Risk and capital management

32. 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 clearly defined governance structure. This structure also applies to monitoring of risk appetite, additional metrics, as well as to the escalation of limit breaches.

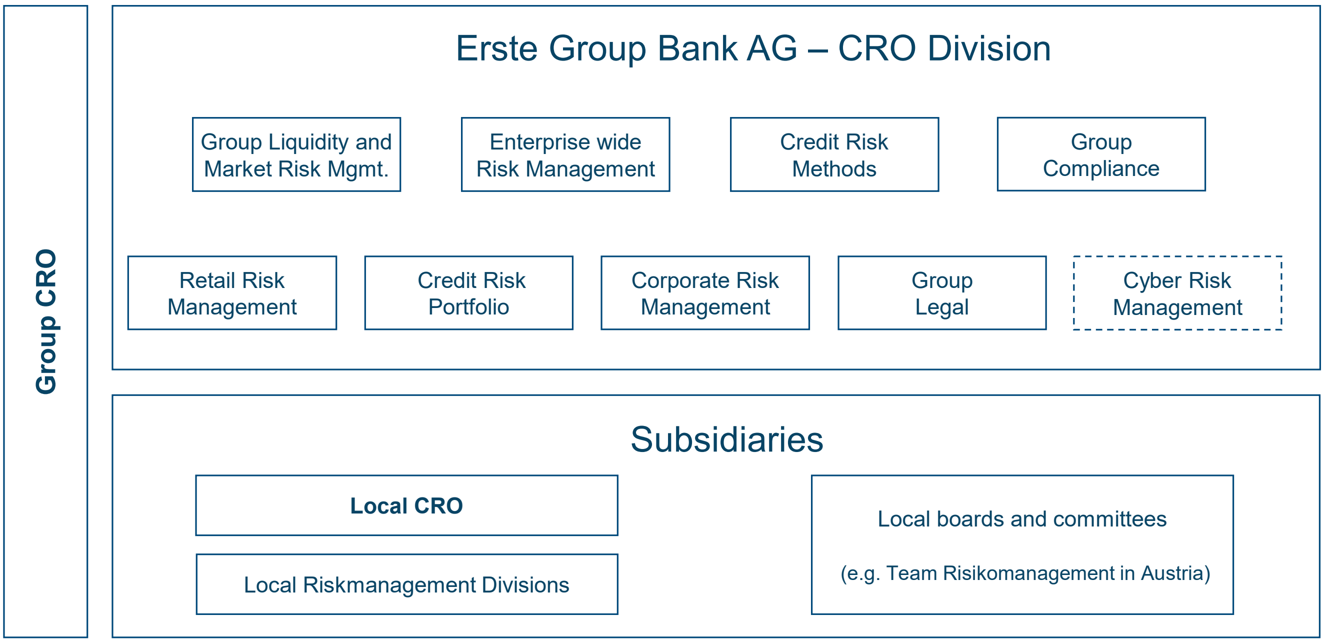
In 2020, when the Covid-19 pandemic has been the central topic worldwide – and hence also in our core markets, management has continued to steer credit portfolio, including active management of non-performing exposures to further strengthen the risk profile. A forward-looking approach was implemented in the Group and significant provisions were set aside to reflect the expected deterioration in asset quality as a result of worsening in the macroeconomic outlook due to Covid-19.

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:



At the beginning of 2020, the management boards of Erste Group Bank AG (EGB) and Erste Bank der oesterreichischen Sparkassen AG (EBOe) decided to consolidate the risk management structures of EGB and EBOe in order to establish a more focused support for the corporate and retail business as well as improved processes and collaboration. In April 2020, the common structure was implemented for the areas of operative credit risk management, i.e. the Corporate Risk Management, Retail Risk Management and Credit Risk Portfolio divisions. Furthermore, as of 1 October 2020, EGB and EBOe merged their strategic risk management units and form a uniform compliance function to improve cooperation and processes based on existing synergies. The reorganization included the merger of the enterprise-wide risk management functions and security risk management units as well as the merger of the credit risk methods and models. This step will improve the cooperation and ensures coordinated processes and standards being implemented. In addition, the new structure will enable a standardized data collection and processing and target a harmonized IT infrastructure. The staff unit Group Sustainability Office was transferred to the area of responsibility of the Chief Executive Officer and a new staff unit, Cyber Risk Management, was created.

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 Methods;
- Group Compliance;
- Retail Risk Management:
- Credit Risk Portfolio;
- Corporate Risk Management;
- Group Legal;
- Cyber Risk Management;
- Local Chief Risk Officers.

Group Liquidity and Market Risk Management

The division Group Liquidity and Market Risk Management comprises all market and liquidity risk functions in Erste Group. This division is responsible for steering, measuring, and controlling liquidity and market risk. It covers both banking book and trading book and ensures the development and validation of liquidity and market risk models for regulatory as well as for internal steering purposes.

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. It also comprises recovery & resolution planning as well as the management of non-financial risk. ERM works together with all risk functions and key divisions to strengthen risk oversight group-wide, covering capital, credit, liquidity, market, operational, and business risk.

Credit Risk Methods

The responsibilities of the area comprise the development, maintenance and validation of credit risk models in accordance with the regulatory requirements for the internal ratings-based approach. A dedicated organisational unit takes care of model risk governance and the strategic planning of model changes.

Group Compliance

In line with Austrian and European Union legislations, Group Compliance ensures the implementation and steering of measures to prevent money laundering, terrorism financing and fraud. Furthermore, it is responsible for standards and measures to comply with financial sanctions and embargoes. Another central task consists in the implementation and enforcement of regulatory provisions for insider trading, market manipulation and other misconduct in securities business.

Retail Risk Management

Retail Risk Management covers the operational credit decisions and the collection and workout activities for retail clients of EBOe. The credit decision and collection systems are developed, validated and adapted to the new requirements for EBOe and savings banks. In order to ensure the sustained performance of the retail loan portfolio, Retail Risk Management defines group-wide framework conditions and requirements for lending within the Group's risk/return profile.

Credit Risk Portfolio

Credit Risk Portfolio monitors the development of the overall loan portfolio of EBOe, Erste Group Bank AG and the Group with a specific focus on non-retail clients. Active steering ensures the operative implementation of the Group's credit risk strategies. The division is also in charge of continuously improving underwriting processes as well as for corporate and retail risk management projects with a particular focus on digital initiatives. Credit Risk Portfolio is also responsible for rating control, real estate valuations and credit analytics.

Corporate Risk Management

Corporate Risk Management is responsible for credit underwriting, restructuring (including sales of non-performing loans) for corporate and real estate clients, financial institutions, sovereigns and municipalities in EBOe and Erste Group Bank AG as well as group-wide for the local customers if their local credit limits are exceeded.

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.

Cyber Risk Management

Cyber Risk Management is a risk control unit segregated from IT and security operations, responsible for managing and overseeing cyber risks, monitoring and controlling adherence to cyber risk management framework.

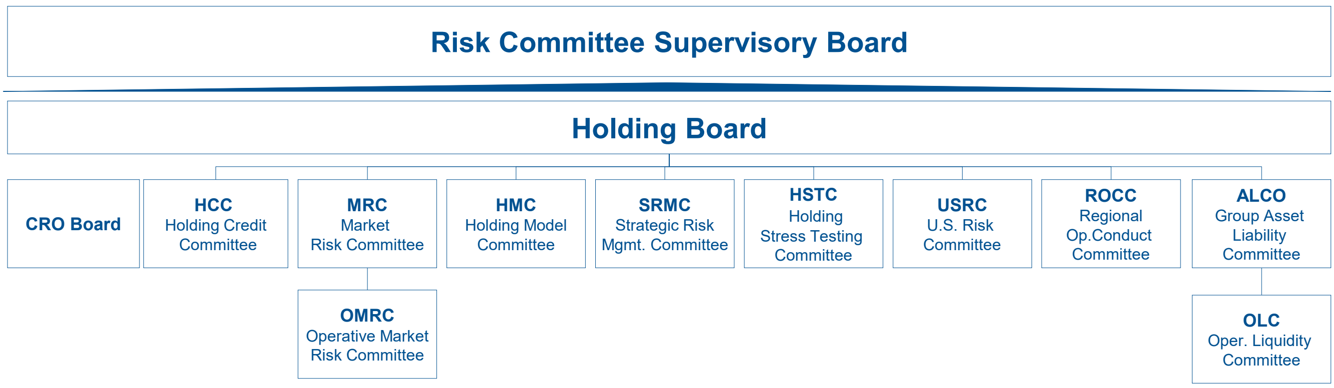
Local Chief Risk Officers

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 Management Committee is regularly briefed on the risk status across all risk types.

The **CRO Board** is responsible for the 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 B-1 managers of the Holding CRO division. 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 Corporate Risk Management, Head of Credit Risk Portfolio 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. In addition, 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 chaired by the Chief Risk Officer of Erste Group and is the steering and control body for Pilar 1 IRB and Pillar 2 Credit Risk model development, validation and monitoring. All new or changed models and model related aspects (e.g. risk parameters (PD, LGD, CCF, ELBE), group-wide methodology standards, IFRS 9 parameter methodologies) are reviewed by the Holding Model Committee and require its approval.

The **Strategic Risk Management Committee** (SRMC) chaired by the Head of Enterprise-wide Risk Management and consisting of selected B-1 managers of the Holding CRO division, holds the delegated decision authority from the Holding Board with respect to strategic risk management functions. Its responsibility area covers the approach to credit RWA calculation and economic capital calculation methodology, design of Forward-Looking Information (FLI) adjustments and scenarios for IFRS 9 parameters, monitoring of IFRS 9 models, defining scenarios, staging and expected credit loss (ECL) methodologies, the back-testing of loan loss provisions, and the remedy actions resulting from reporting of credit risk control units on rating system performance.

The **Holding Stress Testing Committee** (HSTC) 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) decides on business applications and implements group-wide corrective measures to steer non-financial risks (NFR). This is done based on a risk-return evaluation. Furthermore, ROCC defines group-wide standards for non-financial risk topics. The ROCC is a forum for joint alignments, decisions, and escalations in non-financial risk areas across Erste Group entities and Erste Group Bank AG itself.

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) as required under Pillar 2 of the Basel framework and regulatory guides (e.g. ECB Guide to ICAAP).

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);
- Capital allocation and performance management;
- 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 (capital, liquidity, risk/earnings) 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 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.

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 (including risk committee of supervisory board) to support its review, oversight, and monitoring of the group risk profile and the risk profile of its local entities.

Group RAS for 2020 was approved by the management board and acknowledged by the risk committee of supervisory board and supervisory board in the last quarter of 2019. On the back of global developments related to Covid-19, as well as changed regulatory requirements/expectations towards credit institutions, in the first half of 2020, interim revisions of Group RAS and Risk Strategy, as well as local entities RAS were conducted and approved by the designated governance.

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 identification of new and assessment of all risks for the Group. As such, the RMA is an integral part of the ICAAP and serves as a steering tool for top and 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 2020 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) describes the methodology of Pillar 2 capital adequacy calculation. In contrast to the regulatory view of Pillar 1, the RCC is based on an economic view of Pillar 1+ approach, assuming continuation of Erste Group as expected by the ECB Guide to ICAAP, and determines whether the Group has sufficient capital to cover all relevant risks it is exposed to. With this Pillar 1+ approach the Group increases efficiency and ensures comparability with the Pillar 1 calculation. Based on the results of the RMA, economic capital is considered for relevant risk types as approved by the management board. The economic capital requirement is then compared to internally available capital (coverage potential) to cover the Group's risks in Pillar 2. Both economic capital and coverage potential are computed on the CRR scope of consolidation of Erste Group as ultimate parent entity based on IFRS accounting standards.

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 repayment vehicles as well as business risk are explicitly considered within the economic capital calculated over a horizon of one year and at a confidence level of 99.92%. For the calculation of the economic capital, Erste Group uses, where possible, more risk sensitive/advanced methodologies tailored to Erste Group's individual risk profile and specificities of the Group's individual risk exposures. Diversification effects between risks (inter-risk diversification) are not considered, reflecting the Group's prudent approach to maintain sufficient internal capital in times when correlations between risks may change dramatically (like in times of stress). The largest portion of economic capital requirements is coming from credit risk, which accounts for 73.2% of total economic capital requirements at the end of 2020.

The calculation of internal capital or coverage potential required to cover Pillar 2 risks/unexpected losses is based on Pillar 1+ approach. Namely, CRR and CRR II (Regulation (EU) No. 575/2013 and Regulation (EU) No. 876/2019 amending Regulation (EU) No. 575/2013) regulatory own funds are adjusted by internal capital components which reflect economic view (e.g. year-to-date profit (if not already considered in Pillar 1 capital), exclusion of Tier 2 capital instruments, Pillar 2 IRB expected loss excess/shortfall add-on, etc.).

The coverage potential must be sufficient to absorb Pillar 2 risks/unexpected losses resulting from the group's operations at any point in time (normal and stressed), as reflected in the Group's Risk Appetite through the limits set for Group economic capital adequacy and stressed capital adequacy utilisation. At the end of 2020, the economic capital adequacy was at 55.0%.

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 risk profile developments, 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.

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.

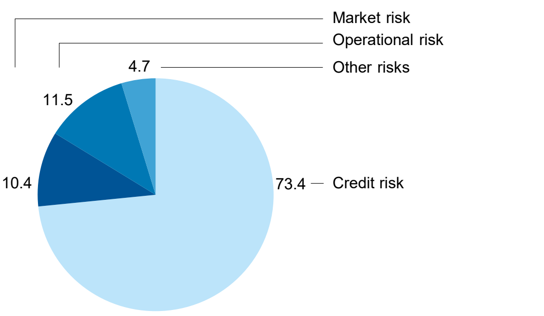
Capital allocation

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.

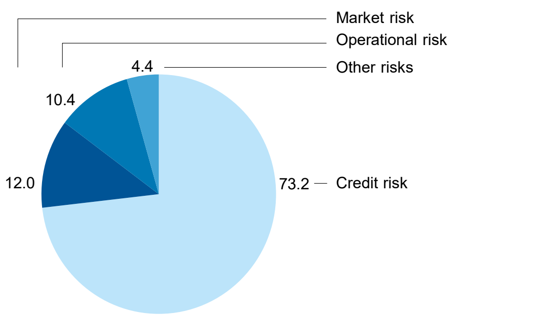
Erste Group's aggregate capital requirements by risk type

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

Economic capital allocation (in %)
31 December 2019



Economic capital allocation (in %)
31 December 2020



Other risks include business risk.

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 (in 2020 one Covid-19 scenario was requested by ECB). 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). Based on a joint decision taken in the Resolution College, Erste Group in April 2020 received notification of the preferred Multiple Point of Entry (MPE) resolution strategy on cross-country level, but a Single Point of Entry (SPE) resolution strategy within a country. This results in being MPE in Austria, the Czech Republic, Croatia, Hungary, Romania and Slovakia.

The Bank Recovery and Resolution Directive (BRRD) introduced the Minimum Requirement for own funds and Eligible Liabilities (MREL), which is – in case of Erste due to the MPE resolution strategy – set on Resolution Group level. Based on the MREL joint decision, the requirement is binding as of the date of the notification in case of notified MREL surplus, however in case of an MREL shortfall the requirement becomes binding at the end of a transition period to be set between 2 and 4 years, at the latest by the end of 2023. MREL is expressed as the amount of own funds and eligible liabilities expressed as a percentage of the total liabilities and own funds (TLOF).

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. Nevertheless, the Austrian Lawmaker delayed the national transposition. The publication of the final text is expected for Q1 2021. Key changes include the MREL expression in terms of Risk Weighted Assets (RWA) and Leverage Ratio Exposure (LRE) instead of TLOF, adapted transition arrangements (binding intermediate MREL target as of 01.01.2022 and a common deadline of 01.01.2024 to meet the final MREL target) as well as tighter eligibility criteria. Hence, MREL target setting will be subject to further changes. Potential changes in the MREL requirement will be reflected in Erste Group Bank AG's funding plan as to ensure compliance with MREL and subordination targets.

33. Own funds and capital requirements

Among others, Erste Group fulfils hereinafter the disclosure requirements according to the Capital Requirements Regulation (CRR), in detail Art. 437 para 1 (a), (d) and (e) CRR. References to chapters refer to the financial statement.

