46. Risk management

Risk policy and strategy

A core function of a bank is taking risks in a conscious and selective manner and professionally steering those risks. Adequate risk policy and risk strategy is essential to a bank's fundamental financial health and operational business success.

Erste Group has developed a risk management framework that is forward-looking and tailored to its business and risk profile. This framework is based on a clear risk strategy that sets out general principles according to which risk taking must be performed across the group. The risk strategy is consistent with the business strategy and incorporates the expected impact of external environment on the planned business and risk development.

The risk strategy describes the current risk profile, defines risk management principles, strategic goals and initiatives for the main risk types as well as sets strategic limits for the significant financial and non-financial risk types as defined in the Risk Materiality Assessment. The risk strategy is executed within a clear defined governance structure. This structure also applies to monitoring risk appetite, additional metrics, as well as to the escalation of limit breaches.

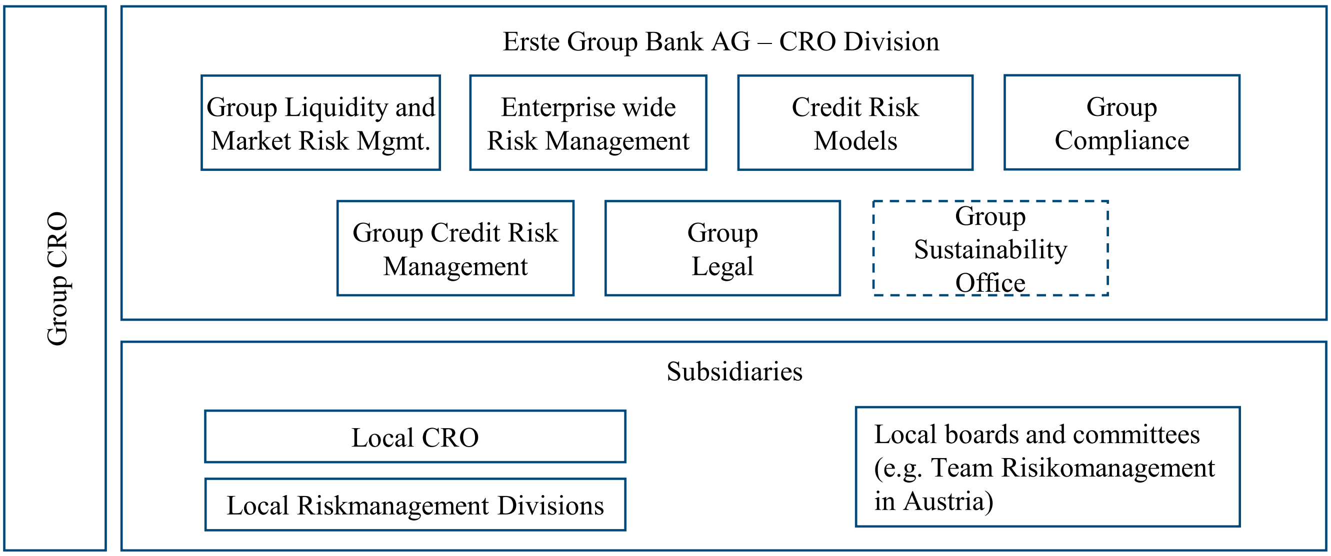
In 2019, management has continued to steer credit portfolios, including active management of non-performing exposures to further strengthen the risk profile (e.g. enhanced workout measures, monitoring and reporting of long-term operational plans for legacy stock of non-performing loans and inflow of new non-performing loans etc.). This has been demonstrated in particular by the continuous improvement of credit quality and the ongoing decrease of non-performing loans and low risk costs.

Erste Group Bank AG uses the Internet as the medium for publishing its disclosures under Article 434 of the Regulation (EU) No. 575/2013 on prudential requirements for credit institutions and investment firms (Capital Requirements Regulation - CRR) and Regulation (EU) No. 876/2019 amending Regulation (EU) No. 575/2013. Details are available on the website of Erste Group at www.erstegroup.com/ir. Relevant disclosures are included in the annual report in the section 'Reports' or published as separate documents in the section 'Regulatory disclosure'.

Risk management organisation

Risk monitoring and control is achieved through a clear organisational structure with defined roles and responsibilities, delegated authorities and risk limits.

The following chart presents an overview of Erste Group's risk management organisation:



In 2019, it was decided to adjust the Group CRO area's structure. The changes addressed the following:

- the division Group Non Financial Risk with the related Operational Risk tasks were integrated into Enterprise wide Risk Management;
- the staff unit 'Executive Divisional Director Strategic Risk' was dissolved.

Risk management structure

The management board and in particular Erste Group's Chief Risk Officer (Group CRO) perform the oversight function within Erste Group's risk management structure. Risk control and risk steering within Erste Group are performed based on the business strategy and risk appetite approved by the management board. The Group CRO, working together with the chief risk officers of the subsidiaries, is responsible for the implementation and adherence to the risk control and risk management strategies across all risk types and business lines.

The management board and, in particular, the Group CRO ensure the availability of appropriate infrastructure and staff as well as methods, standards and processes to that effect; the actual identification, measurement, assessment, approval, monitoring, steering and limit setting for the relevant risks are performed on the operating entity level within Erste Group.

At group level, the management board is supported by several divisions established to perform operating risk control functions and exercise strategic risk management responsibilities. The following risk management functions report directly to the Group CRO:
_ Group Liquidity and Market Risk Management;
_ Enterprise wide Risk Management;
_ Credit Risk Models;
_ Group Compliance;
_ Group Credit Risk Management;
_ Group Legal;
_ Group Sustainability Office;
_ Local Chief Risk Officers.

Group Liquidity and Market Risk Management

The division Group Liquidity and Market Risk Management (GLMRM) comprises all market and liquidity risk functions in Erste Group. This division is responsible for steering, measuring, and controlling liquidity and market risk of Erste Group. It covers both banking book and trading book and comprises the departments Banking Book Risk Management, Trading Book Risk Management, Market and Liquidity Risk Methods and Models and Market and Liquidity Risk Model Validation.

Banking Book Risk Management is responsible for the group-wide governance of market and liquidity risk of the banking book. This includes the identification, measurement and controlling of market and liquidity risk. Furthermore, the department is responsible for setting, controlling, and monitoring group-wide liquidity and market risk limits in the banking book and respective limit escalation procedures.

Trading Book Risk Management is responsible for the group-wide governance of market risk of the trading book. It acts independently of the trading units and takes responsibility for identifying, measuring, and monitoring all market risks arising from capital market business. The scope of this department also comprises setting, controlling, and monitoring of group-wide market risk limits in the trading book and respective limit escalation procedures.

Market and Liquidity Risk Methods and Models covers the development of risk models related to Pillar 1 (i.e. the calculation of the regulatory capital requirements for market risk in the trading book) and Pillar 2 capital requirements as well as valuation and various internal steering purposes.

Market and Liquidity Risk Model Validation is responsible for the independent review and validation of market and liquidity risk related methods and models for Pillar 1 and Pillar 2 purposes Furthermore is the validation unit responsible for the verification of the valuation models. The review of the implementation of the developed methods and models in the respective systems is also covered by the validation unit.

Enterprise wide Risk Management

Enterprise wide Risk Management (ERM) focuses on holistic risk management and ensures comprehensive cross-risk group-wide risk portfolio steering, monitoring, analysis, and reporting. ERM drives key strategic initiatives to establish greater cohesion between risk strategy (including risk appetite and limit steering) and operational execution. Furthermore, ERM works together with all risk functions and key divisions to strengthen oversight group-wide risk to cover capital, credit, liquidity, market, operational, and business risk. The Enterprise wide Risk Management division consists of the departments Credit RWA Management and Stresstesting, Group ICAAP, Group Risk Reporting, Planning & Risk Cost Management and Group Operational & Non-Financial Risk.

The Credit RWA Management and Stresstesting department is responsible for the group-wide management and steering of risk-weighted assets for credit risk (credit RWA) according to the Basel framework as well as for conducting both internal and regulatory stress testing and maintaining the Group’s stress testing framework. In terms of RWA the department is responsible for the methodology and infrastructure of the credit RWA calculation as well as the implementation of changes in the regulatory framework. In stress testing the department oversees the design, governance, organisation and implementation of the macro stress testing processes as well as the credit risk calculation. Further, the credit risk simulation tools are used to provide estimated impacts resulting from planned changes in the RWA calculation. In addition, the department is responsible for the design and governance of risk concentration analyses and forward-looking information (FLI).

The department Group ICAAP covers ICAAP methods, limit steering, as well as the Group’s recovery and resolution planning activities. The department supports the management in ensuring adequate capital capacity that reflects the nature and magnitude of the Group’s risk portfolio. The mission is to maintain and further enhance a robust enterprise-wide risk management framework as well as to compile the operational components of the Group’s risk strategy. Furthermore, the department is responsible for the annual update of the recovery plan of Erste Group and coordinates the departments involved in such update. It also supports local entities in recovery planning and aligns local recovery plans with the group recovery plan. Moreover, it provides information required for the resolution plan to the resolution authorities.

Group Risk Reporting, Planning & Risk Cost Management is in charge of data extraction, consistency and plausibility checks, analysis and reporting to senior management, regulators, auditors, and rating agencies. Its tasks also comprise in coordination and preparation of comprehensive risk reports covering all risk types and it is involved in the implementation of regulatory and financial reporting requirements. Furthermore, it is responsible for the maintenance of the Group's standardised credit risk reporting systems and also takes responsibility for the technical implementation of new regulatory and financial reporting requirements. In terms of planning activities, the responsibilities of the department include the design, governance, organisation and implementation of risk planning processes that ensure the contribution of risk-side input to regular planning rounds and that cover monthly and quarterly forecasts of selected key risk indicators. In terms of risk cost management, it takes care of group-wide standards for determining credit loss allowances and pricing for credit risk as well as for determining and monitoring credit loss allowances at Erste Group Bank AG. It draws up group policies for those areas as well as performs validations of expected credit loss models for all Group entities, of stress test models and of the Advanced Measurement Approach (AMA) model for operational risks.

The Group Operational & Non-Financial Risk department ensures the effective, integrative and holistic implementation of the operational risk objectives, including the support of risk mitigating measures. The department acts as the central and independent risk management unit for identification, measurement and steering of operational risk within Erste Group and is responsible for maintaining the model for the calculation of capital requirements relating to operational risk.

Credit Risk Models

The Credit Risk Models area consists of Model Development, Model Validation and Model Landscape units. The area has responsibility for the overall model governance across the model lifecycle.

The model development follows a subsidiarity model approach, which means responsibilities are assigned to the lowest level that can effectively execute. Local models are developed locally in line with group standards and group-wide models are developed centrally. The function is responsible for development and maintenance of models, including coordination of model approval process and oversight of the implementation steps.

The model validation is organized as a Hub-and-Spoke model, which means that all validation responsibilities are bundled within the Holding unit Model Validation, however local banks remain responsible for the sign-off of the results and for taking appropriate action. Model validation is responsible to independently challenge model development and make certain that all IRB approach models (models according to the internal ratings-based approach) used within the Group are suitable for the purpose they were created for. It verifies that models are performing as expected, in line with their design objectives and intended business uses, as well as in line with regulatory requirements and internal group standards.

The ongoing monitoring of the models in use follows a subsidiarity model analogue to model development: Local banks are monitoring local models in local banks and Holding monitors group-wide models and any local models used by the group. Holding remains responsible for setting the standards and approach for model monitoring to ensure a consistent application throughout the Group.

Model Landscape plays a key role in the centralized model reporting, across the entire model lifecycle. The unit is responsible for the model risk governance role within the Credit Risk Models area, including project management of model change and other initiatives in the area. Model Landscape deals with strategic planning of model changes (e.g. IRB Models stock-take planning, IRB Rollout plan), oversight of model lifecycle process execution and management and maintenance of Model Inventory. In addition, the unit acts as an operative owner of the Holding Model Committee (HMC) and internal model risk governance related regulations.

Group Compliance

In line with Austrian Securities Supervision Act, the Austrian Stock Exchange Act, the Financial Market Money Laundering Act, the Beneficial Owner Registry Act, the Sanctions Act, the General Data Protection Regulation (GDPR) and the Austrian Banking Act, as well as the respective supranational and EU laws, the following departments are responsible for compliance risks.

The responsibilities of Group AML (Anti-Money Laundering), CTF (Counter-Terrorist Financing) and Fraud Prevention are to ensure group steering and implementation of measures to prevent money laundering, terrorism financing (supported by group-wide systems) and fraud (especially related to all areas such as credit, payments, cards, cash, securities and trading, procurement, payroll and embezzlement) to comply with applicable laws and regulations within Erste Group including all group members, branch offices and branch establishments in Austria and abroad. In addition, its staff unit Group Correspondent Banking Compliance supports and controls the international payment hub function of Erste Group and fosters correspondent banking relationships with international banks by supervising and controlling customer and transactions in accordance with Erste Group's risk ambition and to be furthermore in compliance with internationally accepted standards.

Group Financial Sanctions is responsible for the group management and implementation of relevant statutory provisions, internationally recognized risk management standards and measures to comply with financial sanctions and embargoes. All necessary measures for compliance with financial sanctions and embargo guidelines within Erste Group, including all Group members, branches of Erste Group and branches in Austria and abroad, are also defined by Group Financial Sanctions. Monitoring and control activities relate in particular to customer relationships, business partners and transactions of all kinds within the scope of the Bank's business and non-business activities.

Group Securities Compliance and its staff unit Group Markets Compliance is in charge of implementing the provisions of relevant legislation (e.g. MAR/MAD II, MiFIR/MiFID II), guidelines of regulatory authorities and standards applicable for the banking industry to prevent, on a group-wide level, insider trading, market manipulation and other misconduct in securities business. Among others, the key tasks of both units are: group-wide identification and management of conflicts of interest when providing investment services utilising local contacts with system support; market manipulation surveillance for Erste Group Bank AG, savings banks (Sparkassen) and other Austrian entities; aligning market manipulation suspicions group-wide with system support; and personal account controls for entities in Austria.

The Group Data Protection Office function and the Data Protection Officer (DPO) as stipulated by GDPR both for the Group as well as locally for Erste Group Bank, Erste Bank Oesterreich, and the savings banks (Sparkassen). Its tasks include advising the data controller and other stakeholders; monitoring data protection and GDPR compliance, both as regards to the organisation as such and the governance framework; and proper legal, organisational and technical implementation of specific data processing. Finally the DPO is the single point of contact to the Data Protection Authority.

Group Central Compliance and Strategy is a department in Group Compliance which acts as overarching management unit between compliance functions as well as governance function towards Erste Group subsidiaries and branches. Its responsibilities include the definition and management of the Group Compliance Strategy and Compliance Plan, the definition and management of the compliance governance framework as well as the development and performance of the data analytics and risk assessment capability.

Group Credit Risk Management

The newly organised Group Credit Risk Management manages operative risk in underwriting and workout activities for both retail and non-retail portfolios (medium-sized enterprises, large corporate and real estate customers, as well as institutional clients and counterparties). In addition, the division is responsible for setting standards and steering the group's non-retail and retail lending portfolios. It ensures that only credit risk which is in line with the risk appetite, risk strategy, and limits set by ERM are taken on the books of Erste Group.

The decision to integrate Group Workout into Group Credit Risk Management was taken in Q4 2018 under consideration of the successful run-down of the NPL portfolio over the past years and the limited stock size. The new set-up allows for full capitalization of the internally available knowledge of the customers and their business challenges throughout the full credit cycle and fosters exchange of viable information and lessons learned. In order to mitigate any potential conflict of interests, appropriate provisions have been made, including clear responsibilities in line with the three lines of defence model, dedicated decision-making governance for performing and non-performing clients and clearly defined transfer criteria and the client management model for clients in workout.

Group Credit Risk Management consists of seven departments: Group EBA - Erste Business Analysis, Credit Underwriting Corporates, Credit Underwriting Financial Institutions and Sovereigns, Credit Underwriting Real Estate, Group Corporate Workout, Corporate Portfolio Monitoring and Management, and Group Portfolio Steering Corporate and Retail.

The department Group EBA - Erste Business Analysis is responsible for group-wide standards for company analyses and preparing these analyses. In addition, Group EBA performs assessments of the market value for all commercial real estate collateral for Erste Group Bank AG and Erste Group Immorent GmbH, produces regular real estate market research reports for Erste Group's core markets, and is responsible for the group financial analysis tool SABINE. The Central Corporate Rating Unit Desk, as part of Group EBA, acts as single point of contact for all operative issues related to corporate and specialised lending ratings within Group Credit Risk Management.

Credit Underwriting Corporates is responsible for the group-wide underwriting of credit risks associated with large corporate customers, for the management of respective credit applications and related training activities. It is the first line risk management unit for all corporate business at Erste Group Bank AG and, above defined thresholds, the second line risk management unit for corporate business at Erste Group's subsidiaries and the 'Haftungsverbund'.

Credit Underwriting Financial Institutions and Sovereigns is responsible for ratings, analysis, operative credit risk management (risk assessment, approval of transactions and limits, policies, watch lists and early warning system) and workout activities related to financial institutions (banks, insurance companies and funds), regional governments, sovereigns, and structured products.

Credit Underwriting Real Estate is responsible for credit underwriting in real estate business. The area of responsibility includes all real estate customers doing international business and large-volume credit business of Erste Group's subsidiaries with corporate customers in the real estate segment. This organisational unit is the first line risk management unit for all real estate business of Erste Group Bank AG and Erste Group Immorent GmbH as well as the second line risk management unit for business at Erste Group's banking subsidiaries above defined thresholds. In addition, this unit covers underwriting for specific types of project finance (i.e. renewable energy, Private Public Partnership projects (transport infrastructure), etc.) as a first-line and second-line risk management, respectively.

Group Corporate Workout assumes group-wide responsibility for management of clients allocated to the business segments large corporates, commercial real estate, and other corporates that are rated non-performing or are specifically defined as workout clients. It undertakes the direct workout management function for corporate workout clients of Erste Group Bank AG and Erste Group Immorent GmbH. Additionally, Group Corporate Workout acts as the second line risk management unit, above defined thresholds, for workout clients at Erste Group's banking subsidiaries. Furthermore it is the competence centre for managing the divestment processes of NPLs and the management of repossessed assets.

Corporate Portfolio Monitoring and Management is responsible for corporate risk policies and procedures along the credit process, the optimisation of corporate credit processes and the operative monitoring of credit risk (counterparty and country limit management). In addition, this department is responsible for group-wide credit collateral management. This includes the set-up of standards for the credit collateral management, the framework for a Group credit collateral catalogue, and principles for credit collateral evaluation and revaluation.

Group Credit Portfolio Steering Corporate and Retail is responsible for the group-wide steering of the corporate and retail lending and workout portfolios. This includes the definition of the retail lending and analytical framework as well as portfolio reporting framework and early warning system for the corporate portfolio. In addition, this department conducts regular in-depth portfolio reviews together with risk management units of subsidiaries in order to identify and analyse portfolio dynamics. These frameworks serve as a basis for monitoring lending and workout practices of local banks and for identifying potential adverse portfolio developments early on.

Group Legal
Group Legal acts as the central legal department of Erste Group Bank AG. This division provides legal support and counsel for the management board, the business units and the central functions, and mitigates legal risk. It also attends to legal sourcing and to dispute resolution and litigation.

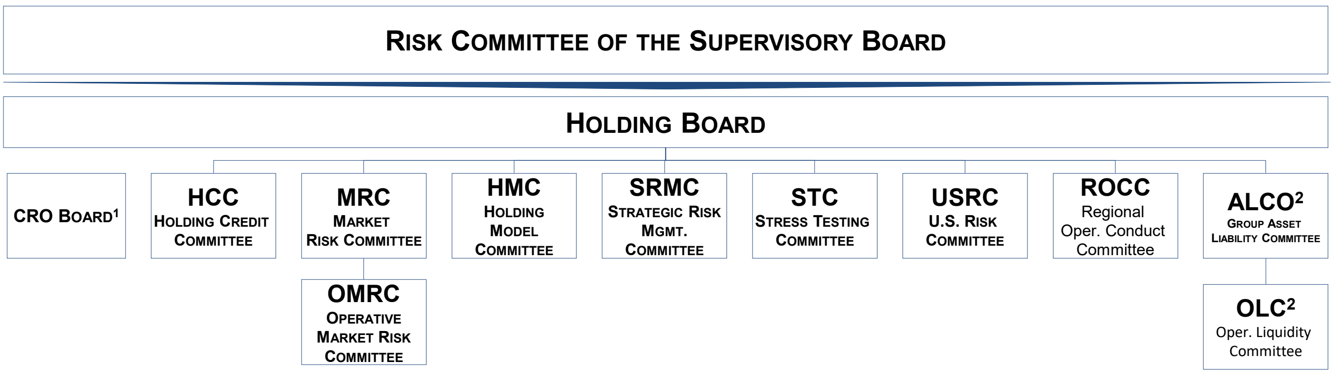
Legal support for the business activities of the banking subsidiaries in the respective jurisdictions in which they operate is performed by separate locally established legal departments. While reporting to the local management, typically the local CRO, the heads of the local legal department also report to the head of Group Legal in a functional dotted line matrix responsibility.

Group Sustainability Office
The main tasks of the Group Sustainability Office (GSO) are development and implementation of Erste Group's environmental policy, adapting and communicating of Erste Group's 'Code of Conduct' and responsible for 'Time Bank' in Austria (a corporate volunteering platform for co-operation between NGOs and Erste employees). GSO is responsible for preparation and compilation of the '(consolidated) non-financial information Report (NFI-Report)' integrated into the Annual Report and is involved in the evaluation of non-financial risks in connection with corporate businesses and is main contact for sustainability ratings.

Local Chief Risk Officers
Each subsidiary has separate risk control and management units with responsibilities tailored to the local requirements, which are headed by the respective local chief risk officer (Local CRO).

Group coordination of risk management activities
The management board regularly deals with risk issues of all risk types in its regular board meetings. Actions are discussed and taken when needed.

Furthermore, certain cross-divisional committees were established with the purpose of carrying out risk management activities in Erste Group. They are shown in the following diagram:



The **Risk Committee of the Supervisory Board** is responsible for granting approval in all cases in which loans and exposures reach an amount exceeding the approval authority of the management board according to the Credit Risk Approval Authority Regulations. It is in charge of granting approval to large exposures pursuant to Article 392 CRR, if such a claim is equal to or exceeds 10% of the eligible capital of a credit institution. Within the competence assigned to it, the committee may grant advance approvals to the extent permitted by law.

In addition, it is responsible for supervising the risk management of Erste Group Bank AG. The risk committee meets regularly. As the central risk control body, the risk committee is regularly briefed on the risk status across all risk types.

The **CRO Board** is responsible for the consistent coordination and implementation of risk management activities within Erste Group. The CRO Board consists of the Group CRO, the chief risk officers of major subsidiaries within Erste Group and the senior area managers of the CRO division of Erste Group Bank AG. Chaired by the Group CRO, the CRO Board is the primary body for aligning on strategically relevant topics of the risk division across Erste Group entities, including (but not limited to) the group-wide strategic planning, the project portfolio and Change the Bank (CtB) investments. The CRO Board ensures a consistent flow of information from and to the group functions and supports the setting of the overall risk agenda.

