Luminor

RISK MANAGEMENT AND CAPITAL ADEQUACY DISCLOSURE (PILLAR 3) REPORT 2019

LUMINOR HOLDING AS

Table of Contents

1. SCOPE OF DISCLOSURE 3
2. RISK MANAGEMENT, OBJECTIVES AND POLICIES 4
2.1. General information on risk management, objectives and policies 4
2.1.1. Management Board's risk statement 4
2.1.2. Internal Control Framework 5
2.1.3. Risk Appetite Framework 5
2.1.4. Recovery Planning 7
2.1.5. Resolution Planning 7
2.1.6. Risk Reporting 7
2.2. Credit risk management 8
2.2.1. Counterparty credit risk management 9
2.2.2. Credit risk mitigation 9
2.3. Market risk management 9
2.3.1. Interest rate risk 10
2.3.1.1. Interest rate risk in the Banking Book 10
2.3.1.2. Interest rate risk in the Trading Book 12
2.3.2. Foreign exchange risk 12
2.4. Liquidity risk management 12
2.4.1. Management of liquidity risk 13
2.4.2. Measurement of liquidity risk 13
2.4.3. Liquidity stress testing 13
2.4.4. Pricing of liquidity risk 14
2.4.5. Contingency Funding Plan 14
2.4.6. Internal Liquidity Adequacy Assessment Process 14
2.5. Operational risk management 14
3. CAPITAL REQUIREMENTS 15
3.1. Capitalisation Policy 15
3.2. Internal Capital Adequacy Assessment Process 15
4. REMUNERATION POLICY 16
4.1. Total Reward Policy 16
4.2. Variable Remuneration 18
4.3. Equality and diversity commitments 19
4.4. Directorships effectively held by the Management Board members 19
4.5. Recruitment policy for the selection of members of the management body 19
5. LEVERAGE 20

1. SCOPE OF DISCLOSURE

Risk Management and Capital Adequacy Disclosure (hereinafter – Pillar 3) report is prepared according to the EU Regulation No 575/2013 (hereinafter – CRR) Part Eight, European Commission implementing regulations as well as European Banking Authority's (hereinafter – EBA) guidelines No EBA/GL/2016/11. Pillar 3 report is part of the capital adequacy framework requiring to disclose comprehensive information about Luminor's risks, risk management policies and associated capital.

Pillar 3 report is focused on the description of policies and strategies of managing risks in Luminor Holding AS (hereinafter – Luminor) and should be read in conjunction with Annual Financial Report and quantitative tables disclosed in accordance with EBA/GL/2016/11 in the Excel format as follows:

1. LI1 "Difference between accounting and regulatory scopes of consolidation and the mapping of financial statement categories with regulatory risk categories"
2. LI2 "Main sources of differences between regulatory exposure amounts and carrying values in financial statements"
3. LI3 "Outline of the differences in the scopes of consolidation (entity by entity)"
4. KM1 "Key metrics at consolidated level"
5. OV1 "Overview of Risk Weighted Assets"
6. MCR "Minimum capital requirements"
7. CA "Capital adequacy"
8. CCyB (1) "Geographical distribution of credit exposures relevant for the calculation of the countercyclical capital buffer"
9. CCyB (2) "Amount of institution-specific countercyclical capital buffer"
10. CRB-B "Total and average net amount of exposure"
11. CRB-C "Geographical breakdown of exposures"
12. CRB-D "Concentration of exposures by industry or counterparty types"
13. CRB-E "Maturity of exposures"
14. CR1-A "Credit quality of exposures by exposure class and instrument"
15. CR1-B "Credit quality of exposures by industry or counterparty types"
16. CR1-C "Credit quality of exposures by geography"
17. CR1-D "Ageing of past-due exposures"
18. CR1-E "Non-performing and forborne exposures"
19. CR2-A "Changes in the stock of general and specific credit risk adjustments"
20. CR2-B "Changes in the stock of defaulted and impaired loans and debt securities"
21. Template 1 "Credit quality of forborne exposures"
22. Template 2 "Quality of forbearance"
23. Template 3 "Credit quality of performing and non-performing exposures by past due days"
24. Template 4 "Performing and non-performing exposures and related provisions"
25. Template 5 "Quality of non-performing exposures by geography"
26. Template 6 "Credit quality of loans and advances by industry"
27. Template 7 "Collateral valuation - loans and advances"
28. Template 8 "Changes in the stock of non-performing loans and advances"
29. Template 9 "Collateral obtained by taking possession and execution processes"
30. Template 10 "Collateral obtained by taking possession and execution processes – vintage breakdown"
31. CR3 "CRM techniques – Overview"
32. CR4 "Standardised approach – Credit risk exposure and CRM effects"
33. CR5 "Standardised approach - Including a breakdown of exposures post conversion factor and post risk mitigation techniques"
34. CCR1 "Analysis of CCR exposures by approach"

35. CCR2 “CVA capital charge”
36. CCR3 “Standardised approach – CCR exposures by regulatory portfolio and risk”
37. MR1 “Market risk under the standardised approach”
38. BB(1) “Banking book equity exposures - balance sheet amount and fair value”
39. BB(2) “Banking book equity exposures – gains and losses”
40. Template A “Encumbered and unencumbered assets”
41. Template B “Collateral received”
42. Template C “Sources of encumbrance”
43. LRSUM “Summary comparison of accounting assets vs leverage ratio exposure measure”
44. LRCOM “Leverage ratio common disclosure template”
45. LRSPL “Split-up of on balance sheet exposures (excluding derivatives, SFTs and exempted exposures)”
46. Annex I “Balance sheet reconciliation”
47. Annex II “Main features of regulatory capital instruments and of other TLAC-eligible instruments”
48. Annex IV “Own funds disclosure template”

Luminor is disclosing the information which is not (a) regarded as immaterial, proprietary or confidential in accordance with Article 432 of the CRR, (b) protected under the law, (c) related to operational events that could threaten the security of Luminor’s operational processes, (d) undermining the market position of Luminor or result in an increase of reputational risk.

The Pillar 3 report is approved by the Supervisory Council following the same internal approval process as Annual Financial Report.

Luminor’s Chief Risk Officer is of the opinion, that Luminor Holding AS Risk Management and Capital Adequacy Disclosure report, if read in conjunction with Annual Financial Report and relevant quantitative tables, gives a good and accurate description of the risk profile and of the way material risks are identified, assessed, measured, monitored, mitigated and reported in Luminor.

2. RISK MANAGEMENT, OBJECTIVES AND POLICIES

In this section information about Luminor’s risk management is disclosed as per EBA/GL/2016/11 guidelines’ flexible format tables EU-OVA, EU CRA, EU CCRA, EU MRA, EU CRB-A, EU CRC and EU CRD to the extent relevant for Luminor.

Luminor has set up the Risk and Compliance Forum of the Management Board and the Risk Committee of the Supervisory Council. For more details please consult section “Corporate governance report” in the Annual Financial Report.

2.1. General information on risk management, objectives and policies

2.1.1. Management Board’s risk statement

Luminor is a modern broad-based retail and corporate pan-Baltic bank that is committed to supporting the further development of the Baltic region through financing and other banking services, by making banking simpler and more accessible, and by engaging in the overall development of the Baltic societies. In January 2019 Luminor completed pan-Baltic merger and continues to operate as Luminor Bank AS in Estonia with branches in Latvia and Lithuania. Luminor is the third-largest provider of financial services in the Baltics, with approximately 0.9 million clients, 2 489 employees, and market share of 16.6% in deposits and 18.7% in lending as at the end of 2019.

Luminor shareholders are Braavos BidCo, private equity funds managed by Blackstone, consortium (60.1%), Nordea (19.95%) and DNB (19.95%). In September 2019 Braavos BidCo consortium completed the acquisition of a majority stake in Luminor. There is no ultimate beneficial owner (natural person) owning directly or indirectly 10% or more of the capital or interest in Luminor. Total shareholders’ equity amounts to 1.6 billion EUR and CET 1 ratio is 19.7%.

During 2019, Luminor continued on its path of transformation by simplifying its organisation as well as improving profitability and funding profile. As part of strategic activities Luminor has focused on decreasing non-performing loans portfolio, rightsizing the balance sheet and building independent funding platform. Luminor significantly decreased the share of non-performing loans to 3.8% (decrease by 230 million EUR) and increased deposit funding to 10.2 billion EUR leading to an improved Loan-to-Deposit ratio: 99.9% as of 31 December 2019. Customer deposits are expected to remain the main funding source for Luminor. In June 2019, Luminor issued 300 million EUR senior unsecured public bonds listed on the Euronext Dublin. In December 2019, Luminor obtained a covered bond license from Estonian Financial Supervisory

Authority and in January 2020 Moody's assigned provisional rating of Aa1 to Luminor covered bonds. Parent funding is still in place to support the transition to independent funding platform and ensure sufficient liquidity buffer.

Luminor invested 76.7 million EUR in 2019 into IT and organizational transformation, thereby net income was 54.0 million EUR and ROE 3.1%. After rightsizing the organisation and repricing the bank's portfolio, Luminor is now ready to embark on the next phase of our journey, a stage of growth.

