# Disclosure Report 2019

pursuant to Part Eight
of the Capital Requirements Regulation (CRR)

ERSTE Group

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# Definitions

## Reporting period

The report is based on figures as of 31 December 2019. In case tables include information on more periods, figures belonging to each period are properly marked.

## Exposure for the regulatory purpose

Regulatory exposure corresponds to exposure amount applied in credit risk Standardised approach (Part Three, Title II, Chapter 2, Article 111 of the CRR) or to exposure at default (EAD) in case of Internal Rating Based approach (Part Three, Title II, Chapter 3, Article 166-168 of the CRR).

## Exposure classes

The breakdown by exposure class is presented in accordance with Part Three, Title II, Chapter 2, Article 112 (referred to as Standardised Approach) and in accordance with Part Three, Title II, Chapter 3, Section 1, Article 147 (referred to as IRB Approach) of the Capital Requirements Regulation (CRR).

## Gross carrying amount

For financial assets at amortised cost the gross carrying amount includes the contractual amount outstanding at the reporting period, adjusted by any interest accrued for the period based on the effective interest rate of the asset. For financial instruments measured at fair value through other comprehensive income (FVTOCI), gross carrying amount is fair value after adding back the accumulated impairment recognized against OCI. For performing debt instruments measured at fair value, gross carrying amount is fair value, while for non-performing debt instruments is fair value after adding back accumulated negative fair value changes.

## Accounting values

The accounting values correspond to the book values (carrying amount) reported in financial statements. Carrying amounts in case of assets measured at amortised cost are the gross carrying amounts after deduction of the loss allowance. For financial instruments measured at fair value through other comprehensive income (FVTOCI) and fair value through profit and lossis fair value. Off-balance represent nominal values of off-balance item (guarantees given, loan commitments, other commitments), before application of the CCF. Net value in case of off-balance are nominal values after deduction of provisions for off-balance items.

## Credit risk adjustments

Credit risk adjustments include loss allowances and provisions calculated in line with the relevant accounting standards. Credit risk adjustments presented in the report are calculated in line with the IFRS 9 and IAS 37 standards. Loss allowances, according to IFRS 9, represent 12 months or lifetime expected loss for financial assets measured at amortised cost (including lease and trade receivables), financial assets measured at FVTOCI and provisions for off balance items (loan commitments and financial guarantees). Other commitments, booked as off balance items, are subject to provisioning in line with IAS37.

## Write-offs

Derecognition of financial instruments as the bank has no reasonable expectation of recovering the contractual cash flows. Write-offs include (1) decrease of book value directly recognised in profit and loss and (2) utilisation of allowances (decrease of book value based on allowances created in previous period).

# Disclosures in other published reports

A number of CRR disclosure requirements are covered by Erste Group's annual report. The respective articles of the CRR and the corresponding page number(s) of the annual report for 2019 can be found in the table below.

| CRR article | | Disclosure requested in the CRR article | Reference to annual report | Sub-chapter in annual report | Page |
|---|---|---|---|---|---|
| 435-1(b) | Risk management objectives and policies | Structure and organisation of the relevant risk management function including information on its authority and statute, or other appropriate arrangements | Note 46. Risk management | Risk management | 193-198 |
| 435-1(c) | Risk management objectives and policies | Scope and nature of risk reporting and measurement systems | Note 46. Risk management | Risk management | 198-242 |
| 435-2(a) | Governance arrangements | Number of directorships held by members of the management body | Corporate governance report | | 82-83 |
| 435-2(b) | Governance arrangements | Recruitment policy for the selection of members of the management body and their actual knowledge, skills and expertise | Corporate governance report | Management Board | 82 |
| 435-2(c) | Governance arrangements | Policy on diversity with regard to selection of members of the management body, its objectives and any relevant targets set out in that policy, and the extent to which these objectives and targets have been achieved | Corporate governance report | Promoting women to management boards, supervisory boards and managing positions | 93-94 |
| 436(b) | Scope of application | Differences in the basis of consolidation for accounting and prudential purposes | Note 53. Own funds and capital requirements | Comparison of consolidation for accounting purposes and regulatory purposes | 259-261 |
| 436(c) | Scope of application | Material practical or legal impediment to the prompt transfer of own funds or repayment of liabilities | Note 53. Own funds and capital requirements | Impediments to the transfer of own funds | 261 |
| 436(d) | Scope of application | Aggregate amount by which the actual own funds are less than required in all subsidiaries not included in the consolidation | Note 53. Own funds and capital requirements | Total capital shortfall of all subsidiaries not included in the consolidation | 261 |
| 436(e) | Scope of application | Circumstance of making use of the provisions | Note 53. Own funds and capital requirements | Total capital shortfall of all subsidiaries not included in the consolidation | 261 |
| 437-1(a) | Own funds | Full reconciliation of Common Equity Tier 1 items, Additional Tier 1 items, Tier 2 items and filters and deductions applied pursuant to Articles 32 to 35, 36, 56, 66 and 79 to own funds of the institution and the balance sheet in the audited financial statements of the institution | Note 53. Own funds and capital requirements | Own funds reconciliation | 266-270 |
| 437-1(d) | Own funds | Separate disclosure of the nature and amounts of each prudential filter each deduction made and of items not deducted | Note 53. Own funds and capital requirements | Own funds template | 270-276 |
| 437-1(e) | Own funds | Description of all restrictions applied to the calculation of own funds in accordance with this regulation and the instruments, prudential filters and deductions to which those restrictions apply | Note 53. Own funds and capital requirements | Own funds template | 270-276 |

