined and documented, cf. the CRR/CRD Regulations, section 35.

- The institution shall have employees who in aggregate have the qualifications and experience needed for the business of the institution to be conducted in a satisfactory manner. The institution shall ensure that its employees have the necessary experience and competence, cf. the Financial Institutions Act, section 8-11 (3).
- The number of employees should reflect the complexity and scope of the business. In institutions with few employees in this field, the board must ensure that there are employees who can step in during holidays and sick leave and that there are good plans in place to support such continuity.
- Personnel in both support functions and independent control functions should have a good understanding of relevant risks and have the authority and incentives to identify and assess actions performed by personnel with profit responsibility. Responsibility for quality rests with all employees and managers.
- The entities/employees responsible for ongoing liquidity management should have good lines of communication with all entities/employees in the organisation possessing information that may be critical to the liquidity situation.
- An adequate segregation of duties should be ensured between entities/employees responsible for operational tasks (treasury) and entities/employees responsible for performing back-office/custodial functions such as registration, settlement and reconciliation (first line). Furthermore, sufficient independence should be ensured between the first-line entities and control functions responsible for independent measurement, monitoring and reporting (second line), cf. the CRR/CRD Regulations, section 35 ⁷.
- Independent control functions' resources and skills within liquidity and funding should be commensurate with the complexity and scale of operations.
- The institution's remuneration schemes, including any bonus schemes, for employees working with liquidity and funding shall contribute to promoting and providing incentives for sound management and control of the institution's risks, discourage excessive risk-taking and contribute to avoiding conflicts of interest. See in particular Section 15 of the Financial Institutions Regulations for, among other things, rules on remuneration to senior executives, persons with a material impact on the institution's risk exposure and employees engaged in control functions. For more information on remuneration schemes, see the module for internal governance.

3.2.2. Organisation and responsibility for first-line internal control

The purpose of this section is to set out criteria for assessing whether the institution's organisation within the domain of liquidity and funding risk is clear, documented, integrated and commensurate with the size, complexity and scope of operations.

Relevant factors to address in the assessment are outlined below.

- The institution shall be organised and run in a prudent manner and have a clear organisational structure, cf. the Financial Institutions Act, section 13-5, subsection (1).
- The institution should have a clear distribution of responsibility and authority within the organisation for liquidity and funding risk management, and have a governance structure that effectively implements the board's strategy in this field.
- There should be an updated organisation chart showing the structure and actual reporting and accountability lines within the domain of liquidity and funding risk.
- The institution shall establish guidelines to ensure satisfactory segregation of duties and to prevent conflicts of interest, cf. the CRR/CRD Regulations, section 35, second subsection. The first line, treasury and back office/custodial functions, is responsible

⁷ Special reference is made to the second subsection and the third subsection a) of the CRR/CRD IV Regulations section 35.

for ensuring that ongoing liquidity management is carried out in line with the policies, goals and risk limits that have been adopted. The first line should have suitable and quality-assured systems and methods for ongoing management, measurement and reporting.

- Job instructions and job descriptions should be in place for central staff members. According to the Financial Institutions Act, section 8-11 (3), the CEO shall ensure that instructions are adopted setting out the employees' work tasks and responsibilities, as well as rules for reporting and administrative procedures.
- Heads of entities managing liquidity and funding risk shall, according to the CRR/CRD Regulations, section 37, implement satisfactory internal control mechanisms and continuously assess the implementation of internal control in the areas for which they are responsible. At least once a year, a summary assessment shall be made of whether the internal control mechanisms have been implemented in a satisfactory manner and whether there is a need for new measures.

3.2.3. Independent control functions in the second and third lines

The purpose of this section is to set out criteria for mapping and assessing the mandate, as well as the exercise of the responsibilities assigned to the institution's independent control functions within the domain of liquidity and funding risk. This includes mapping and assessing instructions and guidelines, as well as evaluating the scope and content of the work carried out by the independent control functions. The functions' responsibilities and general main tasks are also discussed in the module for internal governance. In the present context, 'independent control functions' means the internal control functions in the second line and the internal audit in the third line.