Luminor has a well-diversified business model. Its risks are spread over a number of industries and customer types, focusing on customers in Estonia, Latvia and Lithuania. Most of Luminor's risks originate from Corporate Banking, Retail Banking, Private Banking, Leasing and Pensions. Other risks originate from Luminor group-wide support and control functions.

Luminor has established a robust and comprehensive Internal Control Framework covering the entire Luminor Group, including all activities of all business lines and internal units, including all activities of all business lines and internal units, including internal control functions, outsourced activities and distribution channels. As part of the Internal Control Framework, Luminor has established and maintains a group-wide Risk Management Framework, which includes policies, procedures, risk limits and risk controls ensuring adequate, timely and continuous identification, assessment, measurement, monitoring, mitigation and reporting of all material risks. The Risk Management Framework is an integral part of other Corporate Governance frameworks, e.g. Performance Management Framework, Total Reward Policy, Stress Testing Framework, and is regularly reviewed to ensure that it adequately covers relevant risks Luminor is facing.

Luminor has an overall conservative risk profile. The risk appetite is at least annually reviewed reflecting Luminor's financial plan, business and risk strategy and is translated into overall risk appetites for each risk type: solvency risk, credit risk, market risk, liquidity risk, operational risk (including reputational risk), compliance/ AML risk and covered bonds risk. As per internal methodology, each risk appetite can be set to one of five different levels: low, low-to-medium, medium, medium-to-high and high. Risk appetites are internally further described in risk appetite statements, metrics and limits for each risk type and closely monitored. As of December 2019, all of Luminor's risk appetites ranged between low or low-to-medium categories. In the beginning of 2020 and as part of its annual Risk Appetite Framework review, Luminor initiated a larger risk taxonomy review to ensure that the Risk Appetite Framework reflects the ongoing business transformation.

Luminor further continues taking measures to minimise risks relating to compliance, money laundering and sanctions, and is continuously investing into systems and processes. Luminor's focus is on local customers and currently 99.2% of deposit customers are located in Baltic countries and other EU/EEA countries. Luminor is following principle not to accept any non-resident customers without legitimate connection to Baltic markets.

2.1.2. Internal Control Framework

Risk management in Luminor is based on the model of three lines of defence and is organised in such a way that any possible conflicts of interest are avoided:

- The First Line of Defence are all Luminor business Divisions and supporting Divisions. The business Divisions and supporting Divisions, under the oversight of the Management Board, own their risks and are responsible for ongoing management of risks in line with Luminor's policies, procedures and controls. The First Line of Defence ensures that the combined risks over all Divisions remain within set risk appetite limits.
- The Second Line of Defence is an independent control and reporting function authorized to verify that the First Line of Defence is operating as intended. The Risk Division as a part of the Second Line of Defence is independent from the Business and Supporting Divisions whose risks it controls.
- The Third Line of Defence consists of the Internal Audit function which provides independent assessments of the total risk management and controls in the First and Second Lines of Defence.

More details, e.g. the structure and organisation of the risk management function (Risk Division) including information on its authority and statute, are presented in the Annual Financial Report's section "Corporate governance report" and "General risk management policies".

In 2019, a new Chief Risk Officer (CRO) Georg Jürgen Kaltenbrunner and in the beginning of 2020 a new Head of Internal Audit Auri Loog were appointed.

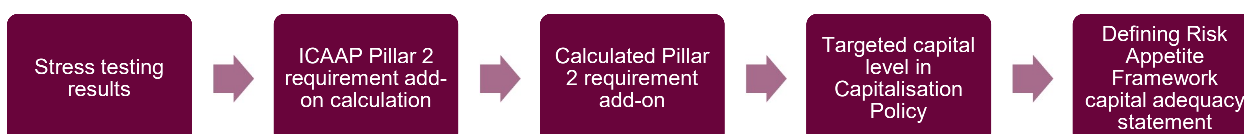
2.1.3. Risk Appetite Framework

Luminor's general guidance on risk management is described in the Risk Policy and Strategy and further operationalization is ensured in Risk Appetite Framework (RAF) to ensure that risks are managed and integrated with other key steering processes in the organization in a practical, structured, transparent and synchronized manner. The RAF is a core element of risk culture and risk management. It includes policies, processes, limits controls and systems to define, communicate and monitor how much risk Luminor is willing to take. The Risk Policy and Strategy and Risk Appetite Framework are reviewed annually to assess their effectiveness and adjusted against potential material changes in the business environment or Luminor's organization or business model.
To support the framework, a set of governance principles, operational procedures and responsibilities are defined. These are vital to ensure that the risk appetite contributes to risk being managed and integrated with other key steering processes

in the organization, while still maintaining necessary independence to function as a reference point for risk consequences of the organization's strategic and financial planning:

- *Ownership:* Ownership of the risk appetite rests with the Supervisory Council. All changes to the framework and governance principles are approved by the Supervisory Council.
- *Annual review:* RAF is reviewed at least once a year to reflect adjustments in the strategic direction or other changes in the business operations which affects the risk profile of Luminor.
- *Reporting:* actual risk exposure is reported at least quarterly in the form of a "traffic light" representation (for each risk appetite metric there are defined limits in three categories – green, yellow and red). For some of the risk appetite metrics higher frequency of reporting (in accordance with management reporting) is necessary which is covered by narrower scope monthly or weekly reports.
- *Accountability and responsibility*: Each risk appetite statement has assigned an owner who is responsible and accountable for follow-up in case of breach.

All material risks are covered by the RAF and stress testing results are incorporated in the Risk Appetite Limit calibration. The RAF flow of data:



RAF is expressed in the form of metrics and statements. The risk appetite statements are defined across the different risk types using metrics and qualitative statements. Risk metrics follow principles of:

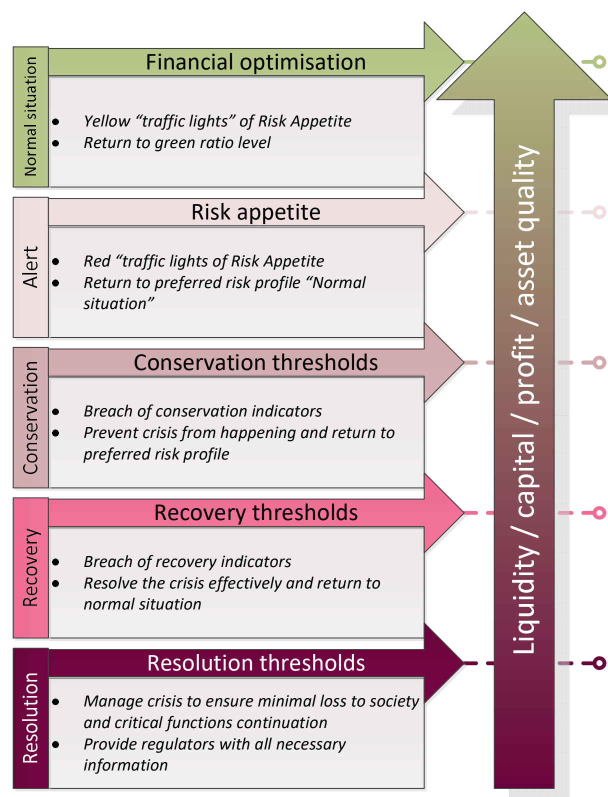
- *Applicability*: allowing effective monitoring of the risk appetite and, when relevant, the allocation of risk appetite by business unit or segment.
- *Completeness*: the complete list of metrics covers all various risk types and exposures.
- *Consistency*: whenever relevant, metrics are based on consistent definitions and calculations in order to ensure alignment across the various risk types and businesses.
- *Ownership*: there are clear owners for each of the risk type and its metrics (CRO, CFO, Head of Compliance depending on risk type). Daily risk decisions are made in relevant committees.

Risk appetite is limited by following principles:
- Luminor has a strong risk culture that promotes a conservative approach to risk taking.
- Luminor does not do business with clients in geographies or industries that could lead to reputational risk.
- Luminor does not accept dealing with clients when there are reasonable doubts about the credibility of their financials or about the legality of their activities.
- The selling of any given product follows the required product approval governance. It is essential to prevent any miss-selling of products to clients to prevent conduct risk. On this respect, Luminor does not have any appetite to make decisions that may lead to poor outcomes for the customers.
- Luminor has limited risk appetite for complex structured products and for very long dated exposures.

Risk Appetite Statements cover the following risk types/ categories:
- Solvency risk
- Credit risk
- Market risk
- Liquidity risk
- Operational risk
- Reputational risk
- Compliance and AML risk
- Covered Bonds risk

This Pillar 3 report covers Luminor's major risks in more detail – credit risk, market risk, liquidity risk and operational risk. Solvency risk is treated as overarching risk type covering all other risk types. Reputational risk is managed in close cooperation between the Operational Risk Management Department and Communications Division. Compliance and AML risk is managed in close cooperation between the Operational Risk Management Department and Compliance Division. Covered Bonds risk was introduced at the end of 2019 in the Covered Bonds' licensing process. This risk is managed in close cooperation between Market and Liquidity Risk Management Department and Treasury & ALM (Assets & Liabilities Management) Department.