Table 1: Overview of CRR disclosure requirements covered by Erste Group's annual report

Metrics that are identical to the figures published in the annual report, financial statements represent audited data, while the remaining information in the Pillar 3 Disclosure Report is unaudited by external audit.

### Own Funds - Capital Instruments – DISCLOSURE REQUIREMENTS Art. 437 (1) (b) AND (c) CRR

On the website of Erste Group https://www.erstegroup.com/en/investors/reports/regulatory-reports, all capital instruments that are eligible at Erste Group consolidated level are listed in a separate document based on the template published in the Official Journal of the EU No. 1423/2013 on 20 December 2013. Furthermore, the full terms and conditions of the capital instruments are available on Erste Group's website or on the website of each of the issuing credit institutions respectively.

### Indicators of Global Systemic Importance – DISCLOSURE REQUIREMENTS Art. 441 CRR

The data template for the indicators of Global Systemic Importance is disclosed in a separate document, which is published on Erste Group's website under https://www.erstegroup.com/en/investors/reports/regulatory-reports

### Remuneration Policy – DISCLOSURE REQUIREMENTS Art. 450 CRR

Information on the remuneration policy and practices at Erste Group is disclosed in a separate document, which is published on Erste Group's website under https://www.erstegroup.com/en/investors/reports/regulatory-reports.

### Outline of the differences in the scopes of consolidation by entity level – DISCLOSURE REQUIREMENTS Art. 436 CRR

Description of the differences in the scope of the consolidation at the level of each entity based on Guidelines on disclosure requirements under Part Eight of the Regulation (EU) No 575/2013 is available at the Erste Group's website under https://www.erstegroup.com/en/investors/reports/regulatory-reports.

# Overview of non-applicable disclosures

The following table provides an overview of the Articles of the CRR not covered by the Disclosure Report or included in other disclosures as mentioned above with an explanation of reasons for non-disclosure in this report.