The **Holding Credit Committee** (HCC) is the highest operative decision-making body for approvals of credit risks according to the valid credit risk approval authority regulations. Based on the advice of HCC, decisions of significant exposures and extended risks are decided by the risk management board of the supervisory committee. It also approves the relevant corporate industry strategies. The HCC is headed by the Group CRO and comprises the board member of Corporates & Markets, the head of Group Credit Risk Management and the head of the requesting business line. Each subsidiary has their own local credit committee established by the same principles.

The **Market Risk Committee** (MRC) is the main steering body for market risk and trading book related issues of Erste Group. MRC approves group-wide market risk limits and elaborates on the current market situation. Furthermore, it approves market risk methodologies and models, model changes, and related validation results.

The **Operative Market Risk Committee** (OMRC) prepares decisions for the MRC and approves sensitivity and notional limits which do not require VaR/SVaR limit adjustments.

The **Holding Model Committee** (HMC) is the steering and control body for IRB approach and Pillar 2 model development, validation and monitoring. All new or changed models and model related aspects (e.g. risk parameters, group-wide methodology standards) are reviewed by the Holding Model Committee and require its approval.

The **Strategic Risk Management Committee** (SRMC) holds the delegated decision authority from the management board with respect to strategic risk management functions. Its responsibility area covers the approach to credit RWA calculation and economic capital calculation methodology, the back-testing of credit loss allowances, the remedy actions resulting from reporting of credit risk control units on rating system performance.

The **Stress Testing Committee** (STC) is the sole forum for all joint resolutions, decisions and acknowledgements in the stress testing area for group-wide stress testing activities.

The **United States Risk Committee** (USRC) has been established to meet the requirements of the United States Federal Reserve Board (FRB) regulation, which has been in force since 1 July 2016. The objective is to involve the management board as key governance and control function for the U.S. trade portfolio which has been specified in the Combined U.S. Operations (CUSO) guidance.

The **Regional Operational Conduct Committee** (ROCC) holds delegated decision authority from the Holding Board with respect to Operational and Non-Financial Risk decisions, which may be represented as NFR decisions based on the predefined Risk Appetite Statement (RAS). The committee (a) decides on strategic steering topics based on NFR reporting (holistic risk overview), (b) serves as a sounding board on business risk decisions concerning non-financial risks and (c) decides on escalations to Holding Board. It facilitates lessons learned, initiates focus areas and decides on the implementation of corresponding group-wide measures. It acts as a Reputational Risk Committee.

The **Group Asset/Liability Committee** (ALCO) manages the consolidated Erste Group balance sheet, focusing on trade-offs between all affected consolidated balance sheet risks (interest rate, exchange rate and liquidity risks), and takes care of the setting of group standards and limits for the members of Erste Group. In addition, it approves policies and strategies for controlling liquidity risk as well as interest rate risk (net interest income) and examines proposals, statements and opinions of ALM, risk management, controlling and accounting functions. The approved investment strategy complies with the guidelines agreed with Risk Management.

The **Operational Liquidity Committee** (OLC) is responsible for the day-to-day management of the global liquidity position of Erste Group. It analyses the liquidity situation of Erste Group on a regular basis and reports directly to the ALCO. It also proposes measures to ALCO within the scope of the management policies and principles laid down in the Liquidity Risk Management Rule Book. Furthermore, members of the OLC are points of contact for other departments or Erste Group members for liquidity-related matters. Each local bank has its own local operational liquidity committee.

In addition, committees are established at local level, such as the 'Team Risikomanagement' in Austria. It is responsible for a common risk approach with the Austrian savings banks.

Group-wide risk and capital management

Enterprise wide Risk Management (ERM) includes as its fundamental component the Internal Capital Adequacy Assessment Process (ICAAP) required under Pillar 2 of the Basel framework.

The ERM framework is designed to support the bank's management in managing the risk portfolios as well as the coverage potential to ensure that the bank holds adequate capital for the nature and magnitude of its risk profile at all times. The framework is tailored to the Erste Group's business and risk profile and reflects the strategic goal of protecting shareholders and senior debt holders while ensuring the sustainability of the organisation.

ERM framework is a modular and comprehensive management and steering system within Erste Group as well as an essential part of the overall steering and management instruments. The ERM components necessary to ensure all aspects, in particular to fulfil regulatory requirements and to provide an effective internal steering tool, can be clustered as follows:

- Risk Appetite Statement (RAS), limits and risk strategy;
- portfolio and risk analytics including Risk Materiality Assessment (RMA), concentration risk management, and stress testing;
- Risk-bearing Capacity Calculation (RCC);
- planning of key risk indicators;
- recovery and resolution planning.

In addition to the ICAAP's ultimate goal of assuring capital adequacy and sustainability at all times, the ERM components serve to support the bank's management in pursuing its strategy.

Risk appetite

Erste Group defines the maximum level of risk it is willing to accept in order to meet its business objectives within the Group's risk appetite (Group RAS). The Group RAS acts as a binding constraint to Erste Group's business activities within its overall risk appetite via triggers and limits approved by the management board. It is integrated and embedded into Erste Group's structural processes; including business and risk strategy, budget process, capital and liquidity planning, recovery plan, stress testing and remuneration framework. The Group RAS consists of a set of core risk metrics providing quantitative direction for overall risk-return steering and qualitative statements in the form of key risk principles that are part of the guidelines for managing risks. The core risk metrics are set as ultimate boundaries for the group risk-return target setting. They are also a key part of the annual strategic planning / budgeting process and give an overall picture of capital, liquidity and risk-return trade-offs. The key objective of the RAS is to:

- ensure that Erste Group has sufficient resources to support its business at any given point in time and absorb stress events;
- set boundaries for the group's risk target setting;
- support the group's financial strength and the robustness of its systems and controls.

To foster risk-return steering and ensure proactive management of the risk profile, Erste Group creates its RAS on a forward-looking basis. External constraints such as regulatory requirements create the floor and ceiling for the RAS and therefore the amount of risk Erste Group is willing to accept. In order to ensure that the group remains within the targeted risk profile, a traffic light system was established and assigned to the core metrics. This approach allows a timely delivery of information to the respective governance and the implementation of effective remediation measures. The RAS traffic light system is defined as follows:

- RAS is green: The target risk profile is within the specified boundaries.
- RAS is amber: The undershooting or overshooting of a pre-defined threshold leads to an escalation to the designated governance and the discussion of potential remediation actions.
- RAS is red: The undershooting or overshooting of a pre-defined limit initiates an immediate escalation to the designated governance and a prompt implementation of remediation actions.

Moreover, stress indicators are defined for selected core metrics and integrated into the assessment of the stress test results. They are reported as early warning signals to the management board to support proactive management of the risk and capital profile.

In addition, supporting metrics and principles are defined by material risk type in the Group Risk Strategy based on Group RAS. These support implementation of the mid- to long-term strategy. Risk management governance ensures full oversight of risk decisions and sound execution of the group risk strategy. Mitigating actions are undertaken as part of the regular risk management process to ensure that the group remains within its RAS.

Group RAS for 2019 was approved by the management board and acknowledged by the risk committee of supervisory board and supervisory board. The group further developed an aggregated and consolidated risk appetite dashboard (Risk Dashboard) illustrating the group's and local entities' risk profile developments by comparing the risk exposure and risk limits. The Risk Dashboard is regularly presented to the management board and to the supervisory board to support its review, oversight, and monitoring of the group risk profile and the risk profile of its local entities.

Group RAS is also broken down into local entities. Local RAS is approved by the management board to ensure compliance with the Group RAS and also approved by the local management board to ensure alignment with local regulatory requirements. The group may also decide to include further compulsory constraints and limits in local RAS to ensure alignment with Group RAS and Group Risk Strategy.

Portfolio and risk analytics

Erste Group uses dedicated infrastructure, systems and processes to actively identify, measure, control, report and manage risks within its portfolio. Portfolio and risk analytics processes are designed to quantify, qualify and discuss risks in order to raise awareness to management in a timely manner.

Risk materiality assessment

The Risk Materiality Assessment (RMA) determines the materiality of risk types and consequently the risk profile across Erste Group and its entities. RMA is an annual process with the purpose of systematically identifying new and assessing all existing material risks for Erste Group. As such, the RMA is an integral part of the ICAAP and serves as a steering tool for senior management.

Insights generated by the assessment are used to improve risk management practices and further mitigate risks within the group. The assessment also serves as input for the design and definition of the group's Risk Strategy and Risk Appetite Statement. Key outputs and recommendations of the RMA are considered in the scenario design and selection of the comprehensive and reverse stress tests.

Risk concentration analysis

Erste Group has implemented a process to identify measure, control and manage risk concentrations. This process is important to ensure the long-term viability of Erste Group, especially in times of an adverse business environment and stressed economic conditions.

The risk concentration analysis at Erste Group is performed on an annual basis covering credit risk, market risk, operational risk, liquidity risk and inter-risk concentrations. Identified risk concentrations are considered in the scenario design of the comprehensive stress test and measured under stressed conditions. The output of the risk concentration analysis additionally contributes to the identification of material risks within the RMA and to the setting/calibration of Erste Group's limit system.

Stress testing

Modelling sensitivities of the group's assets, liabilities and profit or loss provide management steering information and help to optimise Erste Group's risk-return profile. Stress tests help to factor in severe but plausible scenarios providing further robustness to measurement, steering and management. Risk modelling and stress testing are vital forward-looking elements of the ICAAP. Finally, sensitivities and stress scenarios are considered within the group's planning process.

Erste Group's most complex stress testing activities are scenario stress tests that take a comprehensive account of the impact of various economic scenarios, including second-round effects on all risk types (credit, market, liquidity and operational) and effects on the associated volumes of assets and liabilities as well as on profit and loss sensitivities. In addition to the standard scenario-driven stress testing exercises, reverse stress tests are performed to identify a scenario or a combination of scenarios in which viability of the current business model can be questioned.

Erste Group has developed specific tools to translate macroeconomic variables (e.g. GDP or unemployment rate) into risk parameters in order to support the stress testing process, which combines bottom-up and top-down approaches. For adapting the stress parameters, Erste Group additionally leverages the experience of its local professionals and uses, where appropriate, their statistical models to simulate the impacts of macroeconomic variables on the probabilities of default in the respective markets. Special attention is given to account for adequate granularity and special characteristics (i.e. countries and industries) when determining the segmentation in which the stressed parameters are defined.

Results from Erste Group's internal stress tests are analysed in order to decide on appropriate measures. The internal comprehensive stress tests performed in 2019 indicated no breach of stressed RAS triggers after the application of scenario contingent measures in the last year of adverse scenario.

Risk-bearing capacity calculation

The Risk-bearing Capacity Calculation (RCC) defines the level of capital adequacy required by the ICAAP. In contrast to the regulatory view of Pillar 1, starting with 2019 the RCC is based on an economic view assuming continuation of Erste Group (as expected by ECB Guide to ICAAP) and determines whether the bank has sufficient capital for covering all risks it is exposed to. Based on the results of the RMA, economic capital is considered for relevant risk types as approved by the management board. The aggregated capital requirements are then compared to internally available capital, as reflected by the coverage potential.

The management board, risk management committees and supervisory board are briefed quarterly on the results of the ICAAP capital adequacy through the Group Risk Report and the Risk Dashboard. The former includes risks movements, available capital (coverage potential), consideration of potential losses in stress situations, the degree of the risk limit utilisation and the overall status of capital adequacy. The latter outlines risk profile development in relation to risk appetite.

Besides the Pillar 1 risk types (credit, market and operational risks), interest rate risk in the banking book, foreign exchange risk arising from equity investments, credit spread risk in the banking book, risk from foreign currency loans (i.e. FX induced credit risk), risk from repayment vehicles as well as business risk are explicitly considered within the economic capital requirements via internal models in the context of Pillar 2. At the end of 2019, the economic capital adequacy was at 57.9%. The methodologies applied to the different risk types are diverse and range from value at risk approaches to the regulatory approach. Moreover, calculations for most of the portfolios under the standardised approach for credit risk are extended by risk parameters from the internal ratings-based approach in order to provide a more risk sensitive economic view.

Credit risk accounts for 73.4% of total economic capital requirements at the end of 2019. Reflecting Erste Group's conservative risk management policy and strategy, the group does not offset diversification effects between the risk types. Starting with 2019, the economic capital requirements for unexpected losses are computed on a one-year time horizon with a 99.92% confidence level, ensuring group-wide consistency (group and local entities) and coherence between ICAAP and processes where ICAAP is integrated.

The internal capital or coverage potential required to cover Pillar 2 risks and unexpected losses is based on CRR and CRR II (Regulation (EU) No. 575/2013 and Regulation (EU) No. 876/2019 amending Regulation (EU) No. 575/2013) fully loaded regulatory own funds adjusted by Pillar 2 add-ons (e.g. year-to-date profit (if not already considered in Pillar 1 capital), exclusion of Tier 2 capital instruments, IRB expected loss excess/shortfall add-on, etc.). The coverage potential must be sufficient to absorb unexpected losses resulting from the group's operations at any point in time, as reflected in the Group's Risk Appetite through the limits set for utilisation of coverage potential.

Risk planning

Group Risk Planning framework is essential for the capital allocation and overall financial planning processes and supports the adequate reflection of risks within the strategy, steering and management processes of the group.

Methods and instruments applied

Key risk indicators covered by the Risk Planning framework include indicators that provide an overview of incurred or potential risks, with respect to both portfolio and economic environment developments. Indicators include RWA (and related indicators), portfolio quality indicators (impairments, NPL/NPE and relevant performance indicators etc.), as well as indicators required by the regulatory authorities under the responsibility of the Risk division.

Planning activities are performed in close cooperation with all stakeholders in the group´s overall process, and follow a clear governance structure to ensure sound risk planning process.

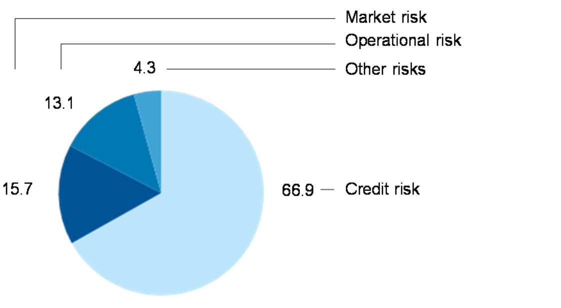
Capital allocation

An important task integral to the risk planning process is the allocation of capital to entities, business lines and segments. This is done with close cooperation between Risk Management and Controlling. Methodology for allocation reflects risk and controlling processes in order to allocate capital with risk-return considerations.

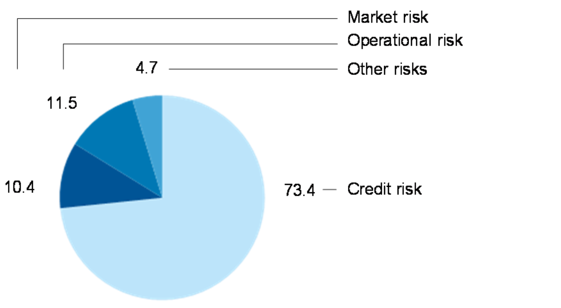
Erste Group's aggregate capital requirements by risk type

The following diagrams present the composition of the economic capital requirements according to type of risk:

Economic capital allocation (in %)
31 December 2018



Economic capital allocation (in %)
31 December 2019



Other risks include business risk.

Leverage ratio

The leverage ratio represents the relationship between core capital (tier 1) and leverage exposure according to Article 429 CRR. Essentially, the leverage exposure represents the sum of unweighted on- and off-balance-sheet positions considering valuation and risk adjustments as defined within the CRR. The calculation and disclosure of the leverage ratio is based on the European Commission's delegated regulation ((EU) 2015/62 of 10 October 2014), which was published in the Official Journal of the European Union on 17 January 2015.

Recovery and resolution plans

In compliance with the Austrian Banking Recovery and Resolution Law ('Bundesgesetz über die Sanierung und Abwicklung von Banken – BaSAG') Erste Group submits an updated Group Recovery Plan to ECB every year.

The Group Recovery Plan identifies options for restoring financial strength and viability in case Erste Group comes under severe economic stress. The plan specifies potential options for the replenishment of capital and liquidity resources of the bank in order to cope with a range of scenarios including both idiosyncratic and market-wide stress. The recovery governance described in the plan ensures timely identification and proper management of any recovery situation. Furthermore, the assessment of the Group Recovery Plan and the recently addressed assessment of the overall recovery capacity are part of the Supervisory Review and Evaluation Process (SREP) assessment. It is relevant to demonstrate that, in a severe stress which is close to a failing or likely to fail situation, there is sufficient recovery capacity available.

Erste Group collaborates with the resolution authorities in the drawing up of resolution plans based on BaSAG and EU Regulation No 806/2014 establishing the Single Resolution Mechanism (SRM Regulation). Erste Group prefers the Multiple Point of Entry (MPE) resolution strategy on cross-country level, but a Single Point of Entry (SPE) resolution strategy within a country.

The Bank Recovery and Resolution Directive (BRRD) introduced the Minimum Requirement for own funds and Eligible Liabilities (MREL). MREL has to be met at any time once it is a binding requirement. MREL is expressed as the amount of own funds and eligible liabilities expressed as a percentage of the total liabilities and own funds (TLOF) of the institution. As of December 2019, Erste Group has not yet received the binding targets for its Resolution Groups. Nevertheless, expected MREL requirements have been considered within the strategic planning and budgeting process on local and Group level.

In June 2019 the new banking reform package was published, which includes the Bank Recovery and Resolution Directive (BRRD2). The transposition into national law (BaSAG) is set with up to 18 months and is expected by the end of 2020. Beside the introduction of the term 'resolution group' and the concept of internal MREL, further criteria for bail-in eligible liabilities and MREL eligible liabilities are set.

Credit risk

Credit risk arises in Erste Group's traditional lending and investment businesses. It involves both credit losses incurred as a result of borrowers' default (Stage 3) and credit losses expected if default occurs either within 1 year (Stage 1) or at any time until maturity (Stage 2).

Stage 1 credit losses apply to non-defaulted credit risk exposures without significant increase in credit risk (SICR) since inception, whilst Stage 2 credit losses apply to non-defaulted credit risk exposures for which SICR is observed at the reporting date. It also involves credit losses due to counterparty risk from trading in instruments and derivatives bearing market risk. Country risk and related macro-economic forward-looking information is also recognised in the calculation of credit risk.

Operative credit decisions are made by the credit risk management units in each of the banking subsidiaries locally and by Group Credit Risk Management at group level. A detailed explanation of the role and responsibilities of Group Credit Risk Management is covered in the section 'Risk management organisation'.

In contrast to large corporates, banks and governments managing credit risk in retail and SME involves dealing with a large number of relatively small exposures extended to private individuals, free professionals, entrepreneurs, or micro and small companies. Credit risk related to retail and SME loan portfolios is managed at group and at local entity level with a common interest in order to ensure regulatory compliant risk management practices and to provide customers with manageable loan facilities that are within their financial capacities and supported by underlying profitability.

The central database used for credit risk management is the Business Intelligence data warehouse (BI-DWH). All data relevant to credit risk management, performance management, and determination of risk-weighted assets and regulatory capital requirements is regularly loaded into this database. Relevant subsidiaries not yet integrated into the Group data pool regularly deliver reporting packages.

The Group Risk Reporting, Planning and Risk Cost Management department uses the BI-DWH in particular for centralised credit risk reporting. This ensures centralised analysis and application of ratios according to unified methods and segmentation across Erste Group as a whole. Credit risk reporting comprises regular reports on Erste Group's credit portfolio for external and internal recipients and permits continuous monitoring of credit risk developments, thus enabling management to take control measures. In-house recipients of these reports include, above all, the supervisory and management boards of Erste Group Bank AG as well as the risk managers, business unit directors and internal audit staff.

Internal rating system

Erste Group has business and risk strategies in place that govern policies for lending and credit approval processes. These policies are reviewed and adjusted regularly, at a minimum on an annual basis. They cover the entire lending business, taking into account the nature, scope and risk level of the transactions and the counterparties involved. Credit approval considers individual information on the creditworthiness of the customer, the type of credit, collateral, covenant package and other risk mitigation factors involved.

The assessment of counterparty default risk within Erste Group is based on the customer's probability of default (PD). For each credit exposure and lending decision, Erste Group assigns an internal rating, which is a unique measure of the counterparty default risk. The internal rating of each customer is updated event-specific, however, at least once a year (annual rating review). Ratings of workout customers are reviewed with more frequently.

The main purpose of the internal ratings is to support the decision-making for lending and for the terms of credit facilities. Internal ratings also determine the level of credit approval authority within Erste Group and the monitoring procedures for existing exposures. At a quantitative level, internal ratings influence the level of required risk pricing, loss allowances and risk-weighted assets under Pillar 1 or 2.

For entities of Erste Group that use the internal ratings-based (IRB) approach, internal ratings are key input for the risk-weighted assets calculation. They are also used in the group's assessment of the economic capital requirements according to Pillar 2. For these purposes, a distinct PD value is assigned to each rating grade for its IRB portfolios within a calibration process that is performed individually for each rating method and each regional portfolio. PD values reflect a 12-month probability of default based on long-term average default rates per rating grade. The bank assigns margins of conservatism to the calculated PDs.

Internal ratings take into account all available significant information for the assessment of counterparty default risk. For non-retail borrowers, internal ratings take into account the financial strength of the counterparty, the possibility of external support, flexibility in corporate financing, general company information and external credit history information, where available. For retail clients, internal ratings are based mainly on payment behaviour versus the bank and, where applicable, credit bureau information, supplemented with information provided by the respective client and general demographic information. Rating ceiling rules on credit quality are applied based on membership in a group of economically related entities and the country of main economic activity (applicable to cross-border financing facilities).
Internal specialist teams develop and improve internal rating models and risk parameters in cooperation with risk managers. Model development follows an internal group-wide methodological standard and utilises relevant data covering the respective market. In this way, Erste Group ensures the availability of rating models with the best possible prediction across its core regions.

All rating models and their components (scorecards), whether retail or non-retail, are regularly validated by the central validation unit based on a group-wide standard methodology. Validation uses statistical techniques to evaluate the accuracy of default prediction, rating stability, data quality, completeness and relevance and reviews the quality of documentation and degree of user acceptance. The results of this validation process are reported to the management and regulatory bodies. In addition to the validation process, the group applies a regular monitoring process on the performance of rating tools, reflecting developments in new defaults and early delinquencies.

The Holding Model Committee (HMC) holds delegated approval authorities of the Erste Holding Management Board, and is established as the steering and oversight body for the model development and validation process. Approvals of all new models, model changes, changes to risk parameters within the group, changes in group-wide methodological standards and other model-related aspects are carried following dual approval process within the Group – corresponding Holding and local model committee structures reflect joint responsibilities for decisions on IRB models. Responsibilities are assigned depending on model perimeter (Group-wide or locally developed model). Ultimate responsibility for all models used within the Group (at consolidated level) lies with the Group CRO. All model governance, development and validation activities are coordinated by the Credit Risk Models division.

Credit risk classification

For the disclosure of asset quality Erste Group assigns each customer to one of the following four risk categories:

Low risk. Typically regional customers with well-established and rather long-standing relationships with Erste Group or large internationally recognised customers. Very good to satisfactory financial position and low likelihood of financial difficulties relative to the respective market in which the customers operate. Retail clients having long relationships with the bank, or clients with a wide product pool use. No relevant late payments currently or in the most recent 12 months. New business is generally done with clients in this risk category.