2.1.4. Recovery Planning



For severe financial stress scenarios, Luminor's Recovery Plan (hereinafter – RP) was updated in May 2019. The RP outlines procedures to facilitate the restoration of Luminor's financial position without the need for any government support should the need arise, while maintaining performance of critical and systemically important functions. The plan was drawn up using several main principles aiming to be in line with the ethical standards and regulatory rules: preserving the critical banking functions, protecting depositors, taking actions in order to maintain the stability of the financial system, maintaining and enhancing public and market confidence in the stability of the financial system. As a vital part of corporate governance and the overall risk management framework, the document and its principles are to be reviewed at least once a year.

The whole RP document including established recovery indicators supplement other parts of the risk management framework such as the RAF and the new resolution regime, which combined create multi-layer protective barriers.

The RP presents different type of indicators: marking the recovery and conservation thresholds that would activate the RP. This framework enables to better describe any means taken to restore a normal situation.

The indicators are aligned with the RAF and monitoring structure to ensure an appropriate risk governance process. The indicators are based on EBA's minimum list of required indicators, adapted to the Group business model and market position as appropriate to alert on potentially deteriorating conditions that could lead to activation of the RP. As prescribed in EBA's guidelines, the number of indicators should be adequately targeted and manageable by the institution.

Luminor has defined RP indicators with corresponding recovery and/or conservation indicator levels within the five categories prescribed by EBA's Guidelines on RP Indicators:

- capitalisation,
- liquidity / funding,
- profitability,
- asset quality and
- macroeconomic reactions.

When calibrating the indicator levels, Luminor tried to balance between setting triggers high enough to ensure that sufficient time and space is available, and, to reflect that recovery for the institution would mean a severe stress situation that is not easily resolved.

2.1.5. Resolution Planning

In close cooperation with Systemic Resolution Board (SRB) Luminor prepares an annual work plan according to the guidance from SRB. The plan includes activities needed to prepare the bank for a resolution weekend if such day comes.

2.1.6. Risk Reporting

The most important risk report in Luminor is the comprehensive Quarterly Risk Report to the Management Board, Risk Committee of the Supervisory Council and Supervisory Council. It is provided on a quarterly basis and is prepared by the Risk Reporting and Analysis Unit in the Risk Division in order to ensure high quality and independence from business risk reporting. The report includes an assessment of the current situation, the main conclusions, as well as information on observed trends, i.e.

(a) Follow-up on risk appetite limits,
(b) Follow-up on recovery plan indicators,
(c) Details regarding major risk types – credit risk, market risk, liquidity risk, operational risk and reputational risk.

The most detailed is credit risk section, where information about credit strategy targets, non-performing loans targets, overall portfolio structure, loan portfolio quality (key portfolio quality ratios, overdue portfolio, risk profile, new lending, watch-list, leveraged lending, impairments and write-offs), industries in the loan portfolio and financial institutions portfolio is described.

The Quarterly Risk Report ensures that all relevant senior employees have the necessary information regarding the current level of risk and potential trends.

Reporting specifics on credit quality of exposures

Luminor recognises the exposures as past due, if the amount not paid on time exists for any type of payment and any overdue amount – no materiality threshold is applied. Luminor identifies default on a customer level in case of more than 90 days past due and/or indication of unlikeliness to pay. Luminor equates “defaulted” and “credit-impaired” exposures for accounting and regulatory purposes. For more detailed information see Note 5. General Risk Management Policies of the Luminor Annual Financial Report. As no materiality threshold for overdue amounts is applied, all exposures past due more than 90 days on a customer level are considered as credit-impaired with the exception for immaterial part (6 thousand euros as of 31 December 2019) of Latvian portfolio where overdues are of technical nature.

One of unlikeliness to pay indicators applied by Luminor is distressed restructuring of the exposure, where this is likely to result in a diminished financial obligation caused by the material forgiveness or postponement of principal, interest or, where relevant, fees. It has the same meaning as forbearance triggering non-performing status in accordance with FINREP instruction requirements.

With the introduction of IFRS 9 all impairment amounts are classified as specific credit risk adjustments.

Counterparty credit risk reporting specifics

Exposure to counterparty credit risk is calculated using mark-to-market method for derivatives and financial collateral comprehensive method for securities financing transactions respectively from 1 January 2018. To determine the exposure value of a derivative, that is, the exposure value of the counterparty's exposure to the credit risk, mark-to-market method is applied. The exposure value is the sum of the present replacement value and the potential future value of the credit exposure transaction value.

Market and liquidity risk reporting specifics

In the market risk and liquidity risk areas the comprehensive monthly report is prepared and presented to the Management Board. This report includes follow-up on the risk appetite level and lower level limits and qualitative comments on major changes during the reporting period. On a weekly basis, a narrower risk report is prepared to cover interest rate risk in the Banking Book, interest rate risk in the Trading Book and foreign exchange risk.

2.2. Credit risk management

Luminor defines Credit risk as the risk to incur a significant loss due to the lack of borrower's willingness or ability to meet contractual obligations and repay a loan. Credit risk (including Counterparty credit risk and Credit Value Adjustment risk) is Luminor’s dominant risk type representing approximately 91.3% of RWAs at the end of 2019.

Overall risk appetite for credit risk is derived from the overarching solvency risk appetite. The overall credit risk appetite is further translated into risk appetite statements and cascaded down to lower level credit strategy limits business units have to follow in their day-to-day operations.

Credit risk management is performed according to the three Lines of defence framework. The business units are primarily responsible for the risk undertaken. Risk organisation performs independent controls and acts as the 2nd Line of defence. Compliance is separate independent structure in the bank, which is also part of the 2nd Line of defence. Compliance function sets the framework for compliance risk management which is binding to the 1st Line of defence as well as to the Risk organisation. Internal Audit, being the 3rd Line of defence is reviewing Credit risk management practices as per audit plans.

In 2019, Luminor reorganized the credit risk function combining credit risk management and credit risk control functions. At the end of 2019, Credit Risk Management & Credit Control Department was structured in four units: Corporate Credit Risk Management Unit, Small & Medium Enterprises and Leasing Credit Risk Management Unit, Household Credit Risk Management Unit and Credit Control Unit. Credit risk management units are responsible for the framework and pre control of larger exposures (before the decisions made) while Credit control follows up the whether the defined processes are effectively implemented and performs post control activities.

Strategies and policies to manage credit risk and authorisations for credit decisions are described in the Annual Financial Report’s section “Credit risk”.

Credit risk management is closely related to the compliance area. In credit memos prepared by business units and submitted to the Credit Committees, a client assessment from a compliance perspective is performed. Internal Audit is reviewing Credit risk management practices as per audit plans.

At the end of 2019 approx. 89% of the loan portfolio had low or medium risk as per internal risk class. Private individuals and legal entities are presented in the loan portfolio approx. equally – 52% and 48% respectively. Main industries are real estate, wholesale and retail trade, manufacturing and agriculture. Non-performing loans are partly covered with provisions and most of them are backed with collateral. Luminor strategy is to reduce the level of non-performing loan portfolio according to the separate Non-performing loan strategy and operation plan which is reviewed annually and approved by Supervisory Council.

2.2.1. Counterparty credit risk management

Counterparty credit risk (CCR) exposure arises from business activities in derivatives and securities financing transactions (SFT). It is the risk that the counterparty of a transaction may default before completing the satisfactory settlement of the transaction. Counterparty credit risk management is an integral part of Credit risk management in Luminor. High level guidance is set in the Credit Policy which is further described in Credit manual. Details about the Credit risk management for Financial institutions, including limit setting process and responsibilities are described in the Guidelines on Country and Bank Credit Risk Limits. Limits are categorized in primary limits (risk point is respective counterparty) and secondary limits (risk point is another party, but respective counterparty provides guarantee or another collateral).

Counterparties which are Financial institutions and their respective countries are monitored and own funds requirements for credit risk are calculated based on the external ratings. For further details, i.e. names of the most often used external credit assessment institutions (hereinafter – ECAI), exposure classes to which ECAI are applied, process description, alignment of the alphanumerical scale of each agency, please review the Annual Financial Report's section "Due from banks and other credit institutions" (Credit risk section).

In case of counterparty credit risk management, in certain cases Luminor signs the CSA (Credit Support Annex) contracts with clients and ISDA (International Swaps and Derivatives Association) Agreements with counterparties. This means that the market value of the transaction and collateral claims are recalculated daily. Derivative financial transactions may be secured by collateral. Collateral contracts are not tied to credit ratings (with an exception of bonds provided as collateral; however, this is a rare occurrence).

Counterparty credit risk is managed primarily through limitation of exposures to each counterparty, regular valuation of exposures and collateralization of exposures, as well as Wrong Way Risk is considered in transactions with counterparties. Luminor does not have any triggers for posting additional collateral given a credit rating change. Luminor at least once in a year reviews the credit limits set for each counterparty according to such internal regulatory documents as Credit manual for Legal entities and Guidelines on country and bank credit risk limits.

2.2.2. Credit risk mitigation

In Luminor, financial asset and liability netting is not used as a Credit risk mitigation technique.