Internal control functions shall regularly report to senior management and the board of directors on risks and compliance related to liquidity and funding in order to provide an independent assessment of the current situation, developments and potential future risks.

Risk management function

- The institution shall have an independent risk management function with sufficient competence and resources to manage, monitor and follow up risk, including liquidity and funding risk, cf. the Financial Institutions Act, section 13-5 (2) and the CRR/CRD Regulations, section 38.
- The risk management function should be involved in discussions about the institution's strategy and risk appetite within the domain of liquidity and funding risk.
- The risk management function should be responsible for the institution's models used in managing and quantifying liquidity and funding risk. The risk management function should have access to, and knowledge of, all relevant first-line systems and processes.
- According to the CRR/CRD Regulations, section 36, the risk management function shall be involved in the process of assessing risk in new products and services and other new activities within the domain of liquidity and funding risk.
- The risk management function should regularly assess compliance with strategies, guidelines, authorisations, responsibilities and procedures within the domain of liquidity and funding risk.
- The risk management function should perform other relevant controls and monitor that there is appropriate and effective internal control within the domain of liquidity and funding risk.

Compliance function

- The institution shall have an independent compliance function with sufficient competence and resources to manage, monitor and follow up risk, cf. the Financial Institutions Act, section 13-5 (2) and the CRR/CRD Regulations, section 39.

- The compliance function should conduct tests to verify compliance with prevailing external and internal regulations relevant to liquidity and funding, including ESG risk. Reports from the independent control function regarding implemented control activities should be addressed to and considered at the relevant level of the organisation. In the event of repeated rule breaches, it should be ascertained whether this is due to a lack of respect for the regulatory framework or whether the procedures and implementation of risk management and control in the first and second lines are inadequate.
- According to section 36 of the CRR/CRD Regulations, the compliance function shall be involved in the process of assessing risk in new products and services and other new activities within the domain of liquidity and funding risk.

Internal audit

- Under the Financial Institutions Act, section 13-5 (2), institutions shall have in place an independent control function with responsibility for internal audit. Institutions whose total assets have been below NOK 10 billion for more than the past 12 months are exempt from the requirement to have an internal audit function. In institutions that do not have an internal audit, the statutory auditor shall provide the board of directors with an annual verification regarding risk management and internal control.
- According to the Financial Institutions Act, section 8-16, the internal audit shall regularly check that liquidity and funding activities are organised and run in a satisfactory manner and in accordance with applicable requirements. According to the Basel document, principle 3, paragraph 16, the internal auditor should regularly review the implementation and effectiveness of the agreed framework for controlling liquidity and funding risk in the first and second lines. Best practice for regular evaluation is at least every two years.

4. Liquidity and funding risk measurement

The purpose of this chapter is to set out criteria for assessing whether the institution has established a system for measuring and pricing liquidity and funding risk that is commensurate with the complexity and scope of operations.

4.1. Systems for risk measurement and forecasting

The purpose of this section is to specify criteria for assessing systems and procedures for measuring and forecasting the liquidity situation.

Relevant factors to address in the assessment are outlined below.

- The institution shall have methods for identifying and measuring liquidity risk at all times, cf. the CRR/CRD Regulations, section 15. The measurement tools should be tailored to the institution's actual business, complexity and risk profile, cf. paragraph 48 of the Basel document. This should include ensuring that the LCR is calculated on a daily basis or, for smaller institutions, estimated daily, to support internal management and control, as well as potential reporting to Finanstilsynet.
- The institution shall measure and forecast the liquidity situation for all relevant assets and liabilities, as well as off-balance sheet commitments and derivatives, including margin requirements, cf. the CRR/CRD Regulations, section 15 and paragraph 26 of the Basel document. The risk measurements should in aggregate provide a full picture of the liquidity situation and be decomposed into liquidity risk related to various entities within the group, cf. paragraph 22 of the Basel document.