Management attention. Vulnerable non-retail clients, who may have overdue payments or defaults in their credit history or may encounter debt repayment difficulties in the medium term. Retail clients with possible payment problems in the past triggering early collection reminders. These clients typically have a good recent payment history.

Substandard. The borrower is vulnerable to short-term negative financial and economic developments and shows an elevated probability of failure. In some cases, restructuring measures are possible or already in place. As a rule, such loans are managed in specialised risk management departments.

Non-performing. One or more of the default criteria under Article 178 of the CRR are met, which include full repayment unlikely, interest or principal payments on a material exposure more than 90 days past due, restructuring resulting in a loss to the lender, realisation of a loan loss, or initiation of bankruptcy proceedings. Erste Group applies the customer view for all customer segments, including retail clients; if an obligor defaults on one deal then the customer's performing transactions are classified as non-performing as well. All non-performing exposures are also defaulted.

Based on the calibration of internal PDs (probabilities of default) for regulatory purposes to the default rates published by rating agencies, the equivalent external customer rating was used for the assignment to risk categories. For the agency ratings, average one-year default rates resulting from long-term time series were applied.

Credit risk review and monitoring

Group Credit Risk Management conducts periodical reviews of the loan portfolio for each local entity to ensure an adequate portfolio quality and to monitor the compliance of local portfolios with the principles and parameters as stipulated by Erste Group's credit risk policies.

All credit limits and the transactions booked within the limits are reviewed at least once a year. Counterparty credit risk limits are monitored daily in an internal limit management system with remedial actions taken in case limits are exceeded.

A group-wide standardised early warning monitoring process is implemented to proactively identify negative developments. The early warning signals are monitored at group level by Group Credit Risk Management and, at subsidiary level, by the local units responsible for corporate risk management, and retail risk and collections management, for respective segments. When early warning signals are identified and validated, the overall client exposure and creditworthiness is reviewed and adequate risk mitigating actions are taken if deemed necessary. Watch list meetings are held on a regular basis to monitor customers with a poor credit standing and to discuss pre-emptive measures. For smaller enterprises (micro) and retail customers, the monitoring and credit review are based on an automated early warning system. In retail risk management, the early warning signals for adverse portfolio developments include, for instance, quality deterioration in new business or a decreasing collections effectiveness and require appropriate countermeasures. Additionally, the monitoring is performed for clients where early warning signals have been identified, even if they are still fulfilling their contractual repayment obligations.

Adverse portfolio developments regarding the non-performing and substandard loans portfolio of Erste Group are monitored, discussed and reported. In case of further negative developments clients are handled in specialized workout units aiming to minimize potential losses.

Credit risk exposure

Credit risk exposure relates to the sum of the following balance sheet items:

- cash and cash balances - demand deposits to credit institutions;
- debt instruments held for trading;
- non-trading debt instruments at fair value through profit or loss (FVPL);
- debt instruments at fair value through other comprehensive income (FVOCI);
- debt instruments at amortised cost (AC), other than trade and other receivables;
- trade and other receivables (for disclosure purposes in the tabular summaries below, any contract assets are also included in this category);
- finance lease receivables;
- debt instruments held for sale in disposal groups;
- positive fair value of hedge accounting derivatives;
- off-balance sheet exposures (primarily financial guarantees and undrawn loan commitments).

The credit risk exposure equates the gross carrying amount (or nominal value in the case of off-balance sheet positions) excluding:

- credit loss allowances for financial assets;
- credit loss allowances for loan commitments and financial guarantees;
- provisions for other commitments;
- any collateral held (including risk transfer to guarantors);
- netting effects;
- other credit enhancements;
- credit risk mitigating transactions.

Between 31 December 2018 and 31 December 2019, credit risk exposure increased from EUR 255,864 million to EUR 273,778 million. This is an increase of 7.0% or EUR 17,914 million.

Reconciliation between the gross carrying amount and the carrying amount of the credit risk exposure components

in EUR million	Credit risk exposure	Credit loss allowances	Adjustments	Net carrying amount
Dec 19				
Cash and cash balances - demand deposits to credit institutions	1,196	0	0	1,195
Debt instruments held for trading	5,694	0	0	5,694
Non-trading debt instruments at FVPL	2,818	0	0	2,818
Debt securities	2,335	0	0	2,335
Loans and advances to banks	0	0	0	0
Loans and advances to customers	483	0	0	483
Debt instruments at FVOCI	8,590	-14	247	8,836
Debt securities	8,590	-14	247	8,836
Loans and advances to banks	0	0	0	0
Loans and advances to customers	0	0	0	0
Debt instruments at AC	207,150	-2,988	0	204,162
Debt securities	26,774	-11	0	26,764
Loans and advances to banks	23,063	-9	0	23,055
Loans and advances to customers	157,312	-2,969	0	154,344
Trade and other receivables	1,480	-72	0	1,408
Finance lease receivables	4,169	-134	0	4,034
Debt instruments held for sale in disposal groups	0	0	0	0
Positive fair value of hedge accounting derivatives	130	0	0	130
Off-balance sheet exposures	42,552	-310	0	-
Total	**273,778**	**-3,518**	**247**	**228,279**
Dec 18				
Cash and cash balances - demand deposits to credit institutions	1,009	0	0	1,009
Debt instruments held for trading	5,516	0	0	5,516
Non-trading debt instruments at FVPL	2,938	0	0	2,938
Debt securities	2,651	0	0	2,651
Loans and advances to banks	0	0	0	0
Loans and advances to customers	287	0	0	287
Debt instruments at FVOCI	8,828	-10	205	9,033
Debt securities	8,828	-10	205	9,033
Loans and advances to banks	0	0	0	0
Loans and advances to customers	0	0	0	0
Debt instruments at AC	192,413	-3,307	0	189,106
Debt securities	26,059	-8	0	26,050
Loans and advances to banks	19,111	-8	0	19,103
Loans and advances to customers	147,243	-3,290	0	143,953
Trade and other receivables	1,441	-122	0	1,318
Finance lease receivables	3,914	-151	0	3,763
Debt instruments held for sale in disposal groups	0	0	0	0
Positive fair value of hedge accounting derivatives	132	0	0	132
Off-balance sheet exposures	39,673	-343	0	-
Total	**255,864**	**-3,933**	**205**	**212,816**

Credit loss allowances comprise impairments for financial assets measured at amortised cost (including finance lease and trade and other receivables) and at fair value through other comprehensive income (FVOCI), as well as credit loss allowances and provisions for off-balance sheet exposures. Adjustments refer to the fair value changes of the carrying amount for financial assets at FVOCI.

Breakdown of credit risk exposure

On the next pages the credit risk volume is categorised in the following way:

_ counterparty sector and financial instrument;
_ contingent liabilities / off-balance sheet exposure by product;
_ risk category;
_ industry and financial instrument;
_ industry and IFRS 9 treatment;
_ industry and risk category;
_ region and risk category;
_ region and IFRS 9 treatment;
_ business segment and risk category;
_ business segment and IFRS 9 treatment;
_ geographical segment and risk category;
_ geographical segment and IFRS 9 treatment;
_ non-performing credit risk exposure by business segment and coverage by credit loss allowances and collateral;
_ non-performing credit risk exposure by geographical segment and coverage by credit loss allowances and collateral;
_ relative thresholds for significant increase in credit risk assessment by geographical segments;
_ composition of credit loss allowances;
_ credit risk exposure, forbearance exposure and credit loss allowances;
_ types of forbearance exposure;
_ credit quality of forbearance exposure by geographical segment;
_ business segment and collateral;
_ geographical segment and collateral;
_ financial instrument and collateral;
_ credit risk exposure past due and not covered by credit loss allowances by financial instrument and collateralisation.

Credit risk exposure by counterparty sector and financial instrument

					At amortised cost								
in EUR million	Cash and cash balances - demand deposits to credit institutions	Debt instruments held for trading	Non-trading debt instruments at FVPL	Debt instruments at FVOCI	Debt securities	Loans and advances to banks	Loans and advances to customers	Trade and other receivables	Finance lease receivables	Debt instruments held for sale in disposal groups	Positive fair value of hedge accounting derivatives	Off-balance sheet exposures	Total
Dec 19													
Central banks	0	19	0	19	50	16,109	0	1	0	0	0	21	16,218
General governments	0	2,037	336	6,221	22,514	0	6,781	63	379	0	0	2,098	40,429
Credit institutions	1,196	3,059	723	1,099	3,288	6,955	0	25	1	0	129	955	17,429
Other financial corporations	0	98	1,088	181	143	0	3,612	30	71	0	0	1,513	6,735
Non-financial corporations	0	481	328	1,070	780	0	67,774	1,240	2,934	0	1	26,493	101,099
Households	0	1	344	0	0	0	79,146	122	783	0	0	11,472	91,868
Total	**1,196**	**5,694**	**2,818**	**8,590**	**26,774**	**23,063**	**157,312**	**1,480**	**4,169**	**0**	**130**	**42,552**	**273,778**
Dec 18													
Central banks	0	20	0	3	25	14,939	0	0	0	0	0	17	15,004
General governments	0	1,819	761	6,694	22,387	0	7,059	49	407	0	0	1,958	41,134
Credit institutions	1,009	3,062	721	912	2,752	4,172	0	47	2	0	125	668	13,470
Other financial corporations	0	132	1,048	182	145	0	3,355	42	63	0	5	1,389	6,361
Non-financial corporations	0	482	248	1,037	749	0	62,207	1,176	2,742	0	2	24,282	92,926
Households	0	1	161	0	0	0	74,623	126	700	0	0	11,358	86,968
Total	**1,009**	**5,516**	**2,938**	**8,828**	**26,059**	**19,111**	**147,243**	**1,441**	**3,914**	**0**	**132**	**39,673**	**255,864**

Contingent liabilities/ Off-balance sheet exposures by product

in EUR million	Dec 18	Dec 19
Financial guarantees	7,378	7,190
Loan commitments	28,802	31,225
Other commitments	3,493	4,137
Total	**39,673**	**42,552**

Credit risk exposure by risk category

in EUR million	Low risk	Management attention	Substandard	Non-performing	Total
Dec 19	**243,042**	**19,936**	**6,338**	**4,463**	**273,778**
Share of credit risk exposure	88.8%	7.3%	2.3%	1.6%	
Dec 18	**224,125**	**20,293**	**6,130**	**5,315**	**255,864**
Share of credit risk exposure	87.6%	7.9%	2.4%	2.1%	
Change in credit risk exposure	18,917	-358	207	-852	17,914
Change	8.4%	-1.8%	3.4%	-16.0%	7.0%

Credit risk exposure by industry and financial instrument

					At amortised cost								
in EUR million	Cash and cash balances - demand deposits to credit institutions	Debt instruments held for trading	Non-trading debt instru-ments at FVPL	Debt instruments at FVOCI	Debt securities	Loans and advances to banks	Loans and advances to customers	Trade and other receivables	Finance lease receivables	Debt instruments held for sale in disposal groups	Positive fair value of hedge accounting derivatives	Off-balance sheet exposures	Total
Dec 19													
Agriculture and forestry	0	1	0	0	7	0	2,688	28	137	0	0	389	3,250
Mining	0	0	9	0	0	0	267	15	21	0	0	496	807
Manufacturing	0	74	22	181	77	0	11,587	522	519	0	0	6,293	19,274
Energy and water supply	0	58	17	90	44	0	3,204	69	77	0	0	859	4,418
Construction	0	11	22	3	4	0	6,935	71	281	0	0	5,005	12,332
Development of building projects	0	7	18	3	4	0	4,128	0	6	0	0	1,395	5,559
Trade	0	7	26	42	8	0	8,286	378	522	0	0	4,488	13,757
Transport and communication	0	46	125	524	224	0	3,950	74	696	0	1	2,159	7,798
Hotels and restaurants	0	4	1	1	3	0	4,312	7	86	0	0	712	5,126
Financial and insurance services	1,191	3,182	1,850	1,351	3,498	23,057	3,876	56	62	0	129	2,595	40,848
Holding companies	0	10	4	115	71	0	1,752	0	8	0	0	790	2,749
Real estate and housing	0	150	107	63	102	0	26,093	7	168	0	0	3,513	30,203
Services	0	109	58	143	121	0	9,216	79	533	0	0	3,779	14,038
Public administration	0	2,040	237	6,110	22,477	0	5,597	42	266	0	0	1,826	38,595
Education, health and art	0	8	4	0	0	0	2,833	7	335	0	0	580	3,767
Households	0	0	340	0	0	5	68,449	104	465	0	0	9,834	79,198
Other	5	4	0	82	210	2	20	21	2	0	0	23	368
Total	**1,196**	**5,694**	**2,818**	**8,590**	**26,774**	**23,063**	**157,312**	**1,480**	**4,169**	**0**	**130**	**42,552**	**273,778**
Dec 18													
Agriculture and forestry	0	1	5	0	0	0	2,562	21	148	0	0	359	3,096
Mining	0	5	8	2	4	0	242	10	20	0	0	425	717
Manufacturing	0	86	28	162	62	0	10,781	490	440	0	0	5,983	18,032
Energy and water supply	0	68	21	90	32	0	3,014	50	69	0	1	803	4,147
Construction	0	7	20	19	6	0	6,248	78	237	0	0	4,803	11,417
Development of building projects	0	4	14	3	4	0	3,704	0	4	0	0	1,358	5,090
Trade	0	9	31	40	0	0	7,993	394	536	0	0	3,689	12,692
Transport and communication	0	81	168	558	253	0	3,634	52	642	0	0	2,090	7,479
Hotels and restaurants	0	5	4	1	4	0	4,020	6	74	0	0	662	4,776
Financial and insurance services	1,009	3,213	1,747	1,145	2,932	19,111	3,821	91	50	0	130	2,221	35,471
Holding companies	0	19	16	92	77	0	1,993	0	4	0	0	545	2,747
Real estate and housing	0	119	58	95	89	0	24,045	6	171	0	0	3,322	27,904
Services	0	89	73	141	174	0	8,304	78	467	0	0	3,608	12,935
Public administration	0	1,819	622	6,459	22,306	0	5,748	30	296	0	0	1,425	38,705
Education, health and art	0	8	7	0	0	0	2,626	5	336	0	1	553	3,536
Households	0	0	146	0	0	0	64,198	118	423	0	0	9,698	74,584
Other	0	5	0	117	196	0	8	13	3	0	0	32	373
Total	**1,009**	**5,516**	**2,938**	**8,828**	**26,059**	**19,111**	**147,243**	**1,441**	**3,914**	**0**	**132**	**39,673**	**255,864**

Credit risk exposure by industry and IFRS 9 treatment

in EUR million	Stage 1	Stage 2	Stage 3	POCI	Credit risk exposure (AC and FVOCI)	Not subject to IFRS 9 impairment	Total
Dec 19							
Agriculture and forestry	2,849	265	111	11	3,236	14	3,250
Mining	680	52	27	23	781	26	807
Manufacturing	16,043	1,805	431	46	18,324	951	19,274
Energy and water supply	3,657	558	75	4	4,294	124	4,418
Construction	10,160	862	389	31	11,441	890	12,332
Development of building projects	4,908	327	71	9	5,314	245	5,559
Trade	11,290	1,363	396	41	13,091	666	13,757
Transport and communication	6,934	462	104	5	7,506	292	7,798
Hotels and restaurants	4,314	503	243	26	5,086	41	5,126
Financial and insurance services	34,931	515	27	13	35,486	5,362	40,848
Holding companies	2,406	189	5	13	2,614	136	2,749
Real estate and housing	27,130	2,031	316	134	29,611	592	30,203
Services	11,709	1,322	243	6	13,279	759	14,038
Public administration	35,748	385	1	3	36,137	2,459	38,595
Education, health and art	3,097	417	216	0	3,730	37	3,767
Households	71,273	5,715	1,511	136	78,636	562	79,198
Other	361	0	0	0	361	7	368
Total	**240,176**	**16,256**	**4,087**	**480**	**260,999**	**12,779**	**273,778**
Dec 18							
Agriculture and forestry	2,571	327	134	44	3,077	19	3,096
Mining	616	34	28	20	697	20	717
Manufacturing	15,160	1,265	523	49	16,997	1,036	18,033
Energy and water supply	3,611	324	77	8	4,019	128	4,147
Construction	9,259	786	502	25	10,572	845	11,417
Development of building projects	4,508	272	56	2	4,839	251	5,090
Trade	10,935	982	449	55	12,420	272	12,692
Transport and communication	6,687	343	111	12	7,152	327	7,479
Hotels and restaurants	3,924	500	278	29	4,731	44	4,775
Financial and insurance services	29,535	515	63	15	30,127	5,339	35,467
Holding companies	2,424	102	44	14	2,584	162	2,747
Real estate and housing	25,561	1,227	427	157	27,372	532	27,904
Services	11,083	948	300	18	12,348	586	12,934
Public administration	35,793	381	1	3	36,179	2,526	38,705
Education, health and art	2,912	349	226	1	3,488	48	3,536
Households	67,276	5,212	1,584	162	74,233	351	74,584
Other	370	1	0	0	371	6	377
Total	**225,292**	**13,193**	**4,704**	**595**	**243,784**	**12,079**	**255,864**

Credit risk exposure by industry and risk category

in EUR million	Low risk	Management attention	Substandard	Non-performing	Total
Dec 19					
Agriculture and forestry	2,063	851	214	122	3,250
Mining	713	33	11	50	807
Manufacturing	16,376	1,942	483	474	19,274
Energy and water supply	3,654	485	199	79	4,418
Construction	9,867	1,612	435	418	12,332
Development of building projects	4,586	784	109	79	5,559
Trade	10,906	1,979	434	438	13,757
Transport and communication	6,669	712	309	108	7,798
Hotels and restaurants	3,662	928	285	251	5,126
Financial and insurance services	39,692	884	244	27	40,848
Holding companies	2,558	164	22	5	2,749
Real estate and housing	24,692	3,747	1,326	438	30,203
Services	12,202	1,245	335	254	14,038
Public administration	38,218	292	85	1	38,595
Education, health and art	2,982	413	155	216	3,767
Households	71,039	4,813	1,759	1,587	79,198
Other	306	0	61	0	368
Total	**243,042**	**19,936**	**6,338**	**4,463**	**273,778**
Dec 18					
Agriculture and forestry	2,026	753	136	180	3,096
Mining	620	39	11	48	717
Manufacturing	15,127	1,856	470	580	18,033
Energy and water supply	3,408	498	157	85	4,147
Construction	8,878	1,546	467	525	11,417
Development of building projects	4,180	683	169	58	5,090
Trade	9,806	1,887	489	510	12,692
Transport and communication	6,485	685	186	123	7,479
Hotels and restaurants	3,433	767	262	313	4,775
Financial and insurance services	34,271	885	231	79	35,467
Holding companies	2,501	157	30	59	2,747
Real estate and housing	23,163	3,130	1,035	576	27,904
Services	11,058	1,256	293	327	12,934
Public administration	38,236	254	209	6	38,705
Education, health and art	2,736	424	149	228	3,536
Households	64,557	6,314	1,980	1,734	74,584
Other	321	1	55	0	377
Total	**224,125**	**20,293**	**6,130**	**5,315**	**255,864**

Credit risk exposure by region and risk category

The geographic analysis of credit risk exposure is based on the country of risk of borrowers and counterparties. It also includes obligors domiciled in other countries if the economic risk exists in the respective country of risk. Accordingly, the distribution by regions differs from the composition of the credit risk exposure by geographical segments of Erste Group.

in EUR million	Low risk	Management attention	Substandard	Non-performing	Total
Dec 19					
Core markets	**208,069**	**18,042**	**5,869**	**4,023**	**236,003**
Austria	100,495	8,357	1,816	1,687	112,355
Czech Republic	52,422	4,515	1,147	673	58,757
Slovakia	18,851	1,305	1,544	479	22,180
Romania	15,908	1,407	559	407	18,281
Hungary	9,475	1,030	471	157	11,134
Croatia	8,506	1,093	274	598	10,472
Serbia	2,411	335	57	22	2,824
Other EU	**24,839**	**837**	**226**	**296**	**26,198**
Other industrialised countries	**5,334**	**123**	**34**	**14**	**5,504**
Emerging markets	**4,800**	**934**	**210**	**130**	**6,074**
Southeastern Europe/CIS	2,698	571	64	116	3,449
Asia	1,576	152	21	4	1,754
Latin America	156	18	10	9	193
Middle East/Africa	370	193	114	1	678
Total	**243,042**	**19,936**	**6,338**	**4,463**	**273,778**
Dec 18					
Core markets	**195,827**	**18,419**	**5,790**	**4,757**	**224,792**
Austria	96,632	7,692	2,065	1,953	108,342
Czech Republic	50,840	4,220	1,256	697	57,013
Slovakia	15,941	2,812	1,242	553	20,549
Romania	13,903	1,485	473	565	16,426
Hungary	8,762	832	426	198	10,218
Croatia	7,789	1,087	291	767	9,934
Serbia	1,960	291	37	23	2,311
Other EU	**19,788**	**894**	**156**	**408**	**21,245**
Other industrialised countries	**4,807**	**142**	**35**	**37**	**5,022**
Emerging markets	**3,704**	**839**	**149**	**113**	**4,804**
Southeastern Europe/CIS	1,798	425	77	94	2,395
Asia	1,497	138	14	3	1,653
Latin America	56	16	13	10	96
Middle East/Africa	352	260	44	5	661
Total	**224,125**	**20,293**	**6,130**	**5,315**	**255,864**

Credit risk exposure by region and IFRS 9 treatment

in EUR million	Stage 1	Stage 2	Stage 3	POCI	Credit risk exposure (AC and FVOCI)	Not subject to FRS 9 impairment	Total
Dec 19							
Core markets	**210,624**	**14,007**	**3,715**	**417**	**228,762**	**7,240**	**236,003**
Austria	97,589	9,071	1,652	30	108,343	4,012	112,355
Czech Republic	55,975	1,678	648	27	58,328	428	58,757
Slovakia	20,865	666	384	116	22,031	149	22,180
Romania	15,377	1,661	335	110	17,483	798	18,281
Hungary	9,454	295	111	94	9,955	1,179	11,134
Croatia	9,004	530	565	37	10,137	335	10,472
Serbia	2,360	105	19	2	2,486	338	2,824
Other EU	**20,390**	**1,608**	**237**	**49**	**22,283**	**3,914**	**26,198**
Other industrialised countries	**4,601**	**234**	**14**	**13**	**4,862**	**643**	**5,504**
Emerging markets	**4,561**	**408**	**122**	**1**	**5,091**	**982**	**6,074**
Southeastern Europe/CIS	2,928	267	114	1	3,310	138	3,449
Asia	949	34	4	0	987	767	1,754
Latin America	142	25	2	0	169	24	193
Middle East/Africa	543	81	1	0	625	53	678
Total	**240,176**	**16,256**	**4,087**	**480**	**260,999**	**12,779**	**273,778**
Dec 18							
Core markets	**201,888**	**11,378**	**4,244**	**519**	**218,028**	**6,764**	**224,792**
Austria	94,756	7,446	1,847	49	104,097	4,244	108,342
Czech Republic	54,230	1,614	672	17	56,533	479	57,013
Slovakia	19,441	441	432	133	20,448	101	20,549
Romania	14,417	1,073	450	134	16,075	351	16,426
Hungary	8,786	169	127	120	9,202	1,016	10,218
Croatia	8,276	580	696	62	9,615	319	9,934
Serbia	1,982	54	20	3	2,058	253	2,311
Other EU	**15,558**	**1,085**	**338**	**56**	**17,037**	**4,208**	**21,245**
Other industrialised countries	**4,414**	**199**	**23**	**15**	**4,651**	**371**	**5,022**
Emerging markets	**3,431**	**531**	**101**	**6**	**4,069**	**735**	**4,804**
Southeastern Europe/CIS	2,039	213	88	6	2,345	50	2,395
Asia	1,032	18	2	0	1,053	600	1,653
Latin America	54	14	5	0	73	22	96
Middle East/Africa	307	286	5	0	598	63	661
Total	**225,292**	**13,193**	**4,704**	**595**	**243,784**	**12,079**	**255,864**

Stage 1 and Stage 2 comprise not impaired credit risks while Stage 3 includes impaired credit risks. POCI (purchased or originated credit impaired) consists of credit risks already impaired when purchased or originated.