Regulatory Requirements

Since 1 January 2014, Erste Group has been calculating the regulatory capital and the regulatory capital requirements according to the CRR and the Capital Requirement Directive (CRD IV). The CRD IV was enacted in national law in the Austrian Banking Act (ABA). Erste Group applies these rules and calculates the capital ratios on the one hand by taking into consideration the Austrian transitional provisions which are defined in the CRR 'Begleitverordnung', published by the Austrian regulator. On the other hand Erste Group also applies the European Regulation on the exercise of options and discretions available in Union law which entered into force 1 October 2016. All requirements as defined in the CRR, the ABA , in technical standards issued by the European Banking Authority (EBA) and EBA guidelines are applied by Erste Group for regulatory purposes and for the disclosure of regulatory information.

Accounting Principles

The financial and regulatory figures published by Erste Group are based on IFRS. Eligible capital components are derived from the balance sheet and income statement which were prepared in accordance with IFRS. Adjustments to the accounting figures are considered due to the different definitions in the scopes of consolidation. Further details are explained in the section 'Regulatory scope of consolidation and institutional protection scheme'. The uniform closing date of the consolidated regulatory figures of Erste Group is the 31 December of the respective year.

Regulatory scope of consolidation and institutional protection scheme

The consolidated regulatory own funds and the consolidated regulatory capital requirements are calculated based on the scope of consolidation stipulated in the CRR. Based on Art. 4 para 1 (3), (16) to (27) CRR in line with Art. 18 and 19 CRR and para 30 ABA, the scope consists of credit institutions, investment firms, financial institutions and ancillary service undertakings. In addition, the following update according to Art 18 (7) applies: Where an institution has a subsidiary which is an undertaking other than an institution, a financial institution or an ancillary services undertaking or holds a participation in such an undertaking, it shall apply to that subsidiary or participation the equity method. That method shall not, however, constitute inclusion of the undertakings concerned in supervision on a consolidated basis. The definition pursuant to CRR differs from the scope of consolidation according to IFRS, which also includes insurance companies and other entities, that are subject to full consolidation.

The Austrian savings banks are included as subsidiaries in Erste Group's regulatory scope of consolidation based on the cross-guarantee contract of the 'Haftungsverbund'. Furthermore, Erste Group Bank AG together with the savings banks forms an institutional protection scheme (IPS) according to Art. 113 para 7 CRR. Disclosure requirements for the institutional protection scheme according to Art. 113 para 7 e CRR are met by the publication of the consolidated financial statements, which cover all entities included in the institutional protection scheme.

Consolidated own funds

Own funds according to CRR consist of CET1, additional tier 1 (AT1) and tier 2 (T2). In order to determine the capital ratios, each respective capital component – after application of all regulatory deductions and filters – is considered in relation to the total risk amount.

The items of own fundsas disclosed are also used for internal capital management purpose, except T2 capital instruments Erste Group fulfilled the capital requirements. The regulatory minimum capital ratios including the capital buffers as of 31 December 2020 amount to

- 9.18% for CET1 (4.5% CET1, +2.5% capital conservation buffer, +2.0% buffer for systemic vulnerability and for systemic concentration risk and +0.18% countercyclical capital buffer),
- 10.68% for tier 1 capital (sum of CET1 and AT1) and
- 12.68% for total own funds.

Capital buffer requirements are set out in sections 23 (capital conservation buffer), 23a (countercyclical buffer), 23b (Global Systemic Important Institution (G-SII) buffer), 23c (Other Systemic Important Institution (O-SII) buffer) and 23d (systemic risk buffer) of the ABA and further specified in the regulation of the Financial Market Authority (FMA) on the establishment and recognition of the countercyclical buffer rate in accordance with section 23a para 3 ABA, on the establishment of the systemic risk buffer in accordance with section 23d para 3 ABA as well as on the detailed definition of the bases of calculation in accordance with section 23a para 3 clause 1 ABA and section 24 para 2 ABA (capital buffers regulation). All capital buffers have to be met entirely with CET1 capital and relate, except the countercyclical buffer, to total risk.

In addition to minimum capital ratios and capital buffer requirements, institutions also have to fulfil capital requirements determined in the Supervisory Review and Evaluation Process (SREP).

The ECB Banking Supervision adjusted the SREP approach for 2020 in light of the Covid-19 crisis. Therefore the ECB has not issued a SREP decision 2020, but rather chose a pragmatic SREP 2020 approach which keeps the SREP 2019 decision in place and confirms a Pillar 2 requirement (P2R) of 1.75%. The adjustments made to the regulatory framework on 12 March 2020 to stabilize the financial markets remain in place. The originally envisaged relief for 2021 regarding the composition of capital for the Pillar 2 requirement under article 104a (4) CRD V can be applied directly by credit institutions under the supervision of the ECB. Therefore, the minimum CET1 ratio of 5.48% encompasses the Pillar 1 minimum requirement of 4.5% and the Pillar 2 requirement of 0.98% (56.25% of 1.75%) as of 31 December 2020.

The regulatory minimum capital ratios including the capital buffers ans SREP requirements as of 31 December 2020 amount to

- a CET1 requirement of 10.16%
  (Pillar 1 requirement of 4.5%, combined capital buffers of 4.68% and 56.25% of 1.75% Pillar 2 requirement),
- a T1 requirement of 11.99%
  (CET1 requirement plus Pillar 1 AT1 requirement of 1.5% and 18.75% of 1.75% Pillar 2 requirement) and
- a total own funds requirement of 14.43%
  (Tier 1 requirement plus Pillar 1 T2 requirement of 2.0% and 25% of 1.75% Pillar 2 requirement).

Following the SREP 2019, Erste Group is expected to meet a Pillar 2 Guidance (P2G) of 1.0% valid as of 1 January 2020 onwards. The ECB press release of 12 March 2020 also indicated that the Pillar 2 Guidance need not be fully complied with temporarily by credit institutions during the current Covid-19 crisis. The Pillar 2 Guidance is not MDA (maximum distributable amount) relevant.

Overview of capital requirements and capital buffers

	Dec 19	Dec 20
Pillar 1		
Minimum CET 1 requirement	4,50%	4,50%
Minimum Tier 1 requirement	6,00%	6,00%
Minimum Own Funds requirement	8,00%	8,00%
Combined buffer requirement (CBR)	**4,91%**	**4,68%**
Capital conservation buffer	2,50%	2,50%
Countercyclical capital buffer	0,41%	0,18%
Systemic risk buffer	2,00%	2,00%
O-SII capital buffer	2,00%	2,00%
Minimum CET 1 requirement (incl.CBR)	9,41%	9,18%
Minimum Tier 1 requirement (incl.CBR)	10,91%	10,68%
Minimum Own Funds requirement (incl.CBR)	12,91%	12,68%
Pillar 2	**1,75%**	**1,75%**
Minimum CET1 requirement	1,75%	0,98%
Minimum T1 requirement	n.a.	1,31%
Minimum Own Funds requirement	n.a.	1,75%
Total CET 1 requirement for Pillar 1 and Pillar 2	**11,16%**	**10,16%**
Total Tier 1 requirement for Pillar 1 and Pillar 2	**12,66%**	**11,99%**
Total Capital requirement for Pillar 1 and Pillar 2	**14,66%**	**14,43%**

The combined buffer requirement is the sum of the capital conservation buffer, the countercyclical capital buffer and the maximum of the O-SII capital buffer or the systemic risk buffer.

As announced by the European Central Bank (ECB) in its press release on 12 March 2020[21], Erste Group is not obliged to fully comply with the capital conservation buffer of 2.5% during the current Covid-19 crisis. In the 'Frequently Asked Questions - FAQs'[22] published on 20 March 2020, however, the ECB states that the incomplete fulfillment of the combined buffer requirement leads to restrictions on distributions and banks are only allowed to make distributions within the limits of the maximum distributable amount (MDA).

Taking into account ECB's communication on the temporary capital relief measures with regard to the Pillar 2 requirement, the full usage of the capital conservation buffer as well as the Pillar 2 guidance (P2G), Erste Group's CET1 requirement amounts to 7.66%, its T1 requirement amounts to 9.49% and its total own funds requirement amounts to 11.93%.

Capital structure according to EU regulation 575/2013 (CRR)

		Dec 19		Dec 20	
in EUR million	**CRR articles**	**Phased-in**	**Final**	**Phased-in**	**Final**
Common equity tier 1 capital (CET1)					
Capital instruments eligible as CET1	26(1)(a)(b), 27-30, 36(1)(f), 42	2.337	2.337	2.337	2.337
Retained earnings	26(1)(c), 26(2)	12.238	12.238	13.002	13.002
Accumulated other comprehensive income	4(1) (100), 26(1) (d)	-1.458	-1.458	-1.690	-1.690
Minority interest recognised in CET1	4(1) (120), 84	4.448	4.448	4.891	4.891
Common equity tier 1 capital (CET1) before regulatory adjustments		**17.565**	**17.565**	**18.540**	**18.540**
Own CET1 instruments	36(1) (f), 42	-68	-68	-63	-63
Prudential filter: cash flow hedge reserve	33(1) (a)	45	45	-36	-36
Prudential filter: cumulative gains and losses due to changes in own credit risk on fair valued liabilities	33(1) (b)	406	406	289	289
Prudential filter: fair value gains and losses arising from the institution's own credit risk related to derivative liabilities	33(1) (c), 33(2)	-3	-3	-3	-3
Value adjustments due to the requirements for prudent valuation	34, 105	-85	-85	-58	-58
Regulatory adjustments relating to unrealised gains (0%)	468	0	0	0	0
Regulatory adjustments relating to unrealised losses (0%)	467	0	0	0	0
Securitizations with a risk weight of 1.250%	36(1) (k)	-45	-45	-29	-29
Goodwill	4(1) (113), 36(1) (b), 37	-544	-544	-544	-544
Other intangible assets	4(1) (115), 36(1) (b), 37(a)	-741	-741	-720	-720
DTA that rely on future profitability and do not arise from temporary differences net of associated tax liabilities	36(1) (c), 38	-102	-102	-48	-48
IRB shortfall of credit risk adjustments to expected losses	36(1) (d), 40, 158, 159	-158	-158	0	0
CET1 capital elements or deductions – other		-17	-17	-270	-270
Common equity tier 1 capital (CET1)	**50**	**16.252**	**16.252**	**17.057**	**17.057**
Additional tier 1 capital (AT1)					
Capital instruments eligible as AT1	51(a) ,52-54, 56(a), 57	1490	1490	2.733	2.733
Instruments issued by subsidiaries that are given recognition in AT1	85, 86	8	8	7	7
Additional tier 1 capital (AT1) before regulatory adjustments		**1.498**	**1.498**	**2.740**	**2.740**
Own AT1 instruments	52(1)(b), 56(a), 57	-2	-2	-2	-2
Transitional adjustments due to grandfathered AT1 instruments	483(4)(5),484-487,489, 491	0	0	0	0
AT1 instruments of financial sector entities where the institution has a significant investment	4(1) (27), 56(d), 59, 79	0	0	0	0
Additional tier 1 capital (AT1)	**61**	**1.497**	**1.497**	**2.738**	**2.738**
Tier 1 capital = CET1 + AT1	**25**	**17.749**	**17.749**	**19.795**	**19.795**
Tier 2 capital (T2)					
Capital instruments and subordinated loans eligible as T2	62(a), 63-65, 66(a), 67	3.660	3.660	3.222	3.222
Instruments issued by subsidiaries recognised in T2	87, 88	267	267	209	209
Transitional adjustments due to additional recognition in T2 of instruments issued by subsidiaries	480	0	0	0	0
Transitional adjustments due to grandfathered T2 instruments and subordinated loans	483(6) (7), 484, 486, 488, 490, 491	0	0	0	0
IRB excess of provisions over expected losses eligible	62(d)	328	328	467	467
Tier 2 capital (T2) before regulatory adjustments		**4.255**	**4.255**	**3.899**	**3.899**
Own T2 instruments	63(b)(i), 66(a), 67	-44	-44	-50	-50
Standardised approach general credit risk adjustments	62(c)	0	0	0	0
Tier 2 capital (T2)	**71**	**4.211**	**4.211**	**3.848**	**3.848**
Total own funds	**4(1) (118) and 72**	**21.961**	**21.961**	**23.643**	**23.643**
Capital requirement	**92(3), 95, 96, 98**	**9.448**	**9.484**	**9.440**	**9.612**
CET1 capital ratio	**92(2) (a)**	**13,8%**	**13,7%**	**14,5%**	**14,2%**
Tier 1 capital ratio	**92(2) (b)**	**15,0%**	**15,0%**	**16,8%**	**16,5%**
Total capital ratio	**92(2) (c)**	**18,6%**	**18,5%**	**20,0%**	**19,7%**

[21] ECB Banking Supervision: https://www.bankingsupervision.europa.eu/press/pr/date/2020/html/ssm.pr200312~43351ac3ac.en.html

[22] ECB Banking Supervision: https://www.bankingsupervision.europa.eu/press/pr/date/2020/html/ssm.pr200320_FAQs~a4ac38e3ef.en.html

In accordance with Art. 26 (2) CRR the item retained earnings only includes the interim profits of EUR 451 million approved by the ECB by decision of 8 February 2021. Minority interest recognised in CET1 includes interim result from saving banks in an amount of EUR 115 million.

The position CET1 elements or deduction – Others include development of unaudited risk provisions during the year (EU No 183/2014) and starting with year end 2020 also insufficient coverage for non-performing exposures (NPE Backstop) covering the requirements from both Art. 36 para 1 (m) CRR in connection with Art. 47(c) CRR and the Addendum to the ECB Guidance to banks on non-performing loans: supervisory expectations for prudential provisioning of non-performing exposures

The capital structure table above is based on the Commission Implementing Regulation (EU) No 1423/2013 laying down implementing technical standards with regard to disclosure of own funds requirements, enlarged by the EBA GL 2014/14. Positions, which are not relevant for Erste Group are not disclosed. Figures shown under full implementation of Basel 3 considered the current CRR.

The consolidated financial statements have not been reviewed and noticed by the supervisory board and the financial statements of Erste Group Bank AG have not been reviewed by the supervisory board yet.

Likewise financial statements of single entities within the group have not been noticed by the supervisory board yet. In addition, no resolution on the appropriation of the profit has yet been made by the general meeting of the single entity.

Erste Group reports since the end of the second quarter of 2017 on consolidated level an RWA-add-on in view of the calculation of risk-weighted assets for credit risk in Banca Comercială Română (BCR). Since the ECB decision in respect of the change in the IRB roll-out plan from 25 May 2020 the RWA add on amounts to EUR 2.1 billion. This RWA increase front-loads the expected difference in BCR between the treatments of exposures under the Standardised Approach compared to the treatment under IRB and is limited in time until the authorization of the IRB-approach in BCR.

Furthermore Erste Group reports on consolidated level since Q3 2017 – due to a decision of the European Central Bank in the context of its supervisory assessments in view of deficiencies in credit risk models – a RWA-Add-On of around EUR 1.2 billion until these deficiencies will be addressed in the course of an update of these models.

Erste Group was informed by the ECB in the third quarter of 2018 about a final decision in view of credit risk models (targeted review of internal models), which became effective at the end of September 2018. This decision had an effect on risk weighted assets (RWA) on consolidated level of around EUR 0.3 billion. As pre-emption of the expected effects from the implementation of the new loss given default (LGD) estimation methodology, Erste Group incorporated a RWA add-on in the amount of EUR 0.5 billion as of the first quarter 2019.

Erste Group's AMA model change obtained regulatory approval in October 2018 under the condition of an add-on in the amount of 7% and became applicable in the fourth quarter of 2018.

The approval of the new group-wide PD estimation methodology was approved by the ECB in December 2019 with a limitation related to an application of a RWA add-on in the volume of EUR 0.3 billion as of December 2019. With the approval of the updated group wide default definition an additional add-on was imposed in the amount of EUR 0.1 billion as of December 2019.

The risk item other exposure amounts to EUR 3.2 billion as of 31 December 2020 and encompasses the BCR add-on (EUR 2.1 billion), the add-on resulting from the targeted review of internal models (EUR 0.3 billion), the effect from the updated LGD estimation methodology (EUR 0.5 billion) and the new group-wide PD estimation methodology (EUR 0.3 billion). All other credit risk related add-ons are directly reflected in the RWA calculation for credit risk.