- The forecasts for future net liquidity needs should estimate the institution's net funding requirement as the difference between expected cash inflows and outflows, cf. paragraph 26 of the Basel document. In the calculations, care should be taken to apply conservative estimates when assessing cash flows, cf. paragraph 24 of the Basel document.
- The liquidity situation should be assessed over several time horizons, including intraday, day-to-day, and over intervals of up to one year and periods of more than one year, cf. paragraph 27 of the Basel document and reporting of the EBA's 'Maturity Ladder'.
- If called for by its level of activity, the institution should have in place systems to identify and monitor conditions regarding the sale or repayment of assets as well as regarding mechanisms triggering financial guarantees or similar contingent liabilities, cf. paragraphs 31, 32 and 41 of the Basel document. The institution should also identify and measure non-contractual liabilities or factors which, due to reputational concerns, might prompt the institution to purchase assets or provide extraordinary liquidity support, cf. paragraph 33 of the Basel document.
- If called for by its level of activity, the institution should identify and measure liquidity and funding risk in foreign currency, cf. paragraph 43 of the Basel document.
- The definitions and assumptions underlying the risk measurements and forecasts should be well documented. The quality of systems and data should be assured according to clear procedures. Key assumptions should be periodically reviewed and approved, cf. paragraph 49 of the Basel document. Back-testing of forecasts should be conducted.

4.2. Stress testing

According to the EBA's guidelines for stress testing (EBA/GL/2018/04), the liquidity stress test shall provide a basis for assessing the impact of various events for the institution's liquidity and funding. The stress events should therefore include both negative market conditions that affect multiple players and institution-specific ones. The correlation between liquidity and funding stress and the institution's capital situation should also be assessed. The purpose of this section is to set out the criteria for assessing the institution's liquidity stress test(s) and use of the results from the stress tests.

Relevant factors to address in the assessment are outlined below.

- The institution shall perform stress tests to assess its liquidity situation, cf. the CRR/CRD Regulations, section 16, and provide meaningful contributions to risk management. The stress tests shall help enable the institution to ensure that actual exposure remains in accordance with the board of directors' established risk appetite, cf. principle 10 of the Basel document.
- The institution's business model and size, as well as the severity of the outcome of the previous stress test, should be taken into account when determining the frequency, cf. paragraph 32 of the EBA's guidelines on stress testing. Best practice for the largest institutions is to conduct and report the full liquidity stress test(s) on a quarterly basis. Even in small institutions, a quarterly assessment of stress effects could provide useful contributions to risk management, cf. the CRR/CRD Regulations, section 16, stating that 'At least every quarter, the Board of Directors and management shall review a comprehensive and updated report on the institution's liquidity situation and liquidity management'. Stress tests performed as part of ongoing operations in the first line should be performed with significantly greater frequency. For example, the institution should consider calculating the LCR on a daily basis.
- The stress tests shall throw light on the situation at consolidated and institution level and include alternative scenarios covering institution-specific events, market-related

events and combinations thereof, cf. the CRR/CRD Regulations, section 16 and paragraph 154 of the EBA's guidelines on stress testing. The scenarios should cover on- and off-balance sheet items, cf. the CRR/CRD Regulations, section 16.

