OP Financial Group's Capital Adequacy and Risk Management Report 2022

OP Financial Group

Contents

Introduction

OP Financial Group discloses information concerning risk management and capital adequacy for 2022 in this OP Financial Group's Capital Adequacy and Risk Management Report and in the OP Amalgamation Pillar III tables. The reports contain information on OP Financial Group's risk management and the capital adequacy of the consolidated group of the amalgamation of cooperative banks, as specified in Part 8 of the Capital Requirements Regulation of the European Parliament and of the Council No. 575/2013 (CRR) in compliance with the guidelines issued by the European Banking Authority, or Pillar III disclosures.

The first part of the Capital Adequacy and Risk Management Report presents the qualitative information related to OP Financial Group, i.e. the Risk Appetite Statement and Risk Appetite Framework as well as Capital Adequacy Management Principles, Declaration on the adequacy of risk management arrangements approved by the highest management body, and risk statement as well as key risk management indicators that describe OP Financial Group's risk-bearing capacity and risk appetite relative to OP Financial Group's operations and significant risks. The second part presents the key information on OP Financial Group's capital adequacy and the financial conglomerate's capital adequacy.

Tables based on standard tables issued by the European Banking Authority (EBA) regarding OP Amalgamation are published in English in Excel format in the OP Amalgamation Pillar III tables 2022. Given that this information is based on the consolidated credit institution capital adequacy of the amalgamation of cooperative banks, it is not directly comparable with other information disclosed on OP Financial Group.

OP Financial Group annually publishes its Capital Adequacy and Risk Management Report. In addition, the quarterly OP Amalgamation Pillar III tables contain such information that regulation requires to be disclosed more often than once a year.

In addition to this report, information on risk management is included in other reports related to OP Financial Group's annual reporting. OP Financial Group's Corporate Governance Statement 2021 includes a summary of OP Financial Group's Risk Appetite Statement and Risk Appetite Framework. OP Financial Group's Report by the Board of Directors and Financial Statements for 2021 contains sections of the Risk Appetite Framework required by regulation governing financial statements (Note 2 and Notes 46–83 to the financial statements) and a review of the risk exposure of business segments as part of the Report by the Board of Directors.

Information on OP Financial Group's Corporate Governance and steering systems is available on websites covering respective issues (op.fi – OP Financial Group – About us – Corporate Governance) and in OP Financial Group's Corporate Governance Statement. A description of the remuneration schemes and practices can be found in OP Financial Group's Remuneration Policy for Governing Bodies and OP Financial Group's Remuneration Report for Governing Bodies, in Note 10 to the financial statements, as well as OP Financial Group's website dealing with remuneration (op.fi – OP Financial Group – About us – Corporate governance – Remuneration).

Information may remain undisclosed in OP Financial Group's Capital Adequacy and Risk Management Report and in the OP Amalgamation Pillar III tables to the extent such information is irrelevant and their effect, if any, is insignificant on OP Financial Group's profitability, earnings power, balance sheet or capital adequacy. Irrelevant, undisclosed information is dealt with at the end of the OP Amalgamation Pillar III tables.

OP Financial Group's Capital Adequacy and Risk Management Report and the OP Amalgamation Pillar III tables are unaudited.

1 OP Financial Group's risk management

1.1 OP Financial Group's Risk Appetite Framework

1.1.2 Overview of OP Financial Group's significant risks

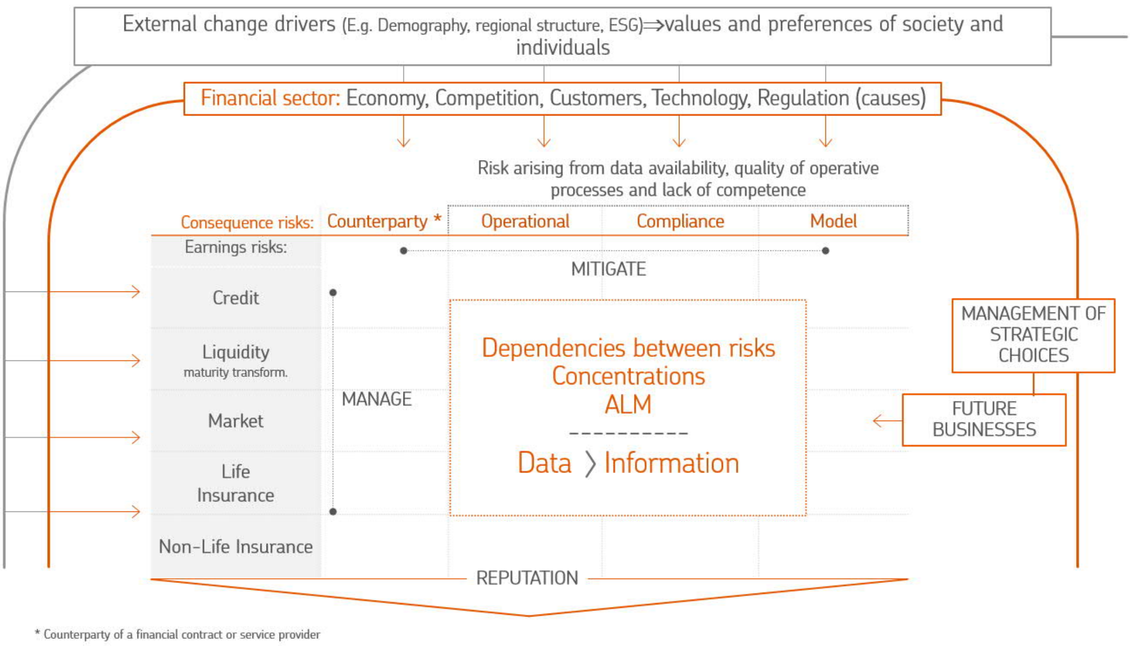
OP Financial Group prepares its Risk Appetite Statement and Risk Appetite Framework to cover all operations and these general risk management principles are further specified for each revenue logic (by product and service). The bases for establishing revenue generation models include services provided to customers, processes needed in the production of services, analyses reporting of operations and what risks will be caused to OP Financial Group by providing these services.

Due to the characteristics of OP Financial Group's business and industry, risks have two distinct fundamental principles: OP Financial Group may earn revenue through risks (earnings risks) or risks may be a consequence of something (consequential risks). Reviewing earnings risks involves the examination of critical success factors from the business perspective. For this reason, OP presents the sources and management of earnings risk in detailed descriptions of significant risks by revenue logic, except for Group-level risks that apply to all revenue logics. Risks are grouped in more detailed descriptions of significant risks at Group level because the majority of consequential risks are Group level ones and the review of consequential risks focuses on reducing the negative effect of potential risk materialisation. Because the majority of consequential risks are Group-level ones and the review of consequential risks focuses on reducing the negative effects of potential risk materialisation.

The graph below shows a summary of OP Financial Group's significant risks and their sources. The sources and root causes of significant risks are presented in shaded grey and orange in the periphery of the figure's table. Similarly, the negative effect of the potential materialisation of risks on OP Financial Group's trust and reputation is also described outside the table.

It is highly important to note the following in the graph's table:

- Taking earnings risks may cause consequential risks in addition to the sources and causes of OP Financial Group's external risks.
- The combined effect of earnings and consequential risks may result in new Group-level risks, due, for example, to concentrations and interdependencies between risks.
- Due to the different functions of earnings and consequential risks, OP Corporate Bank primarily aims to manage earnings risks, whereas it primarily aims to reduce consequential risks.



Banking's revenue generation models are used in both the Retail Banking segment and the Corporate Banking segment. They are grouped into three revenue logics within risk management: Banking through the balance sheet, Markets and Asset Management. The revenue logic, Banking through the balance sheet, is further divided by business segment between Corporate Banking, Retail Banking, and Group Treasury (included in other operations according to OP Financial Group's segment division). Life and Non-life Insurance revenue generation models belong to the Insurance business segment.

OP Financial Group's risk management and compliance are based on the principle of three lines of defence. The first line of defence comprises business lines, the second line of defence comprises the Risk Management function and Compliance independent of the business lines/divisions and the third line of defence comprises Internal Audit. Each line of defence has its own role in performing the risk management process efficiently.

At OP Financial Group, the first line and the second line of defence in risk management cooperate on an ongoing basis. This is to ensure that all expertise needed to develop and manage operations is in use in advance. The lines of defence build the risk management process together where the special features of OP Financial Group's business are taken into consideration. Responsibilities of the first and second lines of defence have been clearly divided.

- The business units fulfil OP Financial Group's strategy, are responsible for planning their own operations, efficient and effective implementation and for their internal control. Only the business concerned makes business decisions and is responsible for the quality of its customer service, its business continuity as well as its earnings and risks.
- For consideration by OP Financial Group's management, the second line of defence prepares a risk management framework within the limits of which the first line of defence implements risk-taking and risk management related to its daily business. The second line of defence supports the first line of defence by consulting it and constructively challenging especially in matters that are part of its own expertise. The second line of defence also oversees compliance with regulation and OP Financial Group's guidance framework; independently analyses the balance between earnings, risks and capital and liquidity acting as buffers; and ensures business continuity during incidents.
- Internal Audit that is independent of other lines of defence acts as the third line of defence.

1.1.2. OP Financial Group's risk management

1.1.2.1. OP Financial Group's Risk Appetite Statement

OP Financial Group takes risks related to the carrying out of its mission. In all of its operations, OP Financial Group emphasises carefully prepared and moderate risk-taking so that it could reasonably foresee the financial result and could serve its customers according to its mission, even in exceptionally difficult circumstances.

Together with the Group's strategy, OP Financial Group's Risk Appetite Statement (RAS) create bases for the target-setting of businesses, binding on all OP Financial Group companies. The RAS therefore also governs the guidelines issued by OP Financial Group's central cooperative to member credit institutions aimed at securing and liquidity and capital adequacy.

In OP Financial Group, the majority of profits come from customer business and the earnings risks taken and priced in this context that describe OP Financial Group's risk appetite. The quantitative limits set in risk policies guide the management of earnings risks together with other guidelines.

Consequential risks also arise from business that OP Financial Group seeks to reduce. No such consequential risks involve the generation of returns, but their materialisation would lead to operational disruptions, extra costs and/or loss of reputation.

Earnings and consequential risks relate to the current business and the valid agreements that OP Financial Group companies have concluded with their customers and other counterparties. Risks of future business may affect the success of the years to come. OP Financial Group manages risks associated with future business by means of choices made by the management.

OP Financial Group ensures that its companies have sufficient risk-bearing capacity, or risk capacity and risk-taking capacity in order to be able to carry out operations in accordance with earning risks and thereby risk appetite. Risk capacity involves expertise and risk-taking capacity involves capital and liquidity. Risk capacity requires, for example, customer relationship skills and the flexibility to change OP Financial Group's risk-taking. Within each business concerned and at OP Financial Group level, OP Financial Group seeks to identify the interdependencies of various risks and the resulting risk concentrations, and to organise the management of the risks appropriately.

Strong risk-taking capacity secures the cost-effective implementation of the required market transactions (refinancing, reinsurance, derivatives). OP Financial Group aims to maintain a level of capital and liquid assets and a funding and investment portfolio structure with the aid of which it is highly likely to be able to implement its current business models while securing its strategic flexibility. The Group defines the target level of risk-taking capacity by means of external credit rating.

The RAS is condensed into a limited number of principles, as well as limits with which OP Financial Group's management decides the extent to which the Group can utilise its risk-taking capacity and how such capacity will be allocated to revenue logics/business segments in accordance with the Group's strategy and risk appetite.

Based on the limits set in the Risk Appetite Statement, Risk Management and the businesses prepare more detailed proposals on limits and OP cooperative banks' monitoring limits in such a way that the quantitative risks defined as significant within OP Financial Group are limited appropriately in revenue logic-specific risk policies. Quantitative limits are supplemented with principles included in risk policies and other guidelines issued by Risk Management to ensure that risks that are more difficult to quantify are also covered. This is how to ensure that neither the Group nor any of its companies takes excessive risks that endanger the Group's or the company's capital adequacy, profitability, liquidity and business continuity.

1.1.2.2. Liquidity strategy and capital management strategy

OP Financial Group aims to continue serving its customers on a long-term basis and in exceptionally tough market conditions in all business divisions. Its strategic goal is to ensure that customer business remains undisrupted in the case of each revenue logic. The aim is to organise liquidity risk management in such a manner that OP Financial Group's business withstands liquidity (and the related) crises better than those of its competitors. Chapter Banking has a more detailed description of liquidity management and control in the amalgamation.

Strategic decisions are made in capital management on the use of risk-taking capacity in the form of capital for risk-taking, on the selected confidence level in respect of the sufficiency of the management buffer and what elements capital comprises. In addition, strategic decisions are made in capital management on the risks and businesses to which capital is allocated and the rating target, time horizon and confidence level used in the calculation of capital needs.

OP Cooperative's Board of Directors approves OP Financial Group's capital adequacy and liquidity assessment processes, i.e. Internal Capital Adequacy Assessment Process (ICAAP), Own Risk and Solvency Assessment (ORSA) and Internal Liquidity Adequacy Assessment Process (ILAAP), as part of OP Financial Group's Risk Appetite Framework (RAF). In its quarterly risk analysis, Risk Management reports to the management on change drivers in the business environment, OP Financial Group's risks, and capital and liquidity adequacy. OP Financial Group's ICAAP, ORSA and ILAAP assessments are mainly based on the continuous analysis by risk management. With the help of Risk Management, the Risk Committee of the Board of Directors prepares statements on capital adequacy (CAS, Capital Adequacy Statement) and liquidity adequacy (LAS, Liquidity Adequacy Statement) and a management assessment of capital adequacy (ORSA). After the approval by the Board of Directors, Risk Management sends the statements to the ECB and the management assessment to the Finnish Financial Supervisory Authority as a combined report, the Statement on OP Financial Group's capital adequacy and management's risk and capital adequacy statement.

OP Financial Group calculates its amount of capital depending on the proposed use and overall capital requirement. Financial criteria are used to calculate the economic capital requirement, prices, risk-based profitability and capital allocation. The goal of assessing internal capital adequacy is to provide a stable risk metric of the best estimate, based on long-term historical data on risk phenomena and taking account of dependencies between risk factors. In particular, the risk related to long-term commitments is assessed across cycles. The capital adequacy requirement is calculated both without and after diversification benefits. Where necessary, this concept of a risk phenomenon's development, which is based on historical data and business continuity, is supplemented with a scenario-based capital requirement by business unit and at Group level.

Whereas internal process needs are met from the financial perspective, normative official rulings (regulations and their official interpretations) provide a framework for business continuity.

Decisions on capital adequacy are quantified on the basis of clear, numerical goals, which can be used to monitor and anticipate internal risk-bearing capacity and external capital adequacy. This ensures that OP Financial Group's capital adequacy also fulfils the internal goals and regulatory requirements set in exceptional circumstances. The ultimate goal is to ensure the business continuity of OP Financial Group under all circumstances.