| CRR article | | Disclosure requested in the CRR article | Reason for non-applicable disclosure |
|---|---|---|---|
| 437 -1 (f) | Own funds | Where institutions disclose capital ratios calculated using elements of own funds determined on a basis other than that laid down in this Regulation, a comprehensive explanation of the basis on which those capital ratios are calculated | Erste Group does not disclose capital ratios calculated using elements of own funds determined on a basis other than that laid down in the CRR. |
| 438 (b) | Capital requirements | Upon demand from the relevant competent authority, the result of the institution's internal capital adequacy assessment process including the composition of the additional own funds requirements based on the supervisory review process as referred to in point (a) of Article 104-1 of Directive 2013/36/EU | There is no demand from the relevant competent authority. |
| 439 (i) | Exposure to counterparty credit risk | Estimate of α if the institution has received the permission of the competent authorities to estimate α | Erste Group does not apply any own estimates of the scaling factor. |
| 449 (i) | Exposure to securitisation positions | Disclosure of types of SSPE that the institution, as sponsor, uses to securitise third-party exposures | Erste Group is not acting as a sponsor of an asset-backed commercial paper programme or another securitisation scheme according to Article 4 -1 -14 CRR. |
| 449 (j) (vi) | Exposure to securitisation positions | Policies for recognising liabilities on the balance sheet for arrangements that could require the institution to provide financial support for securitised assets | No implicit support according to Art. 248 (1) CRR was provided to BEE SME 2018-1 and CSAS 2019-1 securitisation transactions by Erste Group. |
| 449 (l) | Exposure to securitisation positions | Description of the Internal Assessment Approach for calculation of the risk weighted exposure amounts | The Internal Assessment Approach for calculation of the risk weighted exposure amounts is not applied by Erste Group |
| 449 (n) (iv) | Exposure to securitisation positions | Separately for the trading and the non-trading book, the following information broken down by exposure type:<br>for securitised facilities subject to the early amortisation treatment, the aggregate drawn exposures attributed to the originator's and investors' interests respectively, the aggregate capital requirements incurred by the institution against the originator's interest and the aggregate capital requirements incurred by the institution against the investor's shares of drawn balances and undrawn lines | Erste Group does not act as originator of securitised facilities subject to the early amortisation treatment. |
| 449 (o) (ii) | Exposure to securitisation positions | Separately for the trading and the non-trading book, the aggregate amount of re-securitisation exposures retained or purchased and the exposure to financial guarantors | Erste Group does not hedge its re-securitisation positions. |
| 449 (q) | Exposure to securitisation positions | For the trading book, the total outstanding exposures securitised by the institution and subject to a capital requirement for market risk, broken down into traditional/synthetic and by exposure type | There are no exposures in the trading book securitised by Erste Group. |
| 449 (r) | Exposure to securitisation positions | Whether the institution has provided support within the terms of Article 248-1 and the impact on own funds | No implicit support according to Art. 248 (1) CRR has been provided to BEE SME 2018-1 and CSAS 2019-1 securitisation transactions by Erste Group. |
| 455 (a) (ii) | Use of Internal Market Risk Models | Where applicable, for the internal models for incremental default and migration risk and for correlation trading, the methodologies used and the risks measured through the use of an internal model including a description of the approach used by the institution to determine liquidity horizons, the methodologies used to achieve a capital assessment that is consistent with the required soundness standard and the approaches used in the validation of the model | Erste Group does not use internal models for incremental default and migration risk and for correlation trading. |
| 455 (d) (iii) | Use of Internal Market Risk Models | Highest, lowest and mean of risk numbers for incremental default and migration risk and for the specific risk of the correlation trading portfolio over the reporting period and as per the period-end | Erste Group does not use internal models for incremental default and migration risk and does not have a correlation trading portfolio. |
| 455 (f) | Use of Internal Market Risk Models | Weighted average liquidity horizon for each sub-portfolio covered by the internal models for incremental default and migration risk and for correlation trading. | Erste Group does not use internal models for incremental default and migration risk and for correlation trading. |