In order to mitigate the ramifications of the Covid-19 pandemic further, certain adjustments to the CRR and CRR II became effective on 27 June 2020 through EU Regulation No. 2020/873. The so-called CRR quick fix encompassed a revised supporting factor for loans to small and medium-sized enterprises (SMEs) which resulted in a credit RWA reduction of EUR -4.5 billion at Erste Group in June 2020. Furthermore, the temporary treatment of a 0% risk weight on public debt issued in the EEA currency of another EU member state lead to an additional RWA relief in the amount of EUR -1.0 billion for the exposure in standardized approach and EUR -1.2 billion under the IRB treatment, respectively. The temporary treatment of 0% risk weight is valid until 31 December 2022.

On 2 September 2020 the ECB granted permission to revert to the use of the Standardised Approach for the exposures of Česká spořitelna towards leasing and insurance companies. This change led to the increase of RWA in the amount of EUR 70.8 million in the fourth quarter 2020.

Risk structure according to EU regulation 575/2013 (CRR)

in EUR million	CRR articles	Dec 19 Total risk (phased-in)	Dec 19 Capital requirement (phased-in)	Dec 20 Total risk (phased-in)	Dec 20 Capital requirement (phased-in)
Total Risk Exposure Amount	92(3), 95, 96, 98	118.105	9.448	118.005	9.440
Risk weighted assets (credit risk)	92(3) (a)(f)	96.325	7.706	95.923	7.674
Standardised approach		18.006	1.440	18.056	1.444
IRB approach		78.318	6.265	77.852	6.228
Contribution to the default fund of a CCP		2	0	15	1
Settlement Risk	92(3) (c)(ii), 92(4) (b)	0	0	1	0
Trading book, foreign FX risk and commodity risk	92(3) (b)(i) and (c)(i) and (iii), 92(4(b)	2.795	224	3.630	290
Operational Risk	92(3) (e), 92(4) (b)	14.934	1.195	14.813	1.185
Exposure for CVA	92(3) (d)	569	46	397	32
Other exposure amounts (incl. Basel 1 floor)	3, 458, 459, 500	3.483	279	3.241	259

in EUR million	CRR articles	Dec 19 Total risk (final)	Dec 19 Capital requirement (final)	Dec 20 Total risk (final)	Dec 20 Capital requirement (final)
Total Risk Exposure Amount	92(3), 95, 96, 98	118.556	9.484	120.151	9.612
Risk weighted assets (credit risk)	92(3) (a)(f)	96.776	7.742	98.069	7.846
Standardised approach		18.457	1.477	18.065	1.445
IRB approach		78.318	6.265	79.988	6.399
Contribution to the default fund of a CCP		2	0	15	1
Settlement Risk	92(3) (c)(ii), 92(4) (b)	0	0	1	0
Trading book, foreign FX risk and commodity risk	92(3) (b)(i) and (c)(i) and (iii), 92(4(b)	2.795	224	3.630	290
Operational Risk	92(3) (e), 92(4) (b)	14.934	1.195	14.813	1.185
Exposure for CVA	92(3) (d)	569	46	397	32
Other exposure amounts (incl. Basel 1 floor)	3, 458, 459, 500	3.483	279	3.241	259

34. 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 considered 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 Corporate Risk Management at group level.

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, considering 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 a higher frequency.

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 and 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 and discriminatory ability across its core regions.

The central organisational unit Model Validation is responsible for defining the validation methodologies and standards to be applied to all credit risk models within Erste Group as well as for conducting the validation activities across the whole Erste Group. All credit risk rating models are validated on the ongoing basis. Model Validation employs qualitative as well as quantitative validation methods to challenge conceptual soundness, performance and model use aspects. The validation outcomes are approved by the respective model committees and shared with the 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 following a dual approval process within the Group – corresponding Holding and local model committee structures reflect joint responsibilities for decisions on Pillar 1 IRB and Pillar 2 credit risk models as well as on methodologies related to IFRS9 parameters. 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 Methods 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.

In 2020, the method for determining risk categories was adjusted to consider necessary changes in the group-wide PD methodology, resulting in a more stable distribution of exposure to risk categories over time. Compared to the method used for the assignment of credit exposures to risk categories until 2019, the adjusted methodology results in an increase of the portfolio share of the 'low risk' and 'management attention' categories by 0.1 and 0.7 percentage points, respectively, as of 31 December 2019. The 'substandard' category decreases by 0.8 percentage points. The 'non-performing' risk category was not affected by the adjustment of the methodology.

Credit risk review and monitoring

Group Retail Risk Management as well as Credit Risk Portfolio in cooperation with Corporate Risk Management conduct 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 monitoring process for corporate clients is managed at group level by Credit Risk Portfolio and, at subsidiary level, by the local units responsible for corporate risk management, retail risk management and collections, 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 review 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 the 31 December 2019 and 31 December 2020, the credit risk exposure increased from EUR 273,778 million to EUR 286,699 million. This is an increase of 4.7% or EUR 12,921 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 20				
Cash and cash balances - demand deposits to credit institutions	1,140	-1	0	1,139
Debt instruments held for trading	6,322	0	0	6,322
Non-trading debt instruments at FVPL	2,736	0	0	2,736
Debt securities	2,048	0	0	2,048
Loans and advances to banks	0	0	0	0
Loans and advances to customers	687	0	0	687
Debt instruments at FVOCI	8,109	-25	280	8,389
Debt securities	8,109	-25	280	8,389
Loans and advances to banks	0	0	0	0
Loans and advances to customers	0	0	0	0
Debt instruments at AC	214,790	-3,850	0	210,940
Debt securities	29,594	-15	0	29,579
Loans and advances to banks	21,469	-3	0	21,466
Loans and advances to customers	163,727	-3,831	0	159,895
Trade and other receivables	1,405	-64	0	1,341
Finance lease receivables	4,235	-108	0	4,127
Debt instruments held for sale in disposal groups	0	0	0	0
Positive fair value of hedge accounting derivatives	205	0	0	205
Off-balance sheet exposures	47,758	-474	0	-
Total	**286,699**	**-4,522**	**280**	**235,199**
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**

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 following pages the credit risk exposure is presented according to different segmentation criteria.

Credit risk exposure by counterparty sector and financial instrument

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	At amortised cost: Debt securities	At amortised cost: Loans and advances to banks	At amortised cost: 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 20													
Central banks	0	38	0	42	35	16,763	0	1	0	0	0	0	16,878
General governments	0	2,806	278	5,961	25,206	0	6,791	55	374	0	0	3,154	44,625
Credit institutions	1,140	2,914	625	944	3,510	4,707	0	29	4	0	204	852	14,928
Other financial corporations	0	146	999	205	146	0	3,727	28	73	0	1	2,235	7,560
Non-financial corporations	0	418	254	957	698	0	71,324	1,162	2,974	0	0	29,595	107,381
Households	0	1	579	0	0	0	81,885	130	810	0	0	11,922	95,327
Total	**1,140**	**6,322**	**2,736**	**8,109**	**29,594**	**21,469**	**163,727**	**1,405**	**4,235**	**0**	**205**	**47,758**	**286,699**
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**

Contingent liabilities / Off-balance sheet exposures by product

in EUR million	Dec 19	Dec 20
Financial guarantees	7,190	6,426
Loan commitments	31,225	35,650
Other commitments	4,137	5,682
Total	**42,552**	**47,758**

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 20							
Agriculture and forestry	2,550	593	122	5	3,270	19	3,289
Mining	544	64	16	2	626	207	832
Manufacturing	13,658	4,914	585	46	19,202	1,023	20,226
Energy and water supply	4,054	577	56	8	4,695	198	4,893
Construction	9,330	1,789	279	16	11,414	1,231	12,645
Development of building projects	4,766	904	68	4	5,743	305	6,048
Trade	9,251	3,758	472	44	13,525	1,019	14,544
Transport and communication	5,759	1,993	196	4	7,952	361	8,313
Hotels and restaurants	1,281	3,977	331	29	5,618	79	5,697
Financial and insurance services	32,797	1,714	30	12	34,551	5,060	39,611
Holding companies	2,061	976	10	11	3,058	139	3,197
Real estate and housing	25,893	5,824	262	129	32,108	857	32,965
Services	9,461	3,976	488	5	13,930	745	14,675
Public administration	38,571	560	1	3	39,135	3,235	42,370
Education, health and art	2,604	932	102	1	3,638	38	3,677
Households	71,994	7,967	1,541	116	81,619	784	82,403
Other	452	19	0	0	471	88	558
Total	**228,200**	**38,655**	**4,480**	**419**	**271,754**	**14,945**	**286,699**
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**

From industry and financial instrument point of view, the highest exposure is represented by households in loans and advances to customers (exposure of 71,093 million, representing 24.8% from total) followed by real estate and housing in loans and advances to customers (exposure of 28,338 million, representing 9.9% from total) and public administration in debt securities (exposure of 25,013 million, representing 8.7% from total).

Credit risk exposure by industry and risk category

in EUR million	Low risk	Management attention	Substandard	Non-performing	Total
Dec 20					
Agriculture and forestry	2,080	830	253	125	3,289
Mining	742	63	4	23	832
Manufacturing	15,950	2,966	676	634	20,226
Energy and water supply	3,940	655	233	64	4,893
Construction	9,594	2,284	435	331	12,645
Development of building projects	4,909	976	94	69	6,048
Trade	10,754	2,702	575	513	14,544
Transport and communication	6,555	1,368	189	202	8,313
Hotels and restaurants	3,618	1,442	294	343	5,697
Financial and insurance services	37,653	1,557	364	37	39,611
Holding companies	2,415	693	73	16	3,197
Real estate and housing	26,262	4,982	1,344	377	32,965
Services	12,086	1,719	375	495	14,675
Public administration	41,937	387	46	1	42,370
Education, health and art	2,877	620	77	103	3,677
Households	74,640	4,507	1,662	1,593	82,403
Other	352	3	203	0	558
Total	**249,041**	**26,086**	**6,731**	**4,841**	**286,699**
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**

The low risk exposure has the highest proportion in total credit risk exposure, with 86.9%, while management attention represents 9.1%. The substandard exposure represents 2.3% and the non-performing 1.7%

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 20					
Core markets	**216,858**	**23,219**	**5,981**	**4,163**	**250,221**
Austria	104,551	10,786	1,839	1,826	119,002
Czech Republic	52,874	6,075	1,194	642	60,784
Slovakia	20,738	1,487	1,594	409	24,229
Romania	17,217	1,837	397	455	19,905
Hungary	10,394	1,147	539	181	12,262
Croatia	8,446	1,513	305	622	10,885
Serbia	2,637	376	114	27	3,154
Other EU	**20,704**	**1,153**	**311**	**463**	**22,631**
Other industrialised countries	**6,855**	**662**	**89**	**66**	**7,671**
Emerging markets	**4,624**	**1,053**	**350**	**149**	**6,175**
Southeastern Europe/CIS	2,771	650	119	120	3,660
Asia	1,450	124	26	27	1,626
Latin America	138	12	8	1	159
Middle East/Africa	265	268	197	1	730
Total	**249,041**	**26,086**	**6,731**	**4,841**	**286,699**
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**

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 IFRS 9 impairment	Total
Dec 20							
Core markets	**203,419**	**33,645**	**3,897**	**351**	**241,312**	**8,909**	**250,221**
Austria	92,710	20,412	1,778	37	114,938	4,064	119,002
Czech Republic	54,645	4,789	614	34	60,082	702	60,784
Slovakia	20,270	3,006	319	111	23,706	523	24,229
Romania	15,069	2,711	406	69	18,254	1,652	19,905
Hungary	9,600	1,100	152	77	10,929	1,333	12,262
Croatia	8,654	1,331	604	22	10,611	274	10,885
Serbia	2,470	296	24	2	2,793	361	3,154
Other EU	**15,697**	**3,078**	**371**	**55**	**19,201**	**3,431**	**22,631**
Other industrialised countries	**4,784**	**1,112**	**66**	**12**	**5,972**	**1,698**	**7,671**
Emerging markets	**4,301**	**821**	**146**	**1**	**5,269**	**907**	**6,175**
Southeastern Europe/CIS	2,639	578	119	1	3,336	324	3,660
Asia	932	124	27	0	1,083	544	1,626
Latin America	82	67	0	0	149	10	159
Middle East/Africa	648	52	1	0	701	29	730
Total	**228,200**	**38,655**	**4,480**	**419**	**271,754**	**14,945**	**286,699**
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**

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 274 million (2019: 339 million), the non-defaulted part to EUR 145 million (2019: 141 million).

The credit risk exposure increased by EUR 6,647 million, or 5.9% in Austria, and by EUR 7,572 million, or 6.1% in the CEE core markets. In the other EU member states (EU 27 excluding core markets), the credit risk exposure decreased by EUR 3,566 million, or -13.6%, mainly caused by the exit of the United Kingdom from the European Union. Growth was recorded in other industrialised countries (EUR 2,167 million) and in emerging markets (EUR 102 million). In total, Erste Group's core markets and the EU accounted for 95.2% (2019: 95.8%) of credit risk exposure as of 31 December 2020. At 2.2% (2019: 2.2%), 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 segments as well as by geographical segments which are defined as operating segments. 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 20					
Retail	60,580	5,596	2,143	1,514	69,833
Corporates	66,644	11,727	2,747	1,819	82,936
Group Markets	16,522	384	224	1	17,131
ALM & LCC	44,527	223	155	20	44,925
Savings Banks	60,446	8,111	1,221	1,470	71,249
GCC	320	46	242	17	625
Total	**249,041**	**26,086**	**6,731**	**4,841**	**286,699**
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**

Credit risk exposure by business segment and IFRS 9 treatment

	Credit risk exposure					Credit loss allowances				Coverage ratio		
in EUR million	Stage 1	Stage 2	Stage 3	POCI	Not subject to IFRS 9 impairment	Stage 1	Stage 2	Stage 3	POCI	Stage 2	Stage 3	POCI
Dec 20												
Retail	59,028	8,461	1,461	118	763	-141	-478	-859	-34	5.6%	58.8%	29.0%
Corporates	60,296	16,931	1,551	251	3,907	-182	-560	-901	-89	3.3%	58.1%	35.5%
Group Markets	10,273	116	1	0	6,741	-6	-3	0	0	2.5%	6.2%	100.0%
ALM & LCC	44,273	308	19	0	326	-16	-12	-19	0	3.8%	102.0%	0.0%
Savings Banks	53,972	12,669	1,431	50	3,126	-119	-371	-636	-4	2.9%	44.4%	7.8%
GCC	357	169	17	0	82	0	0	-16	0	0.1%	93.7%	0.0%
Total	**228,200**	**38,655**	**4,480**	**419**	**14,945**	**-464**	**-1,424**	**-2,430**	**-127**	**3.7%**	**54.2%**	**30.4%**
Dec 19												
Retail	61,886	4,613	1,398	139	543	-125	-227	-837	-45	4.9%	59.9%	32.4%
Corporates	67,684	5,489	1,203	294	3,170	-173	-191	-767	-96	3.5%	63.8%	32.6%
Group Markets	12,199	126	2	0	6,116	-8	-3	-2	0	2.2%	100.0%	100.0%
ALM & LCC	41,380	78	75	0	309	-11	-7	-35	0	9.3%	47.4%	0.0%
Savings Banks	56,822	5,945	1,397	47	2,576	-108	-179	-672	-3	3.0%	48.1%	5.6%
GCC	205	3	13	0	65	0	0	-13	0	0.2%	96.6%	0.0%
Total	**240,176**	**16,256**	**4,087**	**480**	**12,779**	**-425**	**-607**	**-2,327**	**-143**	**3.7%**	**56.9%**	**29.9%**

Credit risk exposure by geographical segment and risk category

in EUR million	Low risk	Management attention	Substandard	Non-performing	Total
Dec 20					
Austria	**135,415**	**13,923**	**2,200**	**2,533**	**154,072**
EBOe & Subs.	41,761	3,512	566	615	46,455
Savings Banks	60,446	8,111	1,221	1,470	71,249
Other Austria	33,208	2,299	413	448	36,368
CEE	**106,783**	**12,115**	**4,289**	**2,291**	**125,478**
Czech Republic	53,910	6,034	1,405	684	62,033
Slovakia	17,707	1,439	1,455	411	21,012
Romania	15,361	1,737	396	481	17,975
Hungary	8,834	1,007	539	160	10,539
Croatia	8,907	1,535	380	529	11,351
Serbia	2,064	364	114	26	2,568
Other	**6,842**	**48**	**242**	**17**	**7,149**
Total	**249,041**	**26,086**	**6,731**	**4,841**	**286,699**
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**