The defaulted part of POCI amounted to EUR 339 million (2018: EUR 471 million), the non-defaulted part to EUR 141 million (2018: EUR 124 million).

The credit risk exposure increased by EUR 4,013 million, or 3.7% in Austria, and by EUR 7,197 million, or 6.2% in the CEE core markets. In the other EU member states (EU 28 excluding core markets), the credit risk exposure increased by EUR 4,953 million, or 23.3%. Growth was recorded as well in other industrialised countries (EUR 482 million) and in emerging markets (EUR 1,269 million). In total, Erste Group's core markets and the EU accounted for 95.8% (2018: 96.2%) of credit risk exposure as of 31 December 2019. At 2.2% (2018: 1.9%), the share of emerging markets remained of minor importance.

Credit risk exposure by reporting segment and risk category

The segment reporting of Erste Group is based on the matrix organisation by business segment as well as by geographical segment. The geographical segmentation follows the country markets in which Erste Group operates and the locations of the banking and other financial institutions participations.

Credit risk exposure by business segment and risk category

in EUR million	Low risk	Management attention	Substandard	Non-performing	Total
Dec 19					
Retail	58,616	5,977	2,512	1,474	68,579
Corporates	67,378	6,807	2,189	1,467	77,841
Group Markets	17,962	346	133	3	18,444
ALM & LCC	41,554	121	92	75	41,842
Savings Banks	57,280	6,673	1,403	1,431	66,786
GCC	252	13	9	13	287
Total	**243,042**	**19,936**	**6,338**	**4,463**	**273,778**
Dec 18					
Retail	54,909	7,216	2,520	1,583	66,228
Corporates	60,200	6,353	1,973	2,048	70,573
Group Markets	25,366	389	62	2	25,819
ALM & LCC	28,769	136	89	12	29,005
Savings Banks	54,210	6,192	1,468	1,666	63,536
GCC	673	8	19	3	703
Total	**224,125**	**20,293**	**6,130**	**5,315**	**255,864**

Credit risk exposure by business segment and IFRS 9 treatment

in EUR million	Stage 1	Stage 2	Stage 3	POCI	Credit risk exposure (AC and FVOCI)	Not subject to IFRS 9 impairment	Total
Dec 19							
Retail	61,886	4,613	1,398	139	68,036	543	68,579
Corporates	67,684	5,489	1,203	294	74,671	3,170	77,841
Group Markets	12,199	126	2	0	12,327	6,116	18,444
ALM & LCC	41,380	78	75	0	41,533	309	41,842
Savings Banks	56,822	5,945	1,397	47	64,210	2,576	66,786
GCC	205	3	13	0	222	65	287
Total	**240,176**	**16,256**	**4,087**	**480**	**260,999**	**12,779**	**273,778**
Dec 18							
Retail	60,043	4,113	1,428	161	65,746	482	66,228
Corporates	62,338	3,819	1,691	372	68,219	2,354	70,573
Group Markets	19,678	290	2	0	19,970	5,849	25,819
ALM & LCC	28,668	55	12	0	28,735	271	29,005
Savings Banks	53,921	4,913	1,569	62	60,465	3,071	63,536
GCC	645	2	3	0	650	53	703
Total	**225,292**	**13,193**	**4,704**	**595**	**243,784**	**12,079**	**255,864**

Credit risk exposure by geographical segment and risk category

in EUR million	Low risk	Management attention	Substandard	Non-performing	Total
Dec 19					
Austria	**134,745**	**10,174**	**2,309**	**2,324**	**149,551**
EBOe & Subs.	41,074	2,788	584	529	44,975
Savings Banks	57,280	6,673	1,403	1,431	66,786
Other Austria	36,391	713	323	364	37,790
CEE	**102,434**	**9,749**	**4,019**	**2,126**	**118,328**
Czech Republic	53,611	4,596	1,161	556	59,924
Slovakia	16,553	1,291	1,541	473	19,859
Romania	13,926	1,430	559	441	16,356
Hungary	7,883	1,014	403	133	9,432
Croatia	8,649	1,102	299	501	10,551
Serbia	1,812	316	57	21	2,206
Other	**5,863**	**13**	**9**	**13**	**5,899**
Total	**243,042**	**19,936**	**6,338**	**4,463**	**273,778**
Dec 18					
Austria	**123,157**	**9,491**	**2,491**	**2,786**	**137,925**
EBOe & Subs.	39,353	2,547	750	636	43,286
Savings Banks	54,210	6,192	1,468	1,666	63,536
Other Austria	29,594	752	273	484	31,103
CEE	**95,417**	**10,760**	**3,620**	**2,498**	**112,297**
Czech Republic	51,499	4,317	1,216	561	57,594
Slovakia	14,115	2,744	1,250	487	18,596
Romania	12,917	1,485	475	603	15,480
Hungary	7,634	797	310	166	8,907
Croatia	7,734	1,126	332	660	9,852
Serbia	1,518	291	37	22	1,868
Other	**5,551**	**42**	**19**	**30**	**5,642**
Total	**224,125**	**20,293**	**6,130**	**5,315**	**255,864**

Credit risk exposure by geographical segment and IFRS 9 treatment

in EUR million	Stage 1	Stage 2	Stage 3	POCI	Credit risk exposure (AC and FVOCI)	Not subject to IFRS 9 impairment	Total
Dec 19							
Austria	**124,594**	**11,625**	**2,245**	**69**	**138,534**	**11,017**	**149,551**
EBOe & Subs.	39,844	3,553	523	6	43,926	1,049	44,975
Savings Banks	56,822	5,945	1,397	47	64,210	2,576	66,786
Other Austria	27,928	2,127	326	17	30,398	7,392	37,790
CEE	**109,787**	**4,627**	**1,829**	**411**	**116,653**	**1,674**	**118,328**
Czech Republic	57,259	1,746	525	32	59,562	362	59,924
Slovakia	18,774	511	360	135	19,780	79	19,859
Romania	14,020	1,551	370	110	16,052	303	16,356
Hungary	8,360	264	87	94	8,806	626	9,432
Croatia	9,499	488	468	37	10,493	59	10,551
Serbia	1,875	66	18	2	1,961	246	2,206
Other	**5,795**	**3**	**13**	**0**	**5,811**	**88**	**5,899**
Total	**240,176**	**16,256**	**4,087**	**480**	**260,999**	**12,779**	**273,778**
Dec 18							
Austria	**115,410**	**9,247**	**2,606**	**102**	**127,365**	**10,560**	**137,925**
EBOe & Subs.	38,838	2,926	597	17	42,378	908	43,286
Savings Banks	53,921	4,913	1,569	62	60,465	3,071	63,536
Other Austria	22,650	1,409	439	24	24,522	6,580	31,103
CEE	**104,388**	**3,903**	**2,068**	**493**	**110,851**	**1,446**	**112,297**
Czech Republic	54,940	1,728	532	21	57,220	374	57,594
Slovakia	17,666	347	347	152	18,512	85	18,596
Romania	13,760	1,052	489	134	15,435	45	15,480
Hungary	7,869	128	94	121	8,211	696	8,907
Croatia	8,549	596	589	62	9,796	57	9,852
Serbia	1,604	52	18	2	1,677	190	1,868
Other	**5,495**	**43**	**30**	**0**	**5,568**	**74**	**5,642**
Total	**225,292**	**13,193**	**4,704**	**595**	**243,784**	**12,079**	**255,864**

Non-performing credit risk exposure and credit loss allowances

For the definition of credit risk exposure classified as non-performing, please refer to the description of risk categories in the subsection 'Credit risk classification'. Credit risk allowances include credit loss allowances for financial assets, credit loss allowances for loan commitments and financial guarantees (all allowances within the scope of IFRS 9) and provisions for other commitments.

Credit loss allowances (all stages combined) covered 79.1% (2018: 74.4%) of the reported non-performing on-balance and off-balance credit risk exposure as of 31 December 2019. For the portion of the non-performing credit risk exposure that is not covered by allowances, Erste Group assumes there are sufficient levels of collateral and expected other recoveries.

During 2019, the non-performing credit risk exposure decreased by EUR 852 million, or 16.0%. The substantial improvement of asset quality resulted on one side from a strong decline of new non-performing loans, and on the other side from high recoveries and write-offs, including sales of non-performing loans. The credit loss allowances for loans and advances together with credit loss allowances for loan commitments and financial guarantees decreased by EUR 418 million, or 10.7%. The decrease of the non-performing exposure at a higher rate compared with the decrease of credit loss allowances resulted in a substantial increase of 4.7 percentage points in the coverage of the non-performing credit risk exposure by credit risk allowances.

The following tables show the coverage of the non-performing credit risk exposure by credit loss allowances (without taking into consideration collateral) as of 31 December 2019 and 31 December 2018. The differences in the credit allowance levels between the reporting segments result from the risk situation in the respective markets, different levels of collateralisation as well as the local legal environment and regulatory requirements.

The non-performing exposure ratio (NPE ratio) is calculated as the non-performing credit risk exposure divided by total credit risk exposure while the NPE coverage ratio is computed as total credit loss allowances (all allowances within the scope of IFRS 9) divided by non-performing credit risk exposure at AC and FVOCI. Collateral is not taken into account in the NPE coverage ratio.

Non-performing credit risk exposure by business segment and coverage by credit loss allowances and collateral

	Non-performing		Credit risk exposure		Credit loss allowances	Collateral for NPE		NPE ratio		NPE coverage ratio	NPE collateralisation ratio	
in EUR million	Total	AC and FVOCI	Total	AC and FVOCI	AC and FVOCI	Total	AC and FVOCI	Total	AC and FVOCI	AC and FVOCI	Total	AC and FVOCI
Dec 19												
Retail	1,474	1,472	68,579	68,036	-1,234	619	618	2.1%	2.2%	83.8%	42.0%	42.0%
Corporates	1,467	1,441	77,841	74,671	-1,227	508	506	1.9%	1.9%	85.2%	34.6%	35.1%
Group Markets	3	2	18,444	12,327	-13	0	0	0.0%	0.0%	>500.0%	0.0%	0.0%
ALM & LCC	75	75	41,842	41,533	-53	48	48	0.2%	0.2%	71.6%	64.7%	64.9%
Savings Banks	1,431	1,424	66,786	64,210	-961	707	705	2.1%	2.2%	67.5%	49.5%	49.5%
GCC	13	11	287	222	-13	5	3	4.6%	5.1%	115.1%	39.8%	29.0%
Total	**4,463**	**4,425**	**273,778**	**260,999**	**-3,502**	**1,888**	**1,881**	**1.6%**	**1.7%**	**79.1%**	**42.3%**	**42.5%**
Dec 18												
Retail	1,583	1,581	66,228	65,746	-1,341	639	638	2.4%	2.4%	84.8%	40.4%	40.4%
Corporates	2,048	2,017	70,573	68,219	-1,475	699	694	2.9%	3.0%	73.1%	34.1%	34.4%
Group Markets	2	2	25,819	19,970	-13	0	0	0.0%	0.0%	>500.0%	0.0%	0.0%
ALM & LCC	12	12	29,005	28,735	-33	1	1	0.0%	0.0%	285.0%	8.4%	8.8%
Savings Banks	1,666	1,655	63,536	60,465	-1,054	803	800	2.6%	2.7%	63.7%	48.2%	48.4%
GCC	3	1	703	650	-2	3	1	0.4%	0.1%	199.8%	98.2%	93.6%
Total	**5,315**	**5,268**	**255,864**	**243,784**	**-3,919**	**2,145**	**2,134**	**2.1%**	**2.2%**	**74.4%**	**40.4%**	**40.5%**

Non-performing credit risk exposure by geographical segment and coverage by credit loss allowances and collateral

in EUR million	Non-performing		Credit risk exposure		Credit loss allowances	Collateral for NPE		NPE ratio		NPE coverage ratio	NPE collateralisation ratio	
	Total	AC and FVOCI	Total	AC and FVOCI	AC and FVOCI	Total	AC and FVOCI	Total	AC and FVOCI	AC and FVOCI	Total	AC and FVOCI
Dec 19												
Austria	**2,324**	**2,294**	**149,551**	**138,534**	**-1,543**	**1,143**	**1,141**	**1.6%**	**1.7%**	**67.3%**	**49.2%**	**49.7%**
EBOe & Subs.	529	527	44,975	43,926	-326	289	289	1.2%	1.2%	61.7%	54.6%	54.7%
Savings Banks	1,431	1,424	66,786	64,210	-961	707	705	2.1%	2.2%	67.5%	49.5%	49.5%
Other Austria	364	342	37,790	30,398	-256	147	147	1.0%	1.1%	74.7%	40.3%	42.8%
CEE	**2,126**	**2,120**	**118,328**	**116,653**	**-1,945**	**740**	**737**	**1.8%**	**1.8%**	**91.7%**	**34.8%**	**34.8%**
Czech Republic	556	555	59,924	59,562	-534	129	129	0.9%	0.9%	96.3%	23.2%	23.3%
Slovakia	473	473	19,859	19,780	-351	169	169	2.4%	2.4%	74.2%	35.8%	35.8%
Romania	441	440	16,356	16,052	-497	151	151	2.7%	2.7%	112.9%	34.2%	34.2%
Hungary	133	130	9,432	8,806	-123	78	78	1.4%	1.5%	94.6%	59.1%	59.6%
Croatia	501	501	10,551	10,493	-409	207	205	4.7%	4.8%	81.7%	41.3%	41.0%
Serbia	21	21	2,206	1,961	-30	5	5	1.0%	1.0%	148.5%	23.0%	23.0%
Other	**13**	**11**	**5,899**	**5,811**	**-14**	**5**	**3**	**0.2%**	**0.2%**	**124.8%**	**39.8%**	**29.0%**
Total	**4,463**	**4,425**	**273,778**	**260,999**	**-3,502**	**1,888**	**1,881**	**1.6%**	**1.7%**	**79.1%**	**42.3%**	**42.5%**
Dec 18												
Austria	**2,786**	**2,748**	**137,925**	**127,365**	**-1,748**	**1,287**	**1,284**	**2.0%**	**2.2%**	**63.6%**	**46.2%**	**46.7%**
EBOe & Subs.	636	629	43,286	42,378	-405	311	311	1.5%	1.5%	64.3%	48.9%	49.4%
Savings Banks	1,666	1,655	63,536	60,465	-1,054	803	800	2.6%	2.7%	63.7%	48.2%	48.4%
Other Austria	484	464	31,103	24,522	-289	173	173	1.6%	1.9%	62.2%	35.8%	37.3%
CEE	**2,498**	**2,491**	**112,297**	**110,851**	**-2,154**	**855**	**849**	**2.2%**	**2.2%**	**86.5%**	**34.2%**	**34.1%**
Czech Republic	561	559	57,594	57,220	-560	101	101	1.0%	1.0%	100.2%	18.1%	18.1%
Slovakia	487	487	18,596	18,512	-367	228	228	2.6%	2.6%	75.3%	46.7%	46.7%
Romania	603	601	15,480	15,435	-570	186	184	3.9%	3.9%	94.9%	30.8%	30.7%
Hungary	166	163	8,907	8,211	-138	87	86	1.9%	2.0%	84.9%	52.8%	53.0%
Croatia	660	660	9,852	9,796	-488	248	244	6.7%	6.7%	73.9%	37.5%	37.0%
Serbia	22	21	1,868	1,677	-31	5	5	1.2%	1.3%	144.9%	23.3%	23.9%
Other	**30**	**28**	**5,642**	**5,568**	**-17**	**3**	**1**	**0.5%**	**0.5%**	**59.4%**	**9.6%**	**2.8%**
Total	**5,315**	**5,268**	**255,864**	**243,784**	**-3,919**	**2,145**	**2,134**	**2.1%**	**2.2%**	**74.4%**	**40.4%**	**40.5%**

Expected credit loss measurement

The general principles and standards for credit loss allowances are governed by internal policies in Erste Group. According to IFRS 9, credit loss allowances are calculated for all components of credit risk exposures which are measured at amortised cost (AC) or at fair value through other comprehensive income. They include debt securities, loans and advances, demand deposits on nostro accounts with commercial banks as well as finance lease and trade receivables. Also, credit loss allowances are calculated for loan commitments and financial guarantees if they meet the applicable IFRS 9 definitions.

According to IFRS 9, there are three main stages outlined for expected credit loss (ECL) determination. Stage 1 includes financial instruments which are not credit-impaired at initial recognition and for which credit risk has not increased significantly since initial recognition. In Stage 1, credit loss allowances are calculated as twelve-month ECL.

If a significant increase in credit risk (SICR) since initial recognition is identified but the financial instrument is not yet deemed to be credit-impaired, it is moved to Stage 2. For financial instruments in Stage 2 the ECL is measured on a lifetime (LT) basis. If the financial instrument is credit-impaired, the financial instrument is then moved to Stage 3. For financial instruments in Stage 3 the ECL is measured on a LT basis.

Purchased or originated credit-impaired (POCI) financial instruments are those financial instruments that are credit-impaired on initial recognition. Their ECL is always measured on LT basis.

For more information about classification into stages refer to part 'Classification into stages and definition of credit-impaired financial instruments' below.

Key judgments, inputs and assumptions adopted by the Group in addressing the IFRS 9 requirements of the standard are presented below.

Significant increase in credit risk determination

Assessment of significant increase in credit risk of financial instruments as at the reporting date since initial recognition is one of the key drivers affecting the amount of the ECL recognised based on IFRS 9 requirements. In this respect, across portfolios and product types, quantitative and qualitative indicators are defined for assessing SICR, including the indicator of 30 days-past-due (DPD).

Quantitative criteria

Quantitative SICR indicators include adverse changes in annualised lifetime probability of default and in lifetime probability of default with significance being assessed by reference to a mix of relative and absolute change thresholds. The bank has established thresholds for significant increases in credit risk based on both a percentage (relative) and absolute change in PD compared to initial recognition. In order for the SICR to occur for a particular financial instrument, both the relative and absolute thresholds need to be breached.

The relative measure is calculated as a ratio between current annualised PD and annualised PD value on initial recognition. The breach means that such ratio has reached or is higher than the established threshold. These relative thresholds for SICR assessment are established at PD segment level or client rating level for each consolidated entity, as necessary, and are subject to initial and on-going validation. The absolute threshold refers to difference of LT PD on initial recognition and current LT PD. It is set to a maximum of 50 bps and serves as a back-stop for migrations between the best ratings (LT PDs considered for remaining maturity). In such cases, relative thresholds may be breached, however overall PD is very low, and therefore SICR is not positively concluded.

Sensitivity of ECL on relative threshold changes

The table below presents relative threshold intervals as applied at Erste Group and a sensitivity analysis on how changes in the relative thresholds would affect ECL per geographical segment.

Relative thresholds for SICR assessment by geographical segment

in EUR million	Threshold interval (x times)		Threshold change +/-0.5		Threshold change +/-1	
	Min	Max	ECL impact decrease	ECL impact increase	ECL impact decrease	ECL impact increase
Dec 19						
Austria	**1.13**	**2.37**	**+50.3**	**-28.9**	**+69.9**	**-73.4**
EBOe & Subs.	1.13	2.37	+11.7	-6.0	+16.9	-13.8
Savings Banks	1.13	2.37	+28.4	-17.4	+38.5	-44.2
Other Austria	1.13	2.37	+10.2	-5.6	+14.4	-15.5
CEE	**1.03**	**4.41**	**+22.1**	**-32.4**	**+37.1**	**-79.3**
Czech Republic	1.13	3.59	+4.2	-13.5	+8.9	-35.7
Slovakia	1.13	4.41	+3.6	-5.0	+6.0	-12.8
Romania	1.13	3.36	+9.1	-8.6	+14.5	-16.7
Hungary	1.13	3.21	+3.1	-2.7	+4.1	-3.1
Croatia	1.13	3.13	+1.1	-1.9	+2.2	-7.5
Serbia	1.03	3.47	+1.1	-0.7	+1.3	-3.5
Total	**1.03**	**4.41**	**+72.4**	**-61.4**	**+107.0**	**-152.7**
Dec 18						
Austria	**1.13**	**2.37**	**+36.1**	**-19.9**	**+42.6**	**-32.1**
EBOe & Subs.	1.13	2.37	+11.6	-4.9	+13.3	-8.6
Savings Banks	1.13	2.37	+23.7	-11.5	+28.4	-18.0
Other Austria	1.13	2.37	+0.8	-3.5	+0.9	-5.5
CEE	**1.03**	**4.41**	**+28.7**	**-17.1**	**+62.5**	**-29.4**
Czech Republic	1.13	3.59	+14.7	-6.9	+29.9	-11.5
Slovakia	1.13	4.41	+4.1	-2.1	+8.4	-3.6
Romania	1.13	3.36	+5.4	-4.8	+9.6	-9.3
Hungary	1.13	3.57	+1.0	-0.9	+3.3	-1.5
Croatia	1.13	3.13	+2.7	-0.8	+9.7	-1.8
Serbia	1.03	3.47	+0.8	-1.6	+1.6	-1.7
Total	**1.03**	**4.41**	**+64.8**	**-37.0**	**+105.1**	**-61.5**

Sensitivity is calculated by adding/subtracting the values indicated from the current threshold level. The ECL impact increase/decrease refers to increasing/lowering the threshold (i.e. if the current threshold is 2.37 and the sensitivity is 0.5, then the increase refers to a threshold of 2.87 and the decrease to a threshold of 1.87, so an increase leads to release of ECL and a decrease to additional allocation). Effects of the threshold changes by +/- 0.5 and +/- 1 are shown, however the threshold is floored to 1, since values of the ratio below 1 indicate credit-worthiness improvement (i.e. if the threshold is 1.13, values used for sensitivity analysis for +/- 0.5 would decrease the threshold to 1 and increase the threshold to 1.63).

Thresholds might seem to show high dispersion, but they are driven mainly by regional and rating diversity. Regions with higher credit quality portfolios have lower thresholds than those with lower credit quality portfolios. The minimal threshold in almost all regions of 1.13 refers to sovereign rating classes that are centrally established. The average threshold of the Group is between 2 and 3.