Collateral is the main credit risk mitigation measure applied. Luminor has developed an internal procedure on collateral valuation. All collateral in Luminor has to be evaluated and reviewed on a regular basis. Valuations performed by external valuators (or purchase price, whichever is lower) are used to define real estate collateral value. Internal evaluations for real estate collaterals are provided only in exceptional cases. The internal valuation function in Luminor is primarily responsible for quality control of valuations performed by external valuators and it is independent from the main user of the valuation, i.e. business function.

Other assets (commercial pledge over fixed assets, inventory, debtors, shares, etc.) are evaluated internally, most often based on the balance sheet values.

Asset type specific haircuts are applied to determine the possible realisation value of the collateral. Haircuts range from 20% to 50% for real estate properties, 50-80% for land, 50-75% for receivables (except for receivables which are factorised where a 20% haircut is applied), 70-75% for inventories and machinery (lower haircuts applied for leased assets). 100% haircut (no value assigned) is typically applied for shares and guarantees. The above-mentioned levels are indications which are adjusted depending on the specific circumstances related to the certain collateral.

As a main rule, collateral should be located in the Baltic countries. In exceptional cases, when the collateral is located abroad, higher haircuts are applied.

The value of collateral is reconsidered periodically. The frequency and conditions mostly depend on the performing/non-performing status and exposure size. The value of residential real estate is recalculated periodically by applying the indices. The revaluation of collateral for non-performing exposures follows ECB Guidance to Banks on Non-performing Loans.

For further details, i.e. main types of collateral, concentration of collaterals by collateral type, comments on the collateral valuation, please review the Annual Financial Report's section "Information about collaterals of loans".

Luminor is not using credit derivatives.

2.3. Market risk management

Market risk represents 0.2% of RWAs at the end of 2019. Luminor takes a low exposure to market risk, which can be treated as the risk of losses in on- and off-balance sheet positions arising from adverse movements in market parameters such as currency exchange rates (currency exchange risk), interest rates (interest rate risk), equity prices (equity price risk) or commodity prices (commodity price risk). The most significant part of market risk for Luminor is interest rate risk.

Luminor takes on neither option risk, nor risk in commodity derivatives transactions. In those rare cases when such deals are concluded, they are hedged back-to-back. Nevertheless, such transactions will be the subject to other risks if applicable,

e.g. counterparty risk. All transactions causing volatility risk, to the extent possible, are performed on a back-to-back basis only. Luminor does not engage in stock trading, thus has no open equity positions from Markets operations.

Market risk management and control is organized in three Lines of Defence as per Luminor's Internal Control Framework. The First Line of Defence consists of the Markets Front Office (Markets Department) which is responsible for risk management at the moment of the conclusion of the transaction, whereas the Markets Back Office (Operations Department) is mainly responsible for deal execution related routines. The Second Line of Defence involves the Market and Liquidity Risk Management Department (MLRM) which performs market control and support functions with the responsibility to cover the entire value chain and market risks in particular. Luminor's Internal Audit performs validation of all related processes and is the Third Line of Defence.

Principles for market risk management, measurement, reporting and control throughout Luminor are set in the Market Risk Policy and the Procedure on Market Risk and Liquidity Risk Control.

In the next paragraphs two major risk subtypes are described in more detail – interest rate risk and foreign exchange risk.

2.3.1. Interest rate risk

The most significant part of market risk for Luminor is interest rate risk, while significance of other risks is lower. The main source of interest rate risk in Luminor is repricing risk – risk related to the timing mismatch in the maturity and repricing of assets and liabilities of on- and off-balance sheet positions. Pursuant to the Luminor's Market Risk Policy and the Procedure on Market Risk and Liquidity Risk Control, interest rate risk is limited in terms of Basis Point Value (BPV), i.e. the change in net cash flows (gaps) given a one basis point (0.01%) parallel shift in market interest rates. Separate limits for banking and trading activities are approved by the Management Board, which also includes separation by different currencies: EUR, USD, NOK and other currencies. When calculating the total exposure, the sums of BPV in each currency are aggregated irrespective if the total exposure in each individual currency is a short or long position, i.e. netting of positions between currencies is not allowed. The main part of the interest rate risk arises from the positions that are denominated in euro currency, so the risk mitigation measures are employed for these positions.

Derivative financial instruments which are used for trading operations are hedged back-to-back, which means that the impact to interest rate risk from them is immaterial for Luminor. Whereas other part of derivatives transactions are performed for the Treasury positions management purpose. In general, the Luminor's assets have longer maturities than liabilities, which creates risk due to open interest rate exposures. Therefore, interbank funding is attracted to decrease the discrepancy between long and short terms. In addition to this, interest rate swaps are used to achieve and maintain an acceptable level of interest rate risk. The BPV calculations are performed by MLRM on a regular basis (at least weekly) and submitted to the Luminor's Management Board.

In order to properly evaluate possible shocks from interest rate movements, regular stress testing is applied to interest rate sensitive financial instruments using various scenarios for changes in interest rate curves. Stressed results are in line with corresponding limits set in the Risk Appetite Framework (RAF). Luminor in general applies a conservative approach to managing interest rate risk to balance the maturity and revaluation profiles of assets, liabilities and off-balance sheet items in order to meet the limits set by the Management Board. In 2019, Luminor met all the limits set.

2.3.1.1. Interest rate risk in the Banking Book

Non-traded market risk arises in the course of core banking activities such as lending, deposit taking and debt issuance. The main component of non-traded market risk is Interest Rate Risk in the Banking Book (IRRBB) that refers to the current or prospective risk to both the Luminor's capital and net interest income arising from adverse movements in interest rates affecting Luminor's Banking Book exposures. IRRBB can materialize through changes in the net present value of future cash flow from the Banking Book or change in net interest rate income.

IRRBB is measured as BPV, which is the change in market value per 0.01%, referred to as basis point rate change. Risk - resulting from all types of on- and off-balance sheet instruments is transformed to BPV. IRRBB is monitored using BPV exposure limits for banking activities. TALM is responsible for managing IRRBB BPV exposures and keeping them within levels approved by the Management Board and/or the Supervisory Council. MLRM coordinates the Luminor's business and risk units' proposal of internal IRRBB limits and is responsible for limit utilization monitoring at least on a weekly basis. IRRBB BPV results are reported to the Management Board on a regular basis as part of monthly and quarterly risk reports. In case of a limit breach the TALM provides comments on the reasons and the necessary corrective actions to the MLRM. MLRM provides an immediate limit excesses reporting to the CRO, CFO and Head of Internal Audit. Luminor complies with internal limits established for major currencies separately, for all other currencies and all currencies together, while netting of risk between currencies is not allowed. BPV is calculated according to the time bands defined in IRRBB limit approval.

IRRBB management and control is organized in 3 Lines of Defence (LoD). In 1st LoD Front Office is responsible for risk management at the moment of the conclusion of the transaction and the Luminor's (or the Branch respectively) Operations Department, the Savings & Markets Processing unit is mainly responsible for deal execution related routines. In 2nd LoD the MLRM performs market control and support functions with responsibility covering entire value chain and market risks in particular. In 3rd LoD Internal Audit performs validation of all related processes. Any changes in existing interest rate

sensitive products or introduction of a new product shall not become effective before the MLRM and the TALM confirm to the product owner the Luminor's readiness to manage, control and report market risk according to the proposed changes.

Based on European Banking Authority (EBA) guidelines EBA/GL/2018/02 on the management of interest rate risk arising from non-trading book activities, which states that institutions should establish a framework to quantify and monitor the sensitivity of the bank's net interest income to interest rate risk from banking book, Luminor measures its exposure to IRRBB in terms of potential changes to both the economic value (EVE) and earnings (NII) at least on the quarterly basis and more often if volatility of interest rates in the market is higher than usual. The latest definition is also applicable to the Internal Capital Adequacy Assessment Process (ICAAP). Moreover, corresponding limits for measuring EVE and NII impact to IRRBB are set up in the Risk Appetite Framework (RAF).

EVE measures the change in the net present value of the current balance sheet and therefore of its equity value resulting from an interest rate shock. EVE stress testing is based on a duration analysis which approximates the relative change in the net present value of a financial instruments due to a marginal shift of the yield curve. The starting point is the allocation of all cash flows of interest rate sensitive instruments into time bands. The duration of each instrument is then calculated from the change of its net present value due to a shift of the yield curve. The present value of equity is obtained by multiplying the duration of equity by the value of equity (i.e. assets minus liabilities). In this method the value of equity under alternative stress scenarios is compared with the value under a base scenario. EVE is then computed as the present value of assets less liabilities, not including assumptions about equity capital. The accuracy of the valuation of the balance sheet positions is mostly dependent on the cash flows calculated and the discount rates used.