Credit risk exposure by geographical segment and IFRS 9 treatment

	Credit risk exposure					Credit loss allowances				NPE coverage ratio		
in EUR million	Stage 1	Stage 2	Stage 3	POCI	Not subject to IFRS 9 impairment	Stage 1	Stage 2	Stage 3	POCI	Stage 2	Stage 3	POCI
Dec 20												
Austria	**114,235**	**26,033**	**2,452**	**72**	**11,278**	**-183**	**-685**	**-1,081**	**-4**	**2.6%**	**44.1%**	**5.4%**
EBOe & Subs.	37,174	7,633	603	6	1,038	-41	-152	-233	0	2.0%	38.7%	0.1%
Savings Banks	53,972	12,669	1,431	50	3,126	-119	-371	-636	-4	2.9%	44.4%	7.8%
Other Austria	23,089	5,731	418	17	7,114	-23	-162	-212	0	2.8%	50.7%	0.0%
CEE	**107,204**	**12,351**	**2,011**	**347**	**3,565**	**-280**	**-737**	**-1,333**	**-123**	**6.0%**	**66.3%**	**35.6%**
Czech Republic	56,144	4,793	642	47	408	-100	-252	-429	-22	5.2%	66.9%	46.0%
Slovakia	17,413	2,709	302	130	459	-35	-140	-175	-58	5.2%	58.1%	44.4%
Romania	13,775	2,430	403	69	1,298	-53	-183	-299	-17	7.5%	74.2%	25.3%
Hungary	8,307	919	130	77	1,106	-22	-64	-79	-16	7.0%	60.8%	21.1%
Croatia	9,468	1,317	511	22	33	-57	-86	-332	-10	6.5%	65.1%	43.6%
Serbia	2,098	183	24	2	262	-12	-13	-18	-1	7.3%	78.6%	35.5%
Other	**6,760**	**271**	**17**	**0**	**101**	**-1**	**-1**	**-16**	**0**	**0.5%**	**93.7%**	**0.0%**
Total	**228,200**	**38,655**	**4,480**	**419**	**14,945**	**-464**	**-1,424**	**-2,430**	**-127**	**3.7%**	**54.2%**	**30.4%**
Dec 19												
Austria	**124,594**	**11,625**	**2,245**	**69**	**11,017**	**-171**	**-290**	**-1,078**	**-3**	**2.5%**	**48.0%**	**3.8%**
EBOe & Subs.	39,844	3,553	523	6	1,049	-37	-69	-219	0	1.9%	42.0%	0.2%
Savings Banks	56,822	5,945	1,397	47	2,576	-108	-179	-672	-3	3.0%	48.1%	5.6%
Other Austria	27,928	2,127	326	17	7,392	-27	-42	-187	0	2.0%	57.4%	0.0%
CEE	**109,787**	**4,627**	**1,829**	**411**	**1,674**	**-252**	**-317**	**-1,236**	**-141**	**6.8%**	**67.6%**	**34.3%**
Czech Republic	57,259	1,746	525	32	362	-78	-84	-352	-19	4.8%	67.1%	59.9%
Slovakia	18,774	511	360	135	79	-39	-38	-221	-53	7.4%	61.5%	39.6%
Romania	14,020	1,551	370	110	303	-47	-135	-284	-31	8.7%	76.6%	28.4%
Hungary	8,360	264	87	94	626	-16	-27	-59	-22	10.1%	67.8%	22.9%
Croatia	9,499	488	468	37	59	-61	-27	-306	-15	5.5%	65.4%	39.2%
Serbia	1,875	66	18	2	246	-10	-6	-13	-1	8.8%	73.6%	38.1%
Other	**5,795**	**3**	**13**	**0**	**88**	**-1**	**0**	**-13**	**0**	**0.2%**	**96.6%**	**0.0%**
Total	**240,176**	**16,256**	**4,087**	**480**	**12,779**	**-425**	**-607**	**-2,327**	**-143**	**3.7%**	**56.9%**	**29.9%**

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 93.5% (2019: 79.1%) of the reported non-performing on-balance and off-balance credit risk exposure as of 31 December 2020. 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 2020, the non-performing credit risk exposure increased by EUR 378 million, or 8.5%. The credit loss allowances for loans and advances together with credit loss allowances for loan commitments and financial guarantees increased by EUR 944 million, or 27.0%. This development resulted in a substantial increase of 14.4 percentage points in the coverage of 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 2020 and 31 December 2019. 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 20												
Retail	1,514	1,513	69,833	69,070	-1,512	602	602	2.2%	2.2%	99.9%	39.8%	39.8%
Corporates	1,819	1,746	82,936	79,030	-1,731	658	657	2.2%	2.2%	99.2%	36.2%	37.7%
Group Markets	1	1	17,131	10,390	-9	0	0	0.0%	0.0%	>500.0%	0.0%	0.0%
ALM & LCC	20	19	44,925	44,599	-47	0	0	0.0%	0.0%	249.7%	0.4%	0.4%
Savings Banks	1,470	1,459	71,249	68,122	-1,130	751	748	2.1%	2.1%	77.4%	51.1%	51.3%
GCC	17	15	625	543	-16	8	6	2.7%	2.7%	111.4%	47.3%	39.4%
Total	**4,841**	**4,753**	**286,699**	**271,754**	**-4,446**	**2,019**	**2,013**	**1.7%**	**1.7%**	**93.5%**	**41.7%**	**42.4%**
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%**

Non-performing credit risk exposure by geographical 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 20												
Austria	**2,533**	**2,500**	**154,072**	**142,793**	**-1,953**	**1,209**	**1,207**	**1.6%**	**1.8%**	**78.1%**	**47.7%**	**48.3%**
EBOe & Subs.	615	606	46,455	45,417	-426	326	326	1.3%	1.3%	70.3%	53.1%	53.8%
Savings Banks	1,470	1,459	71,249	68,122	-1,130	751	748	2.1%	2.1%	77.4%	51.1%	51.3%
Other Austria	448	434	36,368	29,254	-397	132	132	1.2%	1.5%	91.4%	29.6%	30.4%
CEE	**2,291**	**2,238**	**125,478**	**121,913**	**-2,474**	**802**	**801**	**1.8%**	**1.8%**	**110.5%**	**35.0%**	**35.8%**
Czech Republic	684	682	62,033	61,625	-803	181	181	1.1%	1.1%	117.6%	26.5%	26.6%
Slovakia	411	411	21,012	20,553	-408	145	145	2.0%	2.0%	99.3%	35.3%	35.3%
Romania	481	436	17,975	16,677	-552	162	162	2.7%	2.6%	126.7%	33.8%	37.2%
Hungary	160	156	10,539	9,433	-182	93	93	1.5%	1.7%	116.6%	58.4%	59.4%
Croatia	529	528	11,351	11,318	-485	216	216	4.7%	4.7%	91.8%	40.9%	40.9%
Serbia	26	25	2,568	2,307	-44	4	4	1.0%	1.1%	174.0%	14.0%	14.2%
Other	**17**	**15**	**7,149**	**7,048**	**-18**	**8**	**6**	**0.2%**	**0.2%**	**126.6%**	**47.3%**	**39.4%**
Total	**4,841**	**4,753**	**286,699**	**271,754**	**-4,446**	**2,019**	**2,013**	**1.7%**	**1.7%**	**93.5%**	**41.7%**	**42.4%**
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%**

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. In addition, credit loss allowances are calculated for loan commitments and financial guarantees if they meet the applicable IFRS 9 definitions.

Classification into stages and definition of credit-impaired financial instruments

There are three main stages outlined for expected credit loss (ECL) determination. The stages 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 (SICR) 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, and not credit-impaired financial instruments if a PD curve valid at initial recognition was missing at the time of the implementation of IFRS 9 according to IFRS 9 7.2.20. 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.

Significant increase in credit risk determination

Assessment of significant increase in credit risk (SICR) 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 or 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.

Relative thresholds for SICR assessment by geographical segment

	Threshold interval (x times)	
	Min	Max
Dec 20		
Austria	**1.13**	**2.37**
EBOe & Subs.	1.13	2.37
Savings Banks	1.13	2.37
Other Austria	1.13	2.37
CEE	**1.03**	**4.08**
Czech Republic	1.13	3.59
Slovakia	1.13	4.08
Romania	1.13	3.37
Hungary	1.13	3.21
Croatia	1.13	3.13
Serbia	1.03	3.47
Total	**1.03**	**4.08**
Dec 19		
Austria	**1.13**	**2.37**
EBOe & Subs.	1.13	2.37
Savings Banks	1.13	2.37
Other Austria	1.13	2.37
CEE	**1.03**	**4.41**
Czech Republic	1.13	3.59
Slovakia	1.13	4.41
Romania	1.13	3.36
Hungary	1.13	3.21
Croatia	1.13	3.13
Serbia	1.03	3.47
Total	**1.03**	**4.41**

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.

Erste Group has not significantly recalibrated relative thresholds since IFRS9 implementation. They are kept stable as one of the most significant estimate in ECL measurement, therefore can be changed as a result of validation or after significant change of PD models. There were re-estimations for individual entities and portfolios.

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).

The absolute threshold refers to difference of annualised or LT PD on initial recognition and current annualised or LT PD. It is set to a maximum of 50 bps and serves as a backstop for migrations between the best ratings. In such cases, relative thresholds may be breached, however overall LT PD is very low, and therefore SICR is not positively concluded.

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. We have introduced additional portfolio level SICR assessment criteria due to Covid-19 pandemic and related economic impacts. Please see Covid-19 disclosures in the next chapter.

Additional 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 2020, 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 10.5 billion (2019: EUR 10.2 billion) with PDs interval of 0.01%-0.5%. In Banca Comercială Română, the respective exposure amounted to EUR 4.5 billion (2019: 4.3 billion) 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 based on 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 lifetime 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 several 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 to through-the-cycle observations immediately in year four.

Specific situation of the Covid-19 pandemic and extensive supporting measures, mainly moratoria, lead to the lagging of the macroeconomic reflection in credit risk parameters. Therefore, macroeconomic variables of 2020 were included as additional predictors for future values of credit risk parameters. Variables in year 2020 have same values across all three scenarios.

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. We are disclosing sensitivity of the staging and ECL on macro scenarios in the Covid-19 section below.

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

	Scenario	Probability weights 2021-2023	GDP growth in % 2020	2021	2022	2023
Dec 20						
Austria	Upside	1%	-7.6	5.0	3.9	3.3
	Baseline	40%	-7.6	3.4	2.3	1.7
	Downside	59%	-7.6	-2.1	1.0	-0.1
Czech Republic	Upside	4%	-7.7	5.5	7.3	6.4
	Baseline	40%	-7.7	3.9	5.7	4.8
	Downside	56%	-7.7	-1.7	1.2	1.7
Slovakia	Upside	25%	-7.1	8.2	6.7	6.4
	Baseline	35%	-7.1	6.0	4.5	4.2
	Downside	40%	-7.1	-1.2	-0.0	0.9
Romania	Upside	18%	-5.9	5.3	7.1	7.3
	Baseline	40%	-5.9	2.7	4.5	4.7
	Downside	42%	-5.9	-3.6	-0.2	1.9
Hungary	Upside	6%	-6.4	5.1	6.6	5.2
	Baseline	40%	-6.4	3.9	5.4	4.0
	Downside	54%	-6.4	-1.3	1.6	2.0
Croatia	Upside	8%	-9.9	8.2	9.0	9.1
	Baseline	40%	-9.9	5.2	3.6	4.0
	Downside	52%	-9.9	-2.5	-1.4	0.9
Serbia	Upside	15%	-1.3	6.3	5.3	5.8
	Baseline	40%	-1.3	5.0	4.0	4.5
	Downside	45%	-1.3	-0.5	0.9	2.6
Dec 19		**2020-2022**	**2019**	**2020**	**2021**	**2022**
Austria	Upside	11%	1.7	3.1	3.2	3.1
	Baseline	50%	1.7	1.6	1.7	1.6
	Downside	39%	1.7	-0.2	-0.1	-0.2
Czech Republic	Upside	13%	2.6	4.6	4.7	4.8
	Baseline	50%	2.6	2.6	2.7	2.8
	Downside	37%	2.6	0.1	0.2	0.3
Slovakia	Upside	12%	3.4	5.7	5.3	5.2
	Baseline	50%	3.4	3.3	2.9	2.8
	Downside	38%	3.4	0.1	-0.3	-0.4
Romania	Upside	10%	4.5	6.9	6.5	5.0
	Baseline	50%	4.5	3.8	3.4	1.9
	Downside	40%	4.5	0.3	-0.1	-1.6
Hungary	Upside	7%	4.1	5.0	4.4	4.3
	Baseline	50%	4.1	3.2	2.6	2.5
	Downside	43%	4.1	0.6	0.0	-0.1
Croatia	Upside	10%	3.2	4.1	5.3	6.3
	Baseline	50%	3.2	2.5	2.4	2.4
	Downside	40%	3.2	0.9	-0.5	-1.5
Serbia	Upside	10%	3.3	5.7	6.2	n/a
	Baseline	50%	3.3	3.5	4.0	n/a
	Downside	40%	3.3	1.1	1.6	n/a

As of 31 December 2019, the growth rates for the year 2020 correspond to estimated values. As of 31 December 2020, they represent real observed values.

In order to reflect on the higher volatility of macro-economic variables estimates and significantly higher downward risk of macro-economic recovery due to current developments of the Covid-19 pandemics we have introduced a conservative downside scenario with relatively high probability of occurrence as shown in the GDP overview table above.

Covid-19

The Covid-19 pandemic has been causing high uncertainty in the global economy and on the global markets. Social distancing rules and lockdown restrictions imposed by governments led to economic slow-down and a significant drop of revenues across industries. Unprecedented state aid packages (e.g. state guarantees, bridge financing, the state temporarily paying workers' salaries to avoid redundancies, hardship funds for one-person and micro businesses) and moratoria programs were introduced in all Erste Group's core markets to support private individuals and companies. While such measures mitigate the negative economic effects, they complicate a timely reflection of a potential deterioration of the loan portfolios.

Effect on customers

Immediately upon the crisis showing severe economic impacts in our region (governmental decisions on lockdowns in countries of Erste Group perimeter), initiatives were started aiming to, on the one hand support Erste Group´s clients to the utmost extent, and on the other hand, manage the respective risks and bearing the responsibility of Erste Group towards all stakeholders in mind.

The measures differed from country to country as they had to be based on the legislative steps taken by the respective governments. Nevertheless, Erste Group gave a guidance to the entities in respect of underwriting, reporting and classification processes. Apart from overall valid state-moratoria as e.g. in Hungary and Serbia, some measures like short-term deferrals were applied in all countries, whereas financial support schemes with public or state guarantees were offered only in some countries or to some client-segments. In addition to programmes with standard parameters that were defined at a very early stage of the crisis and should support an efficient processing, also individual solutions were agreed with clients that did not meet all predefined requirements.

Credit risk exposure of non-financial corporations by industry – measures applied in response to the Covid-19 crisis

in EUR million	Loans and advances subject to EBA-compliant moratoria	Other loans and advances subject to COVID-19-related forbearance measures	Newly originated loans and advances subject to public guarantee schemes in the context of the COVID-19 crisis
Dec 20			
Agriculture and forestry	54	1	31
Mining	0	-	5
Manufacturing	274	15	514
Energy and water supply	9	-	19
Construction	45	12	125
Trade	116	22	416
Transport and communication	96	4	235
Hotels and restaurants	497	17	164
Financial and insurance services	17	-	0
Real estate and housing	369	63	14
Services	90	1	181
Public administration	0	-	-
Education, health and art	17	18	35
Total	**1,583**	**155**	**1,739**

Loans and advances of non-financial corporations to which the measures applied in the response to Covid-19 were granted and are currently valid (have not been expired), amounted to EUR 3.5 billion as of 31 December 2020. Measures mostly refer to EBA-compliant moratoria. The highest amount of granted moratoria measures in non-financial corporations refers to real estate and housing and manufacturing, followed by hotels and restaurants and trade.