There are certain portfolios where SICR quantitative criteria are assessed based on the ratings rather than PDs. The main rule in those cases is that downgrading of the ratings would lead to a positive conclusion on SICR. These rules are applied primarily to leasing and factoring business receivables.

For migration back to Stage 1 there are no additional cure periods established for quantitative criteria other than those already established in general credit risk practice (e.g. for rating improvement).

Qualitative criteria
Qualitative SICR indicators include forbearance-type flags (identification of regulatory forbearance), work-out transfer flags (when the account starts being monitored by the work-out department), information from the early-warning system (if it is not sufficiently considered in the rating) and fraud indicators. The assignment of some of the qualitative indicators inherently relies on experienced credit risk judgment being exercised adequately and in a timely manner. The related group-wide and entity-level credit risk controlling policies and procedures (adapted as necessary in the light of transition to IFRS 9) ensure the necessary governance framework. These indicators are used internally for identification of insolvency or increased probability that a borrower will enter bankruptcy and there is increased risk of default in the foreseeable future.

Besides the qualitative indicators defined on a client level, the assessment of a significant increase in credit risk is performed on a portfolio level if the increase in credit risk on individual instruments or at a client level is available only with a certain time lag or is observable exclusively on a portfolio level.

Examples are stage 2 overrides for parts of Swiss franc retail portfolio or in case of high LTV loans resulting from a specific law in Romania (clients are allowed to give up on real estate collateral against waiver of principal).

For migration back to Stage 1 there are no additional cure periods established for qualitative criteria other than those already established in general credit risk practice for the above-mentioned flags (forbearance, watch lists).

Backstop
A backstop is applied and the financial instruments are considered to have experienced a SICR if the borrower is more than 30 days past due on contractual payments. As observed during validation, this does not represent a major trigger for Stage 2 classification.

Low credit risk exemption
The 'low credit risk exemption' allowed by IFRS 9 for 'investment grade' assets or other assets deemed 'low risk' (and resulting in 12 months expected credit losses being calculated irrespective of SICR quantitative measures) has been implemented with limitations in Erste Group. Thus, the potential activation of this exemption is limited to particular types of debt instruments and counterparty categories, and only if supported by sufficient 'low risk' evidence. On this basis, the 'low risk exemption' is expected to occasionally apply to some debt security exposures and only exceptionally to loans.

As of 31 December 2019, low credit risk exemption is applied only to debt securities in the Czech subsidiary (Česká spořitelna) and sovereign exposures in the Romanian subsidiary (Banca Comercială Română). In Česká spořitelna, the corresponding exposure amounted to EUR 10.2 billion (2018: EUR 10.3 billion) with PDs interval of 0.01%-0.5%. In Banca Comercială Română, the respective exposure amounted to EUR 4.3 billion (2018: not existing) with PD interval of 0.01%-0.5%.

Measuring ECL – explanation of inputs and measurement
Credit loss allowances are calculated individually or collectively.

The individual calculation approach is applied in case of exposures to significant defaulted customers in Stage 3 or POCI. It consists in the individual assessment of the difference between the gross carrying amount and the present value of the expected cash flows, which are estimated by workout or risk managers. The discounting of the cash flows is based on the effective interest rate (POCI: credit-adjusted effective interest rate). However, the discount rate for financial guarantees shall reflect the current market assessment of the time value of money and the risks that are specific to the cash flows which in Erste Group's implementation means using a risk free rate as a proxy.

A defaulted customer is classified as individually significant if the total on- and off-balance exposure exceeds a predefined materiality limit. Otherwise, the customer is considered insignificant and a rule-based (collective) approach is used for the calculation of the related credit loss allowance as the product of gross carrying amount and LGD, where the LGD depends on characteristics such as time in default or the stage of the workout process.

For exposures to non-defaulted customers (i.e. in Stage 1 and Stage 2), collective allowances are calculated according to a rule-based approach irrespective of the significance of the customer. The calculation of collective allowances requires grouping the related exposures into homogenous clusters on the basis of shared risk characteristics. The grouping criteria may differ based on the customer segment (retail, corporate) and include product type, collateral type, repayment type, loan to value band, and credit rating band.

The calculation of credit loss allowances is done on a monthly basis on a single exposure level and in the contractual currency of the exposure. To compute the collective credit loss allowance, Erste Group applies an expected credit loss (ECL) model based on a three-stage approach that leads to either a 12-month ECL or to a lifetime ECL. ECL is the discounted product of exposure at default (EAD) that also includes a credit conversion factor in the case of off-balance sheet exposures, probability of default (PD) and loss given default (LGD), defined as follows:

- PD represents the likelihood of a borrower defaulting on its financial obligation (per definition of default below), either over next 12 months (1Y PD) for Stage 1 exposures or over the remaining lifetime (LT PD) for Stage 2 and 3 and POCI exposures.
- EAD is based on the amounts Erste Group expects to be owed at the time of default, over next 12 months (1Y EAD) for Stage 1 exposures, or over the remaining lifetime (LT EAD) for Stage 2 and 3 and POCI exposures. The estimation includes current balance, expected repayments and expected drawings up to the current contractual limit by the time of default.
- LGD represents the Erste Group's expectation of the extent of loss on a defaulted exposure. LGD varies by type of counterparty, type and seniority of claim and availability of collateral or other credit support. LGD is expressed as a percentage loss per unit exposure at the time of default (EAD).

Life-time parameters

The LT PD is developed through observation of historical defaults from initial recognition through the life-time of the loans. It is assumed to be the same across all assets in the same portfolio and rating band.

The 1Y and LT EADs are determined based on the expected payment profiles, which vary by product type. The LT EAD calculation utilises repayment schedule or repayment type (annuity, linear, bullet). In the case of undrawn commitments, credit conversion factor is estimated for reflecting the expected credit exposure in the EAD.

The LGD is estimated as a lifetime curve for any point in time, based on historical loss observations.

The risk parameters used in the ECL calculation take into account available information at the reporting date about past events, current conditions and forecasts on future economic trends. Generally, the risk parameters applied in the calculation of collective allowances differ from the risk parameters compliant with capital requirement regulations, calculated on a through-the-cycle basis, if the characteristics of the respective portfolio in combination with IFRS standards necessitate this.

Incorporation of forward-looking information

Parameters are determined to reflect the risk as a 'point-in-time' measure and with consideration of forward-looking information (FLI). This results in using a baseline forecast and a number of alternative scenarios for selected macroeconomic variables. The alternative scenarios are derived, together with their probabilities of occurrence, as a deviation from baseline forecasts, where the baseline forecasts are, with a few exceptions, internally determined by Erste Group's research department. Given multiple scenarios, the 'neutral' PDs (and, with a few exceptions, also LGDs) are adjusted using macro models that link relevant macroeconomic variables with risk drivers. The same macro-shift models as for external and internal stress test are used. Forward-looking information is incorporated for first three years of ECL measurement. Measurement of the parameters for the remaining lifetime returns back to through-the-cycle observations immediately in year four.

Thus, the unbiased probability-weighted ECL considering FLI is derived using the weights representing the probability of occurrence of each macroeconomic scenario. Typical macroeconomic variables may include real gross domestic product, unemployment rate, inflation rate, production index as well as market interest rates. The selection of variables also depends on the availability of reliable forecasts for the given local market. Nevertheless, the main indication of estimated economic development is the GDP development.

Baseline, upside and downside scenarios of GDP growth by geographical segment

GDP growth in %	Scenario	Probability weight	2019	2020	2021	2022
Dec 19						
	Upside	11%	1.7	3.1	3.2	3.1
Austria	Baseline	50%	1.7	1.6	1.7	1.6
	Downside	39%	1.7	-0.2	-0.1	-0.2
	Upside	13%	2.6	4.6	4.7	4.8
Czech Republic	Baseline	50%	2.6	2.6	2.7	2.8
	Downside	37%	2.6	0.1	0.2	0.3
	Upside	12%	3.4	5.7	5.3	5.2
Slovakia	Baseline	50%	3.4	3.3	2.9	2.8
	Downside	38%	3.4	0.1	-0.3	-0.4
	Upside	10%	4.5	6.9	6.5	5.0
Romania	Baseline	50%	4.5	3.8	3.4	1.9
	Downside	40%	4.5	0.3	-0.1	-1.6
	Upside	7%	4.1	5.0	4.4	4.3
Hungary	Baseline	50%	4.1	3.2	2.6	2.5
	Downside	43%	4.1	0.6	0.0	-0.1
	Upside	10%	3.2	4.1	5.3	6.3
Croatia	Baseline	50%	3.2	2.5	2.4	2.4
	Downside	40%	3.2	0.9	-0.5	-1.5
	Upside	10%	3.3	5.7	6.2	n/a
Serbia	Baseline	50%	3.3	3.5	4.0	n/a
	Downside	40%	3.3	1.1	1.6	n/a
			2018	**2019**	**2020**	**2021**
Dec 18						
	Upside	34%	2.8	3.7	3.3	3.1
Austria	Baseline	50%	2.8	2.2	1.8	1.6
	Downside	16%	2.8	0.4	0.0	-0.2
	Upside	14%	3.6	5.1	4.9	4.8
Czech Republic	Baseline	50%	3.6	3.1	2.9	2.8
	Downside	36%	3.6	0.8	0.6	0.5
	Upside	25%	3.9	6.2	5.6	5.5
Slovakia	Baseline	50%	3.9	4.2	3.6	3.5
	Downside	25%	3.9	1.6	1.0	0.9
	Upside	34%	4.0	6.3	6.8	6.4
Romania	Baseline	50%	4.0	3.4	3.9	3.5
	Downside	16%	4.0	0.5	0.9	0.5
	Upside	41%	4.7	4.6	3.8	3.8
Hungary	Baseline	50%	4.1	3.3	2.5	2.5
	Downside	9%	3.0	1.1	0.3	0.3
	Upside	32%	2.8	4.2	5.5	5.3
Croatia	Baseline	50%	2.8	2.7	2.6	2.7
	Downside	18%	2.8	1.2	-0.3	0.1
	Upside	25%	2.9	4.8	n/a	n/a
Serbia	Baseline	50%	2.9	3.0	n/a	n/a
	Downside	25%	2.9	1.1	n/a	n/a

In order to show impact of the macro scenarios on the stage composition and ECL development we present sensitivity analyses of the applied shifts in the table below. We show split of the current exposure and ECL on the performing portfolio and movements in exposures between stages and resulted changes in ECL.

Sensitivity Analysis

in EUR million	Current status parameters (FLI shifted)				Point in time parameters (before FLI shift)			
	Risk relevant exposure		ECL		Risk relevant exposure change		ECL change	
	Stage 1	Stage 2	Stage 1	Stage 2	Stage 1	Stage 2	Stage 1	Stage 2
Dec 19								
Austria	**124,594**	**11,625**	**-173**	**-290**	**+1,159.5**	**-1,159.5**	**+2.2**	**+42.2**
EBOe & Subs	39,844	3,553	-37	-69	+264.8	-264.8	+1.0	+8.0
Savings Banks	56,822	5,945	-108	-179	+632.7	-632.7	+1.5	+22.8
Other Austria	27,928	2,127	-28	-42	+261.9	-261.9	-0.3	+11.3
CEE	**109,787**	**4,627**	**-252**	**-317**	**+444.3**	**-444.3**	**+24.3**	**+48.5**
Czech Republic	57,259	1,746	-78	-84	+82.3	-82.3	+1.1	+4.7
Slovakia	18,774	511	-39	-38	+21.8	-21.8	-0.3	+2.4
Romania	14,020	1,551	-47	-135	+251.1	-251.1	+4.5	+32.1
Hungary	8,360	264	-16	-27	+58.2	-58.2	+5.1	+7.8
Croatia	9,499	488	-61	-27	+23.1	-23.1	+11.7	+1.0
Serbia	1,875	66	-10	-6	+7.7	-7.7	+2.2	+0.6
Other	**5,795**	**3**	**0**	**0**	**-**	**-**	**-**	**-**
Total	**240,176**	**16,256**	**-425**	**-607**	**+1,603.8**	**-1,603.7**	**+26.4**	**+90.7**
Dec 18								
Austria	**115,410**	**9,247**	**-175**	**-244**	**+153.2**	**-153.2**	**+1.6**	**+10.2**
EBOe & Subs	38,838	2,926	-44	-64	+28.2	-28.2	+0.6	+1.9
Savings Banks	53,921	4,913	-100	-152	+93.6	-93.6	+0.6	+5.8
Other Austria	22,650	1,409	-31	-28	+31.3	-31.3	+0.4	+2.5
CEE	**104,388**	**3,903**	**-261**	**-294**	**+156.6**	**-156.6**	**+4.0**	**+25.2**
Czech Republic	54,940	1,728	-98	-92	+97.5	-97.5	+1.4	+8.1
Slovakia	17,666	347	-39	-35	-27.0	+27.0	+0.0	-2.4
Romania	13,760	1,052	-38	-113	+69.5	-69.5	+4.3	+19.0
Hungary	7,869	128	-18	-17	-1.9	+1.9	-0.2	-0.2
Croatia	8,549	596	-58	-31	+9.5	-9.5	-3.6	+0.4
Serbia	1,604	52	-9	-8	+8.9	-8.9	+2.1	+0.3
Other	**5,495**	**43**	**0**	**-1**	**-**	**-**	**-**	**-**
Total	**225,292**	**13,193**	**-436**	**-540**	**+309.8**	**-309.8**	**+5.6**	**+35.4**

In the ECL change from the above table the positive sign (+) means a release while the negative sign (-) means an allocation. Values presented as sensitivities are results of the internal simulations.

Erste Group forecast led to the higher effects of the FLI adjustments on the credit risk parameters as depicted in the sensitivity tables. It is as well visible in threshold sensitivity, where comparatively more conservative risk parameters led to higher sensitivity to threshold stages as depicted in threshold sensitivity table above.

Classification into stages and definition of credit-impaired financial instruments

The three-stage approach applies to financial instruments within the scope of the impairment requirements of IFRS 9 and those that are not categorised as purchased or originated credit-impaired financial assets (POCI), which form a category of their own. Depending on the impairment status and the assessment of the development of credit risk, these financial instruments are assigned to one of the three stages.

Stage 1 includes not credit-impaired financial instruments at initial recognition and not credit-impaired financial instruments without a significant increase in credit risk since initial recognition, irrespective of their credit quality, or subject to the 'low risk exemption' allowed by IFRS 9. Financial instruments in Stage 1 have their ECL measured at an amount equal to the portion of lifetime expected credit losses that result from default events possible within the next 12 months.

Stage 2 includes not credit-impaired financial instruments with a significant increase in credit risk since initial recognition and not subject to the 'low credit risk exemption' allowed by IFRS 9. Also, Stage 2 includes trade receivables without significant financing component to which the 'simplified approach' is applied mandatorily based on IFRS 9 requirements. In stage 2, the credit loss allowances are calculated as lifetime ECL. In the case of drawings by non-defaulted customers on previously committed credit lines, the whole exposure (on-balance and off-balance) is categorised as either Stage 1 or Stage 2 depending on the development of credit risk between the commitment date and the drawing date.

Stage 3 includes financial instruments that are credit-impaired at the reporting date but were not credit-impaired at initial recognition. In principle, a financial instrument becomes credit-impaired when the customer defaults. The default definition applied in Erste Group has been developed in accordance with EBA/GL/2016/07 'Guidelines on the application of the definition of default under Article 178 of Regulation (EU) No 575/2013' and 'Commission Delegated Regulation (EU) 2018/171 of 19 October 2017 on supplementing Regulation (EU) No 575/2013 of the European Parliament and of the Council with regard to regulatory technical standards for the materiality threshold for credit obligations past due'. The definition specifies the rules for default contagion across groups of connected clients and clarifies the concept of technical default. Erste Group generally applies a customer view in applying the default definition, which leads to an impairment of all claims even if the customer defaults only on one of several transactions ('pulling effect'). On the other hand, an upgrade to a non-defaulted rating grade implies that the total exposure ceases to be impaired. In stage 3, credit loss allowances are calculated as lifetime ECLs.

POCI includes financial instruments that were credit-impaired at initial recognition, irrespective of whether they are still credit-impaired at the reporting date. Expected credit losses against POCI exposures are always calculated on a lifetime basis (cumulative changes in lifetime ECL since initial recognition), and are reflected in the credit-adjusted effective interest rate at initial recognition. As a result, no loss allowance is recognised at inception. Subsequently, only adverse changes in lifetime expected credit losses after the initial recognition are recognised as loss allowance, whilst favourable changes are recognised as impairment gains increasing the gross carrying amount of the POCI financial assets.

Composition of credit loss allowances

in EUR million	Dec 18	Dec 19
Credit loss allowances	-3,590	-3,209
Credit loss allowances for loan commitments and financial guarantees	-329	-293
Provisions for other commitments	-14	-17
Total	**-3,933**	**-3,518**

Credit loss allowances are computed based on IFRS 9 requirements, while provisions for other commitments are subject to IAS 37.

Restructuring, renegotiation and forbearance

Restructuring means contractual modification of any of the customer's loan repayment conditions including tenor, interest rate, fees, principal amount due or a combination thereof. Restructuring can be business restructuring (in the retail segment), commercial renegotiation (in the corporate segment), or forbearance (e.g. concession due to financial difficulties) in line with EBA requirements in both segments.

Restructuring and renegotiation

Restructuring as business restructuring in the retail segment or as commercial renegotiation in the corporate segment is a potential and effective customer retention tool involving re-pricing or the offering of an additional loan or both in order to maintain the bank's valuable, good clientele.

Forbearance

The definition of 'forbearance' is included in Regulation (EU) 2015/227. A restructuring is considered 'forbearance' if it entails a concession towards a customer facing or about to face financial difficulties in meeting their contractual financial commitments. A borrower is in financial difficulties if any of the following conditions are met:

- the customer was more than 30 days past due in the past 3 months;
- the customer would be 30 days past due or more without receiving forbearance;
- the customer is in default;
- the customer would default without receiving forbearance.

Additional criteria for non-retail segment:

- early warning signals for this customer identified;
- customer has deteriorated financial figures, which led to decline of the rating grade;
- customer has increased probability of default.

Forborne exposure is assessed at loan contract level and means only the exposure to which forbearance measures have been extended and excludes any other exposure the customer may have, as long as no forbearance was extended to these.

Concession means that any of the following conditions are met:

- modification/refinancing of the contract would not have been granted, had the customer not been in financial difficulty;
- there is a difference in favour of the customer between the modified/refinanced terms of the contract and the previous terms of the contract;
- the modified/refinanced contract includes more favourable terms than other customers with a similar risk profile would have obtained from the same institution;
- the contract modification involves total or partial cancellation of the debt by (partial) write-off;
- activation of embedded forbearance clause of the contract;
- any waiver of a material financial or non-financial covenant.

Forbearance can be initiated by the bank or by the customer (on account of loss of employment, illness etc.). Components of forbearance can be instalment reduction, tenor extension, interest reduction or forgiveness, principal reduction or forgiveness, revolving exposure change to instalment and/or others.

Forbearance measures are divided and reported as:

- performing forbearance (incl. performing forbearance under probation that was upgraded from non-performing forbearance);
- non-performing forbearance (incl. defaulted forbearance; since 10/2019 the definition of non-performing status is aligned with default).

Forborne exposures are considered performing when:
- the exposure did not have non-performing status at the time the extension of or application for forbearance was approved;
- granting the forbearance has not led to classifying the exposure as non-performing/default.

Performing forborne exposures become non-performing when one of the following forbearance classifications is fulfilled during the monitoring period of a minimum two years:
- an additional forbearance measure is extended;
- the customer becomes more than 30 days past due on forborne exposure and in the past the customer was in the non-performing forbearance category;
- the customer meets any of the default event criteria defined in the default definition;
- for corporate customers, when a final restructuring agreement cannot be concluded within 18 months after the first forbearance measure.

The performing forbearance classification can be discontinued and the account can become a non-forborne account when all of the following conditions are met:
- a minimum of two years have passed from the date of classifying the exposure as performing forbearance (probation period);
- under the forborne payment plan, at least 50% of the original (pre-forbearance) instalment has been regularly repaid (significant repayment) at least during half of the probation period (in the case of retail customers);
- regular repayments in a significant amount during at least half of the probation period have been made (in the case of non-retail customers);
- significant repayment includes amount previously past-due (if any) or written-off (if no-past due amounts) for both segments retail and non-retail;
- none of the exposure of the customer is more than 30 days past due at the end of the probation period.

The non-performing forbearance classification can be discontinued and reclassified as performing under probation when all of the following conditions are met:
- one year has passed from the date of classifying the exposure as non-performing forbearance or from the latest of the following events:
  - the moment of extending the restructuring measure;
  - the end of the grace period included in the restructuring agreement;
  - the moment when the exposure has been classified as defaulted.
- the forbearance has not led the exposure to be classified as non-performing;
- the customer is not classified as defaulted according to the definition of default;
- retail customers: the customer has demonstrated the ability to comply with the post-forbearance conditions by either of the following:
  - the customer has never been more than 30 days past due during the 12 months prior to the reclassification and there is no delinquent amount;
  - the customer has repaid the full past due amount or the written-off amount (if there was any).
- corporate customers: significant amount has been paid in regular repayments, analysis of financial development that leaves no concern about future compliance with post-forbearance terms and conditions. Furthermore, the customer has never been more than 30 days past due during the 12 months prior to the reclassification and there is no delinquent amount.

In the corporate segment, recognition of forbearance measures typically leads to the involvement of the responsible local workout unit. The largest part of the forbearance measures are set and monitored within the responsibility of the local workout units according to the internal regulations and standards for the workout involvement. Forbearance measures are defined as qualitative trigger events in the SICR concept according to the internal regulations of Erste Group.

Default definition

Since October 2019 Erste Group has implemented the new definition of default, based on regulatory joint decision, in all entities using IRB approach to comply with the EBA 'Guidelines on the application of the definition of default under Art.178 of Regulation (EU) No 575/2013' and 'Commission Delegated Regulation (EU) 2018/171 of 19 October 2017 on supplementing Regulation (EU) No 575/2013 of the European Parliament and of the Council with regard to regulatory technical standards for the materiality threshold for credit obligations past due'. The impact of the modified default definition is immaterial. Erste Group follows the two-step approach of the European Central Bank which requires the adjustment of the risk parameters and recalibration of rating systems as a second step afterwards.

Entities with standardized approach have to implement the new Group Forbearance, Non-performing and Default Definition Policy latest by end of 2020. The group requirements stipulated in the Group policy cover the EBA requirements given in the Guidelines on the application of default definition (EBA GL 2016-07). Deviations to the group requirements are allowed only if are triggered by local regulatory requirements.

The definitions of non-performing and default are aligned within Erste Group.

The materiality of 90 days past due credit obligation is applied for on-balance exposure at client level and assessed daily against the group-wide defined materiality threshold (except the local regulator has defined different thresholds) for the:
- retail exposure: as an absolute limit on client level of 100 EUR and relative 1% on client level;
- non-retail exposure: as an absolute limit on client level of 500 EUR and relative 1% on client level.