NII is calculated using static model of gap analysis which is a simple tool for identifying and estimating the interest rate exposure to repricing risk. It measures the arithmetic difference between interest-sensitive assets and liabilities of the Banking Book within the first year. Gaps with a larger volume of assets have a positive sign reflecting increasing value (income) of the Banking Book with rising value (income) of assets. Liability gaps have a negative sign reflecting decreasing value (income) of the Banking Book with rising value (income) of liabilities. Gap analysis allocates all relevant interest-sensitive assets and liabilities into a certain number of predefined time bands according to their next contractual repricing date or behavioural assumptions regarding the maturity or the repricing date. A gap is then multiplied by an assumed change in interest rates (six interest rate shocks) which are defined in the same way as in EVE calculations, i.e. based on EBA guidelines.

Six different interest rate shocks are applied for measuring EVE and NII sensitivity based on EBA guidelines EBA/GL/2018/02. The shock size for those six scenarios is based on historical interest rates. More precisely, for capturing the local interest rate environment and cycle, a historical time series ranging from 2000 to 2019 for various maturities is used to calculate the parallel, short-end and long-end shocks for a given currency. The following table reflects the size of shock in basis points:

Scenario	Type of interest rate shock	Size of shock in basis points*
Parallel up	Parallel shift	+200 throughout
Flattener	Flattened curve	Short end +197 up, long end -36 down
Short end up	Twist on one end	Short end +247 up, long end +23 up
Parallel down	Parallel shift	-200 throughout
Steepener	Steepened curve	Short end -160 down, long end +67 up
Short end down	Twist on one end	Short end -247 down, long end -23 down

*Shock intervals are different depending on the currency. Figures in the table represent euro currency shocks which are the most significant for Luminor.

The main assumptions for EVE scenarios include, but are not limited to:

(a) Behavioural treatment of non-maturity deposits – repricing dates for deposits without specific maturity is limited to maximum average of 5 years.
(b) Inclusion of non-performing exposure when they break the threshold of 2% from total exposure.
(c) Consideration of instrument-specific interest rate floors.
(d) Balance sheet run-off – existing positions are not replaced upon maturity date.

The main assumptions for NII scenarios include, but are not limited to:

(a) Behavioural treatment of non-maturity deposits – for 3 scenarios with positive interest rate shocks half of these deposits are accounted to have interest expenses (i.e. possibility of becoming term deposits), whereas for other 3 scenarios with negative shocks interest expenses are not expected.
(b) NII is measured for assets and liabilities maturing/repricing in the next 1 year.
(c) Change in market values of financial assets due to interest rate movements is included in NII result.
(d) Inclusion of non-performing exposure when they break the threshold of 2% from total exposure.
(e) Consideration of instrument-specific interest rate floors.
(f) Early terminations for term deposits – 20% of term deposits are assumed to be repriced by customers due to more favourable interest income for 3 scenarios with positive interest rate shocks.

It is worth noting separately that interest rate movements for all shocks are floored at -1% based on EBA guidance.

The highest negative impact on Luminor's EVE comes from steepener scenario which corresponds to the projected decrease in capital of 25 million euros. The same scenario is the most severe in NII terms projecting the annual loss of 12 million EUR.

2.3.1.2. Interest rate risk in the Trading Book

For regulatory purposes, interest rate risk positions are assigned to either the Trading Book or the Banking Book. This classification impacts the regulatory capital requirements. The criteria for the allocation of positions to either the Trading Book or Banking Book are set out in the internal guidelines. Luminor includes in the Trading Book all positions in financial instruments held either with trading intent, or to hedge positions held with trading intent. Any position not defined as a Trading Book position is assigned to the Banking Book.

Interest rate risk in the Trading Book (IRRTB) is relatively small in Luminor, as all open positions coming from over-the-counter derivatives are immediately closed by Markets Department dealers making back-to-back transactions, while exposures of sovereign and corporate bonds must fit within internal limits and correspond to certain quality requirements and business strategy.

There is a dedicated limit set in the Risk Appetite Framework for IRRTB. The limit for trading activities is approved by the Management Board and is separated by different currencies: EUR, USD, NOK and other currencies. At least once in a week Luminor is calculating the sums of BPV in each currency to evaluate how the volatility of interest rates and mismatches between the interest rate reset dates for assets and liabilities held in the Trading Book could impact current or anticipated earnings or extra capital need.

2.3.2. Foreign exchange risk

Luminor's main exposure is towards euro currency (EUR), while positions of other currencies are not significant. Conservative approach to Foreign exchange (FX) risk is followed within Luminor, which means that Luminor is trying to balance assets, liabilities and memorandum items in foreign currencies in a way that FX risk is within the limits set in the RAF and lower level limits set by the Management Board and/or the Supervisory Council. The limits themselves are low. The exposure is measured as the nominal value of the open FX positions converted to EUR using European Central Bank (ECB) rates. Luminor is responsible for staying within the given limits – both intraday and overnight. Some technical deviations from limits are allowed only for short term when servicing customers. Luminor has approved limits for USD, sum of other currencies, maximum of other currencies and total currencies.

FX risk is managed by monitoring open FX positions and keeping them close to zero on intraday basis by FX dealers, whereas Close of Business (COB) positions are verified by the MLRM.

FX positions are reported to the Management Board on a monthly basis as the part of monthly risk report. The size of foreign currency positions is insignificant after euro introduction, as the main part of the balance sheet is denominated in euro, while open positions in all other currencies are immaterial and in most cases are well below the limits.

The sensitivity of FX risk is measured regularly by the MLRM stressing open FX positions using different multipliers. For USD this adverse parameter is developed using value-at-risk (VaR) approach based on 99 per cent confidence level and 10 days holding period where the horizon of data analysed includes the latest financial crisis in 2008-2009 and is at least 5 years of historical developments of FX rates. Whereas the multiplier for all other currencies is increased by additional 50% based on a good market practice. Calculation of sensitivity of FX risk in the amount of 55 thousand EUR shows immaterial impact for Luminor in 2019.

2.4. Liquidity risk management

Liquidity risk is the risk to incur a significant loss from the inability to meet short-term debt obligations. The objective of liquidity risk management is to ensure that Luminor can always meet cash flow obligations, including on an intraday basis and across market cycles and during periods of stress. Liquidity risk management framework consists of Liquidity Risk Management Policy, Liquidity Risk Management Strategy, Contingency Funding Plan and related procedures. Liquidity risk management framework is aligned with Luminor's strategy and integrated into Luminor's enterprise-wide risk management process, including credit, market, operational and reputational risks. Liquidity Risk Management Policy and Liquidity Risk Management Strategy are approved by the Supervisory Council, liquidity risk management framework is established and maintained by the Management Board of Luminor.

Liquidity risk is managed across three lines of defence. The First Line of Defence comprises the Group's Treasury & ALM (TALM) and the Business Areas. TALM is responsible for the daily liquidity management and Funds Transfer Pricing (FTP). To ensure funding in situations where Luminor is in urgent need of cash and the normal funding sources do not suffice, Luminor holds a liquidity buffer that consists of central bank cash and high-quality securities that can be readily sold or used as collateral in funding operations. MLRM acts as the Second Line of Defence and is responsible for providing independent oversight of liquidity risk. The Third Line of Defence includes Internal Audit, which is responsible for providing independent oversight of the First and Second Lines of Defence.

2.4.1. Management of liquidity risk

Liquidity risk management is divided into long-term (over one year), short-term (up to one year) risk management and intraday liquidity management. To ensure funding in situations where Luminor is in urgent need of cash and normal funding sources do not suffice, Luminor holds a liquidity buffer. The buffer's size is linked to liquidity stress testing results which form the basis of the liquidity risk appetite. The liquidity buffer consists of central bank cash and central bank eligible high-grade liquid securities, that can be readily sold or used as collateral in funding operations. The aim of short-term liquidity management is to meet the daily need for funds to ensure the compliance with the reserve and liquidity requirements set by the ECB, as well as the compliance with internal liquidity limits. Short-term liquidity is maintained through daily monitoring of the liquidity status, day-to-day funding of the appropriate financial instruments for the liquidity purposes. Long-term liquidity risk management is supported by analysing the estimated future cash flows taking into account the deposit and loan portfolio growth as well as possible refinancing sources.

Funding strategy forms an important element in Luminor's liquidity risk management framework. Therefore, diversification of funding in terms of investor types, regions, products and instruments is an important element. A key objective of the funding strategy is to create a self-sustainable banking group. To achieve this, one key component is to gradually replace parent funding with other forms of funding – deposits and wholesale borrowing from third parties. Deposits are and will remain the main funding source for Luminor, and the bank will continue to optimize its deposits base towards stable deposits. In building the self-sustainable funding platform, access to stable and competitive funding whilst considering external requirements (e.g. regulatory requirements including management buffers), and internal requirements, as well as secure prudent liquidity management, are the key considerations. Moreover, the strategy considers market conditions such as market capacity and credit rating. To that end the strategy strives to preserve and improve Luminor's credit rating, enabling access to customer deposits and wholesale funding both in periods of stress and at an attractive cost.

Intra-day liquidity arises from intra-day timing mismatches of payments, where Luminor sends payments and expects to receive funds back later in the day to meet other outgoing payment obligations. Luminor mitigates the intra-day risk by effective operational management of intra-day liquidity (e.g. via position monitoring, payment and collateral management, client and product management). In addition, intra-day liquidity risk can be mitigated by having access to surplus of intra-day liquidity, such as balances at central banks, unencumbered liquid assets that can converted to intra-day liquidity by pledging with the central banks, or balances with other banks that can be used for intra-day settlement.