Loans and advances of households to which the measures applied in the response to Covid-19 were granted and are currently valid (have not been expired), amounted to EUR 3.3 billion as of 31 December 2020

Besides measures disclosed in the table above, as a direct response to Covid-19 crisis additional measures that do not meet the forbearance criteria were approved amounting to EUR 3.6 billion as of 31 December 2020.

Effect on business

In March 2020, risk management and business divisions started a joint initiative aiming to quickly provide a harmonised guidance for a focused industry approach within Erste Group, reflecting the changed economic environment. Industries and sub-industries were categorised into critical, high, medium or low risk according to the expected impacts from Covid-19 based on a combination of research material, feedback collected from client meetings and single name analyses, both centrally as well as in the entities.

Main driver for assigning an industry classification was the assessment of impacts of the crisis on the specific (sub)industry. The classifications are regularly reviewed on a 12-month rolling forecast basis to take current developments into account. A respective business and risk strategy for the (sub)industries was formulated based on the assessment. The assessed risk for the specific (sub)industry can lead to strategic recommendations (e.g. to temporarily limit financing for specific categories to existing clients only) and/or the revision of underwriting standards. This approach was aligned with all affected entities and business lines and approved by the respective governance bodies of Erste Group.

Exposures in particular industries that belong to critical or high risk sub-industries are referred to as significant risk in the following tables.

Credit risk exposure and credit loss allowances by industry and IFRS9 treatment – industry heatmap

in EUR million	Stage 1	Stage 2	Stage 3	POCI	Credit risk exposure (AC and FVOCI)	Not subject to IFRS 9 impairment	Total	Credit loss allowances
Dec 20								
Agriculture and forestry	2,550	593	122	5	3,270	19	3,289	- 101
of which significant risk	6	8	0	-	14	0	14	-0
Mining	544	64	16	2	626	207	832	-20
of which significant risk	382	10	8	2	401	199	601	-13
Manufacturing	13,658	4,914	585	46	19,202	1,023	20,226	- 587
of which significant risk	3,838	3,264	268	22	7,392	434	7,826	- 278
Energy and water supply	4,054	577	56	8	4,695	198	4,893	-97
of which significant risk	0	3	-	-	3	0	3	-0
Construction	9,330	1,789	279	16	11,414	1,231	12,645	- 320
of which significant risk	23	13	4	0	40	2	43	-3
Trade	9,251	3,758	472	44	13,525	1,019	14,544	- 441
of which significant risk	2,169	2,244	193	10	4,617	213	4,830	- 172
Transport and communication	5,759	1,993	196	4	7,952	361	8,313	- 182
of which significant risk	977	1,192	29	1	2,199	60	2,259	-48
Hotels and restaurants	1,281	3,977	331	29	5,618	79	5,697	- 271
of which significant risk	1,225	3,933	312	29	5,500	73	5,573	- 255
Financial and insurance services	32,797	1,714	30	12	34,551	5,060	39,611	- 110
Real estate and housing	25,893	5,824	262	129	32,108	857	32,965	- 390
of which significant risk	242	340	17	0	599	4	603	-21
Services	9,461	3,976	488	5	13,930	745	14,675	- 426
of which significant risk	2,395	2,688	341	5	5,430	173	5,603	- 263
Public administration	38,571	560	1	3	39,135	3,235	42,370	-25
Education, health and art	2,604	932	102	1	3,638	38	3,677	-99
of which significant risk	280	465	60	0	806	8	814	-58
Private households	71,994	7,967	1,541	116	81,619	784	82,403	-1,452
Other	452	19	0	0	471	88	558	-1
Total	**228,200**	**38,655**	**4,480**	**419**	**271,754**	**14,945**	**286,699**	**-4,522**
Dec 19								
Agriculture and forestry	2,849	265	111	11	3,236	14	3,250	-83
Mining	680	52	27	23	781	26	807	-27
Manufacturing	16,043	1,805	431	46	18,324	951	19,274	-406
Energy and water supply	3,657	558	75	4	4,294	124	4,418	-89
Construction	10,160	862	389	31	11,441	890	12,332	-348
Trade	11,290	1,363	396	41	13,091	666	13,757	-346
Transport and communication	6,934	462	104	5	7,506	292	7,798	-97
Hotels and restaurants	4,314	503	243	26	5,086	41	5,126	-148
Financial and insurance services	34,931	515	27	13	35,486	5,362	40,848	-56
Real estate and housing	27,130	2,031	316	134	29,611	592	30,203	- 291
Services	11,709	1,322	243	6	13,279	759	14,038	-222
Public administration	35,748	385	1	3	36,137	2,459	38,595	- 13
Education, health and art	3,097	417	216	0	3,730	37	3,767	- 136
Private households	71,273	5,715	1,511	136	78,636	562	79,198	-1,256
Other	361	0	0	0	361	7	368	- 1
Total	**240,176**	**16,256**	**4,087**	**480**	**260,999**	**12,779**	**273,778**	**-3,518**

Effect on Expected Credit Loss

As described above, an increase of the ECL might result from a re-assessment of the credit risk parameters and a migration to worse stages either via significant increase in credit risk (SICR) or a default.

We have concluded so far that majority of moratoria introduced in our core markets until 31 December 2020 fulfil the conditions as defined in the EBA guidelines published during the year 2020. Relief offered to credit owners thus did not result in an automatic transfer from Stage 1 to Stage 2. However, Erste Group continues to perform individual assessments whether there are other circumstances that would lead to forbearance or default classification.

We have re-assessed credit risk parameters based on the new macro-scenarios FLI overlay. Reference is also made to the explanations in the sub-chapter 'incorporation of forward-looking information' above. We will continue monitoring of the macro and macro-prediction development in order to reflect up-to-date information in our credit risk parameters. GDP scenarios and weights are shown in the table displayed within Incorporation of forward looking information section above. The effect of the FLI in the ECL calculation as of 31 December 2020 amounted to EUR 527 million. The increase of EUR 410 million in comparison with EUR 117 million as of 31 December 2019 can be directly attributed to the Covid-19 situation.

Erste Group has addressed expected SICR by introducing Covid-19 portfolio overlays. We divided the portfolio in private individuals (PIs) and non-private individuals (non-PIs) and assessed the customers by taking into account any Covid-19 related relief measure granted as well as the internal industry heat-map and corresponding customer-specific one-year IFRS PD levels. Based on this assessment and individual reviews, customers were migrated to stage 2, i.e. lifetime ECL measure. The industry heat map and the portfolio overlays are subject to regular reviews. The effect of Covid-19 portfolio overlays in the ECL calculation as of 31 December 2020 amounted to EUR 245 million.

In the Q4-2020 Erste Group performed additional portfolio review in order to assess migrations to Stage 3 due to unlikeliness-to-pay default designation. This was done in order to properly and timely identify Stage 3 exposure. We have migrated additional EUR 518 million credit risk exposure resulting in allocation of the EUR 168 million credit loss allowances.

Erste Group will assess releases of Covid-19 portfolio overlays for PI portfolios once the moratoria are lifted. When moratoria do no longer distort DPD information, behavioural scoring will allow an unbiased SICR assessment. In case of non-PI portfolios, release of the overlays will be assessed after expiration of the measures enables a proper re-rating. Release will follow in combination with a consistent improvement of the macro indicators.

Erste Group expects an increase in defaults especially after state aid measures, in particular moratoria, are lifted.

The analysis tables below present staging splits of the current performing exposure and ECL. Movements of exposures between performing stages and resulting changes in ECL triggered by effect of Covid-19 SICR overlays and FLI macro overlays is shown.

Effects on industry segments, high risk industry subsegments and geographical segment are disclosed. Analysis shows that out of EUR 38,665 million exposure in Stage 2 EUR 14,420 million were migrated due to Covid-19 overlays, resulting in increase of ECL of 245 million. Additional EUR 5,884 million were migrated to Stage 2 due to FLI overlay, resulting in ECL increase of EUR 410 million (difference between FLI effect as of 31.12.2020 of EUR 527 million and as of 31.12.2019 of EUR 117 million).

For the ECL change a positive sign (+) equals a release while a negative sign (-) equals an allocation. The presented values are results of internal simulations.

Forward looking information (FLI) and stage overlays due to the Covid-19 pandemic

Impact on credit risk exposure by geographical segment

in EUR million	Current status - parameters (FLI shifted)		Effect of stage overlays due to Covid-19		Effect of FLI shifts	
	Stage 1	Stage 2	Stage 1	Stage 2	Stage 1	Stage 2
Dec 20						
Austria	**114,235**	**26,033**	**+9,496.9**	**-9,496.9**	**+4,519.9**	**-4,519.9**
EBOe & Subs.	37,174	7,633	+2,635.1	-2,635.1	+1,305.2	-1,305.2
Savings Banks	53,972	12,669	+5,007.5	-5,007.5	+2,042.6	-2,042.6
Other Austria	23,089	5,731	+1,854.4	-1,854.4	+1,172.1	-1,172.1
CEE	**107,204**	**12,351**	**+4,922.6**	**-4,922.6**	**+1,363.7**	**-1,363.7**
Czech Republic	56,144	4,793	+1,576.0	-1,576.0	+534.2	-534.2
Slovakia	17,413	2,709	+1,535.5	-1,535.5	+103.1	-103.1
Romania	13,775	2,430	+793.4	-793.4	+480.2	-480.2
Hungary	8,307	919	+468.0	-468.0	+162.2	-162.2
Croatia	9,468	1,317	+455.8	-455.8	+66.7	-66.7
Serbia	2,098	183	+93.9	-93.9	+17.3	-17.3
Other	**6,760**	**271**	**+0.0**	**+0.0**	**+0.0**	**+0.0**
Total	**228,200**	**38,655**	**+14,419.5**	**-14,419.5**	**+5,883.6**	**-5,883.6**
Dec 19						
Austria	**124,594**	**11,625**	**+0.0**	**+0.0**	**+1,159.5**	**-1,159.5**
EBOe & Subs.	39,844	3,553	0	0	+264.8	-264.8
Savings Banks	56,822	5,945	0	0	+632.7	-632.7
Other Austria	27,928	2,127	0	0	+261.9	-261.9
CEE	**109,787**	**4,627**	**+0.0**	**+0.0**	**+444.3**	**-444.3**
Czech Republic	57,259	1,746	0	0	+82.3	-82.3
Slovakia	18,774	511	0	0	+21.8	-21.8
Romania	14,020	1,551	0	0	+251.1	-251.1
Hungary	8,360	264	0	0	+58.2	-58.2
Croatia	9,499	488	0	0	+23.1	-23.1
Serbia	1,875	66	0	0	+7.7	-7.7
Other	**5,795**	**3**	**+0.0**	**+0.0**	**+0.0**	**+0.0**
Total	**240,176**	**16,256**	**+0.0**	**+0.0**	**+1,603.8**	**-1,603.8**

Impact on credit loss allowances by geographical segment

in EUR million	Current status - parameters (FLI shifted)		Effect of stage overlays due to Covid-19		Effect of FLI shifts	
	Stage 1	Stage 2	Stage 1	Stage 2	Stage 1	Stage 2
Dec 20						
Austria	**-183**	**-685**	**-43.6**	**+158.4**	**+68.6**	**+202.3**
EBOe & Subs.	-41	-152	-10.2	+39.8	+17.8	+39.1
Savings Banks	-119	-371	-28.6	+95.2	+42.9	+94.2
Other Austria	-23	-162	-4.8	+23.4	+7.8	+69.0
CEE	**-280**	**-737**	**-66.0**	**+196.2**	**+97.6**	**+159.1**
Czech Republic	-100	-252	-20.6	+50.4	+40.9	+56.3
Slovakia	-35	-140	-13.7	+51.4	+12.7	+3.1
Romania	-53	-183	-12.9	+39.7	+6.2	+62.1
Hungary	-22	-64	-6.5	+19.1	+14.3	+25.6
Croatia	-57	-86	-10.2	+30.5	+20.2	+9.6
Serbia	-12	-13	-2.1	+5.2	+3.3	+2.5
Other	**-1**	**-1**	**+0.0**	**+0.0**	**+0.0**	**+0.0**
Total	**-464**	**-1,424**	**-109.5**	**+354.6**	**+166.2**	**+361.4**
Dec 19						
Austria	**-173**	**-290**	**+0.0**	**+0.0**	**+2.2**	**+42.2**
EBOe & Subs.	-37	-69	0	0	+1.0	+8.0
Savings Banks	-108	-179	0	0	+1.5	+22.8
Other Austria	-28	-42	0	0	-0.3	+11.3
CEE	**-252**	**-317**	**+0.0**	**+0.0**	**+24.3**	**+48.5**
Czech Republic	-78	-84	0	0	+1.1	+4.7
Slovakia	-39	-38	0	0	-0.3	+2.4
Romania	-47	-135	0	0	+4.5	+32.1
Hungary	-16	-27	0	0	+5.1	+7.8
Croatia	-61	-27	0	0	+11.7	+1.0
Serbia	-10	-6	0	0	+2.2	+0.6
Other	**0**	**0**	**+0.0**	**+0.0**	**+0.0**	**+0.0**
Total	**-425**	**-607**	**+0.0**	**+0.0**	**+26.4**	**+90.7**

Impact on credit risk exposure by industry

in EUR million	Current status - parameters (FLI shifted)		Effect of stage overlays due to Covid-19		Effect of FLI shifts	
	Stage 1	Stage 2	Stage 1	Stage 2	Stage 1	Stage 2
Dec 20						
Agriculture and forestry	2,550	593	+145.9	-145.9	+88.3	-88.3
of which significant risk	6	8	+0.4	-0.4	+0.0	-0.0
Mining	544	64	+16.4	-16.4	+8.7	-8.7
of which significant risk	382	10	+5.9	-5.9	+0.1	-0.1
Manufacturing	13,658	4,914	+3,199.3	-3,199.3	+1,020.0	-1,020.0
of which significant risk	3,838	3,264	+2,737.2	-2,737.2	+236.2	-236.2
Energy and water supply	4,054	577	+6.5	-6.5	+84.7	-84.7
of which significant risk	0	3	+0.0	+0.0	+0.0	+0.0
Construction	9,330	1,789	+186.3	-186.3	+848.6	-848.6
of which significant risk	23	13	+103.6	-103.6	+0.0	+0.0
Trade	9,251	3,758	+1,861.1	-1,861.1	+386.5	-386.5
of which significant risk	2,169	2,244	+1,600.7	-1,600.7	+72.0	-72.0
Transport and communication	5,759	1,993	+1,178.8	-1,178.8	+201.2	-201.2
of which significant risk	977	1,192	+989.0	-989.0	+10.8	-10.8
Hotels and restaurants	1,281	3,977	+2,935.3	-2,935.3	+100.9	-100.9
of which significant risk	1,225	3,933	+2,898.5	-2,898.5	+100.9	-100.9
Financial and insurance services	32,797	1,714	+13.0	-13.0	+137.3	-137.3
Real estate and housing	25,893	5,824	+1,415.7	-1,415.7	+1,715.3	-1,715.3
of which significant risk	242	340	+240.3	-240.3	+6.1	-6.1
Services	9,461	3,976	+1,916.4	-1,916.4	+173.4	-173.4
of which significant risk	2,395	2,688	+1,891.4	-1,891.4	+92.6	-92.6
Public administration	38,571	560	+1.3	-1.3	+253.8	-253.8
Education, health and art	2,604	932	+572.5	-572.5	+117.7	-117.7
of which significant risk	280	465	+336.0	-336.0	+7.6	-7.6
Households	71,994	7,967	+971.0	-971.0	+745.7	-745.7
Other	452	19	+0.0	-0.0	+1.4	-1.4
Total	**228,200**	**38,655**	**+14,419.5**	**-14,419.5**	**+5,883.6**	**-5,883.6**
Dec 19						
Agriculture and forestry	2,849	265	+0.0	+0.0	+15.5	-15.5
Mining	680	52	+0.0	+0.0	+0.3	-0.3
Manufacturing	16,043	1,805	+0.0	+0.0	+193.7	-193.7
Energy and water supply	3,657	558	+0.0	+0.0	+8.9	-8.9
Construction	10,160	862	+0.0	+0.0	+122.7	-122.7
Trade	11,290	1,363	+0.0	+0.0	+167.5	-167.5
Transport and communication	6,934	462	+0.0	+0.0	+36.4	-36.4
Hotels and restaurants	4,314	503	+0.0	+0.0	+29.9	-29.9
Financial and insurance services	34,931	515	+0.0	+0.0	+30.9	-30.9
Real estate and housing	27,130	2,031	+0.0	+0.0	+276.8	-276.8
Services	11,709	1,322	+0.0	+0.0	+219.1	-219.1
Public administration	35,748	385	+0.0	+0.0	+0.0	-0.0
Education, health and art	3,097	417	+0.0	+0.0	+26.5	-26.5
Households	71,273	5,715	+0.0	+0.0	+474.6	-474.6
Other	361	0	+0.0	+0.0	+1.0	-1.0
Total	**240,176**	**16,256**	**+0.0**	**+0.0**	**+1,603.8**	**-1,603.8**