Credit risk exposure, forbearance exposure and credit loss allowances

in EUR million	Loans and advances	Debt securities	Other positions	Loan commitments	Total
Dec 19					
Gross exposure	**186,507**	**37,699**	**18,347**	**31,225**	**273,778**
thereof gross forborne exposure	2,213	3	0	96	2,313
Performing exposure	182,363	37,695	18,147	31,110	269,316
thereof performing forborne exposure	910	0	0	30	939
Credit loss allowances for performing exposure	-869	-23	-72	-79	-1,042
thereof credit loss allowances for performing forborne exposure	-33	0	0	-4	-37
Non-performing exposure	4,144	4	200	115	4,463
thereof non-performing forborne exposure	1,303	3	0	67	1,373
Credit loss allowances for non-performing exposure	-2,315	-2	-128	-32	-2,476
thereof credit loss allowances for non-performing forborne exposure	-662	-2	0	-11	-675
Dec 18					
Gross exposure	**171,996**	**37,537**	**17,528**	**28,802**	**255,864**
thereof gross forborne exposure	2,486	3	0	95	2,584
Performing exposure	167,133	37,508	17,241	28,667	250,549
thereof performing forborne exposure	857	0	0	27	884
Credit loss allowances for performing exposure	-825	-16	-73	-70	-984
thereof credit loss allowances for performing forborne exposure	-42	0	0	-2	-44
Non-performing exposure	4,862	30	288	135	5,315
thereof non-performing forborne exposure	1,629	3	0	68	1,700
Credit loss allowances for non-performing exposure	-2,748	-2	-153	-47	-2,951
thereof credit loss allowances for non-performing forborne exposure	-764	-2	0	-16	-781

Types of forbearance exposure

in EUR million	Gross forborne exposure	Modification in terms and conditions	Refinancing
Dec 19			
Loans and advances	2,213	1,933	280
Debt securities	3	3	0
Loan commitments	96	82	14
Total	**2,313**	**2,019**	**294**
Dec 18			
Loans and advances	2,486	2,188	298
Debt securities	3	3	0
Loan commitments	95	79	16
Total	**2,584**	**2,271**	**314**

Loans and advances also include lease, trade and other receivables.

Credit quality of forbearance exposure by geographical segment

in EUR million	Gross forborne exposure	Neither past due nor credit impaired	Past due but not credit impaired	Credit impaired	Collateral	Credit loss allowances
Dec 19						
Austria	**1,476**	**686**	**41**	**749**	**796**	**-354**
EBOe & Subs.	337	177	13	147	212	-57
Savings Banks	953	476	28	449	538	-208
Other Austria	187	33	1	153	45	-89
CEE	**837**	**220**	**28**	**588**	**218**	**-358**
Czech Republic	136	29	2	105	35	-67
Slovakia	257	75	15	167	76	-93
Romania	227	56	2	169	53	-112
Hungary	41	15	2	24	25	-12
Croatia	159	41	1	117	25	-70
Serbia	17	6	6	6	4	-5
Other	**0**	**0**	**0**	**0**	**0**	**0**
Total	**2,313**	**906**	**69**	**1,337**	**1,014**	**-712**
Dec 18						
Austria	**1,597**	**642**	**42**	**913**	**851**	**-428**
EBOe & Subs.	368	185	7	176	212	-84
Savings Banks	945	437	26	482	528	-233
Other Austria	284	20	9	256	112	-112
CEE	**987**	**248**	**30**	**709**	**338**	**-397**
Czech Republic	124	41	0	83	35	-53
Slovakia	271	69	10	192	135	-99
Romania	298	72	10	216	73	-147
Hungary	48	18	6	24	23	-16
Croatia	233	41	3	189	71	-78
Serbia	13	7	1	5	2	-4
Other	**0**	**0**	**0**	**0**	**0**	**0**
Total	**2,584**	**890**	**72**	**1,622**	**1,190**	**-825**

Collateral

Recognition of credit collateral

The Collateral Management department is a staff unit within the Corporate Portfolio Monitoring and Management Department. The Group Collateral Management Policy Part 1 defines, among other things, uniform valuation standards for credit collateral across the entire group. It ensures that the credit risk decision processes are standardised with respect to accepted collateral values.

All collateral types acceptable within the group are contained in the Group Collateral Catalogue. Locally permitted collateral is defined by the respective bank in accordance with applicable national legal provisions. The valuation and revaluation of collateral is done according to the principles defined in the Group Collateral Catalogue broken down by collateral type and based on the internal work instructions in accordance with the individual supervisory requirements. Whether a type of collateral or a specific collateral asset is accepted for credit risk mitigation is decided by Enterprise-wide Risk Management after determining if the applicable regulatory requirements are met. Credit underwriting monitors adherence to the standard work processes stipulated for assigning the acceptable collateral assets to the categories available.

Main types of credit collateral

The following types of credit collateral are accepted:

- real estate: residential and commercial real estate;
- financial collateral: securities, cash deposits and life insurance policies;
- guarantees: given by sovereigns, public sector entities, financial institutes, companies and individuals. All guarantors must have a minimum credit rating, which is reviewed annually;
- movables: equipment, investment goods, machinery and motor vehicles;
- claims and rights: trade account receivables, leasehold rights and shares in a company’s capital.

Collateral valuation and management

Collateral valuation is based on current market prices while taking into account an amount that can be recovered within a reasonable period. The valuation processes are defined and their IT-supported technical application is performed by Collateral Management at group level and by authorised staff in each country with the assistance of software applications. The allocated collateral values are capped by the amount of the secured transaction. Therefore, imputed excess collateral values are not possible. Only independent appraisers not involved in the lending decision process are permitted to conduct real estate valuations, and the valuation methods to be applied are defined by the bank. For quality assurance purposes, the real estate evaluation mechanism and real estate valuations are validated on an ongoing basis.

The methods and discounts used for valuations are based on empirical data representing past experience of the workout departments and on the collected data on recoveries from realising collateral. The valuation methods are adjusted regularly – at least once a year – to reflect current recoveries.

The revaluation of collateral is done periodically and is automated as far as possible. In the case of external data sources, the appropriate interfaces are used. The maximum periods for the revaluation of individual collateral assets are predefined and compliance is monitored by risk management using software applications. Apart from periodic revaluations, collateral is assessed when information becomes available that indicates a decrease in the value of the collateral for exceptional reasons.

Concentration risks resulting from credit risk mitigation techniques may affect a single customer, but also a portfolio defined by region, industry, or type of collateral. Erste Group is a retail bank, and, due to its customer structure and the markets in which it operates, it does not have any concentrations with respect to collateral from customers. All guarantee liabilities and loans of a corporate guarantee provider are taken into consideration in the credit application process in order to prevent possible concentrations. Guarantees provided by sovereigns, a public sector entity or financial institutions have to lie within the approved limit of the guarantor. Concerning other areas of a potentially detrimental correlation of risks, the collateral portfolios are analysed using statistical evaluations for, among other things, regional or industry-specific concentrations within the scope of portfolio monitoring. The response to those risks identified includes, above all, the adjustment of volume targets, setting of corresponding limits and modification of the staff's discretionary limits for lending.

Collateral obtained in foreclosure proceedings is made available for sale in an orderly fashion, with the proceeds used to reduce or repay the outstanding claim. Generally, Erste Group does not occupy repossessed properties for its own business use. The main part of assets taken onto its own books is commercial land and buildings. In addition, residential real estate properties and transport vehicles are taken into Erste Group's possession. As of 31 December 2019, the carrying value of these assets obtained during the reporting period amounted to EUR 9 million (2018: EUR 488 million).

Treasury collateral

The department Trading Book Risk Management is responsible for treasury collateral. The Group Collateral Management Policy Part 2 defines, among other things, uniform valuation standards for treasury collateral across the entire group.

Under the framework of treasury collateral, netting agreements (international framework agreements for derivatives of the International Swap and Derivatives Association (ISDA), Austrian or German framework agreements, framework agreements for securities lending transactions and repurchase deals) as well as collateral agreements (e.g. ISDA Credit Support Annex) are used for reducing the credit risk from derivatives.

Netting agreements make it possible to net all amounts due or payable for each individual transaction under a framework agreement in the case of a credit default, with the result that only the net receivables vis-à-vis the business partner are of relevance for credit risk. Within the scope of these collateral agreements, the portfolio with the respective counterparty is revalued periodically, usually daily, and in case of insufficient coverage additional collateral is requested. The policy restrictions on collateral types ensure that collateral received predominantly consists of cash or securities of investment grade quality. In the case of securities used as collateral, an additional valuation discount (haircut) depending on credit quality and residual maturity is applied.

The following tables compare the credit risk exposure broken down by business and geographical segments to the allocated collateral. The amount of allocated collateral corresponds to the accepted value after internal haircuts capped by the exposure amount.

Credit risk exposure by business segment and collateral

in EUR million	Total credit risk exposure	Collateral total	Collateralised by			Credit risk exposure net of collateral
			Guarantees	Real estate	Other	
Dec 19						
Retail	68,579	39,853	1,568	35,357	2,928	28,725
Corporates	77,841	27,408	4,459	17,738	5,211	50,433
Group Markets	18,444	7,408	1,719	11	5,678	11,036
ALM & LCC	41,842	16,392	1,322	31	15,038	25,450
Savings Banks	66,786	31,117	1,529	26,343	3,244	35,669
GCC	287	30	0	6	23	257
Total	**273,778**	**122,208**	**10,597**	**79,488**	**32,123**	**151,570**
Dec 18						
Retail	66,228	37,338	1,338	33,081	2,918	28,890
Corporates	70,573	24,543	4,468	14,930	5,145	46,030
Group Markets	25,819	14,238	923	28	13,287	11,581
ALM & LCC	29,005	4,522	1,189	6	3,327	24,484
Savings Banks	63,536	29,264	1,440	24,426	3,398	34,272
GCC	703	425	0	18	407	278
Total	**255,864**	**110,330**	**9,358**	**72,489**	**28,482**	**145,534**

Credit risk exposure by geographical segment and collateral

in EUR million	Total credit risk exposure	Collateral total	Collateralised by			Credit risk exposure net of collateral
			Guarantees	Real estate	Other	
Dec 19						
Austria	**149,551**	**68,928**	**5,643**	**50,022**	**13,264**	**80,623**
EBOe & Subs.	44,975	25,424	2,142	20,617	2,665	19,551
Savings Banks	66,786	31,117	1,529	26,343	3,244	35,669
Other Austria	37,790	12,387	1,972	3,061	7,354	25,403
CEE	**118,328**	**52,273**	**4,348**	**29,459**	**18,466**	**66,055**
Czech Republic	59,924	30,798	1,167	13,704	15,927	29,126
Slovakia	19,859	8,887	80	8,343	463	10,972
Romania	16,356	5,355	1,548	3,040	767	11,001
Hungary	9,432	3,269	1,006	1,707	555	6,163
Croatia	10,551	3,308	535	2,134	639	7,243
Serbia	2,206	657	10	532	115	1,550
Other	**5,899**	**1,006**	**607**	**6**	**393**	**4,893**
Total	**273,778**	**122,208**	**10,597**	**79,488**	**32,123**	**151,570**
Dec 18						
Austria	**137,925**	**62,400**	**5,454**	**46,242**	**10,703**	**75,525**
EBOe & Subs.	43,286	24,048	2,137	19,165	2,746	19,239
Savings Banks	63,536	29,264	1,440	24,426	3,398	34,272
Other Austria	31,103	9,088	1,878	2,651	4,559	22,014
CEE	**112,297**	**47,042**	**3,456**	**26,229**	**17,358**	**65,254**
Czech Republic	57,594	27,848	1,078	11,797	14,973	29,745
Slovakia	18,596	8,117	93	7,651	373	10,479
Romania	15,480	5,034	1,460	2,710	864	10,446
Hungary	8,907	2,397	307	1,690	400	6,509
Croatia	9,852	3,091	511	1,933	647	6,762
Serbia	1,868	555	7	447	101	1,313
Other	**5,642**	**888**	**448**	**18**	**421**	**4,755**
Total	**255,864**	**110,330**	**9,358**	**72,489**	**28,482**	**145,534**

Credit risk exposure by financial instrument and collateral

in EUR million	Total credit risk exposure	Collateral total	Collateralised by: Guaran-tees	Real estate	Other	Credit risk exposure net of collateral	IFRS 9 impairment relevant: Neither past due nor credit impaired	Past due but not credit impaired	Credit impaired
Dec 19									
Cash and cash balances - demand deposits to credit institutions	1,196	189	0	0	189	1,007	1,139	56	0
Debt instruments held for trading	5,694	1,022	153	1	868	4,672	0	0	0
Non-trading debt instruments at FVPL	2,818	437	289	136	12	2,381	0	0	0
Debt instruments at FVOCI	8,590	925	925	0	0	7,664	8,587	3	0
Debt instruments at AC	207,150	112,644	8,310	76,360	27,973	94,507	200,902	2,486	3,762
Debt securities	26,774	1,144	1,141	0	3	25,631	26,771	0	4
Loans and advances to banks	23,063	20,811	822	0	19,990	2,252	23,064	0	2
Loans and advances to customers	157,312	90,689	6,348	76,360	7,981	66,624	151,067	2,486	3,757
Trade and other receivables	1,480	6	2	1	3	1,473	1,317	85	78
Finance lease receivables	4,169	2,322	57	350	1,915	1,847	3,763	122	284
Debt instruments held for sale in disposal groups	0	0	0	0	0	0	0	0	0
Positive fair value of hedge accounting derivatives	130	0	0	0	0	130	0	0	0
Off-balance sheet exposures	42,552	4,662	861	2,640	1,162	37,889	38,077	35	302
thereof other commitments	4,137	314	21	71	222	3,823	0	0	0
Total	**273,778**	**122,208**	**10,597**	**79,488**	**32,123**	**151,570**	**253,786**	**2,787**	**4,426**
Dec 18									
Cash and cash balances - demand deposits to credit institutions	1,009	68	0	0	68	941	1,003	6	0
Debt instruments held for trading	5,516	1,116	79	0	1,037	4,401	0	0	0
Non-trading debt instruments at FVPL	2,938	223	48	159	16	2,715	0	0	0
Debt instruments at FVOCI	8,828	782	782	0	0	8,045	8,828	0	0
Debt instruments at AC	192,413	101,123	7,180	69,552	24,390	91,290	186,196	1,862	4,354
Debt securities	26,059	778	778	0	0	25,281	26,055	0	4
Loans and advances to banks	19,111	16,656	358	0	16,299	2,455	19,108	0	2
Loans and advances to customers	147,243	83,689	6,045	69,552	8,092	63,555	141,033	1,862	4,348
Trade and other receivables	1,441	17	5	1	11	1,423	1,236	84	121
Finance lease receivables	3,914	2,239	61	500	1,677	1,676	3,462	168	284
Debt instruments held for sale in disposal groups	0	0	0	0	0	0	0	0	0
Positive fair value of hedge accounting derivatives	132	41	0	0	41	91	0	0	0
Off-balance sheet exposures	39,673	4,721	1,203	2,277	1,241	34,952	35,719	69	393
thereof other commitments	3,493	317	157	67	93	3,176	0	0	0
Total	**255,864**	**110,330**	**9,358**	**72,489**	**28,482**	**145,534**	**236,444**	**2,189**	**5,152**

The collateral attributable to exposures that are credit-impaired at 31 December 2019 amounts to EUR 1,881 million (2018: EUR 2,134 million).

Loans and advances to customers

The tables on the following pages present the structure of the customer loan book, excluding loans to central banks and credit institutions broken down by different categories. Loans and advances to customers comprise:

_ loans to customers at FVPL;
_ loans and advances to customers at AC;
_ finance lease receivables;
_ trade and other receivables.

The presentation is by gross carrying amount excluding loan loss allowances and collateral.

On the following pages, loans and advances to customers are presented by:

_ business segment and risk category;
_ business segment and IFRS 9 treatment;
_ geographical segment and risk category;
_ geographical segment and IFRS 9 treatment;
_ business segment and coverage of non-performing loans and advances to customers by loan loss allowances and collateral;
_ business segment and coverage by loan loss allowances and IFRS 9 treatment;
_ geographical segment and coverage of non-performing loans and advances to customers by loan loss allowances and collateral;
_ geographical segment and coverage by loan loss allowances and IFRS 9 treatment;
_ business segment and currency;
_ geographical segment and currency.

Loans and advances to customers by business segment and risk category

in EUR million	Low risk	Management attention	Substandard	Non-performing	Total
Dec 19					
Retail	50,297	5,385	2,277	1,454	59,413
Corporates	46,518	5,308	1,759	1,266	54,851
Group Markets	896	33	5	0	934
ALM & LCC	199	15	77	59	351
Savings Banks	39,959	5,319	1,196	1,349	47,823
GCC	24	7	2	13	46
Total	**137,892**	**16,066**	**5,317**	**4,142**	**163,417**
Dec 18					
Retail	46,081	6,542	2,350	1,560	56,533
Corporates	41,998	4,844	1,568	1,721	50,131
Group Markets	1,097	107	1	0	1,205
ALM & LCC	126	41	73	11	251
Savings Banks	36,944	4,881	1,236	1,586	44,647
GCC	57	3	7	3	69
Total	**126,303**	**16,418**	**5,234**	**4,881**	**152,836**

Loans and advances to customers by business segment and IFRS 9 treatment

in EUR million	Stage 1	Stage 2	Stage 3	POCI	Customer loans (AC)	Not subject to IFRS 9 impairment	Total
Dec 19							
Retail	53,491	4,067	1,379	136	59,073	340	59,413
Corporates	49,049	4,371	1,066	233	54,719	132	54,851
Group Markets	888	46	0	0	934	0	934
ALM & LCC	274	17	59	0	351	0	351
Savings Banks	41,373	5,074	1,320	46	47,814	9	47,823
GCC	27	3	13	0	43	3	46
Total	**145,104**	**13,578**	**3,837**	**415**	**162,934**	**483**	**163,417**
Dec 18							
Retail	51,191	3,631	1,411	158	56,391	142	56,533
Corporates	45,262	3,039	1,431	316	50,047	84	50,131
Group Markets	1,190	15	0	0	1,205	0	1,205
ALM & LCC	225	15	11	0	251	0	251
Savings Banks	38,767	4,257	1,499	61	44,586	61	44,647
GCC	64	1	3	0	69	0	69
Total	**136,700**	**10,958**	**4,355**	**536**	**152,549**	**287**	**152,836**

Stage 1 and Stage 2 comprise not credit impaired loans and advances while Stage 3 includes credit impaired loans and advances. POCI (purchased or originated credit impaired) consists of loans already credit impaired when purchased or originated.

The defaulted part of POCI loans amounted to EUR 281 million (2018: EUR 418 million), the non-defaulted part to EUR 134 million (2018: EUR 117 million).

Loans and advances to customers by geographical segment and risk category

in EUR million	Low risk	Management attention	Substandard	Non-performing	Total
Dec 19					
Austria	**85,578**	**7,958**	**1,912**	**2,191**	**97,639**
EBOe & Subs.	31,302	2,303	540	500	34,645
Savings Banks	39,959	5,319	1,196	1,349	47,823
Other Austria	14,317	337	177	341	15,172
CEE	**52,268**	**8,101**	**3,403**	**1,938**	**65,709**
Czech Republic	23,703	3,909	1,057	519	29,188
Slovakia	11,540	1,175	1,296	426	14,437
Romania	6,890	1,073	448	359	8,771
Hungary	3,534	866	307	124	4,831
Croatia	5,451	817	242	489	6,999
Serbia	1,149	261	52	20	1,483
Other	**46**	**7**	**2**	**13**	**69**
Total	**137,892**	**16,066**	**5,317**	**4,142**	**163,417**
Dec 18					
Austria	**79,323**	**7,323**	**2,132**	**2,635**	**91,413**
EBOe & Subs.	29,870	2,104	682	601	33,256
Savings Banks	36,944	4,881	1,236	1,586	44,647
Other Austria	12,510	339	214	448	13,511
CEE	**46,803**	**9,058**	**3,095**	**2,216**	**61,172**
Czech Republic	22,308	3,612	1,054	492	27,466
Slovakia	9,204	2,601	1,095	438	13,337
Romania	6,279	1,109	396	476	8,260
Hungary	3,055	646	257	152	4,109
Croatia	4,996	847	257	638	6,739
Serbia	961	244	36	21	1,262
Other	**177**	**36**	**7**	**30**	**250**
Total	**126,303**	**16,418**	**5,234**	**4,881**	**152,836**

Loans and advances to customers by geographical segment and IFRS 9 treatment

in EUR million	Stage 1	Stage 2	Stage 3	POCI	Customer loans (AC)	Not subject to IFRS 9 impairment	Total
Dec 19							
Austria	**85,639**	**9,700**	**2,123**	**68**	**97,530**	**109**	**97,639**
EBOe & Subs.	31,130	3,001	496	6	34,633	12	34,645
Savings Banks	41,373	5,074	1,320	46	47,814	9	47,823
Other Austria	13,136	1,624	307	16	15,084	88	15,172
CEE	**59,415**	**3,875**	**1,701**	**347**	**65,338**	**372**	**65,709**
Czech Republic	27,169	1,467	489	32	29,157	31	29,188
Slovakia	13,519	474	358	85	14,437	0	14,437
Romania	7,102	1,272	300	97	8,770	1	8,771
Hungary	4,071	247	80	94	4,491	340	4,831
Croatia	6,154	352	456	37	6,999	0	6,999
Serbia	1,399	63	18	2	1,482	0	1,482
Other	**50**	**3**	**13**	**0**	**66**	**3**	**69**
Total	**145,104**	**13,578**	**3,837**	**415**	**162,934**	**483**	**163,417**
Dec 19							
Austria	**80,911**	**7,771**	**2,478**	**101**	**91,261**	**153**	**91,413**
EBOe & Subs.	30,136	2,503	568	17	33,224	32	33,256
Savings Banks	38,767	4,257	1,499	61	44,586	61	44,647
Other Austria	12,007	1,011	410	22	13,451	60	13,511
CEE	**55,612**	**3,145**	**1,847**	**435**	**61,038**	**134**	**61,172**
Czech Republic	25,598	1,380	464	21	27,463	3	27,466
Slovakia	12,561	330	343	103	13,337	0	13,337
Romania	6,905	853	372	128	8,259	1	8,260
Hungary	3,656	121	83	119	3,979	130	4,109
Croatia	5,699	411	567	62	6,739	0	6,739
Serbia	1,192	50	18	2	1,262	0	1,262
Other	**177**	**43**	**30**	**0**	**250**	**0**	**250**
Total	**136,700**	**10,958**	**4,355**	**536**	**152,549**	**287**	**152,836**

In the following tables, the non-performing loans and advances to customers divided by reporting segment are contrasted with allowances for customer loans (all allowances for loans and advances to customers within the scope of IFRS 9) and the collateral for non-performing loans (NPL). The NPL ratio, the NPL coverage ratio (excluding collateral), and the NPL collateralisation ratio are also included.