Table 2: Overview of non-applicable disclosures

## List of abbreviations

| | |
|---|---|
| **AC** | Amortised Cost |
| **ALCO** | Asset Liability Committee |
| **ALM** | Asset Liability Management |
| **AMA** | Advanced Measurement Approach |
| **BaSAG** | Bundesgesetz über die Sanierung und Abwicklung von Banken; Austrian Banking Recovery and Resolution Law |
| **BIA** | Basic Indicator Approach |
| **CCF** | Credit Conversion Factor |
| **CCP** | Central Counterparty |
| **CEE** | Central and Eastern Europe |
| **CFP** | Contingency Funding Plan |
| **CIS** | Commonwealth of Independent States |
| **CLA** | Credit Loss Allowances |
| **COREP** | Common Reporting Framework |
| **CRD IV** | Capital Requirements Directive IV |
| **CRM** | Credit Risk Mitigation |
| **CRO** | Chief Risk Officer |
| **CRR** | Capital Requirements Regulation |
| **EAD** | Exposure at Default |
| **EBA** | European Banking Authority |
| **EBOe** | Erste Bank der Oesterreichischen Sparkassen AG |
| **ECB** | European Central Bank |
| **ECL** | Expected Credit Loss |
| **EEPE** | Effective expected positive exposure |
| **EHQLA** | Extremely High Quality Liquid Assets |
| **ERM** | Enterprise-wide Risk Management |
| **EU** | European Union |
| **EVE** | Economic Value of Equity |
| **FINREP** | Financial Reporting |
| **FMA** | Austrian Financial Market Authority |
| **FTP** | Funds Transfer Pricing |
| **FVTOCI** | Fair Value through Other Comprehensive Income |
| **FVTPL** | Fair Value through Profit and Loss |
| **FX** | Foreign exchange |
| **GLMRM** | Group Liquidity and Market Risk Management |
| **HMC** | Holding Model Committee |
| **HQLA** | High quality liquid assets |
| **IAS** | International Accounting Standards |
| **ICAAP** | Internal Capital Adequacy Assessment Process |
| **IFRS** | International Financial Reporting Standards |
| **ILAAP** | Internal Liquidity Adequacy Assessment Process |
| **IMA** | Internal Models Approach |
| **IMM** | Internal Model Method |
| **IRB** | Internal Ratings Based |
| **ISDA** | International Swaps and Derivatives Association |
| **LCR** | Liquidity Coverage Ratio |
| **LT EAD** | Life-time Exposure at Default |
| **LT PD** | Life-time Probability at Default |
| **LGD** | Loss Given Default |
| **MRC** | Market Risk Committee |
| **MRS** | Market Risk Solution |
| **MVoE** | Market Value of Equity |
| **NFR** | Non-Financial Risks |
| **NSFR** | Net Stable Funding Ratio |
| **NPV** | Net Present Value |
| **OeNB** | Oesterreichische Nationalbank; Austrian National Bank |
| **OLC** | Operational Liquidity Committee |
| **OTC** | Over-the-counter |
| **PD** | Probability of Default |
| **POCI** | Purchased or originated credit-impaired |
| **PPU** | Permanent Partial Use |
| **QCCP** | Qualifying Central Counterparty |
| **QIS** | Quantitative Impact Study |
| **RAS** | Risk Appetite Statement |
| **RCC** | Risk-bearing Capacity Calculation |
| **RTS** | Regulatory Technical Standards |
| **RW** | Risk Weight |
| **RWA** | Risk-Weighted Assets |
| **ROCC** | Regional Operational Conduct Committee |
| **SFT** | Securities Financing Transactions |
| **SICR** | Significant Increase in Credit Risk |
| **SL** | Specialised Lending |
| **S&P** | Standard & Poor’s |
| **SME** | Small and Medium-sized Enterprises |
| **SPA** | Survival Period Analysis |
| **SRC** | Standard Risk Costs |
| **SRM** | Single Resolution Mechanism |
| **SSPE** | Securitisation Special Purpose Entity |
| **STA** | Standardised Approach |
| **sVaR** | Stressed Value at Risk |
| **TPU** | Temporary Partial Use |
| **VaR** | Value at Risk |

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# Introduction

### DISCLOSURE REQUIREMENTS Art. 436 (a) CRR

The provisions of Part Eight of the Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012, hereinafter referred to as the Capital Requirements Regulation (CRR) apply to Erste Group Bank AG (hereinafter referred to as Erste Group) on a consolidated basis. Erste Group was founded in 1819 as the first Austrian savings bank. In 1997, Erste Group went public on the Vienna Stock Exchange with a strategy to expand its retail business into the part of Central and Eastern Europe (CEE) that had realistic prospects of joining the European Union. Against the backdrop of emerging European integration and limited potential for growth in Austria, Erste Group acquired savings banks and financial institutions in countries adjacent to Austria from the late 1990s onwards. Today, Erste Group has an extensive presence in its core markets of Austria, the Czech Republic, Slovakia, Romania, Hungary and Croatia – all of which are members of the European Union. In Serbia, which has been assigned European Union candidate status, Erste Group maintains a minor presence. Besides the core markets, direct and indirect majority and minority banking participations are held in Slovenia, Montenegro, Bosnia and Herzegovina, North Macedonia and Moldova. Erste Group's shares are listed on the Vienna Stock Exchange, on the Prague Stock Exchange (since October 2002) and on the Bucharest Stock Exchange (since February 2008).

The core activities of Erste Group, in addition to the traditional focus on serving private individuals, include advisory services and support for corporate clients in financing, investment and access to international capital markets, public sector funding and interbank market operations.

This disclosure report gives readers a comprehensive overview of the current risk profile and risk management of Erste Group and covers the following areas:

- risk management;
- capital structure;
- capital adequacy;
- risk management systems and procedures;
- risk management with respect to each type of risk;
- risks assumed; and
- credit risk mitigation techniques

## Disclosure policy and structure

The current Disclosure Report of Erste Group meets the disclosure requirements of Part Eight of the CRR, which took effect on 1 January 2014. In addition, report complies with the requirements set in Guidelines on disclosure requirements under Part Eight of the Regulation (EU) No 575/2013 (EBA/GL/2016/11, version 2, published on 09 June 2017) and other disclosure related guidelines.