Impact on credit loss allowances by industry

in EUR million	Current status - parameters (FLI shifted)	Effect of stage overlays due to Covid-19		Effect of FLI shifts	
	All stages	Stage 1	Stage 2	Stage 1	Stage 2
Dec 20					
Agriculture and forestry	-101	-2.4	+5.3	+4.4	+15.9
of which significant risk	0	-0.0	+0.0	+0.1	+0.0
Mining	-20	-0.1	+0.3	+0.3	+0.4
of which significant risk	-13	-0.0	+0.1	+0.2	+0.1
Manufacturing	-587	-26.2	+64.8	+20.9	+65.2
of which significant risk	-278	-20.6	+51.4	+11.7	+22.4
Energy and water supply	-97	-0.1	+0.2	+5.4	+8.2
of which significant risk	0	+0.0	+0.0	+0.0	+0.0
Construction	-320	-1.7	+4.5	+12.6	+29.4
of which significant risk	-3	-0.7	+1.1	+0.4	+0.2
Trade	-441	-14.0	+35.1	+16.3	+29.7
of which significant risk	-172	-9.6	+25.3	+6.2	+10.3
Transport and communication	-182	-6.9	+26.9	+8.3	+15.8
of which significant risk	-48	-4.5	+20.0	+2.8	+3.4
Hotels and restaurants	-271	-19.1	+72.5	+9.7	+15.7
of which significant risk	-255	-18.9	+71.7	+9.6	+15.7
Financial and insurance services	-110	-0.1	+0.4	+5.8	+8.5
Real estate and housing	-390	-10.8	+44.5	+24.1	+46.0
of which significant risk	-21	-1.8	+7.6	+0.1	+0.2
Services	-426	-8.7	+32.0	+7.2	+15.0
of which significant risk	-263	-8.5	+31.4	+4.1	+8.2
Public administration	-25	-0.0	+0.0	+2.7	+0.3
Education, health and art	-99	-7.5	+18.8	+18.8	+22.2
of which significant risk	-58	-1.9	+6.1	+2.2	+2.4
Households	-1,452	-11.9	+49.2	+29.5	+88.1
Other	-1	-0.0	+0.0	+0.2	+0.9
Total	**-4,522**	**-109.5**	**+354.6**	**+166.2**	**+361.4**
Dec 19					
Agriculture and forestry	-83	+0.0	+0.0	+0.9	+1.1
Mining	-27	+0.0	+0.0	+0.1	+0.1
Manufacturing	-406	+0.0	+0.0	+1.8	+8.6
Energy and water supply	-89	+0.0	+0.0	+1.1	+0.7
Construction	-348	+0.0	+0.0	+5.3	+3.4
Trade	-346	+0.0	+0.0	+1.2	+7.1
Transport and communication	-97	+0.0	+0.0	+1.0	+2.0
Hotels and restaurants	-148	+0.0	+0.0	+1.1	+2.3
Financial and insurance services	-56	+0.0	+0.0	+0.9	+1.2
Real estate and housing	-291	+0.0	+0.0	+1.8	+8.9
Services	-222	+0.0	+0.0	+0.3	+5.5
Public administration	-13	+0.0	+0.0	+0.0	+0.0
Education, health and art	-136	+0.0	+0.0	+0.9	+1.5
Private households	-1,256	+0.0	+0.0	+10.0	+48.3
Other	-1	+0.0	+0.0	-0.0	+0.0
Total	**-3,518**	**+0.0**	**+0.0**	**+26.4**	**+90.7**

The following tables present analyses taking into consideration only changes due to the different values of PDs according to the baseline, upside and downside FLI scenarios. Covid-19 SICR overlays are ignored. Values of these particular scenarios are calculated in comparison to current probability-weighted FLI scenarios shifted - PDs (weights and scenarios are disclosed in the 'Incorporation of forward-looking information' section above). The staging and ECL results if each baseline, upside or downside scenario were of 100% weight are shown in industry and geographical segmentation. The point in time PD effect as of 31 December 2019 is displayed as comparative information only.

The analyses confirm that the FLI macro shift due to the Covid-19 induced macro situation is significantly higher in both exposure and ECL as of 31 December 2020 in comparison to 31 December 2019. Credit risk exposure in an amount of EUR 5,884 million is in stage 2 due to FLI shift as of 31 December 2020 compared to EUR 1,604 million as of 31 December 2019. This increase of stage 2 credit risk exposure led to an ECL increase of EUR 410 million (difference between EUR 527 million as of 31 December 2020 and EUR 117 million as of 31 December 2019). Our conservative probability weighted scenario results in higher Stage 2 migrations than pure baseline scenario. That would lead to release of EUR 1,867 million from Stage 2 resulting in decrease of ECL by EUR 97 million (EUR 103 million release from stage 2 and EUR 6 million net allocation in Stage 1). Fully employed downside scenario would lead to additional EUR 1,590 million of exposure migration to Stage 2, resulting in ECL increase of EUR 100 million. Differences between scenarios are rather mild. Biggest effect is caused by incorporation of 2020 macro variables to the scenarios as these represent Covid-19 induced crisis. These variables are however included in each scenario with the same value. Differences among scenarios are therefore caused by differences in the recovery estimation of years 2021-2023.

Scenario analysis – Different probabilities of default (PD)

Impact of different scenarios on credit risk exposure by geographical segment

in EUR million	Point in time (effect of FLI shifts) Stage 1	Point in time (effect of FLI shifts) Stage 2	Upside scenario Stage 1	Upside scenario Stage 2	Baseline scenario Stage 1	Baseline scenario Stage 2	Downside scenario Stage 1	Downside scenario Stage 2
Dec 20								
Austria	**+4,519.9**	**-4,519.9**	**+2,187.5**	**-2,187.5**	**+1,537.0**	**-1,537.0**	**-1,131.9**	**+1,131.9**
EBOe & Subs.	+1,305.2	-1,305.2	+730.6	-730.6	+569.4	-569.4	-269.3	+269.3
Savings Banks	+2,042.6	-2,042.6	+911.6	-911.6	+597.5	-597.5	-509.4	+509.4
Other Austria	+1,172.1	-1,172.1	+545.4	-545.4	+370.1	-370.1	-353.2	+353.2
CEE	**+1,363.7**	**-1,363.7**	**+688.1**	**-688.1**	**+330.0**	**-330.0**	**-458.1**	**+458.1**
Czech Republic	+534.2	-534.2	+305.0	-305.0	+164.1	-164.1	-164.1	+164.1
Slovakia	+103.1	-103.1	+8.5	-8.5	+4.8	-4.8	-5.3	+5.3
Romania	+480.2	-480.2	+315.0	-315.0	+129.2	-129.2	-247.6	+247.6
Hungary	+162.2	-162.2	+20.6	-20.6	+9.2	-9.2	-8.0	+8.0
Croatia	+66.7	-66.7	+30.5	-30.5	+15.9	-15.9	-15.0	+15.0
Serbia	+17.3	-17.3	+8.5	-8.5	+6.8	-6.8	-18.1	+18.1
Other	**+0.0**	**+0.0**	**+0.0**	**+0.0**	**+0.0**	**+0.0**	**+0.0**	**+0.0**
Total	**+5,883.6**	**-5,883.6**	**+2,875.7**	**-2,875.7**	**+1,867.1**	**-1,867.1**	**-1,590.0**	**+1,590.0**
Dec 19								
Austria	**+1,159.5**	**-1,159.5**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**
EBOe & Subs.	+264.8	-264.8	n/a	n/a	n/a	n/a	n/a	n/a
Savings Banks	+632.7	-632.7	n/a	n/a	n/a	n/a	n/a	n/a
Other Austria	+261.9	-261.9	n/a	n/a	n/a	n/a	n/a	n/a
CEE	**+444.3**	**-444.3**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**
Czech Republic	+82.3	-82.3	n/a	n/a	n/a	n/a	n/a	n/a
Slovakia	+21.8	-21.8	n/a	n/a	n/a	n/a	n/a	n/a
Romania	+251.1	-251.1	n/a	n/a	n/a	n/a	n/a	n/a
Hungary	+58.2	-58.2	n/a	n/a	n/a	n/a	n/a	n/a
Croatia	+23.1	-23.1	n/a	n/a	n/a	n/a	n/a	n/a
Serbia	+7.7	-7.7	n/a	n/a	n/a	n/a	n/a	n/a
Other	**+0.0**	**+0.0**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**
Total	**+1,603.8**	**-1,603.8**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**

Impact of different scenarios on credit loss allowances by geographical segment

in EUR million	Point in time (effect of FLI shifts) Stage 1	Point in time (effect of FLI shifts) Stage 2	Upside scenario Stage 1	Upside scenario Stage 2	Baseline scenario Stage 1	Baseline scenario Stage 2	Downside scenario Stage 1	Downside scenario Stage 2
Dec 20								
Austria	**+68.6**	**+202.3**	**-11.8**	**+100.8**	**-7.5**	**+66.2**	**+6.2**	**-52.6**
EBOe & Subs.	+17.8	+39.1	-2.8	+20.6	-2.0	+14.2	+1.7	-10.1
Savings Banks	+42.9	+94.2	-6.2	+43.6	-3.4	+26.7	+3.4	-24.5
Other Austria	+7.8	+69.0	-2.9	+36.7	-2.1	+25.3	+1.1	-18.1
CEE	**+97.6**	**+159.1**	**+2.4**	**+64.8**	**+1.9**	**+36.3**	**-2.6**	**-51.3**
Czech Republic	+40.9	+56.3	+1.5	+25.4	+1.0	+17.4	-0.2	-16.3
Slovakia	+12.7	+3.1	+2.8	+1.8	+1.6	+1.0	-3.2	-1.7
Romania	+6.2	+62.1	-3.2	+30.7	-1.5	+14.3	+1.8	-29.3
Hungary	+14.3	+25.6	-0.4	+2.3	-0.2	+1.2	+0.2	-0.9
Croatia	+20.2	+9.6	-1.0	+3.9	-0.5	+2.1	+0.4	-1.8
Serbia	+3.3	+2.5	+2.6	+0.6	+1.5	+0.4	-1.6	-1.2
Other	**+0.0**	**+0.0**	**+0.0**	**+0.0**	**+0.0**	**+0.0**	**+0.0**	**+0.0**
Total	**+166.2**	**+361.4**	**-9.4**	**+165.6**	**-5.6**	**+102.5**	**+3.6**	**-103.9**
Dec 19								
Austria	**+2.2**	**+42.2**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**
EBOe & Subs.	+1.0	+8.0	n/a	n/a	n/a	n/a	n/a	n/a
Savings Banks	+1.5	+22.8	n/a	n/a	n/a	n/a	n/a	n/a
Other Austria	-0.3	+11.3	n/a	n/a	n/a	n/a	n/a	n/a
CEE	**+24.3**	**+48.5**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**
Czech Republic	+1.1	+4.7	n/a	n/a	n/a	n/a	n/a	n/a
Slovakia	-0.3	+2.4	n/a	n/a	n/a	n/a	n/a	n/a
Romania	+4.5	+32.1	n/a	n/a	n/a	n/a	n/a	n/a
Hungary	+5.1	+7.8	n/a	n/a	n/a	n/a	n/a	n/a
Croatia	+11.7	+1.0	n/a	n/a	n/a	n/a	n/a	n/a
Serbia	+2.2	+0.6	n/a	n/a	n/a	n/a	n/a	n/a
Other	**+0.0**	**+0.0**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**
Total	**+26.4**	**+90.7**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**

Impact of different scenarios on credit risk exposure by industry

in EUR million	Point in time (effect of FLI shifts)		Upside scenario		Baseline scenario		Downside scenario	
	Stage 1	Stage 2	Stage 1	Stage 2	Stage 1	Stage 2	Stage 1	Stage 2
Dec 20								
Agriculture and forestry	+88.3	-88.3	+20.5	-20.5	+13.7	-13.7	-12.6	+12.6
of which significant risk	+0.0	-0.0	+0.0	-0.0	+0.0	-0.0	-0.0	+0.0
Mining	+8.7	-8.7	+6.5	-6.5	+3.6	-3.6	-37.1	+37.1
of which significant risk	+0.1	-0.1	+0.0	+0.0	+0.0	+0.0	-27.0	+27.0
Manufacturing	+1,020.0	-1,020.0	+367.1	-367.1	+265.3	-265.3	-281.0	+281.0
of which significant risk	+236.2	-236.2	+147.4	-147.4	+116.4	-116.4	-164.7	+164.7
Energy and water supply	+84.7	-84.7	+50.6	-50.6	+43.1	-43.1	-16.3	+16.3
of which significant risk	+0.0	+0.0	+0.0	+0.0	+0.0	+0.0	+0.0	+0.0
Construction	+848.6	-848.6	+320.9	-320.9	+228.0	-228.0	-104.4	+104.4
of which significant risk	+0.0	+0.0	+0.0	+0.0	+0.0	+0.0	+0.0	+0.0
Trade	+386.5	-386.5	+110.1	-110.1	+60.4	-60.4	-125.9	+125.9
of which significant risk	+72.0	-72.0	+17.2	-17.2	+9.7	-9.7	-66.0	+66.0
Transport and communication	+201.2	-201.2	+127.5	-127.5	+110.5	-110.5	-74.8	+74.8
of which significant risk	+10.8	-10.8	+6.2	-6.2	+5.4	-5.4	-17.5	+17.5
Hotels and restaurants	+100.9	-100.9	+79.8	-79.8	+29.3	-29.3	-78.6	+78.6
of which significant risk	+100.9	-100.9	+79.8	-79.8	+29.3	-29.3	-78.6	+78.6
Financial and insurance services	+137.3	-137.3	+64.3	-64.3	+56.3	-56.3	-25.3	+25.3
Real estate and housing	+1,715.3	-1,715.3	+959.7	-959.7	+624.1	-624.1	-425.2	+425.2
of which significant risk	+6.1	-6.1	+0.3	-0.3	+0.2	-0.2	-6.9	+6.9
Services	+173.4	-173.4	+34.3	-34.3	+10.8	-10.8	-42.7	+42.7
of which significant risk	+92.6	-92.6	+13.7	-13.7	+1.5	-1.5	-35.9	+35.9
Public administration	+253.8	-253.8	+172.7	-172.7	+171.8	-171.8	-3.0	+3.0
Education, health and art	+117.7	-117.7	+110.4	-110.4	+58.0	-58.0	-65.6	+65.6
of which significant risk	+7.6	-7.6	+6.3	-6.3	+6.2	-6.2	-4.6	+4.6
Households	+745.7	-745.7	+450.4	-450.4	+191.9	-191.9	-289.8	+289.8
Other	+1.4	-1.4	+0.7	-0.7	+0.2	-0.2	-7.7	+7.7
Total	**+5,883.6**	**-5,883.6**	**+2,875.7**	**-2,875.7**	**+1,867.1**	**-1,867.1**	**-1,590.0**	**+1,590.0**
Dec 19								
Agriculture and forestry	+15.5	-15.5	n/a	n/a	n/a	n/a	n/a	n/a
Mining	+0.3	-0.3	n/a	n/a	n/a	n/a	n/a	n/a
Manufacturing	+193.7	-193.7	n/a	n/a	n/a	n/a	n/a	n/a
Energy and water supply	+8.9	-8.9	n/a	n/a	n/a	n/a	n/a	n/a
Construction	+122.7	-122.7	n/a	n/a	n/a	n/a	n/a	n/a
Trade	+167.5	-167.5	n/a	n/a	n/a	n/a	n/a	n/a
Transport and communication	+36.4	-36.4	n/a	n/a	n/a	n/a	n/a	n/a
Hotels and restaurants	+29.9	-29.9	n/a	n/a	n/a	n/a	n/a	n/a
Financial and insurance services	+30.9	-30.9	n/a	n/a	n/a	n/a	n/a	n/a
Real estate and housing	+276.8	-276.8	n/a	n/a	n/a	n/a	n/a	n/a
Services	+219.1	-219.1	n/a	n/a	n/a	n/a	n/a	n/a
Public administration	+0.0	-0.0	n/a	n/a	n/a	n/a	n/a	n/a
Education, health and art	+26.5	-26.5	n/a	n/a	n/a	n/a	n/a	n/a
Households	+474.6	-474.6	n/a	n/a	n/a	n/a	n/a	n/a
Other	+1.0	-1.0	n/a	n/a	n/a	n/a	n/a	n/a
Total	**+1,603.8**	**-1,603.8**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**