Non-performing loans and advances to customers by business segment and coverage by loan loss allowances and collateral

	Non-performing		Customer loans		Loan loss allowances	Collateral for NPL		NPL ratio		NPL coverage ratio	NPL collateralisation ratio	
in EUR million	Total	AC	Total	AC	AC	Total	AC	Total	AC	AC	Total	AC
Dec 19												
Retail	1,454	1,452	59,413	59,073	-1,202	617	616	2.4%	2.5%	82.8%	42.4%	42.4%
Corporates	1,266	1,247	54,851	54,719	-1,069	481	481	2.3%	2.3%	85.7%	38.0%	38.5%
Group Markets	0	0	934	934	-2	0	0	0.0%	0.0%	>500.0%	0.0%	0.0%
ALM & LCC	59	59	351	351	-26	48	48	16.9%	16.9%	44.0%	81.5%	81.5%
Savings Banks	1,349	1,347	47,823	47,814	-861	695	693	2.8%	2.8%	63.9%	51.5%	51.5%
GCC	13	11	46	43	-13	5	3	28.4%	25.6%	115.3%	40.4%	29.5%
Total	**4,142**	**4,117**	**163,417**	**162,934**	**-3,174**	**1,847**	**1,842**	**2.5%**	**2.5%**	**77.1%**	**44.6%**	**44.7%**
Dec 18												
Retail	1,560	1,557	56,533	56,391	-1,310	637	636	2.8%	2.8%	84.2%	40.9%	40.9%
Corporates	1,721	1,701	50,131	50,047	-1,256	621	620	3.4%	3.4%	73.8%	36.1%	36.5%
Group Markets	0	0	1,205	1,205	-4	0	0	0.0%	0.0%	>500.0%	0.0%	0.0%
ALM & LCC	11	11	251	251	-19	1	1	4.3%	4.3%	180.6%	9.4%	9.4%
Savings Banks	1,586	1,583	44,647	44,586	-971	785	782	3.6%	3.6%	61.4%	49.5%	49.4%
GCC	3	1	69	69	-2	3	1	4.1%	1.0%	237.5%	99.8%	99.2%
Total	**4,881**	**4,853**	**152,836**	**152,549**	**-3,563**	**2,046**	**2,041**	**3.2%**	**3.2%**	**73.4%**	**41.9%**	**42.1%**

Total gross customer loans, total non-performing loans, and total collateral include both AC and FVPL portfolios.

Loans and advances to customers at AC and coverage by loan loss allowances by business segment and IFRS 9 treatment

	Loans to customers				Loan loss allowances				Coverage ratio		
in EUR million	Stage 1	Stage 2	Stage 3	POCI	Stage 1	Stage 2	Stage 3	POCI	Stage 2	Stage 3	POCI
Dec 19											
Retail	53,491	4,067	1,379	136	-116	-214	-827	-44	5.3%	60.0%	32.8%
Corporates	49,049	4,371	1,066	233	-137	-157	-682	-93	3.6%	64.0%	40.1%
Group Markets	888	46	0	0	-1	-1	0	0	3.1%	98.7%	100.0%
ALM & LCC	274	17	59	0	-1	-5	-20	0	29.9%	34.5%	0.0%
Savings Banks	41,373	5,074	1,320	46	-86	-143	-629	-3	2.8%	47.7%	5.5%
GCC	27	3	13	0	0	0	-13	0	0.1%	96.6%	0.0%
Total	**145,104**	**13,578**	**3,837**	**415**	**-341**	**-520**	**-2,172**	**-140**	**3.8%**	**56.6%**	**33.9%**
Dec 18											
Retail	51,191	3,631	1,411	158	-124	-203	-913	-71	5.6%	64.7%	45.0%
Corporates	45,262	3,039	1,431	316	-138	-131	-900	-87	4.3%	62.9%	27.4%
Group Markets	1,190	15	0	0	-3	0	0	0	0.9%	87.0%	100.0%
ALM & LCC	225	15	11	0	0	-11	-8	0	68.4%	79.0%	0.0%
Savings Banks	38,767	4,257	1,499	61	-78	-131	-747	-16	3.1%	49.8%	25.5%
GCC	64	1	3	0	0	0	-1	0	1.2%	46.4%	0.0%
Total	**136,700**	**10,958**	**4,355**	**536**	**-344**	**-476**	**-2,570**	**-174**	**4.3%**	**59.0%**	**32.4%**

Non-performing loans and advances to customers by geographical segment and coverage by loan loss allowances and collateral

	Non-performing		Customer loans		Loan loss allowances	Collateral for NPL		NPL ratio		NPL coverage ratio	NPL collateralisation ratio	
in EUR million	Total	AC	Total	AC	AC	Total	AC	Total	AC	AC	Total	AC
Dec 19												
Austria	**2,191**	**2,171**	**97,639**	**97,530**	**-1,367**	**1,128**	**1,126**	**2.2%**	**2.2%**	**63.0%**	**51.5%**	**51.9%**
EBOe & Subs.	500	500	34,645	34,633	-290	286	286	1.4%	1.4%	58.0%	57.2%	57.3%
Savings Banks	1,349	1,347	47,823	47,814	-861	695	693	2.8%	2.8%	63.9%	51.5%	51.5%
Other Austria	341	323	15,172	15,084	-216	147	147	2.2%	2.1%	66.8%	43.0%	45.3%
CEE	**1,938**	**1,935**	**65,709**	**65,338**	**-1,794**	**713**	**712**	**2.9%**	**3.0%**	**92.7%**	**36.8%**	**36.8%**
Czech Republic	519	519	29,188	29,157	-500	124	124	1.8%	1.8%	96.3%	24.0%	24.0%
Slovakia	426	426	14,437	14,437	-344	169	169	3.0%	3.0%	80.8%	39.7%	39.7%
Romania	359	359	8,771	8,770	-417	138	138	4.1%	4.1%	116.3%	38.5%	38.5%
Hungary	124	122	4,831	4,491	-115	74	73	2.6%	2.7%	93.8%	59.8%	59.8%
Croatia	489	489	6,999	6,999	-390	203	203	7.0%	7.0%	79.7%	41.4%	41.4%
Serbia	20	20	1,482	1,482	-29	5	5	1.4%	1.4%	140.3%	22.9%	22.9%
Other	**13**	**11**	**69**	**66**	**-13**	**5**	**3**	**19.0%**	**16.8%**	**115.5%**	**40.4%**	**29.5%**
Total	**4,142**	**4,117**	**163,417**	**162,934**	**-3,174**	**1,847**	**1,842**	**2.5%**	**2.5%**	**77.1%**	**44.6%**	**44.7%**
Dec 18												
Austria	**2,635**	**2,617**	**91,413**	**91,261**	**-1,591**	**1,265**	**1,263**	**2.9%**	**2.9%**	**60.8%**	**48.0%**	**48.3%**
EBOe & Subs.	601	600	33,256	33,224	-368	308	308	1.8%	1.8%	61.4%	51.3%	51.3%
Savings Banks	1,586	1,583	44,647	44,586	-971	785	782	3.6%	3.6%	61.4%	49.5%	49.4%
Other Austria	448	434	13,511	13,451	-251	173	173	3.3%	3.2%	57.9%	38.6%	39.8%
CEE	**2,216**	**2,208**	**61,172**	**61,038**	**-1,956**	**778**	**777**	**3.6%**	**3.6%**	**88.6%**	**35.1%**	**35.2%**
Czech Republic	492	492	27,466	27,463	-497	101	101	1.8%	1.8%	101.2%	20.6%	20.6%
Slovakia	438	438	13,337	13,337	-354	192	192	3.3%	3.3%	80.9%	44.0%	44.0%
Romania	476	469	8,260	8,259	-477	159	159	5.8%	5.7%	101.7%	33.5%	34.0%
Hungary	152	150	4,109	3,979	-128	86	85	3.7%	3.8%	85.3%	56.6%	56.4%
Croatia	638	638	6,739	6,739	-469	234	234	9.5%	9.5%	73.5%	36.6%	36.6%
Serbia	21	21	1,262	1,262	-29	5	5	1.7%	1.7%	139.4%	23.9%	23.9%
Other	**30**	**28**	**250**	**250**	**-16**	**3**	**1**	**12.1%**	**11.3%**	**56.9%**	**9.3%**	**2.5%**
Total	**4,881**	**4,853**	**152,836**	**152,549**	**-3,563**	**2,046**	**2,041**	**3.2%**	**3.2%**	**73.4%**	**41.9%**	**42.1%**

Total gross customer loans, total non-performing loans, and total collateral include both AC and FVPL portfolios.

The NPL ratio of loans and advances to customers is calculated by dividing the gross carrying amount of non-performing loans and advances to customers by the total gross carrying amount of loans and advances to customers. Consequently, it differs from the NPE ratio in section ‘Credit risk exposure’. Collaterals for non-performing loans mainly consist of real estates.

The NPL coverage ratio is calculated by dividing total loss allowances by the gross carrying amount of the non-performing loans and advances to customers. Collateral is not taken into account.

Loans and advances to customers at AC and coverage by loan loss allowances by geographical segment and IFRS 9 treatment

	Loans to customers				Loan loss allowances				Coverage ratio		
in EUR million	Stage 1	Stage 2	Stage 3	POCI	Stage 1	Stage 2	Stage 3	POCI	Stage 2	Stage 3	POCI
Dec 19											
Austria	**85,639**	**9,700**	**2,123**	**68**	**-130**	**-230**	**-1,004**	**-3**	**2.4%**	**47.3%**	**3.8%**
EBOe & Subs.	31,130	3,001	496	6	-29	-55	-206	0	1.8%	41.5%	0.0%
Savings Banks	41,373	5,074	1,320	46	-86	-143	-629	-3	2.8%	47.7%	5.5%
Other Austria	13,136	1,624	307	16	-16	-31	-169	0	1.9%	54.9%	0.0%
CEE	**59,415**	**3,875**	**1,701**	**347**	**-210**	**-290**	**-1,155**	**-138**	**7.5%**	**67.9%**	**39.8%**
Czech Republic	27,169	1,467	489	32	-68	-77	-335	-19	5.3%	68.4%	60.1%
Slovakia	13,519	474	358	85	-35	-36	-220	-53	7.6%	61.6%	62.2%
Romania	7,102	1,272	300	97	-37	-122	-229	-29	9.6%	76.3%	29.9%
Hungary	4,071	247	80	94	-13	-25	-55	-21	10.3%	69.4%	22.8%
Croatia	6,154	352	456	37	-48	-24	-303	-15	6.8%	66.4%	39.3%
Serbia	1,399	63	18	2	-9	-6	-13	-1	9.0%	73.6%	38.1%
Other	**50**	**3**	**13**	**0**	**0**	**0**	**-13**	**0**	**0.1%**	**96.6%**	**0.0%**
Total	**145,104**	**13,578**	**3,837**	**415**	**-341**	**-520**	**-2,172**	**-140**	**3.8%**	**56.6%**	**33.9%**
Dec 18											
Austria	**80,911**	**7,771**	**2,478**	**101**	**-132**	**-204**	**-1,231**	**-24**	**2.6%**	**49.7%**	**24.1%**
EBOe & Subs.	30,136	2,503	568	17	-34	-53	-273	-9	2.1%	48.1%	50.3%
Savings Banks	38,767	4,257	1,499	61	-78	-131	-747	-16	3.1%	49.8%	25.5%
Other Austria	12,007	1,011	410	22	-21	-20	-211	0	1.9%	51.4%	0.0%
CEE	**55,612**	**3,145**	**1,847**	**435**	**-211**	**-271**	**-1,324**	**-149**	**8.6%**	**71.7%**	**34.3%**
Czech Republic	25,598	1,380	464	21	-77	-85	-326	-9	6.2%	70.2%	46.1%
Slovakia	12,561	330	343	103	-36	-34	-233	-51	10.3%	68.0%	49.9%
Romania	6,905	853	372	128	-30	-100	-301	-47	11.7%	80.8%	36.4%
Hungary	3,656	121	83	119	-14	-16	-63	-35	13.4%	76.5%	29.1%
Croatia	5,699	411	567	62	-46	-29	-389	-6	7.0%	68.5%	10.1%
Serbia	1,192	50	18	2	-8	-8	-13	-1	15.1%	72.1%	40.6%
Other	**177**	**43**	**30**	**0**	**-1**	**-1**	**-15**	**0**	**2.3%**	**47.9%**	**0.0%**
Total	**136,700**	**10,958**	**4,355**	**536**	**-344**	**-476**	**-2,570**	**-174**	**4.3%**	**59.0%**	**32.4%**

The NPL exposures above exclude any write-offs recognised in accordance with IFRS 9. Erste Group distinguishes between contractual write-offs (debt forgiveness towards the defaulted client, either unconditional or subject to conditions) and technical write-offs (claim removal from the books due to no reasonable expectation of recovery, whereby the legal claim towards the customer still remains). Both types of write-offs have as a pre-condition that all reasonable workout measures and late collections tools have been applied for optimal recovery. In case of collateralised loans, write-off prior to the realisation of the collateral is not allowed unless specific circumstances apply. Additional technical write-off triggers include enforcement, worthlessness of claim/collateral, legally binding bankruptcy/liquidation or other economic loss of the rights to claim/sale. The amount written off during 2019, which is still subject to enforcement activity, totals EUR 253 million (2018: 266 million).

Loans and advances to customers by business segment and currency

in EUR million	EUR	CEE-LCY	CHF	USD	Other	Total
Dec 19						
Retail	31,789	25,790	1,211	20	603	59,413
Corporates	40,293	10,300	193	2,684	1,381	54,851
Group Markets	656	148	0	100	29	934
ALM & LCC	196	114	0	40	0	351
Savings Banks	44,643	708	1,809	87	575	47,823
GCC	22	24	0	0	0	46
Total	**117,599**	**37,084**	**3,214**	**2,931**	**2,589**	**163,417**
Dec 18						
Retail	31,111	23,548	1,340	15	519	56,533
Corporates	36,134	9,963	205	2,738	1,091	50,131
Group Markets	890	209	0	103	3	1,205
ALM & LCC	153	93	0	4	0	251
Savings Banks	41,462	457	2,013	98	617	44,647
GCC	34	21	0	14	0	69
Total	**109,784**	**34,291**	**3,558**	**2,972**	**2,231**	**152,836**

Loans and advances to customers by geographical segment and currency

in EUR million	EUR	CEE-LCY	CHF	USD	Other	Total
Dec 19						
Austria	**89,317**	**0**	**3,185**	**2,637**	**2,500**	**97,639**
EBOe & Subs.	33,167	0	1,325	60	93	34,645
Savings Banks	44,643	0	1,809	87	1,284	47,823
Other Austria	11,507	0	51	2,490	1,124	15,172
CEE	**28,261**	**37,042**	**28**	**289**	**90**	**65,709**
Czech Republic	3,822	25,155	0	151	60	29,188
Slovakia	14,391	0	0	16	30	14,437
Romania	3,192	5,471	0	108	0	8,771
Hungary	1,282	3,541	6	2	0	4,831
Croatia	4,426	2,544	22	7	0	6,999
Serbia	1,147	331	0	4	0	1,482
Other	**22**	**42**	**0**	**5**	**0**	**69**
Total	**117,599**	**37,084**	**3,214**	**2,931**	**2,589**	**163,417**
Dec 18						
Austria	**83,141**	**0**	**3,512**	**2,646**	**2,114**	**91,413**
EBOe & Subs.	31,641	0	1,455	57	103	33,256
Savings Banks	41,462	0	2,013	98	1,074	44,647
Other Austria	10,039	0	45	2,490	937	13,511
CEE	**26,448**	**34,255**	**45**	**307**	**117**	**61,172**
Czech Republic	3,628	23,659	1	101	78	27,466
Slovakia	13,282	0	0	25	30	13,337
Romania	3,308	4,843	0	109	0	8,260
Hungary	1,041	3,059	7	2	0	4,109
Croatia	4,222	2,413	28	67	9	6,739
Serbia	968	281	10	4	0	1,262
Other	**195**	**36**	**0**	**19**	**0**	**250**
Total	**109,784**	**34,291**	**3,558**	**2,972**	**2,231**	**152,836**

'CEE-LCY' refers to the CEE geographical segment view where the local currency is the currency of the respective country (e.g. CZK in Czech Republic, RON in Romania etc.).

Securitisations

As of 31 December 2019, Erste Group held a further reduced residual portfolio of securitisations; there were no new investments undertaken and all repayments were made as scheduled in 2019.

As of year-end 2019, the carrying amount of Erste Group's securitisation portfolio totalled EUR 21.8 million. The entire exposure consists of three individual transactions, which are triple-, double- and single-A rated.

Market risk

Market risk is the risk of loss that may arise due to adverse changes in market prices and to the parameters derived from them. These market value changes might appear in the profit and loss account, in the statement of comprehensive income or in hidden reserves. At Erste Group, market risk is divided into interest rate risk; credit spread risk, currency risk, equity risk, commodity risk, and volatility risk. This concerns both trading and banking book positions.

Methods and instruments employed

At Erste Group, potential losses that may arise from market movements are assessed using the value at risk (VaR). The VaR describes what level of losses may be expected as a maximum at a defined probability – the confidence level – within a certain holding period of the positions under historically observed market conditions.

The calculation is done according to the method of historic simulation with a one-sided confidence level of 99%, a holding period of one day and a simulation period of two years. The VaR describes what level of losses may be expected as a maximum at a defined probability – the confidence level – within a certain holding period of the positions under historically observed market conditions.

Back-testing is used to constantly monitor the validity of the statistical methods. This process is conducted with a one-day delay to monitor if the model projections regarding losses have actually materialised. At a confidence level of 99%, the actual loss on a single day should exceed the VaR statistically only two to three times a year (1% of around 250 workdays).

This shows one of the limits of the VaR approach: on the one hand, the confidence level is limited to 99%, and on the other hand, the model takes into account only those market scenarios observed in each case within the simulation period of two years, and calculates the VaR for the current position of the bank on this basis. In order to investigate any extreme market situations beyond this, stress tests are conducted at Erste Group. These events include mainly market movements of low probability.

The stress tests are carried out according to several methods: stressed VaR (SVaR) is derived from the normal VaR calculation. But instead of simulating only over the two most recent years, an analysis of a much longer period is carried out in order to identify a one-year period that constitutes a relevant period of stress for the current portfolio mix. According to the legal framework, that one-year period is used to calculate a VaR with a 99% confidence level. This enables Erste Group on the one hand to hold sufficient own funds available for the trading book even in periods of elevated market volatility, while on the other hand also enabling it to incorporate these resulting effects into the management of trading positions.

Standard scenarios are calculated in which the individual market factors are exposed to extreme movements. Such scenarios are calculated at Erste Group for interest rates, stock prices, exchange rates and volatilities. Historic scenarios are a modification of the concept of standard scenarios. In this case, risk factor movements after certain events such as '9/11'or the 'Lehman bankruptcy' form the basis of the stress calculation. In order to calculate historical probabilistic scenarios, the most significant risk factors for the current portfolio are determined and their most adverse movement in recent years is applied. For the probabilistic scenarios, shifts of important market factors are determined for various quantiles of their distributions, and these values are then used to calculate stress results. These analyses are made available to the management board within the scope of the regular market risk reporting.

The implemented market risk model was approved by the ECB in December 2016 as an internal model to determine the own funds requirements for the trading books of Erste Group Bank AG and Ceská spořitelna, a.s. on an individual level and additionally for the trading books of Slovenská sporitel'ňa a.s., Erste Bank Hungary Zrt., and Erste Befektetési Zrt. on consolidated basis. The infrastructure brought significant improvements with regards to flexible shift methodologies of historical scenarios, product- and market data coverage, and the reporting infrastructure.

Methods and instruments of risk mitigation

At Erste Group, market risks are controlled in the trading book by setting several layers of limits. The overall limit on the basis of VaR for the trading book is allocated by the management board in the Risk Appetite Statement while taking into account the risk-bearing capacity and projected earnings. A further breakdown is done by the Market Risk Committee (MRC) on the basis of a proposal from the Trading Book Risk Management unit.

All market risk activities of the trading book are assigned risk limits that are statistically consistent in their entirety with the overall VaR limit. The VaR limit is assigned in a top-down procedure to the individual trading units. This is done down to the level of the individual trading groups or departments. Additionally, in a bottom-up procedure, sensitivity limits are assigned to even smaller units all the way down to the desk level. These are then aggregated and applied as a second-limit layer to the VaR limits.

Limit compliance is verified at two levels: by the appropriate local decentralised risk management unit and by the Trading Book Risk Management unit. The monitoring of sensitivity limits is performed on both intraday and end-of-day basis. On demand, limit reports can also be triggered by individual traders or chief traders on an ad-hoc basis.

The VaR is calculated every day at group level and made available to the individual trading units as well as to the superior management levels all the way up to the management board.

Banking book positions are measured with a long horizon risk measure, covering interest rate risk, credit spread risk of the banking book and foreign exchange risk of equity participations. In 2019, the methodology for this calculation was changed, allowing Erste Group to calculate 250,000 historical scenarios. This methodology is used to calculate the capital requirements according to the ICAAP with a theoretical holding period of 1 year and a confidence level of 99.92%. In addition, the same methodology is used to calculate the VaR, consistent to the trading book methodology, with a 1 day holding period and a 99% confidence level. The result of these calculations is presented in the Group ALCO to the management board.

Analysis of market risk

The following tables show the VaR amounts at the 99% confidence level using equally weighted market data and with a holding period of one day:

Value at Risk of banking book and trading book

in EUR thousand	Total	Interest	Credit spread	Currency	Shares	Commodity	Volatility
Dec 19							
Erste Group	34,079	22,960	11,195	775	370	133	747
Banking book	30,985	19,790	11,195	-	-	-	-
Trading book	3,094	3,170	-	775	370	133	747
Dec 18							
Erste Group	37,335	25,353	11,967	536	637	91	330
Banking book	31,741	19,774	11,967	-	-	-	-
Trading book	5,594	5,579	-	536	637	91	330

The table above is adjusted compared to the annual report 2018. This is because the calculation methodology for the 99% VaR for the banking book was adjusted in order to be harmonized with the new methodology to calculate the capital requirement according to the ICAAP. With this methodology it is now possible to show the total 99% VaR for the banking book as well as the 99% VaR for the interest rate risk and the 99% VaR for the credit spread risk. The figures for 2018 are re-stated reflecting the new methodology in order to be comparable.

The method used is subject to limitations that may result in the information not fully reflecting the fair value of the assets and liabilities involved. This restriction applies to the inclusion of credit spreads in the calculation of the VaR. Credit spreads are applied to sovereign issuers only. For all other positions, only the general market risk is considered.

Interest rate risk in the banking book

Interest rate risk is the risk of an adverse change in the fair value of financial instruments caused by a movement in market interest rates. This type of risk arises when mismatches exist between assets and liabilities, including derivatives, in respect of their maturities or of the timing of interest rate adjustments.

In order to identify interest rate risk, all financial instruments, including transactions not recognised on the balance sheet, are grouped into maturity bands based on their remaining terms to maturity or terms to an interest rate adjustment. Positions without a fixed maturity (e.g. demand deposits) are included on the basis of modelled deposit rates that are determined by means of statistical methods.

Erste Group responded to the low or even negative interest rate environment since 2015, which poses a challenge for the interest rate risk measurement and management of banks, in recent years by adjusting its methodologies for measuring the interest rate risk. For internal risk calculations and for the regulatory interest rate risk measures, the maximum downward shock is floored according to the Annex III of the EBA guidelines on the management of interest rate risk arising from non-trading activities (EBA/GL/2018/02).

The following tables list the open fixed-income positions held by Erste Group in the four currencies that carry a significant interest rate risk: EUR, CZK, HUF and RON.

Only the open fixed-income positions that are not allocated to the trading book are presented. Positive values indicate fixed-income risks on the asset side, i.e. a surplus of asset items; negative values represent a surplus on the liability side.