Use of capital involves an internal required rate of return, which covers opportunity cost of capital. Risk taking by OP Financial Group ties up capital – the resulting cost of capital is based on the internal required rate of return. Cost of capital is allocated to the businesses, which pass the costs on in their pricing and to customers in order to cover the economic capital need. Long-term profitability is based on the risk-adjusted return, which involves calculation of the return in relation to the business unit's capital requirement and internal required rate of return.

OP Financial Group's management prepares a capital plan. The plan includes grounds for strategic capital management decisions in line with the strategy. Simultaneously, the capital plan comprehensively covers regulatory requirements regarding the management and resolution of capital adequacy, and the internal perspective.

1.1.2.3. Responsibility of OP Financial Group's management in risk management, and risk management arrangement

The principles for the arrangement of OP Financial Group's risk management set by OP Cooperative's Board of Directors and prepared by OP Cooperative's senior management are as follows:

- In terms of risk-taking, senior management prepares business unit strategic choices that are based on OP Financial Group's Risk Appetite Statement (RAS) document, confirmed by the central cooperative's Supervisory Council. The RAS outlines and gives grounds for what risks each business unit is ready to take and to what extent. Businesses are obliged to operate within the limits of these restrictions.
- Senior management decides on the division of responsibilities as regards risk-taking. The Group defines what risks different revenue logics can take and any potential elaborations on what risks can be taken by legal entities and various functions within these revenue logics. The principles and decisions related to the division of responsibilities ensure in respect of the companies' roles that risks do not cumulate in an uncontrolled way but a well-thought of division of responsibilities is in place to promote risk diversification.
- The governance structure provides the basis for the fact that the key principles guiding operations and the related policies and operating instructions have been prepared and resolved appropriately and that each activity is assessed and supervised in an appropriate manner in view of quality, extent and complexity by expert parties that are independent of business, in addition to monitoring performed by the business concerned.
- The central cooperative's Board of Directors is the most important decision-making body for risk management tasks. In addition, the central cooperative's Supervisory Council confirms decisions by the Board of Directors that apply to OP Financial Group's risk appetite. The Risk Committee of the Board of Directors assists the Board in performing duties related to risk-taking and risk management. The Committee has no independent decision-making powers. Based on the decision by the President and Group Chief Executive Officer, the Executive Management Team has set up a Risk Management Committee, Steering and Compliance Committee and Banking ALM Committee that approve instructions and policy descriptions specifying the Risk Appetite Statement and the Risk Appetite Framework. Entities' risk management-related tasks are described in more detail in the entities' charters. OP Financial Group's Corporate Governance Statement provides more detailed information OP Financial Group's corporate governance.
- Senior management must ensure the maintenance of sufficient resourcing and expertise for functions monitoring the first, second and third lines.

- OP Financial Group's remuneration schemes is built in line with the Group's mission, core values and targets, while ensuring regulatory compliance. Remuneration must not incentivise unnecessary risk-taking or the taking of actions against the customer's interests. The Compliance and Risk Management functions are involved in the preparation of the remuneration principles, remuneration policy and remuneration schemes, and in the determination of supervisory practices related to remuneration processes.
- The principles of corporate governance as required by joint and several liability define and determine the bank-specific corporate governance of the central cooperative and its member cooperative banks, as required under joint and several liability.
- In addition, the principles of internal control, good corporate governance, good business practices and corporate security set preconditions for practices.

1.1.2.4. Objectives of OP Financial Group's risk management

The risk management process is a whole which involves all tasks that help OP Financial Group to ensure the achievement of the following risk management objectives:

- The processes of business units provide a solid foundation for high-quality customer service, but at the same time they are cost-efficient, reliable and, whenever necessary, can be quickly restored to working order. In addition, operational processes generate all information needed for the performance of tasks in key functions (customer management, sales, risk management, finances, regulatory reporting), in functional analysis, and in management reporting. Furthermore, the management of this information has been duly organised.
- In the business units, there is balance between earnings, risks, capital and the liquidity buffer, and cumulative risks at OP Financial Group can be identified and they can be managed, for example, through principles of the division of responsibilities.
- The capital adequacy and liquidity of the business units of OP Financial Group and the entire Group are at a level that OP Financial Group can make all its business decisions completely independently. Nor has OP Financial Group or its companies have other commitments that would prevent from carrying out strategy-based measures, at least for a longer time. OP Financial Group also has the operational flexibility required to adjust its operational processes rapidly enough to achieve its strategic goals and targets.
- No internal or external party questions the validity of OP Financial Group's joint and several liability.

Once the above risk management objectives have been achieved, OP Financial Group's businesses can implement their strategy without significant hindrances from internal or external factors. This is how OP Financial Group's risk management processes support for their part the implementation of OP Financial Group's strategy and related monitoring.

1.1.2.5. OP Financial Group's risk management methods and implementation

Risk Management prepares the RAS and RAF and, in cooperation with the business concerned, risk policies tailored by revenue logic which direct operations in accordance with the strategy. Such policies include risk limits, threshold values and decision-making powers to be submitted for consideration by the competent body. Proposals for limits and threshold values must include grounds for concluding how the proposed metrics and level have been achieved. Limits and threshold values set a maximum limit on risk-taking. An escalation process is triggered if any deviation, or the clear threat of a deviation, is detected on the basis of a set limit or threshold value. Risk Management ensures that each revenue logic has more detailed operating instructions than others in respect of risk-taking and risk management and that these instructions together with the risk policies form an extensive control framework applicable to the function concerned. Whenever necessary, Risk Management prepares these instructions.

As far as possible, the instructions framework must at the same time meet the following two conditions:

- The framework guides business towards the strategy, limits risk-taking according to risk appetite and fosters prudent and careful practices
- The framework makes it possible that business decisions deviating from the RAS and the risk policies that specify it can be made on justified grounds but to a limited extent. In such a case, the draft resolution must have been prepared with special care and reveal well-defined grounds for the deviations. The risk management guidelines

must clearly reveal how such deviations are supervised by the appropriate body and what the responsibility of the supervisory body is.

In an extensive risk identification process conducted at least once a year, Risk Management, representatives of the businesses concerned and other internal stakeholders assess risks that are or may have a direct, short-term effect on OP Financial Group's business and/or have a longer-term impact on its business environment and thereby OP Financial Group's business. This also involves identifying and assessing concentration risks within individual types of risk and cumulative Group-level risks and risk concentrations. In doing so, particular attention must be paid to changes in mutual dependencies. Based on the identification process, Risk Management maintains a list of identified risks and their underlying factors. Based on the results of the risk identification process, Risk Management annually presents OP Financial Group's most significant risks in its Risk Appetite Statement to Board of Directors for decision and to the Supervisory Council for confirmation. The results of the risk identification process are also used in the preparation of risk policies when specifying risk management principles, measures, objectives and limits based on risk-bearing capacity and risk appetite. The results are also used to maintain the economic capital requirement and stress testing framework.

Risk Management determines the risk scorecards suitable for each function and analysing, quantifying, limiting and monitoring each function's risk. The methods and models used in risk measurement and the related needs for data are described and documented extensively and are implemented in such a way that various risks can be made consistent within OP Financial Group, to be comparable in terms of capital and liquidity needs.

Key methods and models are also validated before their implementation. The functioning of the models is monitored after their implementation.

In general, the risk management methods and models must be in line with the methods used in the pricing of each business and with those used in performance measurement to make it possible to analyse the balance between the financial result, risks and capital.

OP Financial Group uses its own internally developed models (internal models) for risk measurement, capital need assessment, contract and service pricing, and the determination of values used in accounting. The models take account of their compatibility with OP Financial Group's business model, risk appetite and risk profile. The Group and its companies share the related key parameters and assumptions.

OP Financial Group uses stress tests to assess how various serious, albeit potential, situations calibrated on a historical basis, and those differing from the assumptions of risk models, may affect the liquidity, risk profile, profitability and capital adequacy of the Group and/or its companies. Stress tests assess the effect of both individual stress factors and the joint effect of multiple variables acting simultaneously. In stress testing, the Group utilises reverse stress tests, in addition to various sensitivity and scenario analyses. Stress tests support and supplement the whole picture given by other risk measurement methods of OP Financial Group's overall risk profile and challenge the adequacy of economic and solvency capital. Stress tests aim to cover all risk types identified as significant in the Risk Appetite Statement.

When the above infrastructure is in place, a basis has been provided for daily operational risk management for businesses (customer and transaction-level risk identification, analysis and pricing and ongoing customer monitoring) and for internal operational control.

Customer transactions arising from service involve risks borne by OP Financial Group that are managed at portfolio level within revenue logics. Portfolio-level exposures are authorised clearly and they are described in risk policies or other instructions. If no person in charge can be found for risks arising from certain operations, such operations are not principally carried out. The starting point is that responsibility for risk can be assigned only to a function which can use various measures to affect the risk level.

1.1.2.6. Independent risk control and analysis performed by OP Financial Group's Risk Management

Risk Management is responsible for supervision of compliance with the instructions it has issued and reports any significant deviations to the Board of Directors' Risk Committee of the central cooperative and Compliance.

Risk Management supervises OP Financial Group's and its companies' daily operational activities and the related risk and liquidity management, risk-taking, pricing of business units, business and risk management processes, and their quality. It analyses the risk profile of the Group and its companies and developments, the maintenance of risk-taking within the set limits and threshold values, and compliance with the risk policy. In addition, Risk Management secures business continuity by supervising the annual maintenance and testing of business continuity plans within the Group companies and the central cooperative consolidated.

Risk Management produces reports through which it is possible to monitor, using methods applicable to a revenue logic, how each business remains within the set quantitative restrictions and how it complies with the qualitative requirements set for operations, and regulations on risk and capital adequacy management (prudential compliance). Although the business units also report earnings and risks, official earnings and risk reporting must be based on reporting by Financial Control and Risk Management. If business unit reporting and official reporting differ so much that the resulting views of risk profile would diverge significantly from each other, the reasons for the differences must be identified and possible errors corrected.

In addition to supervising the limit, Risk Management analyses risks and practices of each revenue logic, especially from the perspective of compliance with the instructions, and quarterly prepares a risk analysis of its observations. The risk analysis also involves a review of Group-level risks arising from the present-day business. This review must focus on direct risk concentrations and how OP Financial Group's earnings and capital and business continuity would develop in different scenarios.

Based on Risk Management reporting, the management and the Board of Directors must be able to create a clear overall picture by revenue logic of earnings and consequential risks, the quality of operational processes and incidents threatening continuity, capital and liquidity needs, and combine this information with the Finance function's picture of business profitability, the regulatory compliance of the compliance reporting function, and the picture of strategic planning affecting future matters.

1.1.3. OP Financial Group's significant risks: sources and management

1.1.3.1. Definitions and sources of significant risks

Below is a summarised description of the definitions and sources of OP Financial Group's significant risks.

Credit risks	Credit risk refers to the risk of a contracting party to a financial instrument being unable to fulfil its contractual repayment obligations, and thereby causing a financial loss to the other party.
Liquidity risks	A liquidity risk is the risk of liquidity or capital availability being insufficient to realise business goals as laid down in the strategy. It is caused by the timing of inflowing or outgoing cashflows (payments) and/or imbalances between them. Liquidity risks include concentration risk, market liquidity risk and refinancing risk. Concentration risk is caused by the concentration of financing across time, or between certain counterparties or instruments. Market liquidity risk is the risk of failure to execute market transactions within a desired time and/or at an estimated price, or of a contraction in the liquid assets owned by a bank. Refinancing risk involves the risk that a debt cannot be refinanced on the market.
Structural interest rate risk on the balance sheet	The risk arising from the effects of interest rate movements on Banking's annual net interest income, and on the insurance company's earnings (IFRS 17) and solvency (SII).
Market risks	Market risk refers to an unfavourable change related to the value of a contract or contract revenue due to price changes observed in the financial market. Market risks include interest rate, currency, volatility, credit spread, equity and

	property risks associated with on- and off-balance sheet items as well as other potential price risks.
Non-life insurance risks	Non-life insurance risks comprise risk of loss or damage, and provision risk. Risk of loss or damage occurs when there are an above-average number of losses, or they are exceptionally large. Provision risk arises when the claims expenditure incurred for losses that have already occurred is higher than expected or the timing of the payment of claims deviates from expectations.
Life insurance risks	Life insurance risks comprise biometric risks, cost risk and customer behaviour risks. Biometric risk arises when forecasts of the insured's life expectancy differ in insurance products that include an endowment risk, or when mortality forecasts concerning the insured (e.g. unpredicted growth in mortality caused by a catastrophe) differ in products that cover the risk of death. Biometric risk also arises when forecasts, of when the insured person's incapacity for work will begin, differ in products that cover disability risk. However, such a risk is very small in OP Life Assurance Company.
Counterparty risks	Counterparty risk refers to the risk that a party to a derivative contract, repurchase agreement (Repo), trade or reinsurance contract will fail to fulfil its financial obligations, accompanied by a risk of growing costs due to the obtaining of a corresponding, replacement contract. A special feature of counterparty risk is a change in the risk level alongside the agreement's market value, due to which contractual risk can grow after an agreement is made.
Operational risks	Operational risk is caused by all business operations and may result from insufficient or incorrect practices, processes, systems or external factors. OP Financial Group's operational risks also include ICT and security risks. Operational risk related to data capital means potential losses, loss of reputation or deterioration of operations caused by uncertainty in decision-making, management and reporting related to data and the information derived from it.
Compliance risks	Risks caused by non-compliance with external regulation, internal policies, appropriate procedures or ethical principles governing customer relationships.
Model risks	Model risk refers to potential losses or loss of reputation caused by decisions made on the basis of the results of models, due to errors made in the development, implementation or use of such models. In this context, a model is a method used to translate source data based on mathematics, statistics and expert assessments into data guiding business decisions or quantitative data related to financial position or risk exposure.
Reputational risks	This is the risk of a weakening in reputation or trust, primarily due to the simultaneous realisation of an individual risk or several risks, or to some other kind of negative publicity.
Concentration risks	Risks that may arise due to a business having an excess concentration of risk in individual customers, products, lines of business, maturity periods or geographical areas. Concentration risk can also arise due to a concentration of service providers or processes.

Risks associated with future business	Risk associated with the conditions and volumes on which similar or entirely new agreements are based. This also includes a risk that arises from inadequate internal reaction and inflexibility in the business and competitive environment, or changes in the values of customers or in technology.

Risks associated with future business are not dealt with as a specific whole because such risks may emerge in the form of various significant risks or as part of different risk types.

Customer behaviour risk may materialise in several risk types (the impact of a change in customer behaviour affecting matters such as the value of insurance contracts, volume of deposits or early repayments of contracts).

Residual risk is a lingering risk which a party cannot or does not want to eliminate, or that remains after possible risk reduction measures. Residual risk can be considered synonymous with risk. As such, residual risk is not an equivalent concept to the significant risks described above. Instead, residual risk can be considered to apply to any of the significant risks described above.