Impact of different scenarios on credit loss allowances by industry

in EUR million	Point in time (effect of FLI shifts) Stage 1	Stage 2	Upside scenario Stage 1	Stage 2	Baseline scenario Stage 1	Stage 2	Downside scenario Stage 1	Stage 2
Dec 20								
Agriculture and forestry	+4.4	+15.9	+0.1	+4.3	+0.0	+2.7	-0.1	-2.1
of which significant risk	+0.1	+0.0	+0.1	+0.0	+0.1	+0.0	-0.1	-0.0
Mining	+0.3	+0.4	-0.0	+0.2	-0.0	+0.1	+0.1	-0.9
of which significant risk	+0.2	+0.1	+0.0	+0.0	+0.0	+0.0	+0.1	-0.7
Manufacturing	+20.9	+65.2	-1.4	+28.7	-1.1	+19.5	+0.9	-16.8
of which significant risk	+11.7	+22.4	-0.5	+11.3	-0.6	+8.5	+0.4	-7.3
Energy and water supply	+5.4	+8.2	-0.3	+4.2	-0.3	+3.1	-0.1	-2.0
of which significant risk	+0.0	+0.0	+0.0	+0.0	+0.0	+0.0	+0.0	+0.0
Construction	+12.6	+29.4	-2.0	+12.2	-1.3	+8.0	+0.7	-5.5
of which significant risk	+0.4	+0.2	+0.0	+0.0	+0.0	+0.0	+0.0	-0.0
Trade	+16.3	+29.7	+0.0	+10.4	+0.1	+6.3	+0.5	-6.9
of which significant risk	+6.2	+10.3	+0.4	+3.5	+0.2	+2.2	+0.5	-3.5
Transport and communication	+8.3	+15.8	-0.3	+9.4	-0.4	+7.2	-0.1	-4.8
of which significant risk	+2.8	+3.4	+0.2	+1.8	+0.1	+1.2	-0.1	-1.2
Hotels and restaurants	+9.7	+15.7	-0.4	+7.6	-0.0	+4.3	+0.8	-6.2
of which significant risk	+9.6	+15.7	-0.4	+7.6	-0.0	+4.3	+0.8	-6.2
Financial and insurance services	+5.8	+8.5	-0.2	+4.8	-0.2	+3.3	+0.1	-2.3
Real estate and housing	+24.1	+46.0	-4.3	+25.0	-2.8	+17.3	+2.0	-12.3
of which significant risk	+0.1	+0.2	+0.0	+0.2	+0.0	+0.1	+0.1	-0.3
Services	+7.2	+15.0	-0.0	+5.0	+0.1	+2.8	+0.2	-3.2
of which significant risk	+4.1	+8.2	-0.0	+3.0	+0.0	+1.7	+0.3	-2.2
Public administration	+2.7	+0.3	-0.0	+0.3	-0.0	+0.3	+0.0	-0.1
Education, health and art	+18.8	+22.2	+0.4	+12.9	+0.4	+8.2	-0.4	-6.9
of which significant risk	+2.2	+2.4	+0.0	+1.3	-0.0	+1.0	+0.0	-0.6
Households	+29.5	+88.1	-1.1	+40.4	-0.1	+19.2	-1.1	-33.4
Other	+0.2	+0.9	+0.0	+0.3	+0.0	+0.1	+0.0	-0.5
Total	**+166.2**	**+361.4**	**-9.4**	**+165.6**	**-5.6**	**+102.5**	**+3.6**	**-103.9**
Dec 19								
Agriculture and forestry	+0.9	+1.1	n/a	n/a	n/a	n/a	n/a	n/a
Mining	+0.1	+0.1	n/a	n/a	n/a	n/a	n/a	n/a
Manufacturing	+1.8	+8.6	n/a	n/a	n/a	n/a	n/a	n/a
Energy and water supply	+1.1	+0.7	n/a	n/a	n/a	n/a	n/a	n/a
Construction	+5.3	+3.4	n/a	n/a	n/a	n/a	n/a	n/a
Trade	+1.2	+7.1	n/a	n/a	n/a	n/a	n/a	n/a
Transport and communication	+1.0	+2.0	n/a	n/a	n/a	n/a	n/a	n/a
Hotels and restaurants	+1.1	+2.3	n/a	n/a	n/a	n/a	n/a	n/a
Financial and insurance services	+0.9	+1.2	n/a	n/a	n/a	n/a	n/a	n/a
Real estate and housing	+1.8	+8.9	n/a	n/a	n/a	n/a	n/a	n/a
Services	+0.3	+5.5	n/a	n/a	n/a	n/a	n/a	n/a
Public administration	+0.0	+0.0	n/a	n/a	n/a	n/a	n/a	n/a
Education, health and art	+0.9	+1.5	n/a	n/a	n/a	n/a	n/a	n/a
Households	+10.0	+48.3	n/a	n/a	n/a	n/a	n/a	n/a
Other	-0.0	+0.0	n/a	n/a	n/a	n/a	n/a	n/a
Total	**+26.4**	**+90.7**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**

Composition of credit loss allowances

in EUR million	Dec 19	Dec 20
Credit loss allowances	-3,209	-4,047
Credit loss allowances for loan commitments and financial guarantees	-293	-399
Provisions for other commitments	-17	-76
Total	**-3,518**	**-4,522**

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 potentially effective customer retention tool involving, for example, re-pricing or the offering of an additional loan or both in order to maintain the business relationship.

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 the following conditions are met:

- a minimum of two years has 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 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.

The largest part of the forbearance measures is 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.

Changes in the treatment of forbearance and default due to the Covid-19 pandemic are described in the previous chapter 'Covid-19'.

Credit risk exposure, forbearance exposure and credit loss allowances

in EUR million	Loans and advances	Debt securities	Other positions	Loan commitments	Total
Dec 20					
Gross exposure	**191,523**	**39,751**	**19,774**	**35,650**	**286,699**
thereof gross forborne exposure	3,572	3	0	151	3,726
Performing exposure	186,989	39,747	19,608	35,514	281,858
thereof performing forborne exposure	2,324	0	0	83	2,407
Credit loss allowances for performing exposure	-1,554	-39	-158	-173	-1,923
thereof credit loss allowances for performing forborne exposure	-90	0	0	-3	-93
Non-performing exposure	4,534	4	166	137	4,841
thereof non-performing forborne exposure	1,248	3	0	68	1,319
Credit loss allowances for non-performing exposure	-2,452	-2	-97	-48	-2,598
thereof credit loss allowances for non-performing forborne exposure	-617	-1	0	-10	-629
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

Types of forbearance exposure

in EUR million	Gross forborne exposure	Modification in terms and conditions	Refinancing
Dec 20			
Loans and advances	3,572	3,335	237
Debt securities	3	3	0
Loan commitments	151	126	25
Total	**3,726**	**3,464**	**262**
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**

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

Collateral

Recognition of credit collateral

Collateral Management is integrated in Underwriting Processes department of Credit Risk Portfolio division. The Group Collateral Management Policy Part 1 Credit Collateral 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 private 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 discounts 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 2020, the carrying value of these assets obtained during the reporting period amounted to EUR 15 million (2019: EUR 9 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 table compares the credit risk exposure broken down by business 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: Guarantees	Collateralised by: Real estate	Collateralised by: Other	Credit risk exposure net of collateral
Dec 20						
Retail	69,833	41,249	2,044	36,602	2,603	28,583
Corporates	82,936	30,826	5,788	19,980	5,058	52,110
Group Markets	17,131	4,648	2,206	20	2,422	12,483
ALM & LCC	44,925	17,099	1,084	1	16,013	27,826
Savings Banks	71,249	33,601	2,223	28,361	3,017	37,648
GCC	625	37	0	8	29	587
Total	**286,699**	**127,461**	**13,346**	**84,973**	**29,142**	**159,238**
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**

Credit risk exposure by financial instrument and collateral

in EUR million	Total credit risk exposure	Collateral total	Collateralised by: Guarantees	Collateralised by: Real estate	Collateralised by: Other	Credit risk exposure net of collateral	IFRS 9 impairment relevant: Neither past due nor credit impaired	IFRS 9 impairment relevant: Past due but not credit impaired	IFRS 9 impairment relevant: Credit impaired
Dec 20									
Cash and cash balances - demand deposits to credit institutions	1,140	49	0	0	49	1,091	1,114	25	0
Debt instruments held for trading	6,322	1,203	205	1	997	5,119	0	0	0
Non-trading debt instruments at FVPL	2,736	630	448	174	8	2,106	0	0	0
Debt instruments at FVOCI	8,109	781	781	0	0	7,328	8,109	0	0
Debt instruments at AC	214,790	116,305	10,154	81,555	24,596	98,486	208,472	2,058	4,260
Debt securities	29,594	1,167	1,165	0	3	28,427	29,591	0	3
Loans and advances to banks	21,469	18,964	1,258	0	17,706	2,505	21,469	0	0
Loans and advances to customers	163,727	96,173	7,731	81,554	6,888	67,553	157,411	2,058	4,257
Trade and other receivables	1,405	20	2	1	16	1,385	881	463	61
Finance lease receivables	4,235	2,355	56	251	2,047	1,880	3,878	155	201
Debt instruments held for sale in disposal groups	0	0	0	0	0	0	0	0	0
Positive fair value of hedge accounting derivatives	205	59	0	0	59	146	0	0	0
Off-balance sheet exposures	47,758	6,061	1,700	2,991	1,370	41,697	41,808	36	232
thereof other commitments	5,682	843	304	103	436	4,839	0	0	0
Total	**286,699**	**127,461**	**13,346**	**84,973**	**29,142**	**159,238**	**264,262**	**2,738**	**4,754**
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**

The collateral attributable to exposures that are credit-impaired at 31 December 2020 amounts to EUR 2,013 million (2019: 1,881 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.

Loans and advances to customers by business segment and risk category

in EUR million	Low risk	Management attention	Substandard	Non-performing	Total
Dec 20					
Retail	52,511	5,013	2,007	1,495	61,025
Corporates	44,961	8,735	2,247	1,624	57,567
Group Markets	565	10	1	1	577
ALM & LCC	65	50	124	4	243
Savings Banks	41,535	6,449	1,016	1,394	50,393
GCC	23	17	158	17	215
Total	**139,660**	**20,275**	**5,552**	**4,534**	**170,020**
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**

Loans and advances to customers by geographical segment and risk category

in EUR million	Low risk	Management attention	Substandard	Non-performing	Total
Dec 20					
Austria	**86,658**	**10,610**	**1,708**	**2,401**	**101,376**
EBOe & Subs.	31,623	2,928	504	578	35,634
Savings Banks	41,535	6,449	1,016	1,394	50,393
Other Austria	13,500	1,233	188	428	15,349
CEE	**52,956**	**9,645**	**3,687**	**2,116**	**68,404**
Czech Republic	22,899	4,771	1,275	651	29,597
Slovakia	12,481	1,227	1,216	364	15,289
Romania	7,317	1,231	349	419	9,316
Hungary	3,512	851	433	151	4,947
Croatia	5,465	1,237	303	506	7,511
Serbia	1,281	327	110	25	1,744
Other	**46**	**20**	**158**	**17**	**240**
Total	**139,660**	**20,275**	**5,552**	**4,534**	**170,020**
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**

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 20												
Retail	1,495	1,494	61,025	60,452	-1,466	599	599	2.4%	2.5%	98.2%	40.1%	40.1%
Corporates	1,624	1,614	57,567	57,466	-1,530	631	630	2.8%	2.8%	94.8%	38.9%	39.1%
Group Markets	1	1	577	577	-3	0	0	0.1%	0.1%	378.4%	0.0%	0.0%
ALM & LCC	4	4	243	243	-11	0	0	1.6%	1.6%	278.6%	1.8%	1.8%
Savings Banks	1,394	1,391	50,393	50,383	-976	732	729	2.8%	2.8%	70.2%	52.5%	52.4%
GCC	17	15	215	211	-16	8	6	7.8%	6.9%	111.4%	47.3%	39.4%
Total	**4,534**	**4,518**	**170,020**	**169,333**	**-4,002**	**1,970**	**1,964**	**2.7%**	**2.7%**	**88.6%**	**43.5%**	**43.5%**
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%**

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

Loans and advances to customers 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	Not subject to IFRS 9 impairment	Stage 1	Stage 2	Stage 3	POCI	Stage 2	Stage 3	POCI
Dec 20												
Retail	51,256	7,638	1,443	115	573	-129	-455	-849	-34	6.0%	58.8%	29.4%
Corporates	42,700	13,097	1,466	203	100	-135	-443	-865	-88	3.4%	59.0%	43.2%
Group Markets	532	44	1	0	0	-1	-2	0	0	4.5%	5.3%	100.0%
ALM & LCC	213	26	4	0	0	-1	-6	-4	0	21.7%	115.2%	0.0%
Savings Banks	38,616	10,355	1,363	49	10	-93	-287	-592	-4	2.8%	43.5%	7.6%
GCC	26	169	17	0	4	0	0	-16	0	0.1%	93.7%	0.0%
Total	**133,343**	**31,329**	**4,293**	**368**	**687**	**-358**	**-1,193**	**-2,326**	**-125**	**3.8%**	**54.2%**	**34.1%**
Dec 19												
Retail	53,491	4,067	1,379	136	340	-116	-214	-827	-44	5.3%	60.0%	32.8%
Corporates	49,049	4,371	1,066	233	132	-137	-157	-682	-93	3.6%	64.0%	40.1%
Group Markets	888	46	0	0	0	-1	-1	0	0	3.1%	98.7%	100.0%
ALM & LCC	274	17	59	0	0	-1	-5	-20	0	29.9%	34.5%	0.0%
Savings Banks	41,373	5,074	1,320	46	9	-86	-143	-629	-3	2.8%	47.7%	5.5%
GCC	27	3	13	0	3	0	0	-13	0	0.1%	96.6%	0.0%
Total	**145,104**	**13,578**	**3,837**	**415**	**483**	**-341**	**-520**	**-2,172**	**-140**	**3.8%**	**56.6%**	**33.9%**

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 226 million (2019: 281 million), the non-defaulted part to EUR 142 million (2019: 134 million).

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 20												
Austria	**2,401**	**2,388**	**101,376**	**101,267**	**-1,670**	**1,182**	**1,179**	**2.4%**	**2.4%**	**69.9%**	**49.2%**	**49.4%**
EBOe & Subs.	578	578	35,634	35,622	-367	318	318	1.6%	1.6%	63.4%	54.9%	54.9%
Savings Banks	1,394	1,391	50,393	50,383	-976	732	729	2.8%	2.8%	70.2%	52.5%	52.4%
Other Austria	428	419	15,349	15,262	-327	132	132	2.8%	2.7%	78.1%	30.9%	31.5%
CEE	**2,116**	**2,115**	**68,404**	**67,829**	**-2,317**	**780**	**779**	**3.1%**	**3.1%**	**109.5%**	**36.9%**	**36.8%**
Czech Republic	651	651	29,597	29,596	-750	178	178	2.2%	2.2%	115.1%	27.3%	27.3%
Slovakia	364	364	15,289	15,289	-391	145	145	2.4%	2.4%	107.4%	39.8%	39.8%
Romania	419	418	9,316	9,316	-512	154	154	4.5%	4.5%	122.5%	36.7%	36.7%
Hungary	151	150	4,947	4,374	-167	90	89	3.0%	3.4%	111.4%	59.8%	59.6%
Croatia	506	506	7,511	7,511	-454	210	210	6.7%	6.7%	89.7%	41.5%	41.5%
Serbia	25	25	1,744	1,744	-43	4	4	1.5%	1.5%	168.2%	14.1%	14.1%
Other	**17**	**15**	**240**	**237**	**-16**	**8**	**6**	**7.0%**	**6.1%**	**111.4%**	**47.3%**	**39.4%**
Total	**4,534**	**4,518**	**170,020**	**169,333**	**-4,002**	**1,970**	**1,964**	**2.7%**	**2.7%**	**88.6%**	**43.5%**	**43.5%**
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%**

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 considered.