Open fixed-income positions not assigned to the trading book

in EUR million	1-3 years	3-5 years	5-7 years	7-10 years	Over 10 years
Dec 19					
Fixed-interest gap in EUR positions	1,889.7	4,018.4	2,928.4	2,128.5	1,088.8
Fixed-interest gap in CZK positions	3,890.6	2,748.6	3,147.9	2,128.1	945.7
Fixed-interest gap in HUF positions	1,040.9	646.5	443.9	-32.9	33.4
Fixed-interest gap in RON positions	1,683.2	879.2	292.4	267.2	0.2
Dec 18					
Fixed-interest gap in EUR positions	1,187.8	2,949.0	2,317.9	3,115.9	1,119.1
Fixed-interest gap in CZK positions	3,528.2	2,826.9	2,809.1	1,813.0	734.9
Fixed-interest gap in HUF positions	538.3	939.8	432.5	-78.9	7.8
Fixed-interest gap in RON positions	1,502.8	728.2	581.6	243.8	0.3

Exchange rate risk

The bank is exposed to several types of risks related to exchange rates. These concern risks from open foreign exchange positions and others.

Risk from open foreign exchange positions is the risk related to exchange rates that derives from the mismatch between assets and liabilities, or from currency-related financial derivatives. These risks might originate from customer-related operations or proprietary trading and are monitored and managed on a daily basis. Foreign currency exposure is subject to regulatory and internal limits. The internal limits are set by the Market Risk Committee.

Erste Group separately measures and manages other types of risks relating to the group's balance sheet and earnings structure. The translation risk related to the valuation of the balance sheet items, earnings, dividends and participations/net investments in local currency or foreign exchange has an impact on consolidated earnings and consolidated capital. Erste Group is also reducing the negative impact related to volatility of foreign exchange rates on asset performance (for example as a result of foreign exchange lending in the CEE countries that was stopped for clients not having sufficient regular income in the respective loan currency).

In order to manage its multi-currency earnings structure, Erste Group regularly discusses hedging opportunities and takes decisions in the Group Asset Liability Committee (ALCO). Asset Liability Management (ALM) uses as the usual source of information the current financial results and the financial budget prepared for the upcoming period to obtain as much information as possible on the future foreign currency cash flows. The proposal, which mainly includes the volume, hedging level, hedge ratio and timeline of the hedging, is submitted by ALM to ALCO. The impact of translation on consolidated capital is monitored and reported to ALCO. The ALCO decisions are then implemented by ALM and the implementation status is reported on a monthly basis to ALCO.

The following table shows the largest open foreign currency positions of Erste Group as of 31 December 2019 and the corresponding open positions of these currencies as of 31 December 2018 (excluding foreign currency positions arising from equity participation).

Open foreign currency positions

in EUR thousand	Dec 18	Dec 19
Czech Koruna (CZK)	9,494	-61,217
Hungarian Forint (HUF)	-4,076	-18,943
Swiss Franc (CHF)	797	-18,262
Romanian Leu (RON)	14,427	12,494
Croatian Kuna (HRK)	-6,186	11,570
US Dollar (USD)	45,123	11,014
British Pound (GBP)	7,087	9,919
Japanese Yen (JPY)	-8,103	2,485
Polish Zloty (PLN)	4,365	-2,137
Canadian Dollar (CAD)	8,110	-1,135

Credit spread risk

Credit spread risk is the risk of an adverse movement in the fair value of financial instruments caused by a change in the creditworthiness of an issuer perceived by the market. Erste Group is exposed to credit spread risk with respect to its securities portfolio, both in the trading as well as in the banking book.

For the trading book, credit spread risk for government bonds is part of the general market risk covered by VaR and SVaR. Corporate bonds are allocated to benchmark spread curves depending on sector, rating, and currency as part of the general risk covered by VaR and SVaR. The issuer specific risk is covered by the standardised approach for Pillar 1 of regulatory capital requirements. For the issuer specific risk of the trading book in Pillar 2, the spread risk is broken down into a systematic and a residual part risk and reported on an aggregated level. In the above VaR table, credit spread risk for the trading book is part of the interest component.

Quantifying the credit spread risk of the securities in the banking book is based on a historical simulation. The maximum (hypothetical) drawdown that can be attributed to credit related risk factors over one-year horizon is calculated. It is based on credit spread sensitivities (CR01) and the risk factors used are mainly asset swap spreads for sovereigns and iTRAXX CDS indices for financials and corporates. The resulting amount is used as part of the ICAAP calculations to determine the capital consumption of the banking book portfolio.

Hedging

Banking book market risk management consists of optimising Erste Group's risk position by finding the proper trade-off between the economic value of the balance sheet and forecasted earnings. Decisions are based on balance sheet development, economic environment, competitive landscape, fair value of risk, effect on net interest income and appropriate liquidity position. The steering body responsible for interest rate risk management is ALCO. ALM submits proposals for actions to steer the interest rate risk to ALCO and implements ALCO's decisions.

In order to achieve the goals of risk management, hedging activities focus on the two main control variables: net interest income and market value of equity risk. In a broader sense, hedging refers to an economic activity that mitigates risk but does not necessarily qualify for hedge accounting under IFRS rules. IFRS hedge accounting is applied, if possible, to avoid accounting mismatches due to hedging activity. Within the scope of IFRS-compliant hedge accounting, fair value hedges and cash flow hedges are used. In addition the fair value option is used for hedging the market risk from the economic perspective. Most of the hedging within Erste Group concerns hedging of interest rate risk. The remainder is hedging of foreign exchange rate risk.

Liquidity risk

The liquidity risk in Erste Group is defined in line with the principles set out by the Basel Committee on Banking Supervision as well as the European and Austrian regulations (Capital Regulations Requirement (CRR) - Regulation (EU) No 575/2013, Delegated Regulation (EU) 2015/61, Kreditinstitute-Risikomanagement-Verordnung - KI-RMV). Accordingly, a distinction is made between market liquidity risk, which is the risk that the group entities cannot easily offset or close a position at the market price because of inadequate market depth or market disruption, and funding liquidity risk, which is the risk that the banks in the group will not be able to meet efficiently both expected and unexpected current and future cash flow and collateral needs without affecting either daily operations or the financial condition of the group members.

Funding liquidity risk is further divided into insolvency risk and structural liquidity risk. The former is the short-term risk that current or future payment obligations cannot be met in full and on time in an economically justified manner, while structural liquidity risk is the long-term risk of losses due to a change in the Group's own refinancing cost or spread.

Liquidity strategy

In 2019, customer deposits remained the primary source of funding for Erste Group. The growth in loan volume was in line with inflows of customer deposits, and the excess liquidity was mainly placed with central banks.

With regards its own issuance, Erste Group Bank AG issued EUR 4.0 billion in bonds in 2019 (2018: EUR 3.4 billion) which in net terms was in accordance with the size of the budgeted figure. EUR 1.0 billion (2018: EUR 2.5 billion) was collected via two mortgage covered bonds in benchmark size. EUR 1.3 billion (2018: EUR 808 million) was collected by issuing senior preferred bonds, of which EUR 0.5 billion were printed via one benchmark sized transaction and the rest via private placements or the retail network. Moreover, an inaugural senior non-preferred transaction was issued which made up additional EUR 0.5 billion. Tier 2 subordinated debt issuance amounted to EUR 0.6 billion (2018: EUR 108 million). Furthermore, an additional tier 1 benchmark bond (EUR 0.5 bn) was issued. This was offset by repurchases of EUR 266 million (2018: EUR 116 million). The average tenor of all new issues in 2019 is approximately 7.1 years (2018: 7.2 years).

Erste Group's total TLTRO participation in 2019 was reduced to EUR 1.9 billion (2018: 3.5 billion).

Liquidity ratios

The regulatory liquidity ratios Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR) are well implemented in Erste Group. The LCR is calculated in Erste Group according to the Delegated Regulation (EU) 2015/61 (LCR DA). In 2019, the calculation of the NSFR was adjusted in order to be aligned with the requirements as defined in the proposal for amending the Directive 2013/36/EU (Draft CRR 2).

Methods and instruments employed

Short-term insolvency risk is monitored by calculating the survival period on both entity and group levels. This analysis determines the maximum period during which the entity can survive a set of defined scenarios, including a severe combined market and idiosyncratic crisis while relying on its pool of liquid assets. The monitored worst-case scenario simulates very limited money market and capital market access and at the same time significant client deposit outflows. Furthermore, the simulation assumes increased drawdown on guarantees and loan commitments dependent on the type of customer, as well as the potential outflows from collateralised derivative transactions estimating the effect of collateral outflows in the case of adverse market movements. Starting with 2018, an updated version of the survival period analysis came into force. It contained, among other improvements, an extension of the stress horizon up to 12 months, dependent on the stress scenario.

Erste Group calculates the Liquidity Coverage Ratio according to the Delegated Regulation (EU) 2015/61 and reports this ratio on a monthly basis to the authorities on a solo and group level. Furthermore, the LCR is part of the internal Risk Appetite Statement (RAS). LCR limits are defined in the RAS targeting to be well above the regulatory requirement of 100%. Additionally, Erste Group implemented the NSFR according to the Draft CRR 2 requirements. Internally, these ratios (LCR and NSFR) are monitored on entity level as well as on a group level. For regulatory purposes Erste Group is reporting the NSFR according to the Basel rules in the quarterly SREP Exercise (Short Term Exercise).

Legal lending limits exist in all CEE countries where Erste Group is represented. As they restrict liquidity flows between Erste Group's subsidiaries in different countries they are taken into account for the assessment of liquidity risk in the survival period model as well as in the calculation of the Liquidity Coverage Ratio at group level.

Additionally, the structural liquidity gaps (depicting the going concern maturity mismatches) of the subsidiaries and the group as a whole are reported and monitored regularly. Concentration risks in the funding structure and 'Counterbalancing Capacity' (CBC are regularly monitored and reported to the regulator. Erste Group's funds transfer pricing (FTP) system has also proven to be an efficient tool for structural liquidity risk management.

Methods and instruments of risk mitigation

Short-term liquidity risk is managed by limits resulting from the survival period model, internal stress testing and by internal LCR targets at both entity and group level. Limit breaches are reported to the Group Asset Liability Committee (ALCO). Another important instrument for managing the liquidity risk within Erste Group Bank AG and in relation to its subsidiaries is the FTP system. Important information for liquidity management can be obtained by the process of planning funding needs. Therefore, a detailed overview of funding needs is prepared on a quarterly basis for the planning horizon across Erste Group.

The Comprehensive Contingency Plan of the Erste Group ensures the necessary coordination of all parties involved in the liquidity management process in case of crisis and is reviewed on a regular basis. The contingency plans of the subsidiaries are coordinated as part of the plan for Erste Group Bank AG.

Analysis of liquidity risk

In Erste Group, the liquidity risk is analysed by the following methods.

Liquidity coverage ratio. Erste Group uses the regulatory liquidity coverage ratio for internal monitoring and steering of the liquidity position as well. In order to keep the LCR according LCR DA above both limits, the regulatory limit and the internal limit, Erste Group closely monitors its short-term liquidity inflows and outflows as well as its available counterbalancing capacity.

Liquidity coverage ratio

in EUR million	Dec 18	Dec 19
Liquidity buffer	47,678	46,315
Net liquidity outflow	31,763	31,299
Liquidity coverage ratio	150.1%	148.0%

Structural liquidity gaps. The long-term liquidity position is managed using structural liquidity gaps on the basis of contractual and partially behavioural cash flows of all liquidity relevant components of the balance sheet (on-balance and off-balance). This liquidity position is calculated for each material currency.

Cash flows are broken down by contractual maturities in accordance with the amortisation schedule and arranged in maturity ranges. All customer products without contractual maturities (such as demand deposits and overdrafts) are included according to a going concern maturity profile using model based on statistically observed client behaviour.

Structural liquidity gap

	0-12 months		1-3 years		3-5 years		> 5 years	
in EUR million	Dec 18	Dec 19	Dec 18	Dec 19	Dec 18	Dec 19	Dec 18	Dec 19
Liquidity gap	4,902	13,548	-12,101	-5,321	-10,915	-3,360	17,367	-6,465

An excess of assets over liabilities is indicated by a positive value, while an excess of liabilities over assets is indicated by a negative value. The cash inflows from liquid securities amounting to EUR 33.6 billion (2018: EUR 30.4 billion), which are accepted as collateral by the central banks to which Erste Group has access, are taken into account in the first time bucket rather than considering them at their contractual maturity.

In 2019, Erste Group updated the behavioral model for sight deposits. This change in modelling shifted significant volume of out-flows from the time buckets below 5 years to the >5 years bucket.

Counterbalancing capacity. Erste Group regularly monitors its counterbalancing capacity, which consists of cash, excess minimum reserves at the central banks as well as unencumbered central bank eligible assets and other liquid securities, including impacts from repos, reverse repos and securities lending transactions. These assets can be mobilised in the short term to offset potential cash outflows in a crisis situation.

Term structure of counterbalancing capacity

in EUR million	< 1 week	1 week-1 month	1-3 months	3-6 months	6-12 months
Dec 19					
Cash, excess reserve	5,831	0	0	0	0
Liquid assets	36,499	-2,998	-1,634	-2,523	-2,037
Other central bank eligible assets	5,096	-298	1,059	526	-121
Thereof retained covered bonds	1,330	0	1,296	750	0
Thereof credit claims	1,709	0	0	0	18
Counterbalancing capacity	**47,426**	**-3,297**	**-575**	**-1,997**	**-2,158**
Dec 18					
Cash, excess reserve	11,641	-233	0	0	0
Liquid assets	38,659	-6,848	-1,750	-1,961	-2,523
Other central bank eligible assets	3,531	-119	1,094	349	-41
Thereof retained covered bonds	1,232	0	1,265	490	0
Thereof credit claims	658	0	0	0	0
Counterbalancing capacity	**53,831**	**-7,199**	**-656**	**-1,612**	**-2,564**

The figures above show the total amount of potential liquidity available for the group in a going concern situation, taking into account the applicable central bank haircuts. In a crisis situation, adverse market movements can decrease this amount. The initial counterbalancing capacity available at group level is reduced by additional stressed haircuts. Negative figures are maturing positions of the counterbalancing capacity. Positive figures after one week are positions not immediately available as counterbalancing capacity.

Financial liabilities. Maturities of contractual undiscounted cash flows from financial liabilities (interest payments only considered for derivative liabilities) were as follows:

Financial liabilities

in EUR million	Carrying amounts	Contractual cash flows	< 1 month	1-12 months	1-5 years	> 5 years
Dec 19						
Non-derivative liabilities	**216,842**	**217,231**	**147,320**	**28,535**	**25,571**	**15,805**
Deposits by banks	13,141	13,765	5,758	2,487	3,852	1,667
Customer deposits	173,331	174,770	141,406	23,449	8,010	1,906
Debt securities in issue	23,888	23,546	151	2,134	11,273	9,988
Subordinated liabilities	6,482	5,149	5	465	2,435	2,244
Derivative liabilities	**2,275**	**2,126**	**6**	**576**	**1,034**	**508**
Derivatives liabilities with netted Cash Flows	-	2,043	128	413	986	516
Derivatives liabilities with gross Cash Flow (net)	-	82	-122	163	48	-8
Outflows	-	63,199	46,724	9,451	6,146	878
Inflows	-	-63,117	-46,846	-9,288	-6,098	-886
Contingent liabilities	**-**	**42,552**	**42,552**	**0**	**0**	**0**
Financial guarantees	-	7,190	7,190	0	0	0
Commitments	-	35,362	35,362	0	0	0
Other financial liabilities	**1,211**	**1,211**	**1,211**	**0**	**0**	**0**
Total	**220,328**	**263,119**	**191,089**	**29,111**	**26,605**	**16,313**
Dec 18						
Non-derivative liabilities	**210,034**	**209,701**	**139,456**	**29,933**	**25,738**	**14,573**
Deposits by banks	17,658	18,710	8,581	2,469	5,967	1,693
Customer deposits	162,638	164,503	130,726	24,781	7,349	1,647
Debt securities in issue	23,908	21,467	147	2,385	9,731	9,204
Subordinated liabilities	5,830	5,021	2	299	2,691	2,029
Derivative liabilities	**2,277**	**2,129**	**270**	**462**	**952**	**444**
Contingent liabilities	**-**	**39,673**	**39,673**	**0**	**0**	**0**
Financial guarantees	-	7,378	7,378	0	0	0
Commitments	-	32,295	32,295	0	0	0
Other financial liabilities	1,459	1,459	1,459	0	0	0
Total	**213,770**	**252,961**	**180,858**	**30,396**	**26,691**	**15,017**

As of year-end 2019, the currency composition of the non-derivative liabilities consisted of approximately 69% EUR, 18% CZK, 4% USD, 4% RON, and 5% in other currencies (2018: 68% EUR, 18% CZK, 5% USD, 4% RON and 5% in other currencies).

Besides the contingent liabilities from unused credit lines and guarantees, material potential cash outflow is calculated from the collateralised derivative transactions for the stress testing, following a historical lookback approach, which amounted to EUR 960.0 million (2018: EUR 864.4 million) in the worst-case scenario as of 31 December 2019.

As of 31 December 2019, the volume of customer deposits due on demand amounted to EUR 121.6 billion (2018: EUR 110.2 billion). According to customer segments, the customer demand deposits are composed as follows: 65% private individuals, 15% large corporates, 14% small and medium-sized enterprises, 4% public sector, and 2% non-banking financial institutions (2018: 64% private individuals, 15% large corporates, 14% small and medium-sized enterprises, 4% public sector, and 2% non-banking financial institutions).

Operational risk

In line with Article 4 Section 52 of regulation (EU) 575/2013 (CRR), Erste Group defines operational risk as the risk of loss resulting from inadequate or failed internal processes, people and systems, or from external events, including legal risks. Both quantitative and qualitative methods are used to identify operational risks. Consistent with international practice, the responsibility for managing operational risk rests with the line management.

Methods and instruments employed

The quantitative measurement methods are based on internal loss experience data, which are collected across Erste Group using a standard methodology and entered into a central data pool. Additionally, in order to be able to model losses that have not occurred in the past but are nonetheless possible, scenarios and external data are also used. Erste Group sources external data from a leading non-profit risk-loss data consortium.

Erste Group calculates capital requirements for operational risk based on the Advanced Measurement Approach (AMA) that is subject to regulatory approval. AMA is a sophisticated approach for measuring operational risk. Pursuant to AMA, the required capital is calculated using an internal VaR model, taking into account internal data, external data, scenario analysis, business environment and internal risk control factors. Additionally, Erste Group received the approval to use insurance contracts for mitigation within the AMA pursuant to Article 323 CRR.

Methods and instruments of risk mitigation

In addition to quantitative methods, qualitative methods are also used to determine operational risk, such as risk and control assessments through expert panels. Additional methods include setting of key risk indicators and risk assessments in connection with product approvals, outsourcing assessments and risk return decisions. The results of these assessments and processes are reported to line management along with mitigation measures and thus help to reduce operational risks. In order to ensure early detection of changes in the risk profile that may lead to losses, Erste Group monitors a number of key risk indicators such as system availability, staff turnover, and customer complaints.

Erste Group uses a group-wide insurance program that has reduced the cost of meeting Erste Group's traditional property insurance needs. Freed-up resources made it possible to buy additional insurance for previously uninsured bank-specific risks. This program uses a captive reinsurance entity as a vehicle to share losses within the group and access the external market.

The quantitative and qualitative methods used, together with the insurance strategy and the modelling approaches described above, form the operational risk framework of Erste Group. Information on operational risk is periodically communicated to the management board via various reports, including the quarterly top management reports, which describe the recent loss history, loss development, qualitative information from risk assessments and key risk indicators as well as the operational VaR for Erste Group.

47. Hedge accounting

Hedges of interest rate risk

As an inherent part of its business Erste Group is exposed to interest rate risk arising from the interest characteristics and behavior of assets, liabilities and off balance sheet items. This relates to the existing balance sheet items as well as to expected development of the balance sheet and banking activities. Interest rate risk can generally be defined as a potential deterioration of a bank's financial condition in reaction to adverse movements in market interest rates.

Hedge accounting activities relate to interest risk bearing exposures in the banking book. The interest rate risk of the banking book is managed by Group Asset Liability Management (ALM). Interest rate risk management actions of ALM are approved as part of the ALM strategy by Group Asset Liability Committee (ALCO). For hedging relationships qualifying for hedge accounting hedge effectiveness is measured by risk management unit which is independent from ALM as the risk taker.

The objective of the interest rate risk management in the banking book is to optimise the risk and return of interest rate risk exposures. For this purpose and for compliance with external and internal regulations and limitations Erste Group manages the interest rate risk from the earnings and economic value perspectives. The focal point of the interest rate risk analysis from the earnings perspective is the variation in earnings, i.e. the net interest income. The changes in interest rates have an impact on the bank's earnings via its distinct impact on interest income and interest expenses accrued on assets and liabilities respectively. The economic value perspective views the interest rate risk as changes in the economic value of equity. It can be identified as the present value of cash-flows arising from asset, liability and off-balance-sheet items. Change in interest rates alters both the size of future cash-flows and the value of discount rates applied in the calculation.

Existing balance sheet items and contributions of planned or forecast transactions are analysed through the earnings and economic value based metrics. Erste Group keeps the risk within predefined limits. When actively managing interest rate risk ALM gives preference to entering into bonds and derivatives. In general, the policy of Erste Group is to swap all substantial fixed or structured issued bonds to floating items. In addition of managing the interest rate risk using derivative transactions and investments in bonds, also the intended non-hedging of benchmark issues with derivatives is used for managing the interest rate risk.

Interest rate swaps are the most common derivatives used to manage interest rate. If fixed rate repricing profiles of assets or liabilities do not fit to the interest rate risk management strategy they are swapped into variable rate items (usually 3-month money market rate such as Euribor). In other cases, variable rate repricing profiles of assets or liabilities may need to be swapped into fixed rate items.

Erste Group employs hedge accounting to address accounting mismatches resulting from different measurement requirements for derivatives which are measured at fair value through profit or loss and financial assets and liabilities in the banking book measured at amortised cost or at fair value through other comprehensive income. Some of the accounting mismatches are addressed by designating financial assets or financial liabilities as measured at FVPL (fair value option) without the need to use hedge accounting.

Fair value hedges address the risk management activities of swapping fixed rate assets or liabilities into variable rate. On the other hand, cash flow hedges are used when floating rates assets or liabilities are swapped into fixed ones (please refer also to the discussion of proxy hedges below).

For hedges of interest rate risk of portfolios of prepayable fixed rate loans Erste Group applies requirements for portfolio fair value hedges of interest rate risk as regulated by IAS 39.AG114-AG132. For this purpose, Erste Group makes use of the relaxation provided by the EU-carve out and hedges the interest rate risk in respect of so called bottom layer amount. The bottom layer amount is expected not to be affected by prepayments of loans (including a margin of conservatism). Thus, it represents a stable fixed interest rate exposure which is hedged by using interest rate swaps. With this approach, any prepayments, other derecognitions and impairments are attributed to the unhedged buffer amount above the designated bottom layer. Thus, they do not affect the hedge effectiveness unless their amount hits the designated hedged bottom layer level.