Integration of ESG factors as part of risk management

Change factors in the business environment, such as climate change and other sustainability (ESG) factors, have an impact on the needs and preferences of customers and other social actors. ESG factors are external megatrends, that is to say examples of root causes on OP Financial Group's risk map. They are defined as change factors affecting different risk types, not as separate risks, in risk identification processes.

Within OP Financial Group, such external risk factors are analysed to identify their impacts on OP's and its customer's operations, and future short and long-term success. Drivers of change in the business environment are channelled into financial risks in the Group's banking and insurance business through various impact chains. Impacts can be direct – or indirect as in credit, market, operational and reputational risk.

Like other changes and risk factors in the business environment, ESG factors include risk evaluation. The possible environmental and reputational impacts of risks must be evaluated in addition to financial impacts.

Reputational risk could affect OP Financial Group or the entire financial sector, for example as a result of changes in public opinion or customer preferences. Good governance and compliance with guidelines affect the reputational impact of OP Financial Group's operations. OP Financial Group's responsible approach to business fosters a positive public image.

For the time being, risk evaluation of ESG factors is focused on assessing events and impacts caused by climate and environmental factors. Worsening climate change and environmental damage create physical risk factors:

- Acute risk factors include extreme weather conditions such as events related to drought, floods and storms or, for example, an individual environmental catastrophe.
- Longer-term changes emerge more slowly: examples include global warming, rising sea levels, reduction in biodiversity, land and water pollution, and the destruction of living environments.

The transition towards a low-carbon and more environmentally sustainable economy will have direct and indirect impacts. These include, for example, climate or environmental policy decisions, technological development, market confidence, and changes in customer choices.

Physical and transition risks will impact on OP Financial Group's business and financial success through stakeholders, in particular. If they materialise, such risks may affect the risk profile, capitalisation, liquidity and continuity of daily business in various ways. The Group draws up scenarios to reveal the effects of such potential shocks.

The integration of ESG factors in all risk taking, risk management and processes for evaluating the adequacy of capital and liquidity (ICAAP, ORSA and ILAAP) require extensive development work within business functions and assurance functions. ESG factors are being embedded in the management's risk reporting in stages, while seeking synergies with external sustainability reporting. As with other risks and risk factors affecting OP Financial Group, the inclusion of ESG factors in the limit system is evaluated at least annually during the updating of OP Financial Group's Risk Appetite Statement and risk policies. In addition to the Risk Taking and Risk Appetite Framework, this fulfils the risk-taking and risk-management goals of OP Financial Group's sustainability programme.

Because keeping up with rapidly developing ESG regulation can be challenging, there is a greater risk of failure to comply with regulations according to the required schedule. Development takes the most forward-looking account possible of regulatory adjustments and supervisory expectations. The rapid pace of research and keeping up to speed with the latest knowledge are additional challenges.

Management of operational risks

All companies in OP Financial Group must comply with shared operational risk management methods, which include the application of approaches to compliance and model risk management. ESG factors are a fixed element of operational risk identification and assessment, which enables monitoring of the risk profile in relation to OP Financial Group's operational risks, including a breakdown between ESG factors and the resulting risks.

ESG factors and the resulting operational risks are identified and evaluated through operational risk management methods: risk events, risk and control self-assessments, risk assessments of new and modified products, and management of continuity and outsourcing. Identification of the causes and effects of risks lies at the heart of risk identification and assessment. Possible environmental and reputational impacts are identified in addition to the financial impacts of risks.

In their continuity management, OP Financial Group's businesses must also prepare for the materialisation of physical risks caused by climate and environmental factors, in order to secure their services for customers if such circumstances materialise. Securing business continuity covers matters such as the efficiency and systematic nature of operational processes, which also include outsourcing management and knowledge of service providers.

Stress testing and scenarios related to operational risks complement the overall risk analysis and fulfil the economic capital requirement. Scenarios are used to forecast and prepare for different situations. They supplement overall operational risk management, particularly in cases, such as climate change, where the available historical data cannot be used to forecast a future event.

Economic impacts caused by ESG factors are covered by existing operational risk limits.

Means such as training investments are used to provide business functions with more advanced skills to ensure the identification of ESG factors, and their causes and effects, as part of operational risk management. It is also critically important to identify transition risks and react to them proactively.

Data governance and management

Requirements derived from the ESG factors for data governance and data are implemented as part of OP Financial Group's current models and practices. Such requirements are integrated with practices, and customer service and operational processes, in such a way that they form a natural part of the Group's activities. They are recognised in relation to data governance and acquisition, and the resulting changes are integrated with existing operating models and services.

Banking – Credit risk management

In credit risk management, the key issue is to assess the impact of climate, environmental and other ESG factors on customers' operations and success, and their repayment capacity.

In addition to making it difficult to operate in some sectors, external change drivers may provide opportunities. For example, climate change could weaken profitability in one sector due to changes in customer behaviour, lower collateral values in some areas, and cause higher than predicted growth in regulation-related costs. On the other hand, it could also create more favourable conditions for, and boost the competitiveness of, some customers' businesses.

At customer level, risks are managed by providing customers with advice and monitoring how the customer relationship develops. Pricing is based on risks. The ESG projects and/or investments to be financed must be financially sustainable. Fostering customers' success ensures that OP Financial Group's business remains profitable in both the short and long term, and that operational risk buffers are sufficient for capital and liquidity. By providing customers with advice, the Group seeks added value that improves customers' financial standing and wellbeing.

Corporate customers are classified into ESG classes based on industry exposure to ESG categories. If an ESG category and the total exposures of a group of connected customers are significant, an ESG analysis will be performed. The need for an ESG analysis is assessed whenever new credit is granted to a customer, a proposal is being prepared to change a current exposure, or another, equivalent proposal related to a financial decision is being drawn up. The ESG score is used in loan decisions. We document it and prepare to report the ESG exposure of our customer base and decisions.

Residential property collateral is analysed and, on the basis of addresses, matched with flood maps produced by the Finnish Environment Institute (SYKE). Energy certificates for residential property collateral on home loans provide a rough account of the climate impacts of mortgages. An energy classification evaluation is modelled for all residential property collateral from the energy performance certificate on the register of The Housing Finance and Development Centre of Finland (ARA). The impact of ESG factors on collateral value is derived from flood maps and the energy efficiency of residential real estate.

Credit risk stress testing methods should be developed in such a manner that impact analyses of macro shocks lead to concrete conclusions about developments in the financial situation of customer companies (including EBITDA and equity ratio), while taking account of climate and environmental factors such as energy consumption. In addition, customer-specific sensitivity analyses are performed based on the customer's income statement and the location of collateral property. This enables recalculation of customer companies' credit rating and reporting – based on a customer-specific analysis – on how stress impacts on the Group's corporate loan portfolio. It also complements assessment of the economic capital requirement and the assessment of the collateral eligibility of receivables, while taking account of the impact of climate and environmental change.

<u>Banking – Management of interest rate risk in the banking book and liquidity risks</u>

ESG factors can impact on market interest rates and credit spreads. Risk management reviews primarily focus on the liquidity buffer with regard to managing the interest rate risk in the banking book and liquidity risk. Financial impacts are assessed using regular scenarios that take account of climate and environmental factors. The impacts are not thought to be significant in the case of notes and bonds acquired for the portfolio.

Investment of the liquidity buffer is guided by the investment plan, based on which an own allocation target for responsible investments was set for the portfolio up to the end of 2022. From then on, no separate allocation target for responsible investments will be set but responsible investments will be made in such a way that tools, methods and practices adopted in OP Asset Management are integrated as part of the investment process of the liquidity buffer. Responsible investments are made by acquiring bonds classified as green (sustainability bonds, social bonds and green bonds). Investment of this kind could be investing in assets with positive social impacts, such as an energy-efficient hospital that takes account of environmental aspects (sustainability bonds). Taking account of climate and environmental factors involves, say, investing in the green buildings sector. Investments of this kind must also fulfil all other requirements set for liquidity buffer investments.

Corporate Banking's bond portfolio is based on ESG analyses by Corporate Banking. The portfolio primarily involves investment in companies that are important to OP Corporate Bank – credit and ESG analyses are performed on such companies. Investment decisions for the portfolio comply with OP Corporate Bank's corporate responsibility principles.

<u>Banking – Markets</u>

Markets aims for fast turnover in its management of the bond portfolio; the portfolio's structure reflects the demand present from time to time. The portfolio tends to be heavily weighted towards bonds issued by Nordic companies. ESG factors can have an impact on the credit spreads of bonds, even if this impact is regarded as minor.

Markets engages in FX trades and may hold uncovered risk positions on these, accounting for a small proportion of such trades. ESG factors seem to have no significant impacts on currency risk.

Markets produces structured investment products that are offered through the Group's sales channels. Selection of the underlying asset is a key element of such products. Asset Management's list of exclusions is applied to underlying assets – companies on the list are not selected for such investments.

Markets' clients mainly agree on derivatives for hedging purposes, in which the key risk is market interest rates. Based on underlying assets, the derivative service concerns brokerage, which does not normally lead to market risk and involves little counterparty risk. Risks associated with trading in commodity derivatives are covered on the market. ESG factors have no identified impact on market risk associated with derivatives.

In the case of Markets' activities, the economic capital requirement covering ESG factors must be assessed on the basis of stress tests, primarily regarding interest rate movements and, if necessary, credit spreads.

Banking – Asset Management

Asset Management services include discretionary investment management, advisory investment management and the related investment risk management services. The selection consists of products from the range of mutual funds, alternative investments, real estate investments, international partners' funds, and products intended exclusively for professional investors.

Sustainable development and responsibility are of growing importance to clients, as shown by the growth in popularity of sustainable investments. As client behaviour changes, product selections must include products that meet clients' sustainability preferences.

In asset management, ESG factors consist of tightening regulation. More details must be provided on the sustainability factors of investments, investment products must take increasing account of clients' sustainability preferences, and sustainability-related reporting obligations are growing.

Asset Management's responsible investment methods include taking account of ESG factors in investment decisions, shareholder engagement, negative screening, and thematic and impact investing. Account is taken of key sustainability factors in the target sector, so as to improve long-term returns and reduce risk. An ESG tool has been developed internally to assist with investment decisions. OP funds manage four sustainability-themed funds and impact investment is done via alternative funds.

Asset Management's investment activities include assessing the responsibility of investments and using shareholder engagement to promote corporate sustainability. OP Asset Management has its own responsible investment principles, which describe how OP Asset Management invests responsibly.

Insurance

Account is taken of the climate, the environment and other ESG factors in investment the trading by Pohjola Insurance and OP Life Assurance Company. Climate and environmental risks related to non-life insurance are highlighted in the case of loss due to natural phenomena, whereas impacts primarily occur through investment risks in the case of OP Life Assurance Company.

Account is taken of ESG factors in Pohjola Insurance's UW policy, for example in insurance policy exclusions. ESG risk factors are also part of insurance companies' normal risk identification process.

ESG factors show in the spread risk and equity risk of investments made by insurance companies. For example, climate and environmental factors can affect cash flows related to insurance liabilities via market interest rates, and thereby impact on the realisation of interest rate risk.

The responsible investment principles of Pohjola Insurance and OP Life Assurance Company provide detailed descriptions of the methods and means used to take account of the environment, social responsibility and good governance.

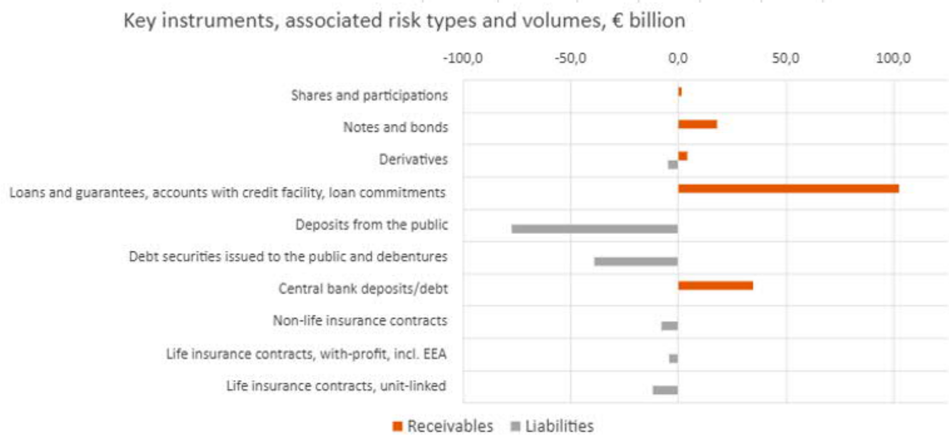
ESG analysis is included in investment analysis conducted in support of investment decisions. OP Asset Management's internally developed ESG tool helps with the objective assessment of sustainability factors in investment decisions.

Pohjola Insurance and OP Life Assurance Company manage social risks in accordance with the principles of responsible investment, through shareholder engagement and impact investing. Impact investing refers to investments in companies, organisations or funds made with the aim of bringing about material social or environmental change as well as making returns.

Pohjola Insurance and OP Life Assurance Company's annual risk and capital adequacy assessment (ORSA report) describes the identification and management of climate and environmental risks as part of company activities. These ORSA reports include climate scenarios used to identify and measure possible changes in value by investment product and sector, in the short and long term. Risks to companies' capital adequacy are assessed using climate scenarios in relation to both investment market risks and underwriting risks.

Key instruments and risk types

The graph below describes risk types associated with key financial instruments and illustrates the significance of risk types by means of the balance sheet values of each financial instrument (31 December 2022).



	Credit	Market	Operational	Under-writing	Liquidity
Shares and participations		X	X		X
Notes and bonds	X	X	X		X
Derivatives	X	X	X		X
Loans and guarantees, accounts with credit facility, loan commitments	X	X	X		X
Deposits from the public		X	X		X
Debt securities issued to the public and debentures		X	X		X
Central bank deposits/debt		X	X		X
Non-life insurance contracts		X	X	X	X
Life insurance contracts, with-profit, incl. EEA	X	X	X	X	X
Life insurance contracts, unit-linked		X	X	X	X

1.1.3.2. Banking risks

Credit risks

OP Financial Group manages its credit risk through the Group-level guidelines and principles and quantitative risk limits. These are specified in Banking risk-taking policy lines, limits and threshold values, qualitative and quantitative targets, as well principles governing customer selection, collateral and covenants. Quantitative and qualitative target levels balance out the business targets and moderate risk appetite. Limits and threshold values set maximum limits for risk-taking. These help to ensure sufficient diversification of the loan portfolio, while avoiding the emergence of overly large risk concentrations.

Credit risk management is based on careful customer selection, active customer relationship management, good knowledge of customers, strong professional skills and comprehensive documentation. The day-to-day credit process and its effectiveness play a key role in the management of credit risks. Credit risk is also managed through selection of the range of products and product terms and conditions. Risk associated with new lending is managed through well thought-out customer selection and the avoidance of risk concentrations. In addition, techniques are used to reduce credit risks (collateral and guarantees) and active use is made of covenants. Managing risk associated with the loan portfolio is based on good customer relationship management and the proactive and consistent management of problem situations.