Loans and advances to customers
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	Not subject to IFRS 9 impairment	Stage 1	Stage 2	Stage 3	POCI	Stage 2	Stage 3	POCI
Dec 20												
Austria	**78,106**	**20,748**	**2,341**	**71**	**109**	**-139**	**-514**	**-1,014**	**-4**	**2.5%**	**43.3%**	**5.3%**
EBOe & Subs.	28,688	6,352	575	6	12	-31	-119	-217	0	1.9%	37.6%	0.1%
Savings Banks	38,616	10,355	1,363	49	10	-93	-287	-592	-4	2.8%	43.5%	7.6%
Other Austria	10,803	4,041	403	16	87	-15	-107	-205	0	2.7%	50.8%	0.0%
CEE	**55,187**	**10,410**	**1,935**	**296**	**575**	**-219**	**-679**	**-1,297**	**-122**	**6.5%**	**67.0%**	**41.1%**
Czech Republic	24,980	3,958	611	47	2	-83	-232	-413	-22	5.9%	67.6%	46.1%
Slovakia	12,514	2,390	301	84	0	-31	-128	-175	-57	5.4%	58.1%	68.5%
Romania	6,818	2,044	387	66	0	-38	-170	-287	-17	8.3%	74.3%	25.1%
Hungary	3,354	820	124	76	573	-16	-59	-76	-16	7.2%	61.5%	21.2%
Croatia	5,973	1,028	489	22	0	-41	-76	-327	-9	7.4%	66.8%	43.5%
Serbia	1,548	171	23	2	0	-10	-13	-18	-1	7.8%	78.6%	35.5%
Other	**49**	**171**	**17**	**0**	**4**	**0**	**0**	**-16**	**0**	**0.1%**	**93.7%**	**0.0%**
Total	**133,343**	**31,329**	**4,293**	**368**	**687**	**-358**	**-1,193**	**-2,326**	**-125**	**3.8%**	**54.2%**	**34.1%**
Dec 19												
Austria	**85,639**	**9,700**	**2,123**	**68**	**109**	**-130**	**-230**	**-1,004**	**-3**	**2.4%**	**47.3%**	**3.8%**
EBOe & Subs.	31,130	3,001	496	6	12	-29	-55	-206	0	1.8%	41.5%	0.0%
Savings Banks	41,373	5,074	1,320	46	9	-86	-143	-629	-3	2.8%	47.7%	5.5%
Other Austria	13,136	1,624	307	16	88	-16	-31	-169	0	1.9%	54.9%	0.0%
CEE	**59,415**	**3,875**	**1,701**	**347**	**372**	**-210**	**-290**	**-1,155**	**-138**	**7.5%**	**67.9%**	**39.8%**
Czech Republic	27,169	1,467	489	32	31	-68	-77	-335	-19	5.3%	68.4%	60.1%
Slovakia	13,519	474	358	85	0	-35	-36	-220	-53	7.6%	61.6%	62.2%
Romania	7,102	1,272	300	97	1	-37	-122	-229	-29	9.6%	76.3%	29.9%
Hungary	4,071	247	80	94	340	-13	-25	-55	-21	10.3%	69.4%	22.8%
Croatia	6,154	352	456	37	0	-48	-24	-303	-15	6.8%	66.4%	39.3%
Serbia	1,399	63	18	2	0	-9	-6	-13	-1	9.0%	73.6%	38.1%
Other	**50**	**3**	**13**	**0**	**3**	**0**	**0**	**-13**	**0**	**0.1%**	**96.6%**	**0.0%**
Total	**145,104**	**13,578**	**3,837**	**415**	**483**	**-341**	**-520**	**-2,172**	**-140**	**3.8%**	**56.6%**	**33.9%**

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 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 2020, which is still subject to enforcement activity, totals EUR 114 million (2019: 253 million).

Loans and advances to customers by geographical segment and currency

in EUR million	EUR	CEE-LCY	CHF	USD	Other	Total
Dec 20						
Austria	**93,915**	**0**	**2,672**	**2,518**	**2,272**	**101,376**
EBOe & Subs.	34,395	0	1,124	41	73	35,634
Savings Banks	47,503	0	1,505	57	1,329	50,393
Other Austria	12,017	0	43	2,420	869	15,349
CEE	**29,657**	**38,515**	**22**	**154**	**56**	**68,404**
Czech Republic	4,069	25,446	0	41	40	29,597
Slovakia	15,269	0	0	3	16	15,289
Romania	3,108	6,130	0	78	0	9,316
Hungary	1,277	3,643	3	23	0	4,947
Croatia	4,624	2,864	19	4	0	7,511
Serbia	1,310	431	0	3	0	1,744
Other	**175**	**45**	**4**	**16**	**0**	**240**
Total	**123,747**	**38,560**	**2,698**	**2,687**	**2,327**	**170,020**
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**

'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 2020, Erste Group held a further reduced residual portfolio of securitisations; there were no new investments undertaken and all repayments were made as scheduled in 2020.

As of year-end 2020, the carrying amount of Erste Group's securitisation portfolio totalled EUR 13.8 million. The entire exposure consists of three individual transactions, which are triple-, double- and single-A rated.

35. 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 based on the method of historic simulation with a one-sided confidence level of 99%, a holding period of one day, and a look back period of two years.

Back-testing is used to constantly monitor the validity of the internal market risk model. 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 given day should exceed the VaR estimate statistically only two to three times a year (1% of around 250 workdays).

A known limitation of the VaR approach is that 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 within the look-back period of two yearsto calculate the VaR for the current position of the bank. To address this limitation and in order to investigate any extreme market situations not reflected in the VaR approach, stress tests are conducted at Erste Group. These stress tests are designed to cover market movements of low probability and high impact.

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 also defined, in which selected market factors are subject 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 modelled after certain crisis events such as '9/11'or the 'Lehman bankruptcy' form the basis of the stress calculation. In addition, hypothetical stress test scenarios are defined based on analysis of the current economic environment and projections of adverse developments of key market risk drivers. These analyses are made available to the management board within the scope of the regular market risk reporting.

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 risk-weighted assets (RWAs) 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 in VaR, SVaR, and sensitivity limits 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 entirely consistent with the overall RWA limit. The RWA limit is broken down into dedicated VaR and SVaR limits and assigned in a top-down procedure to the individual trading units. Additionally, in a bottom-up procedure, sensitivity limits are assigned on trading desk level in order to control exposures to individual risk drivers and ensure sufficient diversification. These are then aggregated and applied as a second-limit layer to the VaR and SVaR limits..

Limit compliance is verified at two levels: by the appropriate local 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 the trading units or risk management on an ad-hoc basis.

Trading book VaR and SVaR are calculated daily at group level and reported to all key stakeholders including the relevant board members. In case of a limit breach, the escalation procedure ensures the timely remediation of the limit breach.

The VaR for banking book positions (BB-VaR) is based on the ICAAP calculation of Erste Group where 250.000 historical scenarios are calculated with a theoretical holding period of 1 year and a confidence level of 99.92%. The same calculation is used for the BB-VaR with a 1 day holding period and a 99% confidence level, consistent with the trading book methodology. The results of both calculations, ICAAP and BB-VaR are 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 20							
Erste Group	25,700	21,359	4,251	1,626	1,388	499	544
Banking book	22,200	17,950	4,251	-	-	-	-
Trading book	3,500	3,409	-	1,626	1,388	499	544
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

Interest rate risk in the banking book (IRRBB)

Interest rate risk is the risk of an adverse change in both, the earnings and economic 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 off-balance instruments are used to calculate the impact of certain interest rate scenarios on their economic value and their earnings. Limits and thresholds are implemented for both aspects of the IRRBB, the change in economic value as well as the change in earnings. Positions without contractually defined maturity or repricing structures, such as demand deposits or overdrafts are modelled accordingly. For positions where the customer has the right to prepay his debt prepayment models are applied.

During 2020, some new models were introduced in Erste Group such as a demand deposit model for private accounts in Česká spořitelna, a.s. or a savings accounts model for the Austrian savings banks and EBOe. Furthermore, several existing models have been recalibrated.

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 20					
Fixed-interest gap in EUR positions	5,223.4	3,675.6	2,984.1	3,574.3	1,590.4
Fixed-interest gap in CZK positions	4,158.2	3,512.6	2,554.1	2,015.2	1,092.0
Fixed-interest gap in HUF positions	1,007.6	523.9	3,017.2	204.2	43.6
Fixed-interest gap in RON positions	1,679.5	846.2	205.5	76.1	0.1
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

Exchange rate risk

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. In the trading book, these risks might originate from customer-related or trading operations and are monitored and managed on a daily basis. Foreign currency exposure is subject to regulatory and internal limits. The internal limits for the trading book 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 and 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 2020 and the corresponding open positions of these currencies as of 31 December 2019 (excluding foreign currency positions arising from equity participation).

Open foreign currency positions

in EUR thousand	Dec 19	Dec 20
Czech Koruna (CZK)	-61,217	-189,279
Hungarian Forint (HUF)	-18,943	19,284
Swiss Franc (CHF)	-18,262	6,595
Romanian Leu (RON)	12,494	-5,184
Polish Zloty (PLN)	-2,137	4,990
Serbian Dinar (RSD)	190	3,698
Swedish Krona (SEK)	1089	-2,133
US Dollar (USD)	11,014	1,491
Croatian Kuna (HRK)	11,570	-1,284
British Pound (GBP)	9,919	-1,069

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.

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 a 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.

36. 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 Requirements Regulation (CRR) - Regulation (EU) No 575/2013, Commission Delegated Regulation (EU) 2015/61 amended by Commission Delegated Regulation (EU) 2018/1620, 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.

In 2020, Erste Group implemented a new technical environment for monitoring and management of liquidity risk starting with the Liquidity Coverage Ratio (LCR). Implementation of further metrics such as Net Stable Funding Ratio (NSFR), Additional Liquidity Monitoring Metrics (ALMM) etc. is planned for 2021. The environment is based on daily deal level data from the significant entities in the CRR Liquidity scope and is planned to provide centrally calculated cash flows for all banking book risk reports.

Liquidity strategy
In 2020, customer deposits remained the primary source of funding for Erste Group. The growth in loan volume was lower than inflows of customer deposits, the excess liquidity was mainly placed with central banks.

With regards its own issuance, Erste Group Bank AG issued EUR 5.2 billion in bonds in 2020 (2019: EUR 4.0 billion) which in net terms was approx. EUR 1.0 billion above the original plan at the beginning of the year due to pre-funding activities. EUR 750 million (2019: EUR 1.0 billion) was collected via a mortgage covered bond in benchmark size. EUR 2.6 billion (2019: EUR 1.3 billion) was collected by issuing senior preferred bonds, of which EUR 2.0 billion (2019: 0.5 billion) were printed via three benchmark sized transactions and the rest via private placements or the retail network. Tier 2 subordinated debt issuance amounted to EUR 0.6 billion (2019: EUR 0.6 billion). Furthermore, two additional tier 1 benchmark bonds EUR 1.25 billion (2019: EUR 0.5 billion) was issued. This was offset by repurchases of EUR 62 million (2019: EUR 266 million). The average tenor of all new issues in 2020 is approximately 7.1 years (2019: 7.1 years).

Erste Group's total TLTRO participation in 2020 was increased to EUR 14.1 billion (2019: 1.9 billion).

Liquidity ratios

The regulatory liquidity ratios Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR) are well implemented in Erste Group. Erste Group uses the above mentioned technical environment to calculate the LCR according to the Delegated Regulation (EU) 2015/61 (LCR DA) amended by Delegated Regulation (EU) 2018/1620. In 2019, the calculation of the NSFR was adjusted in order to fulfil the requirements as defined in the proposal for amending the Directive 2013/36/EU (Draft CRR 2). The implementation of the official NSFR according to the Regulation (EU) 2019/876 amending the Regulation (EU) No 575/2013 (final CRR 2) is planned in 2021 in the new technical environment.

Methods and instruments employed

Short-term insolvency risk is monitored by calculating the survival period anlysis (SPA) 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. The SPA is covering a stress horizon of up to 12 months.

Erste Group calculates LCR 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%. 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 LCR 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 analysis (SPA), internal stress testing and by internal LCR targets at both entity and group level. The development of liquidity metrics and limit breaches are reported to the Operational Liquidity Committee (OLC) as well as 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 LCR for internal monitoring and steering of the liquidity position. 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 (CBC).

The following table shows the LCR DA as of 31 December 2019 and 31 December 2020:

Liquidity coverage ratio

in EUR million	Dec 19	Dec 20
Liquidity buffer	46,315	58,218
Net liquidity outflow	31,299	30,754
Liquidity coverage ratio	148.0%	189.3%

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.

The following table shows the structural liquidity gaps as of 31 December 2019 and 31 December 2020:

Structural liquidity gap

	0-12 months		1-3 years		3-5 years		> 5 years	
in EUR million	Dec 19	Dec 20	Dec 19	Dec 20	Dec 19	Dec 20	Dec 19	Dec 20
Liquidity gap	13,548	30,829	-5,321	-6,329	-3,360	-5,487	-6,465	-20,221

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 27.4 billion (2019: EUR 33.6 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.

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 20					
Cash, excess reserve	23,741	0	0	0	0
Liquid assets	31,000	-2,904	-2,121	-801	-2,037
Other central bank eligible assets	3,223	-88	1,534	-188	-205
Thereof retained covered bonds	601	0	1,677	0	0
Thereof credit claims	774	0	0	0	0
Counterbalancing capacity	**57,964**	**-2,992**	**-587**	**-990**	**-2,242**
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**

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. The table below shows the undiscounted principal cash flows for all financial liabilities, derivative liabilities contain additionally the interest cash flows.

Financial liabilities

in EUR million	Carrying amounts	Contractual cash flows	< 1 month	1-12 months	1-5 years	> 5 years
Dec 20						
Non-derivative liabilities	**246,518**	**255,108**	**175,767**	**25,824**	**37,358**	**16,159**
Deposits by banks	24,771	25,141	4,671	1,486	17,408	1,576
Customer deposits	191,070	194,088	164,600	20,655	7,330	1,503
Debt securities in issue	24,587	31,016	6,470	3,324	10,129	11,092
Subordinated liabilities	6,089	4,863	25	359	2,491	1,988
Derivative liabilities	**2,226**	**1,512**	**-5**	**524**	**666**	**326**
Derivatives liabilities with netted Cash Flows	-	1,469	237	293	606	333
Derivatives liabilities with gross Cash Flow (net)	-	43	-242	231	60	-7
Outflows	-	51,265	38,785	7,464	4,032	983
Inflows	-	-51,222	-39,027	-7,234	-3,972	-990
Contingent liabilities	**-**	**47,758**	**47,758**	**0**	**0**	**0**
Financial guarantees	-	6,426	6,426	0	0	0
Commitments	-	41,332	41,332	0	0	0
Other financial liabilities	**1,286**	**1,286**	**1,286**	**0**	**0**	**0**
Total	**250,030**	**305,664**	**224,806**	**26,348**	**38,024**	**16,485**
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**

As of year-end 2020, the currency composition of the non-derivative liabilities consisted of approximately 70% EUR, 19% CZK, 3% RON, 3% USD, and 5% in other currencies (2019: 69% EUR, 18% CZK, 4% 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 1,054 million (2019: EUR 960 million) in the severe combined idiosyncratic and market crisis scenario as of 31 December 2020.

As of 31 December 2020, the volume of customer deposits due on demand amounted to EUR 144.9 billion (2019: EUR 121.6 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 (2019: 65% private individuals, 15% large corporates, 14% small and medium-sized enterprises, 4% public sector, and 2% non-banking financial institutions).

37. 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.