2.4.2. Measurement of liquidity risk

Liquidity risk is measured and monitored through liquidity gap, LCR, NSFR and Survival Horizon. For the purposes of liquidity risk-assessment liquidity gap is analysed taking into account the maturity of cash flows. Liquidity risk is restricted by imposing internal limits on liquidity gap. Utilization of this limit is subject to regular monitoring and reporting to various management bodies in Luminor. Liquidity gap is calculated by analysing Luminor's net refinancing situation within one week, one month and three months applying a "business as usual" approach. Liquid assets and short-term liabilities are included in liquidity gap calculation for respective terms (1 week to 3 months).

Liquidity Coverage Ratio is calculated as the ratio of a credit institution's liquidity buffer to its net liquidity outflows over a 30-calendar day stress period and shall be expressed as a percentage. Since Lithuania, Latvia and Estonia are all members of the EU, LCR is applicable to Luminor as a Europe wide requirement. Minimum limit of LCR is set at 100%, however Luminor has substantial buffer and maintains a higher ratio. LCR is intended to promote short-term resilience of Luminor's liquidity risk profile and requires to hold risk-free assets that may be easily liquidated on markets in order to meet required payments for outflows net of inflows during a thirty-day crisis period without the support from the central bank. The Net Stable Funding Ratio (NSFR) is defined as the amount of available stable funding relative to the amount of required stable funding over the one-year time horizon. Minimum requirement for NSFR is 100%, however Luminor has a substantial buffer and maintains a higher ratio.

2.4.3. Liquidity stress testing

Liquidity stress testing is carried out to identify liquidity risk drivers and stress scenarios, which could impair Luminor's ability to meet cash-flow obligations when they come due, either because of scarce liquidity resources or significant increased costs in funding needed to generate liquidity. Liquidity stress testing is an important tool for evaluating the impact of exceptional but plausible events on the liquidity position of Luminor.

Liquidity stress-testing is conducted according to at least three scenarios: idiosyncratic, market-wide and a combination of the two. Stress-testing period shall include at least two phases: short-term acute phase and a prolonged but less acute phase. To the extent practical, Luminor seeks to analyse the behavioural characteristics of its assets, liabilities and off-balance sheet items, including those, that are non-contractual in nature, to facilitate understanding of how these items may contribute to, or place demands on, its liquidity under stress scenarios. Planned customer loan repayments may be less than contractual to reflect possible delinquencies in payments. A degree of decrease may be based on historical rates and adjusted to reflect future expectations.

Idiosyncratic crisis scenario is associated with the either real or perceived problems of Luminor, which affect public confidence (e.g. asset quality problems, solvency concerns, rumours on Luminor's credibility). The essence of the scenario

is a loss of a volatile portion of deposits and inability to roll-over or replace many of Luminor's liabilities, resulting in the need to utilize a liquidity buffer. In this scenario the rest of the financial sector is not directly affected. Market-wide crisis scenario is associated with an event, such as global financial distress, local government crisis, sudden and deep economic recession, a set of negative economic indicators, etc. The essence of the scenario is a decline in the liquidity value of some assets and deterioration in funding-market conditions. Combined crisis scenario generally accumulates the worst assumptions from the idiosyncratic and market-wide scenarios.

2.4.4. Pricing of liquidity risk

Appropriate transfer pricing mechanisms are maintained to ensure that transactions are subject to market-based charges or benefits and incentivise behaviours that ultimately drive the Luminor's balance sheet and liquidity profile according to the strategy of Luminor. The Internal Funds Transfer Pricing framework indicates how the Luminor's funding costs, as well as those costs associated with maintaining liquidity buffers, are allocated to specific businesses or product areas.

2.4.5. Contingency Funding Plan

The Contingency Funding Plan addresses the strategy for managing a liquidity crisis. Contingency Funding Plan ensures that the Management Board is able to make well-informed, timely and effective decisions in the event of a liquidity crisis. It sets out a plan for the protection of Luminor from negative and potentially damaging consequences of a liquidity crisis. The plan describes the activities to be performed and measures that will be applied during such crisis as well as monitoring and reporting of events that would lead to the implementation of the Contingency Funding Plan. Chief Executive Officer of Luminor (in his absence – Chief Financial Officer) decides as to whether the liquidity crisis has occurred / discontinued, according to the information received from Head of Market and Liquidity Risk Management Department.

2.4.6. Internal Liquidity Adequacy Assessment Process

The Internal Liquidity Adequacy Assessment Process (ILAAP) is a continuous process for Luminor. The ILAAP provides an assessment of liquidity adequacy through a comprehensive analysis of liquidity risk management practices in Luminor. It is integrated in the risk management framework and closely connected to the risk identification and assessment processes. Usually in Luminor the ILAAP is prepared in parallel with the Internal Capital Adequacy Assessment Process (ICAAP). As many process steps for ILAAP are similar to ICAAP, please see section 3.2. Internal Capital Adequacy Assessment Process for general comments regarding the process.

Stress testing results on liquidity risk are assessed as acceptable and indicate a low liquidity risk profile that is ensured by the implemented Liquidity Risk Management Strategy.

Internal Audit regularly reviews and assesses ILAAP in Luminor.

2.5. Operational risk management

Operational risk means a risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. Operational risk is inherent to all our products, processes, actions and systems. In the event of operational risks materializing, achievement of our internal goals is jeopardized. Operational risk also includes legal risk, compliance risk, conduct risk, IT risk, personal data protection and information security risk.

Operational risk represents 8.5% of RWAs at the end of 2019. RWA are calculated using Basic Indicators Approach.

Operational risk management in Luminor is governed by the Operational Risk Policy. Key principles are that operational risk should be low and risk management should ensure that the risk of unexpected losses is reduced. Each manager and process owner is responsible for the management of risks inherent to the activities and processes of their area of responsibility and for fostering a sound risk management culture.

In the Risk Appetite Framework there are set limits for operational risk, e.g. total losses from the operational risk as a percent of income. Limits were validated and verified by statistical (Monte Carlo simulation in Loss Distribution Approach) and qualitative operational risk analysis tools, taking into account operational risk COREP (common reporting framework) and ICAAP results.

Luminor is currently engaged in a significant transformation and is therefore executing a number of major change programmes. These programmes increase some operational risks beyond steady state levels and Luminor has risk management governance and practices in place to mitigate these risks.

For more details regarding Operational risk management please consult section "Operational risk" in the Annual Financial Report.

3. CAPITAL REQUIREMENTS

3.1. Capitalisation Policy

The Capitalisation Policy of Luminor is aimed at ensuring that equity is adequate to secure effective and optimal use of equity relative to the scope and risk profile of the operations.

The equity of Luminor is set at a level enabling to:

- comply with minimum capital requirements and regulatory buffer requirements in a way that is consistent with Luminor's risk profile and tolerance
- exploit growth opportunities in the market
- achieve a competitive return on equity.

Key element in the capitalisation is the implementation of Basel III / CRD IV capitalisation requirements in the local legislations. Luminor is closely following development of regulatory requirements and adjusts the Capitalisation Policy accordingly.

As stated in the Capitalisation Policy, Luminor must adhere to the prudential requirements as decided by the ECB in the Joint Decision on Capital at the end of 2019. According to the decision, Luminor is required to hold capital exceeding 11.8% CET1 and 15.3% Total capital. The decision consists of the following components in terms of Total capital and CET1:

	Total capital	CET1	Comments
Minimum Pillar 1 requirement	8.0%	4.5%	
Pillar 2 requirement	2.0%	2.0%	
O-SII (other systematically important institution) buffer	2.0%	2.0%	
Capital conservation buffer	2.5%	2.5%	
Systematic risk buffer	0.3%	0.3%	1.0% Systemic risk buffer set by Estonian regulator applies for Luminor in Estonia. 0.3% is calculated on Luminor Group level with conservative rounding upwards
Countercyclical buffer	0.5%	0.5%	Countercyclical buffer set by Lithuanian regulator applies for Luminor in Lithuania, as of June 30, 2019 it was increased to 1.0%. 0.5% is calculated on Luminor Group level with conservative rounding upwards taking into account buffer regulatory requirement as of June 30, 2019.
Total regulatory requirement	15.3%	11.8%	

In addition, Luminor has a Pillar 2 capital guidance of 1.0%.

3.2. Internal Capital Adequacy Assessment Process

In accordance with the European capital and liquidity requirements regulations, Luminor has implemented processes for assessing the risk profile and internal capital and liquidity adequacy. ICAAP is a continuous process, covering internal risk identification, assessment, stress testing, Risk Appetite Framework review and is performed on a continuous basis. The process usually starts during Q4 and is finalized by the date set by the regulator. ICAAP is considered a working tool that enables the bank to have a sound capital management throughout the year.