The customer's sufficient repayment capacity is a prerequisite for all lending. Creating a group of connected clients properly provides a foundation for credit risk management. Without a clear picture of which parties constitute the group, what the structure of the group is like and what its repayment capacity comprises, it is not possible to get a true picture of the group and understand the risk involved in lending to it. Each business identifies the group of connected clients and their interdependencies and describes them in OP Financial Group's systems.

Sufficient up-to-date information must be collected for assessing the creditworthiness of customers that pose a credit risk. Creditworthiness comes from the customer's willingness to pay and repayment capacity. They both affect the customer's rating grade. Sufficient and correct basic information is used to ensure that the customer can be rated with a correct credit rating model, and that the rating grade gives a true picture of the customer's creditworthiness risk. Each business ensures that its customers' rating grades are constantly valid and up to date and, if necessary, updates the grade if the customer's situation changes. This is how the loan portfolio of the bank concerned and the entire OP Financial Group can be monitored on a real-time basis.

Collateral management is based on an independent collateral assessment, the validity of pledges and the realisability of collateral, enabling us to continuously maintain a realistic view of hard collateral securities used to secure receivables. The values of assets pledged in security of receivables must give a true and real-time picture of the collateral position related to the loan portfolio as well as individual customers. The financial standing of the collateral asset owner must be considered when valuing collateral securities. The weaker the asset owner's financial standing, the greater the weight of the realisation value must be when estimating the collateral asset.

Financing decision-making is based on the principle of segregation, based on which the person preparing financing may not make the financing decision alone. Because financing decisions are risk-taking decisions, those making such decisions must have all the relevant information. All credit risk decisions are made on a business-specific basis. Decision-making is guided by OP Financial Group's Risk Appetite Statement (RAS) and the target risk profile specified in the risk policy. Decisions that deviate from the target risk profile specified in the risk policy must be explained on a broader basis. The central cooperative's Risk Management assesses compliance of the most significant financing projects with the risk policy and provides the managements of OP Financial Group and Group banking entities with a situational picture of compliance with the risk policy.

The bank's senior management and management body closely monitor the bank's credit risk exposure. The bank's management is responsible for keeping the members of the management body informed if the bank's operational risk-taking deviates from the risk policy approved by the management body. This allows the Board of Directors, as its role requires, to monitor the trend in the bank's risk exposure and, if necessary, issue instructions to senior management on risk-taking.

From the bank's perspective, credit risk materialises in a situation where the customer becomes insolvent and cannot fulfil its credit obligations without the bank taking measures, such as realising collateral. It is therefore important that customers whose repayment capacity has weakened or a significant threat is posed to their repayment capacity are promptly identified in both the financing process and the customer relationship management process.

Customers that are most significant to the bank and whose risk of default has clearly increased, or whose repayment capacity is subject to another significant threat, must be placed under special control. For these customers, the bank must prepare an action plan on what measures should be taken to resolve the customer's situation from the bank's perspective, and to minimise the possibly materialised risk to the bank. The monitoring and documenting of customers in potential or actual default is more intensive and extensive than the documentation of less risky customers, to ensure that the bank is actively aware of changes in the customer's situation and can react immediately if necessary.

Measuring credit risk

OP Financial Group measures credit risk using the ratio of economic capital need for credit risk to exposures at default, the ratio of non-performing receivables to the loan and guarantee portfolio, and the ratio of expected credit losses to the loan and guarantee portfolio. The proportion of corporate exposures in different rating grade baskets, and the average rating of corporate exposure, are also measured. The risk policy sets limits for these metrics. In addition, loan portfolio concentrations are monitored by customer, industry and country. The central cooperative consolidated also measures the growth differential of the loan portfolio and credit risk economic capital, to ensure a balance between growth and risk-taking. Limits derived from Group-level limits have been set for the business segments engaged in banking.

Limits set in the risk policy can be supplemented with qualitative targets set in the operating instructions of each business segment. These targets may be business segment or entity-specific. Targets may be set for the entire loan portfolio or separately in relation to personal or corporate customer financing. It is also possible to set targets measuring the quality of the credit risk process.

Customer segmentation is used to manage the loan portfolio, in order to ensure sufficient diversification of the loan portfolio and efficient capital allocation. To enable a coordinated risk policy, customer segments have been defined so as to ensure that each segment's receivables are homogenous in terms of credit risk. Based on segmentation and the breakdown by rating grade, the loan portfolio target status is presented in the risk policy. This status is not binding on the business concerned, but the business must control credit risk-taking in order to achieve the target status.

OP Financial Group's internal credit rating system

Rating means models, methods, processes, supervision, data collection and IT systems that support credit risk management, credit risk assessment, the assignment of exposures to rating grades or pools, and the quantification of default and loss estimates that have been developed for certain types of exposures. OP Financial Group's internal rating system applies to all Group entities. The Board of Directors of OP Cooperative considers and approves the credit rating principles as part of the Risk Appetite Framework document.

OP Financial Group uses an internal 16-level scale of A–F to assess the probability of default for its **personal customer** agreements, with F representing borrowers in default. The Group assesses monthly all personal customer agreements' PD using a loan portfolio rating model. The loan portfolio rating is based on a customer's basic data, payment behaviour and other transaction history data. Average PDs have been calculated for each rating grade for a period of 12 months.

For now, an application stage rating model supports the loan approval process, credit risk assessment and the pricing of new loans. OP cooperative banks and the Group's asset and sales finance solutions and unsecured consumer loans have their own application stage models.

The probability of default of **corporate customers** is assessed using the 20-level credit rating system on a scale of 1.0–12.0, with 11–12 rating grades representing customers in default.

The R rating for mid-size and large corporate customers is based on the company's financial indicators and qualitative background data on the basis of which a statistical model generates a proposal for rating. An expert familiar with the customer makes a rating proposal on the basis of the rating suggested by the model and of any other information available. Any changes and uncertainties relating to the future outlook will be regarded as warning signs and exceptions to the rating provided by the model. The rating grade is determined by the central cooperative's independent Risk Management, based on the rating proposal, at least once a year and, in respect of weak customers, on a half yearly basis.

Suomen Asiakastieto's automated rating model, Rating Alfa, forms the basis of small corporate customers' A rating. The rating Alfa variables include information on payment default and payment practices of the company and its persons in charge, key indicators based on financial statements and the customer's basic data. The rating Alfa risk scores and OP Financial Group's internal payment behaviour data resulting in default are used to generate OP Financial Group's rating grades that will be changed based on expert assessments, if need be. The banks must at least once a year assess the validity of the rating grade of A rated customers and they must assess customers with a low rating grade and those on the watch list on a half-yearly basis. Responsibility for the assessment rests with the bank in charge. The rating grade for the most significant A-rated customers is approved by the central cooperative's Risk Management.

Low exposure corporate customers are rated using a rating model for low exposures (P). The rating model is an automated rating model calculated on a monthly basis that is created on the basis of the customer's basic data, transaction data and payment behaviour data.

Liquidity risks

Identifying liquidity risks

OP Financial Group's Treasury and other business units plus Risk Management continuously identify and assess risks associated with funding and business and other business environment. In the risk assessment of new products, services, business models, processes and systems, every business unit must take account of liquidity risks, too. At least once a year, Risk Management and business representatives perform a comprehensive liquidity risk assessment to ensure that the capital adequacy assessment process (ILAAP) is appropriate and adequate in relation to the Group's liquidity risks.

Assessment and measurement

The central cooperative consolidated assesses the future cash flows of receivables, liabilities and off-balance-sheet commitments based on the contract maturity date, repayment programme, expert assessments or statistical models based on customer behaviour history.

Structural funding risk is measured as the difference between cash inflows and cash outflows in different maturities. In addition, the central cooperative consolidated calculates the regulatory Net Stable Funding Ratio (NSFR), which determines the amount of stable funding sources expected to span over one year in proportion to assets requiring stable funding.

From the perspective of the relevant authority, funding liquidity risk is measured using the Liquidity Coverage Ratio (LCR). The sufficiency of the liquidity requirement in terms of time is assessed though maturing items on the balance sheet, wherein agreements are not renewed but ended at maturity. Based on the economic perspective, OP Financial Group measures the sufficiency of the liquidity buffer through stress testing.

The Group measures funding concentration risk by calculating the amount of bond funding with a maturity of rolling 12 months and 3 months. In the time horizon of less than 12 months, OP Financial Group measures the total wholesale funding amount, comprising short- and long-term wholesale funding, for 3 months. When it comes to deposit funding, the Group monitors the concentration of the largest deposit volumes. Concentrations by counterparty and instrument are also subject to monitoring.

The central cooperative consolidated measures its asset encumbrance by proportioning encumbered assets to the aggregate amount of balance sheet assets and collateral securities.

Risk assessment and measurement methods related to liquidity buffer investments are described as part of market risks.

Liquidity stress testing

The adequacy of OP Financial Group's liquidity buffer and buffer items is assessed through various scenarios. OP Financial Group-specific and market-specific scenarios, as well as their combination, are used as stress scenarios. The scenarios must cover both short- and long-term stress conditions. When measuring member bank-specific structural funding risk, the liquidity requirement based on the regulatory stress scenario is counted as a deposit in Treasury on a bank-specific basis. A reverse stress test is used in connection with the Group's Recovery Plan. Senior management confirms the scenarios to be used, use and reporting of stress test results.

Funding plan

OP Financial Group's funding plan defines guidelines for wholesale funding for the next few years. In its funding plan, OP Financial Group must take account of its member banks' estimate of the funding need for years to come. Implementation of the plan is monitored regularly and the plan is updated, where needed, during the year. Deposit funding is primarily based on the business strategy and plan. The funding plan specifies the sources of wholesale funding and presents how the Group covers its need for key wholesale funding sources in view of market depth and sufficient diversification. It also defines the related decision-making powers. The funding plan must also take account of unfavourable scenarios lasting several years and of abrupt changes in key funding items.

Non-euro liquidity management

OP Financial Group carries out non-euro funding due to the diversification of funding sources. Since almost all the Group's receivables are in euros, the Group mainly converts its non-euro funding into euros through derivative transactions in connection with an issue.

According to liquidity regulation, a non-euro currency is significant if non-euro liabilities account for over 5 per cent of the amalgamation's balance sheet total. The Group monitors significant currencies every month when it produces its liquidity report for the supervisor. Foreign currencies account for only a small proportion of the balance sheet and the liquidity risk due to currency availability has been minimised by the operating model.

Management of intraday liquidity

OP Financial Group's Treasury monitors intraday funding sources and anticipates and monitors the execution of intraday payments. The Group holds intraday funding sources at an amount that allows it to make payments due on the banking day.

Based on the liquidity contingency plan, the Group can raise its level of preparedness even if intraday liquidity is disturbed in order to ensure efficient operations in the case of an increased threat of a crisis.

Liquidity buffer

From the financial perspective, the liquidity buffer consists of deposits in the Bank of Finland and unencumbered notes and bonds eligible as collateral for central bank refinancing held by OP Corporate Bank. It also includes other notes and bonds marketable on the secondary market and unencumbered corporate loans eligible as collateral for central bank refinancing.

From the regulatory perspective, OP Financial Group's liquidity buffer consists of the liquidity buffer that fulfils the criteria for liquidity buffer requirement provisions (LCR buffer).

The Group's Treasury is responsible for preparing the investment plan at least once a year. The bond investments in the liquidity buffer held by the Treasury are included in it. OP Corporate Bank's Board of Directors approves the plan. The investment plan applies the restrictions and objectives set in OP Financial Group's Risk Appetite Statement (RAS) and Risk Policy for market risk, credit risk and funding liquidity risk. The investment plan establishes, to the appropriate extent, a framework for testing the liquidity of notes and bonds.

The Group diversifies investments, for example, by product, counterparty and country, in view of both internal risk appetite and external regulatory requirements.

Collateral management and asset encumbrance

In this context, collateral securities mean OP Financial Group's assets used as collateral to fulfil liquidity needs, either in normal or stress conditions. Group Treasury monitors collateral on a centralised basis, and is responsible for its use and transfer.

Home loans serving as collateral for covered bonds issued by OP Mortgage Bank constitute the largest source of asset encumbrance in the balance sheet. Central bank operations and the derivatives business are the other main sources of asset encumbrance. From the perspective of preparing for liquidity needs, the central cooperative consolidated restricts asset encumbrance through the quantitative limits specified in its Risk Policy.

To increase liquidity potential, it is necessary to identify the eligibility of the balance sheet receivables as collateral and create readiness to use receivables as collateral.

Securing liquidity in stress conditions

OP Financial Group's liquidity contingency plan establishes a framework that safeguards the Group's ability to meet its payment obligations, even during a liquidity crisis. The plan provides well-defined operational guidelines and operating models for identifying an increased liquidity risk. It also steers OP Financial Group towards timely and appropriate measures for reducing liquidity risk, by ensuring efficient organisation and actions if the threat of a crisis grows. The contingency plan specifies control and monitoring practices for each liquidity level, which become more rigorous when moving up to the next level.

Furthermore, OP Financial Group's Recovery Plan includes liquidity management recovery measures.

Liquidity risk reporting

The Group reports liquidity risks to the central cooperative's management on a regular basis and, with a heightened threshold level of the liquidity status, will adopt weekly or daily progress reporting practices whenever necessary. OP Financial Group companies report liquidity risks to their boards of directors regularly, applying at least the level which has been set for limits. As part of OP Financial Group's risk analysis, Risk Management reports quarterly to the Risk Committee, which operates under the central cooperative's Board of Directors, on liquidity risks.

Liquidity management and control within the amalgamation

Liquidity regulation as such is not applied to the amalgamation's companies. However, with the ECB's permission, the central cooperative may give member banks special permission to deviate from the liquidity regulation. As the central institution of the amalgamation of cooperative banks, OP Cooperative has granted its member credit institutions special permission, under the Act on the Amalgamation of Deposit Banks. Pursuant to the Act, the liquidity requirements set for credit institutions mentioned in Part VI of the EU Capital Requirements Regulation are not applied to OP Cooperative's member credit institutions. Liquidity based on the regulation is subject to supervision and reporting at the level of the cooperative banks' amalgamation. To fulfil the prerequisite for granting special permission, the central cooperative gives the amalgamation's companies instructions on the risk management needed to secure liquidity and meet other qualitative requirements, and supervises compliance with these instructions.

The central cooperative senior management is responsible for organising OP Financial Group's centralised liquidity risk management according to liquidity strategy policy lines. It must ensure that management and supervision of the amalgamation's liquidity accord with the scope and quality of business, and fulfil regulatory requirements, at all times. In the sales control of borrowing and lending, the management pays attention not only to growth and profitability targets but also to liquidity features. Product development related to customer service must also aim to reduce risks associated with the liquidity and funding structure.

OP Financial Group's liquidity and wholesale funding plan and authorisations to raise capital on the financial markets are subject to approval by the Boards of Directors of OP Corporate Bank and OP Mortgage Bank. The central cooperative's senior management approves the Liquidity Contingency Plan which contains the control and supervision procedures of the liquidity status based on various threshold levels as well as funding sources.