- The stress tests shall include scenarios with different time horizons, cf. the CRR/CRD Regulations, section 16 and paragraphs 155 and 156 of the EBA's guidelines on stress testing. The tests should, as a minimum, cover intervals from overnight up to 12 months. There should be separate stress tests to analyse intraday liquidity risk.
- The stress tests should throw light on whether the institution's holding of liquid assets is sufficient to avoid payment problems in the short and long term. If the board has decided that the institution shall have an adequate liquidity cushion to survive, for example, 12 months 'without stress', given the institution's contractual cash inflows and outflows, and possibly roll-over and issuance of covered bonds, but no refinancing of senior market funding, the stress test should challenge this survival horizon.
- The institution should consider whether ESG factors could have a significant impact on the institution's net payments or liquidity buffer. The institution's stress test should help shed light on how the value of the liquidity buffer could be affected by a climate or environment-related incident.
- The institution's stress tests should, wherever relevant, use stricter assumptions than the ones that apply to the minimum liquidity coverage ratio, LCR. This should include using a stress scenario where the LCR has a 90-day time horizon, or calculating what the LCR will be one, two and three months ahead in time. Furthermore, it should be estimated how many days after day 30 it will take before the institution's LCR is below 100 per cent. The institution should also consider how large reductions and extraordinary outflows the institution's LCR can withstand before the minimum requirement is breached (reverse stress tests). Analyses should also be made of the LCR in all of the institution's significant currencies other than Norwegian kroner, if any.
- The institution should also consider whether the reporting of the NSFR and the maturity ladder may be used as a basis for appropriate stress tests for the institution.
- Institutions that are owned in whole or in part by covered-bond-issuing entities should conduct stress tests that include assumptions of a sharp fall in property prices and a significant increase in non-performing mortgages. Additional stressed conditions that should be factored in are links/commitments between the parent bank(s) and the covered-bond-issuing entities, including any liquidity facilities provided, derivative contracts and implicit or explicit agreements on the transfer of residential mortgages from covered-bond-issuing entities to the parent bank(s).
- Correspondingly, stress tests should be conducted that factor in conditions that may arise in other group entities and have an impact on the group's liquidity and/or funding situation.
- The institution should consider its ability to hold, or have access to, excess liquidity in the short term, medium term and long term in response to stress scenarios (counterbalancing capacity), cf. the EBA's guidelines on stress testing, paragraphs 160 and 161.
- The institution should consider stressing the need for liquid funds to cover margin requirements resulting from CSA agreements or agreements with clearing houses or their agents.
- The institution shall regularly review the assumptions used in its stress test analyses, cf. the CRR/CRD Regulations, section 16 and the EBA's guidelines on stress testing, paragraph 17.

4.3. Internal pricing of liquidity risk

The purpose of this section is to set out criteria for assessing the institution's internal pricing mechanism for evaluating activities in relation to liquidity risk.

Relevant factors to address in the assessment are outlined below.

- According to the CRR/CRD Regulations, section 12, the institution shall ensure an internal distribution of risks and costs. The institution should therefore have an internal pricing mechanism for the use of liquidity across various activities based on cost-benefit analyses, cf. the EBA's internal pricing document, CEBS (EBA) Guidelines on Liquidity Cost Benefit Allocation. The group shall ensure that income, costs, losses and gains are distributed correctly within the group, cf. the Financial Institutions Act, section 18-3.
- The internal pricing mechanism is an important part of liquidity management and should be consistent with the institution's framework of governance, risk appetite and decision-making process, cf. the EBA's Guidelines on Liquidity Cost Benefit Allocation, guideline 1.
- The institution's governance structure should be suited to support the internal pricing mechanism. The mechanism should be actively used and be appropriate to the business profiles of the institution, cf. the EBA's Guidelines on Liquidity Cost Benefit Allocation, guidelines 2 and 3. It is important that senior management takes ownership of the mechanism and that the unit responsible for setting prices is independent of the business lines and does not have its own profit targets.
- The level of granularity in the transfer pricing mechanism should reflect the size and sophistication of the institution. Internal prices should be fixed in an easy to grasp and consistent manner, cf. the EBA's Guidelines on Liquidity Cost Benefit Allocation, paragraph 14.
- Internal prices should be determined by robust methodologies, taking into account all factors involved in liquidity risk. The pricing mechanism should be sufficiently comprehensive to cover all significant parts of assets, liabilities and off-balance sheet items affecting liquidity, cf. the EBA's Guidelines on Liquidity Cost Benefit Allocation, guidelines 4 and 5. For example, the institution should take into account any (explicit or implicit) liquidity guarantees made available to entities in the group or to other associated entities.
- Internal prices should be set so that the use of liquidity reflects the cost of funding that must be obtained with a corresponding (expected) liquidity commitment period. Internal prices should reflect both the direct and indirect costs of the funding as well as costs of holding liquidity buffers. It is also important that the pricing reflects the impact the funding source has on developments in liquidity risk, for example total customer deposits versus more volatile deposits, cf. the EBA's Guidelines on Liquidity Cost Benefit Allocation, paragraphs 15, 17 and 19.