The objectives and scope of the ICAAP is:

- to be risk-based and forward-looking, and thus to consider at least the following aspects: regulatory requirements, economic environment of the Baltic countries, capital targets, identified current and projected risks and available capital
- the complexity and level of detail of ICAAP is proportionate to the size of the Luminor
- the ICAAP is, where applicable, integrated with the business plans, internal governance framework and internal control systems
- individual risk types are combined, seeking to assess the scope of the overall risk to be incurred and to calculate capital requirement (ICAAP result)
- to guarantee that an effective and well-functioning mechanism for identifying the internal capital requirement is developed and approved by the bank's management bodies

- to guarantee adequate coverage of internal capital needs in consideration of risks assumed.

While conducting the ICAAP, remarks from the ECB Joint Supervisory Teams raised during previous SREP (Supervisory Review and Evaluation Process) are addressed. For that purpose, an action plan is drafted with input from all relevant departments to follow up on SREP remarks and address them in the best way for the next iteration of ICAAP documentation.

The overall ICAAP approach in Luminor is to comprehensively assess whether the current, projected and stressed levels of capital are adequate considering both the regulatory requirements and targets set by Supervisory Council. An annual ICAAP report is presented to the bank's Supervisory Authorities, which review the ICAAP as a part of the SREP. Integration of the ICAAP with the financial and strategic planning processes makes the ICAAP an important tool for efficient capital allocation and for identification of capital needs.

In the beginning of 2019, the ICAAP was initiated and coordinated by the Risk Strategy and Planning Department. The ICAAP was prepared on a financial group level based on the financials as of the end of 2018 and for the planning period of three years, i.e. 2019 – 2021. During the ICAAP process, Luminor performed a self-assessment of internal risks in order to assess if each particular risk or group of risks is material and is subject to Pillar 2 capital add-on calculation and if it is not fully covered by Pillar 1 capital. The following risks were identified as not fully covered by Pillar 1 regulatory capital (liquidity risks are covered in ILAAP and are not calculated under Pillar 1 capital):

- Concentration risk (large exposures and economic sectors) within Credit risk.
- Operational risk (includes Model risk, Operational risk, Money Laundering and Terrorism Financing, and Sanction risk, Cyber risk and Compliance risk).
- Interest rate risk in banking book.
- Business risk (additional Pillar 2 capital add-on is not calculated, as risk is covered in the stress test scenario and is used to determine the management buffer).

Stress testing processes in 2019 were led by the Risk Quantification Department. Stress testing results are integrated into the ICAAP in order to ensure adequate capitalisation and resilience towards adverse and severe adverse developments. For solvency stress testing, maximum potential loss, capital adequacy ratios as well as leverage ratios were assessed under three different scenarios – Baseline, Adverse and Severe-Adverse scenarios:

(a) Baseline scenario is based on the financial plan.

(b) Severe Adverse scenario assumes prolonged international trade and geopolitical tensions and escalation thereof, involving more international market players. The stress-test assumes that before global policy responses take full effect, the uncertainty in markets and deteriorating global economic environment would result in a broad-based slowdown in the euro area including Baltic countries, with the euro-area economy falling into recession and Baltic countries following suite. Notably the Severe Adverse risk scenario assumes in addition a harsh double digit fall in real-estate prices to follow the external shock both in 2019 and 2020, with a following stabilisation. Slow recovery starting 2021 as the global economy adjusts to the new normal in the international trade market, with euro-area and Baltic country growth initially remaining low as a result of sluggish global trade, spare capacities and distressed investment levels in 2019-2020.

(c) Assumptions used for the Adverse scenario are similar to the Severe Adverse scenario set to a softer stress level.

Reverse stress testing was performed to enable assessment of severity and plausibility of the three solvency stress testing scenarios described.

Overall, Luminor is well positioned to meet regulatory requirements towards the capitalisation. Moreover, the capital level is adequate to absorb large additional potential losses stemming from risks to which it is exposed or may be exposed in the future.

Internal Audit regularly reviews and assesses ICAAP in Luminor.

4. REMUNERATION POLICY

4.1. Total Reward Policy

Luminor's strategy and objectives for remuneration are set out in the Total Reward Policy approved by the Supervisory Council of Luminor Bank AS (hereinafter - the "Policy"). The Policy aligns remuneration with prevailing strategies, values and goals while promoting and inciting sound risk management and cover all staff within Luminor. The Policy is aligned with the remuneration regulations for credit institutions as set out in such EU legislation as the Capital Requirements Directive IV (CRD IV) and Capital Requirements Regulation (CRR), among other regulations. The Policy is reviewed annually. The last version of the Policy is effective starting from 11 July 2019.

The process of developing the Policy is integrated into the internal control framework and mechanisms established by Luminor. In particular, the process for obtaining views on the proposals related to the Policy conforms to relevant general

internal regulations of Luminor defining requirements and responsibilities in the area of developing, updating and approving policies and other governing documents within Luminor.

The Supervisory Council is responsible for:

(a) adopting and maintaining the Policy and overseeing its implementation to ensure it is fully operating as intended,

(b) approving any subsequent material exemptions from the Policy made for individual employee and changes to the Policy. The Supervisory Council carefully consider and monitor their effects,

(c) determining and overseeing the remuneration of the members of the Management Board.

The Supervisory Council ensures that the bank's remuneration policies and practices are appropriately implemented and aligned with the bank's overall corporate governance framework, corporate culture, risk appetite and risk culture and the related governance processes.

When exercising the authority and performing the duties and responsibilities conferred on the Supervisory Council in relation to the bank's remuneration policies and practices, the Supervisory Council takes into account the input provided by all competent bank's corporate functions and bodies (e.g. committees, internal control functions, human resources, legal, strategic planning, budget function, etc.) and business units of the bank about the design, implementation and oversight of the bank's remuneration policies.

The Supervisory Council establishes the Remuneration Committee. The main responsibility of the Remuneration Committee is to verify that the remuneration system of Luminor conforms to effective risk management and reduces the risk of excessive risk-taking. To fulfil this responsibility, the Remuneration Committee:

(a) reviews the policies and practices of remuneration in order for such policies and practices to be aligned with risk appetite of the bank (including variable remuneration) and provides support and advice to the Supervisory Council on the design of the Policy,

(b) oversees the remuneration of senior officers performing internal control functions (including risk management and compliance),

(c) makes recommendations to the Supervisory Council on the design of the remuneration package and amounts of remuneration to be paid to the senior officers performing internal control functions,

(d) prepares the decisions to be taken by the Supervisory Council of the bank regarding the variable remuneration, in particular, regarding the remuneration to the Management Board members and other Material Risk Takers.

The duties and responsibilities of the Remuneration Committee in relation to the Total Remuneration policies, practices and processes are set out in details in the Regulations of the Remuneration Committee.

The Risk Committee, without prejudice to the tasks of the Remuneration Committee, examines whether the respective incentives provided under the remuneration system (policies, practices and processes) of Luminor take into consideration the bank's risk, capital, liquidity and the likelihood and timing of earnings.

The Supervisory Council, the Remuneration Committee, the Risk Committee and the Management Board work closely together and ensure that the remuneration policy is consistent with and promotes sound and effective risk management in the bank.

The People and Culture Division participates in and informs on the drawing up and the evaluation of the remuneration policy for the bank, including the remuneration structure, remuneration levels and incentive schemes, in a way that would not only attract and retain the employees the bank needs but also assure that the remuneration policy is aligned with the Luminor's risk profile.

The Compliance Division operates in close co-ordination with the People and Culture Division in order to support the design and the application of the Policy and related processes. In particular the Compliance Division:

(a) is involved in advising on consistency of the Policy with the regulatory requirements, internal policies, the Code of Conduct, risk culture of Luminor,

(b) reports on all identified compliance risks and issues of non-compliance in relation with the implementation of the Policy both to the Supervisory Council (through the Remuneration Committee) and to the Management Board, to the extent required according to applicable local regulatory enactments and internal regulations of the respective Luminor entity in the financial group, to competent management bodies of the respective group entity and their relevant competent committees (if any);

(c) is involved in the assessment process for the definition of the material risk takers; provide effective input into the setting the variable remuneration pools, severance payments, performance criteria, by assessing risk-taking of business units, and, where possible, individual performance, towards risk-based criteria, which is used as a basis of calculating actual variable remuneration pool and individual reward.

The Risk Division operates in close co-ordination with the People and Culture Division in order to support the design and the application of the Policy and related processes. In particular, the Risk Division:

(a) assists with defining performance criteria that reflect Luminor’s objectives, strategy, corporate culture, values, long term interests and risk-appetite,

(b) assess risk-taking of business units, and, where possible, individual performance, towards risk-based criteria, which is used as a basis of calculating actual variable remuneration pool and individual reward,

(c) is involved in the assessment process for the definition of the material risk takers.

The Group Internal Audit at least once per year checks implementation of the requirements set out in the Policy across the group as well as carries out review of the design and effects of the bank’s remuneration policies on its risk profile and the way these effects are managed.

The general meeting of shareholders of the bank approves:

(a) decisions specifying the procedure for and amount of remuneration for the members of the Supervisory Council (including also decisions approving the payments that can be awarded to those persons at the termination of their employment agreement),

(b) decisions setting a higher maximum level or the ration between the variable and fixed component of remuneration of up to 200% as well as decisions on a reduction of the higher maximum ratio that has been approved in the past.