As OP Financial Group's treasury, OP Corporate Bank plc is tasked with securing the liquidity of the entire Group and each OP cooperative bank or Group company. OP Financial Group places its entities' liquidity in its Treasury's cheque account with the Bank of Finland. This means that the Group always manages its overall liquidity position through the account on a centralised basis. OP Financial Group's Treasury is in charge of the Group's wholesale funding, manages the Group's short-term liquidity, maintains the liquidity buffer, manages the Group's minimum reserve on a centralised basis and is responsible for managing intraday liquidity risk. OP Corporate Bank manages on a centralised basis the Group's wholesale funding in the form of debt capital and equity capital, while OP Mortgage Bank manages wholesale funding based on covered bonds.

Based on the decision by the Board of Directors or a body it has authorised, Group Treasury may use the collateral securities in the entire OP Financial Group in a normal circumstance. In a severe liquidity crisis caused by money and capital market disruptions or by other reasons or in preparing for it the central cooperative's Board of Directors, or a body it has authorised, obliges the amalgamation's member banks to either sell loans to OP Mortgage Bank or to place part of their loan portfolio as collateral for the covered bond issued by OP Mortgage Bank through an intermediary loan. The amounts of the loans to be needed are based on the Group-level need and are determined for each bank. The decision may be put into practice based on a decision made by the central cooperative's Board of Directors or a body it has authorised. Member banks are committed to immediately executing any measures related to the decision.

The primary funding sources of OP cooperative banks' lending include equity capital, deposit funding and funding for intermediary loans from OP Mortgage Bank. The use of intermediary loans reduces the need for OP Financial Group's senior funding.

If surplus liquidity emerges in an OP cooperative bank's customer business, it will be channelled to investment products provided by the Group's Treasury to support the implementation of the entire OP Financial Group's mission. Investment is not counted among the basic tasks of OP cooperative banks.

Allocation of liquidity risk costs within the amalgamation

The costs of wholesale funding and liquidity buffer maintenance are allocated among member banks based on the matching principle adopted by the central cooperative senior management. The costs of liquidity maintenance are allocated through liquidity deposits and the costs of wholesale funding are allocated through the margin added to the base rate of OP Financial Group's loans/deposits, or by using another practice.

Market risks

Interest Rate Risk in the Banking Book (IRRBB) management strategy

The interest rate risk in the banking book is posed by retail banking transactions and the size of risk is affected by developments in customer credit and deposits. The interest rate risk in the banking book has been defined as one of OP Financial Group's significant risks.

The general principles for managing interest rate risk in the banking book are as follows:

- Senior management is responsible for arranging the management of interest rate risks in the banking book as part of OP Financial Group's banking activities, in line with the interest rate risk management strategy and grounded, stable and documented practices. Such methods must ensure that realisation of interest rate risk in the banking book (IRRBB) remains at Group level and within the limits set for each bank, and that the IRRBB is compliant with regulations.
- IRRBB limits set the size of interest rate risk at a level matching each member bank's risk-bearing capacity, taking account of each bank's deposit funding structure. This is particularly necessary when an attempt is made to increase net interest income using spreads between long-term and short-term interest rates.
- Member banks of the amalgamation manage interest rate risk in the banking book within the scope of the risk policy and limits, other guidelines and targets issued by the central cooperative, and the terms and conditions of accounts, deposits and loans. Member banks must understand how interest rate movements and customer behaviour affect net interest income and have sufficient expertise in the use of derivatives in order to manage interest rate risks related to products provided by the Group Treasury. As part of their annual planning, member banks prepare an ALM plan that includes a management plan for their interest rate risk in the banking book.
- Overall interest rate risk in the banking book (IRRBB) is monitored by OP Financial Group's Treasury, and the Banking ALM Committee can provide member banks with recommendations on how to manage interest risk. Such recommendations can be binding.
- The central cooperative must ensure that, through centralised hedge accounting, the financial statements of the Group and its major companies take account of interest rate risk transfer, in accordance with the nature of businesses in question.
- Interest income risk metrics are used to assess changes in net interest income and present value risk metrics to measure changes in the value of on-balance sheet and off-balance sheet items over the entire term to maturity assumed for the contracts. The interest rate outlook must include an assessment of how changes in the general interest rate and the shape of the rate curve will impact on net interest income and the present value of balance sheet items.
- When measuring interest rate risk, account must be taken of optionalities included in assets and liabilities, so as to make their impact visible in future cash flows. The models' functionality is ensured in accordance with the model risk management principles.
- When measuring interest rate risk, equity items – equity capital, cooperative capital and retained earnings – are non-interest-bearing liabilities which are placed on a timeline in accordance with the term structure set for them. In risk calculation, subordinated loans in own funds are treated in accordance with their contractual terms and conditions. In the case of Profit Shares, cash flows must be set in accordance with the customer promise in each case.
- Regular stress tests must be performed regarding interest rate risk. In particular, this involves testing any change in customer behaviour in relation to how credit, deposits and Profit Shares have performed historically as portfolios. Other changes in key business assumptions, such as the removal of zero floors for reference interest rates, must also be tested.

- The risk assessment procedure applied to OP Financial Group's new products, services, operating models, processes and systems must ensure that the requirements of interest rate risk management are appropriately described and taken into account when developing customer business.
- Economic capital is allocated in relation to interest rate risk in the banking book.

Management of other market risks in Banking through the balance sheet

Other market risks associated with revenue logic arising from banking through the balance sheet are chiefly due to the management of OP Financial Group's liquidity buffer and OP Corporate Bank's portfolio of bonds.

OP Corporate Bank's Group Treasury manages OP Financial Group's banking liquidity buffer. The regulatory liquidity coverage ratio (LCR) determines the constraints on the size and allocation of the liquidity buffer. Alongside Group Treasury deposits, the liquidity buffer contains the liquidity buffer portfolio, and items in the liquidity buffer portfolio must conform to the regulatory creditworthiness and liquidity requirements. For this reason, the portfolio includes securities carrying a very low likelihood of credit losses materialising. Because these securities most often have fixed interest rates, their value varies depending on movements in market rates and credit spreads.

The liquidity buffer portfolio is monitored and managed using market risk management methods:

- The Banking risk policy determines the risk measurement methods and risk-taking limits, as well as other restrictions.
- An investment plan is prepared for the investment portfolio, describing the goals of investment activities and the principles of portfolio management. OP Corporate Bank's Board of Directors approves the investment plan.
- The Group ensures sufficient portfolio diversification by means of restrictions by issuer.

In addition, OP Corporate Bank invests in corporate bonds. OP Corporate Bank's bond portfolio is OP Corporate Bank's equivalent to lending. An investment plan is prepared for each portfolio, describing the goals of investment activities and the principles of portfolio management.

OP Corporate Bank manages equity and real estate risk in Banking primarily through instructions which strictly limit risk-taking. Real estate risk chiefly involves real property units used by OP cooperative banks. The current Banking business models do not call for an increase in equity or real estate risk.

If surplus liquidity emerges in an OP cooperative bank's customer business, it will be channelled to investment products provided by Op Financial Group's Treasury to support the implementation of the entire OP Financial Group's mission. Investment is not counted among the basic tasks of OP cooperative banks. In their social role, OP cooperative banks may invest in local private equity funds in their operating region. With their investments, the banks, according to their cooperative values, support prosperity in their region and economic activity in their region and among the bank's customer base.

In car dealer financing, OP Financial Group can offer products where the risk of the car's resale value at the end of the contract period is borne by OP Corporate Bank. If the actual selling prices are less than the estimate used in the pricing of the contract, revenue will be lower than targeted or a loss will be made. To manage risks, it is important to limit the financed assets so that their prices can be predicted and their realisation goes smoothly.

Risk management in Markets

OP Financial Group's trading in capital market products has been centralised in OP Corporate Bank's Markets function. This includes the price setting and market hedging of interest rate hedging products for loans granted by OP cooperative banks and OP Corporate Bank, separate interest rate hedges, foreign exchange trading, structured investment products, trading in bonds and commodity derivatives. The risks taken include market risks such as interest rate risk in different currencies, currency risk, volatility risk related to options, credit spread risks, and credit risks such as counterparty and issuer risks. Repurchases of structured investment products also generate a degree of equity risk. Markets is responsible for managing the Group's currency exposure and does foreign exchange transactions on the market according to needs. Markets manages risk exposures by actively trading on the market. Markets monitors risks and earnings on a daily basis. In addition, Risk Management reports Markets' risks to the Board of Directors' Risk Committee and the senior management, as part of OP Financial Group's risk analysis.

The Markets function is exposed to risks associated with liquidity and market liquidity. The risk associated with liquidity is due to secured derivative contracts' collateral requirements dependent on market values. This is managed as part of other liquidity management conducted by Treasury. The low market liquidity of some markets and products, general market liquidity weakening or technical malfunction on the part of the central counterparty may lead to a situation where the needed transactions cannot be executed at the expected price or following the selected hedging strategy is not possible. Regarding risks associated with the liquidity of markets, it is necessary to ensure that customers have been proactively informed of the consequences of any possible differing market situations. Furthermore, it is necessary to create preparedness to use, if needed, an alternative central counterparty to ensure the continuity of customer business.

Market risks taken by the Markets function are measured using the expected shortfall measure, as well as various sensitivity and nominal value metrics for specific products and positions. The impacts of market movements that are significant to the business are assessed via stress tests. This is important in order to understand the risks of rare market movements and those with a major impact. Economic capital need is calculated in relation to market risks taken by the Markets function. The risk policy sets limits and frameworks for business models. The risk policy is prepared in such a way that the risks are visible for each business model and any risk-taking that goes beyond the business model is tightly constrained.

Entering into derivative contracts gives rise to counterparty credit risk, which is managed by applying customer-specific limits. OP Corporate Bank's credit decision process decides on the limits. The counterparty risk posed by derivatives is included in the economic capital requirement related to credit risk. To take account of the risk, OP Corporate Bank adjusts the valuations of derivatives using Credit Valuation Adjustment (CVA and DVA). The size of the valuation adjustment is affected by the credit-risk-free valuation of derivatives, interest rates, volatility of interest rate options, exchange rates, and credit risk market price. Fluctuations in adjustments to the value of credit risk due to the valuation adjustment are mitigated by entering into derivative contracts.

Ownership of bonds and money market instruments causes issuer risks, which are limited using issuer-specific limits, or allocation limits on the corresponding limits used by the Markets function.

Some risks arising from interest-rate hedges for loans are transferred to Markets, which trades on the market to cover them. Risks associated with operations include interest rate and volatility risk. In some products, the forecast client behaviour has a significant effect on the pricing of the product and risk hedging. If, on the whole, the client's behaviour differs significantly from the predicted one, the realised client return may be lower or higher than expected and the risk position over-hedged or under-hedged. Client behaviour risk differs from market risks in that the risk cannot be hedged on inter-bank markets. Risk management is based on OP cooperative banks' client relationship management, real-time monitoring of client behaviour and the use of accumulated data in the development of forecast models.

Risk management for the Asset Management business model

Key risks of the asset management function include operational and compliance risks related to service provision, and prospective business risks such as changes in the economic situation, competition or customer behaviour. The sale of asset management products is subject to detailed regulation seeking to ensure that clients understand the risks, costs and environmental and social impacts of their investment decisions. The sale of investment products carries a reputational risk. The effect of market developments on assets under management exposes to market risks involved in the revenue earned by business.

In asset management business activities, low liquidity may be a feature of an investment (for example, real property) or liquidity may become weaker in exceptional market conditions, in which case, for example, certain securities are not traded actively or differ greatly in their bid and asked prices. Liquidity risk may also be shown due to unexpected customer behaviour, especially in turbulent markets, for example in terms of larger-than-usual redemption requests sent to a mutual fund. This may result in a situation where the fund cannot perform the redemptions. Liquidity risk associated with the asset management business must be managed in advance by informing customers of liquidity risks associated with the investment product in marketing materials. In problem situations, liquidity risk is managed by delaying and interrupting redemptions, charging redemption fees or changing pricing and possibly increasing cash allocation.

Operational risk management processes often include risk assessments of products, services and investments, and at least annual risk and control self-assessments of existing processes and practices. In addition, development processes for new products, services and investments include internal discussions involving representatives of the supporting assurance functions. Such discussions ensure that development takes account of risk management and regulatory compliance, and that internal control forms part of operating models and product monitoring. Risk statements on new products and services are drawn up by independent risk management and compliance functions. OP Asset Management's risk management processes also include internal committee work. The risk management and compliance functions take part in committees and consideration of new products and operating models.

By ensuring that the product range meets customer demand and needs, customer retention can be improved in situations where clients want to switch or diversify their investments. A capital requirement is set for risks within the risk type, Other assessable risks.

1.1.3.3. Risks of insurance operations

Life insurance risks

Biometric risks associated with life insurance products consist of higher claim payouts than expected in most cases of death, or longer periods of pension disbursements than expected. Mortality and life expectancy affect a life insurance company's risk exposure in pure life insurance policies and pension policies. Longevity risk is particularly significant for group pension insurance policies under a defined benefit plan and in other portfolios of lifelong pensions, because these contracts do not contain any significant mortality risk to counterbalance the risk exposure.

The policyholders' customer behaviour gives rise to lapse risk. Policyholders have the right to stop paying their premiums, terminate the contract early, or change the contract based on an embedded option in a way which results in higher risk for the company. One example of such options is the customer's right to change the profit type of their assets from unit-linked to one with technical interest, which increases interest expenses. Another example is the postponement of pension, which increases the longevity risk and lapse risk. Endowment policies and capital redemption contracts with the right of surrender, and term life policies (which the policyholder can terminate anytime), are particularly susceptible to lapse risk related to customer behaviour. Pension insurance can only be surrendered in exceptional circumstances.

Expense risk refers to a situation in which incurred insurance contract management, maintenance and claims management expenses differ from those estimated in premium rating. The early lapse of insurance policies may also jeopardise the accuracy of cost assumptions used for premium rating and thereby contribute to the materialisation of expense risk.

The need for capital required by life insurance underwriting risks is assessed by applying the Solvency Capital Requirement (SCR) and the economic capital need. Stress tests are used to supplement the assessment.

Life insurance underwriting risks are managed by means of strict risk selection and pricing and by ensuring that insurance liabilities are accurate and sufficient. The customer and risk selection policies are described in the customer and risk selection guidelines, which are updated frequently.

Risks related to mortality and longevity are priced in a secure way on the basis of the conditions and situation prevailing when the policy is issued. The company can only change the prices of these long-term contracts to a very limited extent. This is why risk caused by any later changes in the premium rating bases is borne by the insurance company, which raises the premiums of new policies and records an insurance liability supplement for sold policies. Offering insurance policies with the opposite risk exposures reduces the net risk incurred by the entire insurance portfolio.

Early lapse risks related to customer behaviour, and the risk of customers exercising their option to change the profit type of their assets to a guaranteed-interest model, are managed through a competitive range of products, suitable product structures, and incentives and sanctions in the contract terms and conditions.