5. Reporting of liquidity and funding risk

The purpose of this chapter is to set out criteria for assessing whether the institution has relevant systems and processes for reporting liquidity and funding risk. Under the Financial Institutions Act, section 13-5, the institution shall have appropriate policies and procedures for identifying, managing, monitoring and reporting risk to which the bank is, or may become, exposed.

5.1. Internal reporting

The purpose of this section is to set out criteria for assessing reporting to the board of directors and senior management and the procedures for quality assurance of the reporting.

Relevant factors to address in the assessment:

- At least every quarter, the board of directors and senior management shall receive and review a report that describes the institution's liquidity and funding situation and provides a comprehensive and updated picture of the institution's exposure level and management and control of liquidity and funding risk, cf. the CRR/CRD Regulations, section 15. In stressed situations, there should be more frequent reporting.
- The frequency of internal reporting should be adapted to the complexity and level of activity. In large institutions, certain aspects should be reported by the first line throughout the day and at the end of the day (e.g. 'end of day' exposure). The risk management function shall, as mentioned above, make independent measurements and issue independent reports.⁸
- Reporting to the board and senior management should include measurement variables that are defined in the strategy, framework documents and overarching policies. The report should include:
 - Actual risk exposures relative to approved limits and possible liquidity risk targets, cf. paragraph 57 of the Basel document. Maximum limit utilisation between reporting dates should also be included, specifying the date and time.
 - Any breaches of liquidity risk limits, targets or threshold values.
 - Indicators that describe the liquidity and funding situation, but where limits have not been set, for example funding cost developments or other early warning indicators, cf. paragraph 54 of the Basel document.
- The board of directors and senior management should regularly receive reports showing the results of the stress tests. In the presentation of various stress scenarios, assumptions should be clearly set out to enable the board and senior management to evaluate how well-adapted and relevant the scenarios are, as well as the implications of the stress test results, cf. paragraph 97 of the Basel document and paragraph 22 in the Basel Committee's 'Sound Practices for Managing Liquidity in Banking Organizations'. Moreover, it should be considered whether to mention the institution's liquidity forecasts and funding position in the reports to the board and senior management.
- The board of directors and senior management should regularly, at least once a year, receive reports showing any evaluations made of the system for management and control of liquidity risk, including matters to which the internal and/or external auditor and other independent bodies have drawn attention.
- The institution should have in place procedures for quality assurance of the reporting and the data on which the reporting is based. Reasonableness tests and random checks of the data should be undertaken. The form, content and frequency of reporting should be reviewed on a regular basis.
- The institution should ensure documentation of reports that are produced, how often they are produced, who is responsible for the content of the reports, who are the recipients of the respective reports and how the information is used.

⁸ In order to ensure that the exposure calculated by the first and second lines is aligned, the second line should send its preliminary report to the Treasury early in the morning (before market opening). When the first line confirms that they agree, the second line can report the result to a sufficiently high level of management.

5.2. External reporting

The purpose of this section is to set out criteria for assessing the institution's procedures for quality assurance of reporting to the authorities.

Relevant factors to address in the assessment are outlined below.

- The institution should have in place procedures for quality assurance of data reported to the authorities. This includes ensuring that entities/employees responsible for ongoing liquidity management perform quality assurance of the reporting.
- The institution should have in place procedures to ensure that reporting is timely and that notifications of new periodic or ad hoc reporting from the authorities are identified and acted upon within the specified deadline.
- The institution should ensure that a number of employees are familiar with the procedures for external reporting, including any outsourced reporting.

6. Overall assessment of management and control of liquidity and funding risk.

An assessment is made of the various elements of the institution's management and control of liquidity and funding risk. The assessments are primarily of a qualitative nature.

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