In order that shareholders of the bank can make informed decisions on the total remuneration matters which are within the competence the general meeting of shareholders of the bank, the Supervisory Council ensures that the bank provides shareholders of the bank with adequate information regarding the Policy designed to help them to assess the incentive structure and the extent to which risk-taking is being incentivised and controlled as well as the overall cost of the remuneration structure.

The Supervisory Council remains responsible for the proposals on the total remuneration matters submitted to the general meeting of shareholders of the bank, as well as for the actual implementation and oversight of any changes to the remuneration policies and practices.

The Remuneration Committee shall ensure that the remuneration policies and practices of the bank are subject to a central and independent internal review at least annually. During 2019 seven meetings of the Remuneration Committee were held.

The Risk Committee at least once per year, analyses whether the incentives envisaged in the Policy take account of Luminor operating risk, capital, liquidity and the likelihood and timing of earnings.

The group-wide provisions of the Policy shall be appropriately implemented by all subsidiaries in their remuneration policies, practices and processes (including, among other things, through development, approval by competent management bodies of the subsidiaries and application of the relevant policies and other internal regulations of the respective subsidiaries to the extent necessary according to applicable regulatory enactments) in accordance with applicable regulatory requirements and internal regulations, taking into account that the requirements set out in the Policy are prevalent, except when the requirements set out in the applicable regulatory enactments are more stringent.

Competent management bodies of each subsidiary shall ensure that the group-wide provisions of the Policy apply across the entire respective subsidiary, are reflected in all remuneration policies, practices and processes applying to all employee categories of the respective subsidiary and are complied with for all employees in the respective subsidiary.

Competent management bodies of each subsidiary and their relevant competent committees (if any) adopt all resolutions which according to applicable regulatory enactments are required in relation to the group-wide provisions of the total remuneration policies, practices and processes.

4.2. Variable Remuneration

The variable remuneration is designed to differentiate Luminor from other sector players adopting culture focused on performance and long-term company value. Where the variable remuneration is awarded, such awards shall take into account also the risks taken and shall support Luminor in achieving and maintaining a sound capital base in line with applicable regulatory enactments. The variable remuneration shall promote the Luminor’s long-term interests, which are in line with legitimate interests of the depositors and other clients, and is determined by financial and non-financial targets set to Luminor’s staff and an overall assessment based on the compatibility of Luminor’s staff with Luminor’s values, leadership principles and the Code of Conduct applicable within Luminor, as well as overall contribution of Luminor’s staff to a sustainable performance of the organization. Therefore, the variable remuneration awards are conditional, discretionary and contingent upon a sustainable and risk-adjusted performance.

The variable remuneration system is based on the methodology that defines principles for calculating and allocating the Variable remuneration pool, as well as calculating the individual reward. The group-level and structural unit performance are considered to estimate and distribute the variable remuneration pool, while individual performance evaluation leads to the calculation of individual reward as part of the allocated variable remuneration pool.

The following principles, among other embedded in the Policy, are examples of the framework established to ensure sound risk management in relation to the variable remuneration:

a) The amount of a staff member's variable remuneration cannot exceed 100% of the annual fixed remuneration of that staff member in a given performance year. The foregoing maximum level of the ration between the fixed and variable components of remuneration applies to the variable remuneration awarded to any member of staff of any Luminor's entity, except when the requirements under the regulatory enactments applicable to the respective Luminor's entity are more stringent.
b) The variable remuneration to staff members of internal control functions established by Luminor (that include risk management function performed by the Risk Division, compliance function performed by the Compliance Division and internal audit function performed by Luminor Internal Audit) does not depend on performance of the business units they control.
c) The severance payments should reflect performance achieved over time and not reward failure or misconduct.
d) The members of staff whose professional activities have a material impact on Luminor's risk profile (hereinafter also – the "Material Risk Takers") are identified in accordance with the criteria set out in Commission Delegated Regulation (EU) 604/2014 of 4 March 2014 supplementing Directive 2013/36/EU of the European Parliament and of the Council with regard to regulatory technical standards with respect to qualitative and appropriate quantitative criteria to identify categories of staff whose professional activities have a material impact on an institution's risk profile.

With regard to the potential risk related to the evaluated performance of the material risk takers, payment of at least 50% of the variable remuneration awarded to them shall be deferred over a period which is not less than 3 to 5 years and shall be paid out in suitable instruments which shall be subject to an appropriate retention policy designed to align incentives with the longer-term interests of Luminor.

4.3. Equality and diversity commitments

Luminor has Equality, Non-discrimination and Diversity Policy (hereinafter – ENDD) approved by the Supervisory Council. ENDD has been drawn up in accordance with legislation of labour relations as well as other legal acts in order to promote and support an environment whose values and affirms equal opportunity, diversity and inclusion in accordance with universal principles of equality, fairness and social justice.

Luminor commits to:

a) creating an environment in which individual differences and the contributions of all team members are recognized and valued and that promotes dignity and respect for every employee
b) promoting equality in the workplace, which facilitates collaboration and helps to create business value for customers, stakeholders, employees and society, which includes:
    - ✓ applying equal selection criteria and conditions for recruitment
    - ✓ using equal work evaluation criteria
    - ✓ setting equal salary ranges for equal work
    - ✓ creating equal working conditions and providing equal privileges
    - ✓ providing equal opportunities for improvement, professional development, requalification, acquiring practical working experience
c) not tolerating any form of intimidation, bullying, scapegoating, harassment, sexual harassment at workplace based on discrimination and from any instructions to discriminate and to discipline those that breach this Policy
d) encouraging anyone who feels they have been subject to discrimination to raise their concerns
e) avoiding victimisation and protecting employees from adverse treatment or negative consequences as a reaction to complaints against discrimination or involvement in proceeding against discrimination when such situation arises.

In 2019 38% of the Luminor's Management Board members were female and 62% were males. Luminor is aiming to ensure the solid balance of male and female managers at all levels. Currently at all levels there are 56% female and 44% male managers.

4.4. Directorships effectively held by the Management Board members

According to the Estonian Credit Institutions Act the Management Board members of the Credit Institution cannot have any Management Board memberships outside of the Credit Institution thereby Management Board members of Luminor have no effectively held directorships outside Luminor.

4.5. Recruitment policy for the selection of members of the management body

The Management Board is selected by the Nomination Committee of the Supervisory Council of Luminor Bank AS based thorough competence, skillset and knowledge review. Each member is approved by the Estonian Financial Supervisory Authority (*Finantsinspektsioon*). During year 2019 there were 10 Nomination Committees held.

Chief Executive Officer (CEO) Erkki Raasuke has 25 years of previous experience in financial sector as the Chairman of LHV Group, Chief Financial Officer (CFO) of Swedbank Group and CEO of Swedbank Estonia. He has served as Counsellor in the Ministry of Economic Affairs and Communications in Estonia.

CFO Jonas Filip Eriksson has previous experience as Head of Group Products and Head of Group Treasury at Swedbank Group and Board Member of Swedbank subsidiaries, CEO of Procensus, Board Member at Nordic Flanges and Hemnet, Equity Research Analyst at JP Morgan, Credit Suisse, Brummer & Partners.

Chief Risk Officer Georg Jürgen Kaltenbrunner has previous experience as Chief Operational Risk Officer of Nordea Group, Chief Operating Officer of Nordea Group Finance & Treasury, Member of the Board of Directors of Nordea Funds Ltd., Partner at McKinsey & Company.

Head of Luminor Latvian branch and Head of Retail Banking Kerli Gabrilovica has 20 years of previous experience in strategy execution and implementation, she has been the Member of the Board of Lattelecom.

Head of Luminor Lithuanian branch and Head of Corporate Banking Andrius Nacajus has 15 years of previous experience in the financial sector, he has held various managerial positions in Corporate Banking and Markets in DNB Bank Lithuania.

Head of Products and Offerings Kristina Siimar has 20 years of previous experience in the financial sector, she has held various managerial positions in Swedbank Group and she has worked as CFO of Swedbank Estonia.

5. LEVERAGE

The leverage ratio is determined as Tier 1 capital divided by the total leverage exposure measure. This ratio ensures additional level of protection against model risks and assessment errors.

As of 31 December 2019, the leverage ratio of Luminor was 10.88%. The capital measure is Tier 1 capital, the total exposure measure is the aggregate amount of assets and off-balance sheet items. The leverage ratio is calculated using end of reporting period data. Luminor is not exposed to the risk of excessive leverage and in 2019 the ratio did not change substantially (the same applies to the period from 2016).

Luminor regularly evaluates the leverage risk. The information on leverage ratio is regularly presented to Luminor’s Management Board, the Risk and Compliance Committee of the Supervisory Council and the Supervisory Council as a part of Quarterly Risk Report. Those management bodies in case of necessity make decisions on appropriate actions in order to decrease the risk of excessive leverage. Such actions may include:

(a) increase of own capital,

(b) lending limitation,

(c) reducing the offer of markets products to Luminor customers (derivatives in the Trading Book),

(d) reducing unused credit limits for off-balance sheet exposures,

(e) sale of assets.