Expense risk is managed through adequate cost control and prudent pricing. Realisation of assumptions concerning premium rating is regularly monitored and, if necessary, the premiums of new policies are raised and additional insurance liabilities are recorded for sold policies.

Reinsurance is also used to mitigate risk. The reinsurance level is determined in the reinsurance principles approved by OP Life Assurance Company's board of directors. The reinsurance principles set limits for the maximum retention and catastrophe protection capacity. The reinsurance principles also restrict the authority to take reinsurance counterparty risk – the document sets limits based on the counterparty's rating grade and the reinsurance contract type (contract business, facultative).

The actuary in charge annually makes the company's board of directors a statement of continuous compliance with the insurance liability requirements, the requirements set by the nature of the underwriting business and the opinions given by the actuarial analysis function on the insurance policy and reinsurance arrangements.

OP Financial Group limits the economic capital requirement tied up in underwriting risks relative to OP Financial Group's internal capital. Underwriting risks are, for their part, also guided by a target set in the capital plan for own funds and the requirement for solvency capital.

Non-life insurance risks

OP Financial Group manages non-life insurance underwriting risks by means of strict risk selection and pricing and by ensuring that insurance liabilities are accurate and sufficient.

Premium rating is based on risk correlation, which means that the insurance risk premium corresponds to at least the claims incurred from the insurance. The insurance premium also includes components for operating expenses and capital cost.

The bases for risk selection (customer selection and related criteria, as well as decision-making limits by insurance line) are specified in the risk policy, which is updated annually, and the guidelines, which supplement the risk policy. The documents specify decision-making powers on a multistage basis according to the size of underwriting risk, as well as risks by insurance line underwritten only to a limited extent and at the discretion of the Insurance Customers Management Team.

Insurance periods within non-life insurance are mainly one year or less, and changes in the underwriting risk level can usually be passed quickly onto insurance premiums. In respect of long-term insurance lines where risk inter-independence does not perhaps materialise, risk is managed by setting underwriting limits.

Reinsurance is also used to mitigate risk. The reinsurance level is determined in the reinsurance principles approved by the boards of directors. Reinsurance is implemented mainly through risk-specific (insured object) and loss-event-specific reinsurance cover. Potential gaps in reinsurance cover are eliminated in accordance with detailed underwriting guidelines. The risk arising from reinsurance availability is subject to strict supervision. Irrespective of the insurance line, large individual risks, such as claim accumulations arising from natural disasters or human activity, are reinsured.

The reinsurance principles set limits for the maximum retention and catastrophe protection capacity. The reinsurance principles also restrict authorisations to take reinsurance counterparty risk because the document sets limits based on the counterparty's rating grade and the reinsurance contract type (contract business, facultative, fronting). Local risk concentrations are included in the Estimated Maximum Loss (EML) for property and business interruption risks, and through EML breakthrough cover included in reinsurance cover.

The amount of insurance liabilities is estimated securely in such a way that it would be sufficient to fulfil the obligations arising from insurance contracts. This is performed by first estimating the expected value for insurance liabilities, and then determining a safety loading based on the degree of uncertainty. The actuary in charge annually makes the company's board of directors a statement of continuous compliance with the insurance liability requirements, the requirements set by the nature of the underwriting business and the opinions given by the actuarial analysis function on the insurance policy and reinsurance arrangements.

Non-life insurance underwriting risks are assessed by applying the Solvency Capital Requirement (SCR) and the economic capital need. Stress tests are used to supplement the assessment. The economic capital need tied up in underwriting risks is limited relative to OP Financial Group’s internal capital. Underwriting risks are also restricted by a target set in the capital plan for the ratio of own funds to the solvency capital requirement.

Market and counterparty risk management in life and non-life insurance

Management of structural interest rate risk and other investment risks

The management of market risks in life and non-life insurance covers all of the market risks on the balance sheet, consisting of insurance liabilities, investments and derivatives. Investment operations aim to ensure customer income, obtain assets covering insurance liabilities, and invest profitably to generate returns. Investment operations take account of factors such as the structural interest rate risk arising from the cash flow structure of insurance liabilities, and the other requirements that insurance liabilities impose on investment assets and their liquidity. For this reason, companies must divide future cash flows, the related uncertainties and causes of uncertainty by insurance type and asset class. In addition, in their investment plan, companies must define and give grounds for which investment instruments are covered by which part of insurance liabilities and how large a deviation will be allowed between the duration of investment portfolio and insurance liability cash flows, interest rate sensitivity and other relevant key figures. Application of the principle of equity in life insurance also affects investment targets and the amount of risk taken.

An analysis of structural interest rate risk – interest rate risk on the balance sheet – begins by assessing how well cash flows from fixed income investments and insurance liability match each other (Asset and Liability Management, ALM). Interest rate movements affect the value of insurance liabilities as well as investments and hedging derivatives. The companies’ market risks on the balance sheet are managed in line with investment plans, using investment allocation and insurance liabilities as hedging, while taking account of expected returns.

In the Solvency II framework and the economic capital need model, the insurance liability discounting curve includes a volatility adjustment, which also exposes to credit spread risk on the balance sheet in terms of structural interest rate risk. In respect of the level of the credit spread related to interest rate risk on the balance sheet, the consistency of the risk profiles of assets and liabilities is essential. Differences between the companies’ fixed income investments and volatility adjustment portfolio may be related to geographical distribution, corporate loan sectors, credit ratings or maturities. Fixed income investments involve a risk of credit loss and a lower credit rating for the investment in question; sufficient diversification is used to manage such risk.

The magnitude of market risks is measured and limited by the Value at Risk metric and various sensitivity indicators, as well as the amount of the economic capital need and the solvency capital requirement (SCR). Stress tests are used to supplement the assessment. Insurance companies’ risk concentrations within asset classes are assessed by examining the asset class allocation distribution.

Market risks are limited using risk limits, which are set in revenue logic-specific risk policies and investment plans confirmed by the Board of Directors. Risk policies set limits for market risks, which are defined on the basis of the limit set in OP Financial Group's Risk Appetite Statement. Insurance liability hedging targets are set in the companies’ investment plans. Asset class limits are set for liquid and illiquid investments. Credit rating limits are used to manage credit risks related to the investment portfolio. Separate investment plans are prepared for the life insurance portfolio (ETA 1) and the pension insurance portfolio (ETA 2) transferred from Suomi Mutual Life Assurance Company to OP Life Assurance Company. The boards of directors of the insurance companies also approve principles for the use of derivatives for inclusion in the investment plans. In addition to the Group’s risk policy lines and limits, investment portfolios are restricted by the responsible investment principles confirmed by the companies’ boards of directors.

Insurance companies’ investment activities involve a country risk due to the geographical distribution of investments. Such risk is limited by setting a maximum limit based on a credit rating from outside the country in question (the risk country) – a credit rating given by an international rating agency. On the basis of OP Financial Group’s maximum limits for each country, company-specific country limits are allocated separately to OP Life Assurance Company and Pohjola Insurance in order to limit geographical concentrations in their investments. The geographical distribution of investment risks is regularly monitored.

The insurance companies' insurance liabilities do not, in principle, cause currency risks because their insurance liabilities are normally denominated in euros. For OP Life Assurance Company, all insurance liabilities are denominated in euros. For this reason, a substantial proportion of investments covering insurance liabilities are allocated to euro-denominated securities, or open currency risks are hedged.

Counterparty risk management

The counterparty risk of reinsurers is managed using limits for specific rating grades and counterparties in accordance with the reinsurance principles confirmed by the Board of Directors and in the investment plans.

The counterparty risk related to the investment portfolio is limited using risk limits, being included in the investment plan on this basis. Diversification limits are set for direct and fund investments. Sufficient diversification of insurance companies' investment portfolios is ensured by issuer limits set in the companies' investment plans. Derivative-related counterparty risk is limited on the basis of the counterparties' credit ratings. The derivative instruments to be used and related practices are described in the documentation, approved by the Board of Directors, on the principles underlying the use of derivatives.

Capital is reserved for counterparty risks in the economic capital requirement model and the SCR measurement.

1.1.3.4. Group-level risks

Operational risks

Operational risk means a risk of an adverse consequence caused by all business operations that may result from insufficient or incorrect practices, processes, systems or external factors. Operational risk may materialise as financial losses or other detrimental consequences, such as deterioration or loss of reputation or trust.

OP Financial Group's operational risks also include ICT and security risks, and risks related to data capital. Operational risks also include compliance and model risks, which have been categorised in separate, significant risk types due to their special features.

Operational risk management aims to ensure the efficiency and quality of key business processes and functions, as well as their continuity in abnormal circumstances. Every OP Financial Group company's management is responsible for organising operational risk management according to the abovementioned goals and in view of the special features of each business.

Through operational risk management, the companies' management ensures that the risks do not cause unforeseen financial losses or other harmful consequences. Due to the qualitative nature of operational risks, it is never possible to gain full protection against them, or to prevent their adverse effects in all cases. Operational risk management does not always aim to eliminate the risk altogether, but it does aim to bring risks down to an acceptable level.

The key areas of business operations related to the arrangement of operational risks include:

- Clear organisational structures and well-defined responsibilities.
- Processes with designated owners who are responsible for the efficiency and quality of the processes, as well as regulatory compliance in accordance with the process owner's duties and responsibilities.
- Personnel who have the required competences and qualifications, and responsibilities and targets that are set and described clearly and communicated appropriately. The trustworthiness of staff (including external workforce) is ensured and assessed by internal control.
- Systematic fulfilment of internal and external requirements to manage security risks (prevent, observe, react)
- Permissions and authorisations to access data and ICT systems that are based on duties and limited to the data and ICT systems that the employee needs in their work. The management of each OP Financial Group company is responsible for access rights management and control. This includes the definition and avoidance of toxic combinations of access rights.

- Ensuring that information and cybersecurity are adequate and up to date. Each business implements this, for example, through monitoring, systematic technical arrangements, daily monitoring measures and targeted information security audits.
- Verifying the accuracy of all data. The company's management is responsible for the usability, integrity, confidentiality and availability of data with the aid of technical and administrative measures, as well as for protecting data from unauthorised access and illegal or accidental information processing.
- Identification and categorisation of data repositories according to their criticality, in view of the confidentiality, integrity and availability of data. Responsibility for the categorisation and the required measures to protect the data rests with the data repository owner. A data repository is a set of data created for a certain purpose, such as an application with databases or a data set or table created for analytical purposes.

Operational risk management is based on continuous risk identification and assessments. Risk identification also takes account of forthcoming and emerging business risks, climate and environmental impacts, security threats and external requirements, and the required risk management methods are planned in a risk-based manner. Identification of operational risks also involves assessing the financial and other harmful consequences of risks, such as reputational impacts. The management within companies is responsible for identifying and evaluating the risks associated with business processes, services and products and the ICT systems they involve, and for implementing the controls required to achieve an acceptable risk level and ensure process functionality and efficiency. The aim is to automate the controls to be implemented.

Continuous monitoring of realised risk events and near-miss events, and of operational risks and their causes and impacts, is an important part of operational risk mitigation. Stress testing and scenarios related to operational risks are used to supplement operational risk management and the assessment of capital adequacy.

Before any new or significantly modified products, services, business models, processes systems or outsourcings are launched at OP Financial Group, they must undergo risk assessment in accordance with procedures approved by the central cooperative Risk Management. Each business is responsible for conducting the risk assessment procedure. Functions in the second line of defence can escalate decision-making on the introduction of new products if the related project is high-risk, important in principle, and the risks involved are new. OP Financial Group offers only products, services and business models to customers if they have been approved at Group level.

Because vital financial sector functions must continue to operate, even when the critical functions of society are under threat, OP Financial Group's primary business continuity management goal involves ensuring the continuity of functions vital to security of supply in various incidents too. These functions are also important to OP Financial Group's operations. Each party in charge of vital functions is also responsible for ensuring that the related continuity management is sufficient and up to date.

The outsourcing of functions is aimed at improving the achievement of OP Financial Group's strategic and operational goals and competitiveness. An external service provider must have practices consistent with OP Financial Group's core values and ethical principles. To secure OP Financial Group's key success factors, management decisions, the planning and development of key processes, requirements specification and the performance of functions performed inhouse as required by regulation will not be outsourced to outside of OP Financial Group. When it comes to the outsourcing of significant functions, the outsourcing company must retain key competencies so that the outsourced function can be transferred to the other service provider within an appropriate time, transfer back within OP Financial Group or discontinue the outsourcing arrangement.

Responsibility for an outsourced function always remains with the outsourcing company. The outsourcing company is also responsible for compliance with legal requirements and the requirements of the supervisory authority, as well as for OP Financial Group's practices and for management and supervision of the outsourced function. More details about management of outsourcing are given in OP Financial Group's Outsourcing Management Policy and the guidelines derived from it.

In addition to the standardised procedures for managing operational risks and the means of managing individual risks, companies within OP Financial Group can transfer the impacts of materialised operational risks outside of the company and OP Financial Group by taking out insurance.

OP Financial Group's operational risk management framework is divided into backward-looking (e.g. operational risk events), current situation based and proactive procedures (risk and control self-assessment, business continuity management, and RCSA regarding new products). The central cooperative's Risk Management is responsible for OP Financial Group's operational risk management framework, its maintenance and development, and issues more detailed instructions on operational risk management procedures followed in OP Financial Group. Risk Management maintains a shared risk library system for identifying operational risks at OP Financial Group, which it reviews regularly to ensure that it is comprehensive and up to date.

OP Financial Group manages the control, responsibilities, supervision and development of security by means of the Corporate Security Principles, which are approved by the Board of Directors of OP Cooperative and which enable coherent Group-wide security work. The principles and derived guidelines constitute the corporate security governance model.

OP Financial Group's management of security risks and security work seeks to foster a culture of security throughout the organisation, and to develop and maintain the desired security level by focusing on preventive measures and the effective management of threats and incidents. In threatening situations, ensuring personal security is always the primary goal, while protecting property and data remains a secondary goal.

The management of ICT risks aims to ensure the security, availability and quick recovery of ICT infra and vital data communications and systems that form part of and support business processes, during incidents. Each function is responsible for ensuring that the aforementioned goals are also realised in relation to outsourced ICT services.

OP Financial Group uses a centralised cybersecurity governance model to manage, supervise and report on cybersecurity. The Cyber Security organisation provides more detailed procedures and operating instructions on implementing and ensuring information security within the Group and managing any data security breach situations. The cybersecurity operating instructions are policies which guide the Group's activities and which must be complied with in all our work, whether the Group is developing or procuring new systems and solutions. OP Financial Group's Cyber Security function is in charge of managing any deviations from these instructions, and of the related guidelines. The central cooperative consolidated's Cyber Security organisation provides OP Financial Group's Group Executive Management with regular reports on situations that have threatened the Group's information security and data protection.

<u>Data capital risk</u>

OP Financial Group's data capital consists of all data in its various forms as held by the Group. The value of data capital is based on its business usability, efficient risk management and, ultimately, its productivity in financial business. Risks related to data capital are identified and assessed as part of operational risk management and the related procedures.

The reliability of risk management processes is dependent on data produced by business processes because risk analyses, indicators and scenarios are in part or in full produced based on this data. Consequently, data and the information derived from it are an inseparable and multifaceted production factor in all financial services business, known as data capital. Risk associated with data capital applies equally every risk area.

Data capital risk materialises when business has to be managed based on information that involves uncertainty. Then preparing for business risk may be excessive, which may lead to financial loss. For example, a capital requirement increased due to poor data quality could tie down capital that might have been used for other purposes. Problems in customer service or other operational processes can reduce customer and employee satisfaction.

Management of risks associated with data capital brings a clear business benefit when OP Financial Group's decision-making, management and reporting are based on correct and comprehensive information. In addition, as part of efficient risk management processes, data capital risk management ensures the adequacy of OP Financial Group's regulatory compliance.

OP Financial Group has a Group-level OP data governance model and OP data quality framework in place for the management of data capital risks. These provide a framework according to which data must be managed and processed. In addition to the data governance model and the data quality framework, qualitative requirements have been defined for the Group in implementing and supporting compliance with good data governance and quality practices at Group level.

All OP Financial Group actors must apply Group-level data management principles and participate in their development through their own activities.

In data capital management, the management is responsible, for example, for:

- promoting the identification, assessment and management of data quality risks. This includes reviewing and accepting frameworks for minimising data capital risk (ensuring high data quality).
- ensuring that practices required by the frameworks are observed. Observance requires a clear picture of the status of data specification, collection and processing manageability as well as related technical and legal requirements.
- incorporating the promotion of the capabilities related to data and especially the correction of shortcomings into the strategic components related to the ICT infrastructure.
- seeing to it that financial and human resources are sufficient in the development of systems containing critical data capital.
- ensuring that risk reporting is sufficiently defined, and understanding the limitations that the status of data quality causes to risk reporting. The management must set objectives for the validity and accuracy of risk reports in both normal and crisis situations. These requirements must reflect the criticality of decisions made based on the reporting.
- being aware of the status of OP Financial Group's regulatory compliance as regards data management and data quality. The management must have an understanding of the measures taken in this respect or which are needed to take in the future to improve regulatory compliance.

Model risks

Risk associated with the use of models, or model risk, refers to potential losses or loss of reputation caused by decisions made on the basis of the results of the models. Model risk is therefore a consequential risk related to the quality of operations and capabilities. The risk involved in using models is operational and may be caused by insufficient or unclear responsibilities for model management at different stages of the model lifecycle, or by insufficient documentation.

According to the definition by OP Financial Group, models involve various types of quantitative methods such as

- Statistical and mathematical models based on data in the Group's own possession that enable the reception of information derived from historical data in the base data.
- Input data derived from modelling and based on internal or external data that are utilised in formulae, calculation, categorisation or a set of rules.
- Well-established mathematical formulae in the financial services business, whose parameter values are available from the market.

OP Financial Group needs to have a firm grip on model management, because models are critical success factors in terms of revenue logic. Models must be used appropriately – to ensure this, Group policies and the related guidelines are applied. To ensure the appropriate model environments, Risk Management maintains a Group register of models (model inventory).

The sources of model risks can be divided into the following three categories:

- shortcomings in the development stage of models
- shortcomings in the implementation of models and
- shortcomings in the use of models.

All these share common sources of risk, such as shortcomings in data or its quality, poor knowledge of interdependencies between mathematical methods and models, and inadequate knowledge of business, risk measurement and regulation.

Management of models and model risks ensures that models describe the event concerned sufficiently well and their use is appropriately organised. It is not possible to protect against all risks associated with using models. Risk management seeks to ensure that the risks associated with using models are identified and the related risk level is acceptable.

Senior management is responsible for arranging model risk management, taking account of the following requirements:

- Model risks are managed on the basis of clear roles and defined responsibilities. All models have an owner.
- Model risks are identified and assessed as part of operational risk management and the related methods.
- Development and maintenance of models is ensured on the basis of sufficient expertise in and resourcing of quantitative methods.
- The model is used only for the purpose for which it is developed and approved. OP Financial Group adopts only models that it has ensured in a sufficient manner in terms of functionality and implementation.
- Models are assessed independently of their development and implementation.
- Effective practical monitoring is arranged for models.
- Risk management is performed in accordance with models’ lifecycles, while taking account of documentation requirements.

OP Financial Group’s model risk management framework defines the roles and responsibilities of the management of the models and model risk management and the practices followed during the model lifecycle. The model lifecycle includes the development, production implementation and use of the model, as well as the maintenance and abandonment of the model.

Model ownership involves a clear responsibility to understand all individual matters or variables that affect the profitability of the business concerned and to understand the interdependencies of these variables. It is also the responsibility of the model owner to follow how these variables and their interdependencies change over time. The task of the model owner is to ensure that the models used are up to date and fit for purpose.

The models are classified in view of how critical they are to business, data needed in model development and maintenance as well as how established the used method is. Uniform model management procedures are applied to the models for each class. Models are used to support the businesses’ pricing and assessment of contracts for accounting purposes, when the price or value is not directly obtainable from the market. The aim of measurement of risks by means of quantitative models and methods is as an accurate as possible estimate of risk in calculation of economic capital requirement and of the total minimum capital requirement.

That the models are well-established in their applications reduces their criticality. Risks arising from the use of models based on well-established market practices are mainly associated with how correctly they are implemented. Self-developed models based on internal data capital involve most risk vis-á-vis modelling of the event and the model’s susceptibility to error.

The development of models primarily requires internal historical data found to be of high quality from the needed data, correctly quantified amount of risk position and market information applicable to the valuation of assets and liabilities. The model should be applied when examining the modelled event. The Group uses generally used and proven modelling methods and models whenever they are available. In model development, the aim is to identify shortcomings in the model and situations in which the model performs poorly. If models cannot be implemented according to the nature of the event they are supposed to model, the related shortcomings and solutions for correcting the models must be identified. Regulation and risk management perspectives must be taken into account in the further development of the model.

If it is necessary to use parameter values defined differently for various uses, choices must be accurately justified and documented. Extending the use of the model to a new application will always require a new decision. Updates that are made to the model’s parameters on the basis of new data and that affect the results of the model are identified separately from actual model changes. The decision on the model’s use is documented in the minutes of the relevant decision-making body and reported to the Risk Management unit in charge of model risk management.

Standardised and regular monitoring is used in ongoing assessment of model utilisation. The extent, detail and frequency of monitoring must be proportionate to the model’s significance. In monitoring, the Group takes account of regulatory requirements. If the monitoring proves that the model functions more poorly or the annual risk identification process reveals trend-like or structural changes in the business environment, it is necessary to perform validation especially if the model assesses risks that are significant.

The performance of the models is subject to a quantitative and qualitative review, or validation, carried out on a regular basis. The validation requirement also applies to models implemented by the business concerned, not only those implemented by a function independent of the business. Validation complies with predetermined procedures, reviews and tests. The evaluation takes account of the purpose of use of the model and its significance.

Every stage of the model lifecycle also pays attention to adequate documentation and the fulfilment of regulatory requirements set for documentation. The Risk Management function is responsible for developing and maintaining a consistent documentation structure.

The management reporting includes information about the functionality and significance of models, the needs for improvements in various areas, and the progress made in rectifying previously identified shortcomings and changes to models. Furthermore, the management must be aware if business cannot be quantified sufficiently well on the basis of the models, and of the reason for this.

<u>Compliance risks</u>

Compliance risk is part of risk associated with operational risk, and compliance risk management is part of internal control. Compliance risk management is aimed at ensuring that all OP Financial Group entities comply with laws and official regulations, commitments signed by OP Financial Group and its entities, and internal operating principles and instructions. Compliance risk management also ensures that customer relationship management complies with appropriate and ethically sound principles and practices as required by regulation.

Compliance risk management tools include monitoring of legislative developments, providing the organisation with guidelines, training and support related to observing practices based on regulation, as well as supervising regulatory compliance with procedures applied within the organisation. The goal of support provided by Compliance is to forecast changes in regulation, participate in discussions (within Compliance's remit) on the interpretation of regulatory requirements considered key to OP Financial Group's compliance, and to monitor and support regulation implementation projects. Risk-based compliance supervision ensures that controls serving as the first line of defence are functional and that operations comply with regulations and guidelines. The business concerned is responsible for implementing internal control duties related to processes.

Materialisation of compliance risk may result not only in financial loss but also other adverse consequences, such as sanctions. Such sanctions may include separate administrative fines for violation of obligations, penalty payments, payments for negligence, public warnings and reprimands from the authorities, and (in extreme cases) a corporate fine. Compliance risk may materialise in terms of loss or deterioration of reputation or trust.

Responsibility for regulatory compliance and its supervision within OP Financial Group entities rests with the Group Executive Management and senior management, and all supervisors and managers. Everyone employed by OP Financial Group is responsible for regulatory compliance and following internal guidelines.

The Compliance organisation regularly reports to the Board of Directors' Risk Committee, the entities' boards of directors and the Executive Management Team's Steering and Compliance Committee on compliance risks and internal control observations in the central cooperative and OP cooperative banks. The Risk Committee supervises the adequacy of the business's internal control, independent Risk Management and Compliance, operational efficiency and reliability, and compliance with the principles governing them.

Other Group-level risks

<u>Concentration risks</u>

Variation in the values of income statement and balance sheet items caused by concentrations is not a risk type as such. The reason behind concentration risk is cumulative exposure to a change in an individual risk factor or to a future scenario, whose materialisation may cause higher-than-expected earnings fluctuations. This is particularly likely to happen if identifying concentrations or restricting them has failed.

Identifying and controlling concentrations is therefore important at all operational levels. The following perspectives must be considered when arranging the identification of concentration risks and their management at OP Financial Group.

1. The identification and management of an individual risk's accumulation is organised **by revenue logic.** The structure of the risk policy must promote the identification of accumulations, whereas limits are used to restrict their size. Examples of revenue logics accumulation include:
    - an individual debtor's accumulation or receivables accumulation (e.g. effective industry or geographical area)
    - risk associated with an individual object of insurance or insured person or accumulation of objects exposed to the same event e.g. through the geography
    - maturity or repricing concentrations of balance sheet items over time or by counterparty group
2. **Individual risks accumulated across** various **revenue generation models**, for the management of which it is necessary to create efficient management procedures that take account of any conflicts of interest. Examples of such accumulated exposures include:
    - the accumulation of individual debtors or industry-specific receivables across OP Financial Group companies
    - dependence of OP Financial Group companies on an individual service provider (e.g. securities clearing and information technology).
3. Earnings fluctuation concurrently caused by various risk factors and accumulated beyond revenue logics must be managed using procedures that take account of conflicts of interest. Examples of such accumulations are shown below:
    - OP Financial Group may have a concentration in a single counterparty across several product areas and companies. Banking may have provided financing for a company in which the Group's insurance companies hold shares. Meanwhile, Pohjola Insurance may be the company's main insurer, whereas OP Life Assurance Company manages the company's group life insurance. In addition, the same company can provide OP Financial Group with technology services.
    - Risks associated with an independent state (e.g. risk of political decisions and local catastrophes, also known collectively as a country risk) may have a similar effect on the operating conditions of actors operating in the country concerned and the results arising from the agreements concluded with the actors in the country are strongly correlated.

The Group-wide risk management process should create mechanisms that prevent the emergence of excessively large direct and indirect risk concentrations at OP Financial Group level by means of decisions on the division of duties. Risk Management should create mechanisms to identify, assess and manage direct and indirect Group-level accumulations.

The risk management principles stated in the risk management process guidelines for each revenue logic, and concentration risk management in risk policies that elaborate on such principles, must be integral to risk management practices and operational limitation.

The Group manages country risks by determining country limits for different countries that it uses to monitor, control and prevent its country risk concentrations by revenue logic. When setting limits, the Group takes account, for example, of the country's creditworthiness and susceptibility to natural disasters.

Major benefits can be gained by concentrating service purchases. However, senior management must exercise extreme caution when concentrating an activity with an identified service provider, doing so in accordance with the situation in question and creating an action plan to ensure business continuity in case of problems with the service provider.

Reputational risks

Reputational risk is managed proactively over the long term by complying with regulation, good practices in the financial sector and OP Financial Group's Code of Business Ethics, and by emphasising the transparency of operations and communications. Because reputation and trust are the foundations of financing, they must be taken into account in all activities. Each business plays an important role in recognising the positive and negative impacts of its operations on OP Financial Group's reputation and takes, where necessary, corrective measures.

Active and transparent communications build a strong corporate image and strengthen a company's reputation and trust. The central cooperative's Corporate Communications unit actively monitors media coverage and social media publicity of the Group and the financial sector, and other topical subjects. The public image of the Group and the financial sector is also analysed on a weekly basis as part of the contingency plan for liquidity management. The Group must have communications procedures and plans in case of crises, and to prevent the realisation of reputational risk.

In addition to systematic communications, OP Financial Group proactively strengthens its reputation by implementing its Corporate Responsibility Programme. The Group has a Code of Business Ethics in place. The Group adheres to international financial, social and environmental responsibility principles and international commitments.

1.2 Declaration on the adequacy of risk management arrangements, and risk statement

In accordance with Article 435, paragraph 1 of Regulation (EU) No 575/2013 (CRR) of the European Parliament and of the Council, OP Financial Group must disclose a declaration approved by the management body, i.e. the Board of Directors of OP Cooperative, on the adequacy of risk management arrangements, as well as a risk statement succinctly describing the institution's overall risk profile associated with the business strategy.

Declaration by OP Cooperative's Board of Directors on 7 February 2023

Based on risk reporting, OP Cooperative's Board of Directors assesses regularly compliance with OP Financial Group's Risk Appetite Statement and Risk Appetite Framework, OP Financial Group's Corporate Security Principles as well as with the risk policies of OP Financial Group and different business divisions. Based on the information it has received, the Board of Directors states that the risk management systems used by OP Financial Group are adequate in respect of OP Financial Group's risk profile and strategy.

Risk statement by OP Cooperative's Board of Directors on 7 February 2023

OP Financial Group's mission is to promote the sustainable prosperity, security and wellbeing of its owner-customers and operating region by providing its customers with all banking, investment and insurance services they need.

The starting point for risk-taking is that OP Financial Group mainly takes risks associated with fulfilling its mission. In its risk taking, OP Financial Group emphasises moderation, responsibility and careful practices. Credit and insurance risks and maturity transformation risk are highlighted in OP Financial Group's risk profile.

OP Cooperative's Board of Directors considers that the OP Financial Group's Risk Appetite Statement document, decided by OP Cooperative's Board of Directors and confirmed by the Supervisory Council, clearly describes the general qualitative bases and preconditions for OP Financial Group's risk-taking and the quantitative limits set in the document for risk-taking are in line with the strategy.

The Board of Directors also considers that by means of qualitative policies presented in the Risk Appetite Statement and quantitative limits, risk-taking capacity is allocated to businesses according to the Group's strategy and risk appetite.

OP Cooperative's Supervisory Council confirmed a number of limits for OP Financial Group for 2022, including the limits for capital adequacy, liquidity and risk appetite. The limits were used to ensure that OP Financial Group or any of its companies does not take excessive risks to endanger OP Financial Group's or its company's capital adequacy, profitability, liquidity and business continuity. The table below shows OP Financial Group's key limits and the actual values of risk-taking metrics based on the 31 December 2022 situation. OP Financial Group's business risk-taking remained throughout the year within the limits confirmed by the Supervisory Council.

Limits in accordance with OP Financial Group's Risk Appetite Statement (RAS)	31 Dec 2022	31 Dec 2021	Limit
Risk-taking capacity			
Common Equity Tier 1 (CET1) ratio, %	17.4%	18.2%	13.0%
Capital adequacy ratio under the Act on the Supervision of Financial and Insurance Conglomerates (FiCo), %	137 %	146 %	110 %
Largest single customer risk / FiCo capital covering customer risks, %	5.6%	4.6%	10 %
Liquidity coverage ratio (LCR), %	217 %	212 %	120 %
Net stable funding ratio (NSFR), %	128 %	130 %	110 %
OP Financial Group			
Materialised operational risks (net), € million	5.79	8.88	50
Risk appetite and its allocation: economic capital need / OP Financial Group internal capital, %			
OP Financial Group	36.49 %	36.53 %	75 %
Banking in total, of which	28.66 %	27.15 %	51.5 %
Retail Banking	14.18 %	12.91 %	26.5 %
Corporate Banking	12.02 %	11.36 %	21 %
Group Treasury	2.11 %	2.57 %	3.5 %
Wealth/asset management	0.35 %	0.31 %	0.5 %
Non-life insurance	6.63 %	7.57 %	13.5 %
Life insurance	3.76 %	4.55 %	8.5 %
Other	0.78 %	1.05 %	1.5 %

The qualitative principles and quantitative limits decided by the Board of Directors and confirmed by the Supervisory Council are supplemented and specified through other risk management instructions and more detailed risk policies applied by the business divisions. These have been used to ensure that risk-taking at OP Financial Group is based on each business division's strategy, and that the company does not take excessive risks to endanger OP Financial Group's or the Group companies' capital adequacy, profitability, liquidity or business continuity.

2 OP Financial Group's capital adequacy and capital base

This section presents an overview of OP Financial Group's capital adequacy and capital base. More detailed information can be found in the OP Amalgamation Pillar III tables 2022 that will be published in English in a separate Excel file.

2.1 OP amalgamation's capital base and capital adequacy

The amalgamation of cooperative banks consists of the amalgamation's central cooperative (OP Cooperative), the central cooperative's member credit institutions and the companies belonging to their consolidation groups. Although OP Financial Group's insurance companies do not belong to the amalgamation of cooperative banks, investments made in them have a major impact on capital adequacy calculated in accordance with the capital adequacy regulations for credit institutions. More detailed information on companies within the consolidation group can be found in Notes 23 an 84 to the financial statements 2022. Changes in Group structure are presented in OP Financial Group's financial statements bulletin for 1 January–31 December 2022.

2.1.1 Capital base

Capital base, € million	31 Dec 2022	31 Dec 2021
OP Financial Group's equity capital	14,335	14,184
The effect of insurance companies on the Group's equity is excluded	–721	–988
Fair value reserve, cash flow hedge	337	–96
Common Equity Tier 1 (CET1) before deductions	13,951	13,101
Intangible assets	–343	–351
Excess funding of pension liability and valuation adjustments	–231	–132
Cooperative capital deducted from capital base	–163	–160
Planned profit distribution	–144	–96
Shortfall of ECL minus expected losses	–425	–356
Insufficient coverage for non-performing exposures	–76	–41
Common Equity Tier 1 (CET1)	12,569	11,965
Tier 1 capital (T1)	12,569	11,965
Debenture loans	1,308	1,308
Debentures to which transition rules apply	91	141
Tier 2 capital (T2)	1,399	1,448
Total capital base	13,968	13,413

The table presents how OP Amalgamation's CET1 capital derives from OP Financial Group's equity capital. The CET1 capital was improved by Banking earnings and Profit Share issues. The amount of Profit Shares in CET1 capital was EUR 3.2 billion (3.1).

OP Financial Group has applied transition rules regarding old debenture loans to debenture loans.

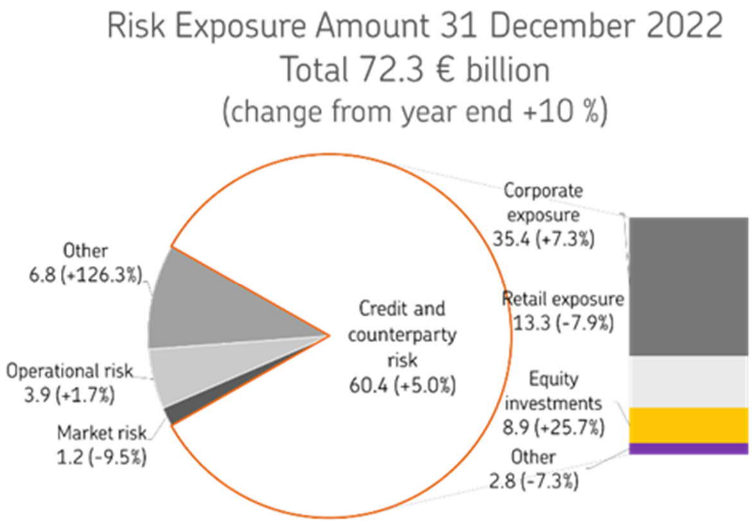
2.1.2 Risk exposure amount

Total risk exposure amount, € million	31 Dec 2022	31 Dec 2021
Credit and counterparty risk	60,437	57,267
Standardised Approach (SA)	8,476	4,822
Central government and central banks exposure	495	298
Credit institution exposure	627	5
Corporate exposure	5,244	3,179
Retail exposure	1,245	1,142
Mortgage-backed exposure	153	1
Defaulted exposure	72	45
Covered bonds	540	
Receivables to which a short-term credit rating can be applied	0	
Collective investment undertakings (CIU)	0	0
Equity investments	1	6
Other	99	146
Internal Ratings-based Approach (IRB)	51,960	52,446
Credit institution exposure		1,191
Corporate exposure	29,997	29,808
Retail exposure	12,002	13,320
Equity investments	8,944	7,112
Other	1,018	1,015
Risks of the CCP's default fund	0	
Securitisations	111	94
Market and settlement risk (Standardised Approach)	1,070	1,380
Operational risk (Standardised Approach)	3,851	3,786
Valuation adjustment (CVA)	179	204
Other risks*	6,678	3,000
Total risk exposure amount	72,327	65,731

*Addition of risk-weighted assets based on the Standardised Approach

The presentation of the total risk exposure amount table has been changed. Comparatives for the changed items have been adjusted to correspond to the new presentation.

The risk exposure amount (REA) totalled EUR 72.3 billion (65.7), or 10% higher than on 31 December 2021. The SA floor increased the total risk exposure amount. OP Financial Group shifted to the Standardised Approach in its capital adequacy measurement for credit institution exposures and certain minor parts of corporate exposures during the third quarter. This change had no substantial effect on the CET1 ratio. The Group previously applied the IRBA for such exposures.

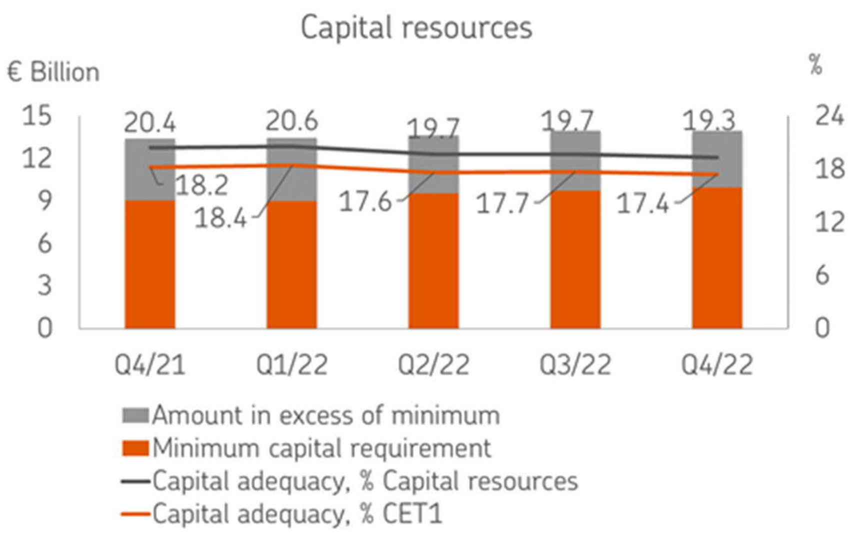


2.1.3 Capital ratios

Key ratios, %	31 Dec 2022	31 Dec 2021
CET1 capital ratio	17.4	18.2
Tier 1 ratio	17.4	18.2
Capital adequacy ratio	19.3	20.4

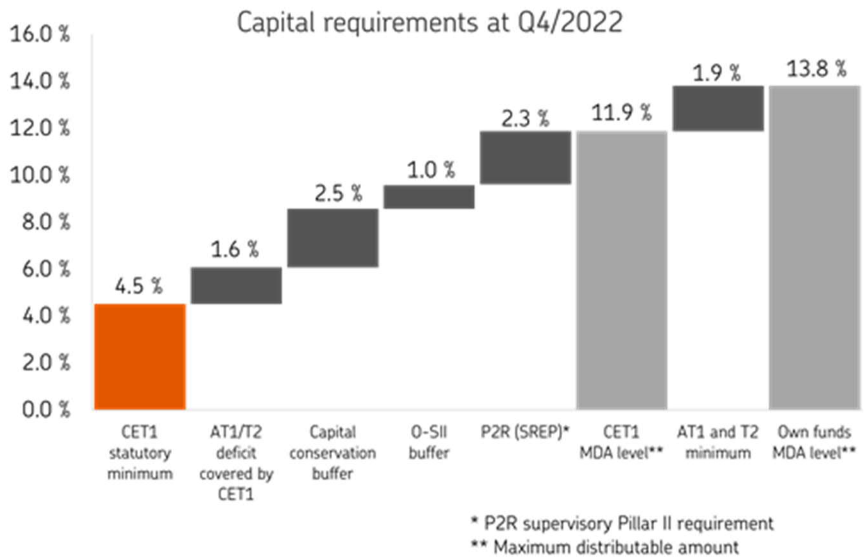
Ratios, fully loaded, %	31 Dec 2022	31 Dec 2021
CET1 capital ratio	17.4	18.2
Tier 1 ratio	17.4	18.2
Capital adequacy ratio	19.2	20.2

OP Financial Group's CET1 ratio was 17.4% (18.2), which exceeds the minimum regulatory requirement by 5.5 percentage points. The ratio decreased by one percentage point at the time of transition to the SA floor in the second quarter. The ratio was improved by earnings performance and the issues of Profit Shares.



Capital requirement, € million	31 Dec 2022	31 Dec 2021
Capital base	13,968	13,413
Capital requirement	9,979	9,041
Buffer for capital requirements	3,989	4,373

As a credit institution, OP Financial Group's capital adequacy is on a solid basis compared to the statutory requirements and those set by the authorities. The statutory minimum for the capital adequacy ratio is 8% and for the CET1 ratio 4.5%; the minimum requirement of 1.6% for AT1 and T2, which needs to be covered with CET1, raises the CET1 minimum to 6.1%. The requirement for the capital conservation buffer of 2.5% under the Act on Credit Institutions, the O-SII buffer of 1% and the ECB's P2R requirement increase, in practice, the minimum total capital ratio to 13.8% and the minimum CET1 ratio to 11.9%, including the shortfalls of Additional Tier 1 (AT1) and Tier 2 (T2) capital.



Leverage ratio, € million	31 Dec 2022	31 Dec 2021
Tier 1 capital (T1)	12,569	11,965
Total exposure	165,362	161,415
Leverage ratio, %	7.6	7.4

The leverage ratio describes indebtedness. The minimum requirement for the leverage ratio is 3%. This higher ratio was due to Banking earnings in particular.

2.2 Capital base of the financial conglomerate

OP Financial Group's capital adequacy under the Act on the Supervision of Financial and Insurance Conglomerates

€ million	31 Dec 2022	31 Dec 2021
OP Financial Group's equity capital	14,335	14,184
Subordinated loans and debenture loans	1,399	1,448
Other sector-specific items excluded from capital base	–442	–392
Goodwill and intangible assets	–1,077	–1,097
Insurance business valuation differences*	1,083	794
Planned profit distribution	–144	–96
Items under IFRS deducted from capital base**	177	–181
Shortfall of ECL minus expected losses	–370	–330
Conglomerate's total capital base	14,961	14,331
Regulatory capital requirement for credit institutions***	9,661	8,111
Regulatory capital requirement for insurance operations*	1,237	1,672
Conglomerate's total minimum capital requirement	10,898	9,783
Conglomerate's capital base	4,063	4,547
Conglomerate's capital adequacy ratio (%)	137	146

* Differences between fair values and carrying amounts based on the solvency of insurance companies and an estimate of SCR
** Excess funding of pension liability, portion of cash flow hedge of fair value reserve
*** Total risk exposure amount x 13.8%

Transitional provisions have been taken into account in figures. OP Financial Group's capital base, calculated according to the Act on the Supervision of Financial and Insurance Conglomerates (FiCo), exceeded the minimum amount specified in the Act by EUR 4.1 billion (4.5). Banking capital requirement remained unchanged at 13.8%, calculated on risk-weighted assets. The ratio of OP Financial Group's capital base to the minimum capital requirement was 137% (146). The ratio weakened by around 15 percentage points as a result of the adoption of the risk-weighted assets floor based on the Standardised Approach (SA floor). As a result of the buffer requirements for banking and the solvency requirements for insurance companies, the minimum FiCo solvency of 100% reflects the level within which the conglomerate can operate without regulatory obligations resulting from buffers below the required level.

3 Signatures

The Board of Directors confirms that OP Financial Group's risk and capital adequacy report 2022 and OP Amalgamation's capital adequacy Pillar III tables have been disclosed in compliance with Part 8 of the CRR and the related EBA guidelines and the reports have been prepared applying the principles of capital adequacy disclosure adopted by OP Cooperative's Board of Directors in 2022. The principles define methods used to verify the accuracy of information to be disclosed and the assessment of the materiality of the information.

Helsinki, 1 March 2023

Jaakko Pehkonen
Chair of the Board of Directors

Timo Ritakallio
President and Group Executive Chair

Jarna Heinonen

Jari Himanen

Kati Levoranta

Pekka Loikkanen

Tero Ojanperä

Riitta Palomäki

Petri Sahlström

Olli Tarkkanen

Mervi Väisänen