The Disclosure Report provides comprehensive disclosures on risks, risk management and capital management. The main document is published once a year in English, even though specific information is published more often pursuant to the Guidelines on the materiality, proprietary nature and confidentiality of information, and on disclosure frequency under Article 432(1), 432(2) and 433 of Regulation (EU) 575/2013 issued by EBA in December 2014.

Erste Group has opted for the Internet as the medium for publishing its disclosures under Article 434 (1) CRR. Details are available on the website of Erste Group at https://www.erstegroup.com/en/investors/reports. Relevant disclosures are either included in the annual report in the section "Financial reporting" or published as separate documents in the section "Regulatory reporting".

The preparation of the Disclosure Report and the formal review for completeness and compliance with the applicable requirements is carried out by Enterprise wide Risk Management. The Disclosure Report is subject to review by internal audit.

The Group Disclosure Policy, supplemented by a series of operating procedures, sets out the overarching principles and guidelines used by the Group in order to fulfil its disclosure requirements under Part Eight of the CRR as well as the processes in place to establish, review and approve the actual disclosures.

# The regulatory framework of Basel 3

### Implementation of Basel 3 in the European Union (EU)

On 16 April 2013, the European Parliament adopted the new capital and liquidity requirements for the implementation of Basel 3 in the EU. On 27 June 2013, the final Capital Requirements Directive IV (CRD IV) and the final Capital Requirements Regulation (CRR) were published in the Official Journal of the EU. The application of the new regulatory requirements for credit institutions and investment firms became effective as of 1 January 2014. As of this time, Erste Group has been calculating regulatory capital and regulatory capital requirements according to Basel 3.

The "Three Pillars" were introduced for the first time under Basel 2. The objectives of this framework are: a more risk sensitive capital allocation (Pillar 1 – Minimum Capital Requirements), a more detailed regulatory assessment of material risk categories (Pillar 2 - Supervisory Review Process) and increased market transparency (Pillar 3 – Market Discipline). Basel 3 enlarged the scope of these requirements.

### Pillar 1 – Minimum requirements

As introduced by Basel 2, Pillar 1 covers the calculation of capital requirements for credit risk, market risk and operational risk. As such, it details the different methods available for calculating risk weighted assets for the three risk types and provides information on the eligibility criteria for the constituents of the capital base. Under Basel 3, a leverage exposure requirement was introduced to complement the minimum risk-based capital requirements; however, the leverage ratio is not yet a binding requirement for EU institutions.

Basel 3 extended minimum requirements to also cover liquidity in addition to capital. In this regard, Pillar 1 specifies the requirements for the Liquidity Coverage Ratio (LCR) and the Net Stable Funding Ratio (NSFR), with the latter not yet a binding requirement in the EU.

### Pillar 2 – Supervisory review process

Pillar 2 requires banks to conduct an internal capital adequacy assessment process (ICAAP) to demonstrate that they have implemented methods and procedures to safeguard capital adequacy with due attention to all material risks. The ICAAP supplements the minimum regulatory requirements of Pillar 1. It considers a broader range of risk types as well as Erste Group's risk and capital management capabilities.

In parallel to the introduction of Pillar 1 requirements for liquidity through the Basel 3 framework, the ICAAP was complemented with an internal liquidity adequacy assessment process (ILAAP) to ensure banks have implemented processes and tools to safeguard the adequacy of their funding and liquidity.

Furthermore, Pillar 2 requires supervisors to conduct a Supervisory Review and Evaluation Process (SREP) to assess the soundness of banks' ICAAP and ILAAP and take any appropriate actions that may be required.

### Pillar 3 – Market discipline

Taking account of Pillar 1 (Minimum Capital Requirements) and Pillar 2 (Supervisory Review Process), Pillar 3 aims to increase market transparency by providing information on the scope of application, regulatory capital, risk positions, risk measurement approaches and therefore, the capital adequacy of a bank.

# Risk management at Erste Group

DISCLOSURE REQUIREMENTS Art. 435 (1) CRR and Art. 435 (2) CRR

## Risk policy and strategy

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

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

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

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

## Risk management organisation

Risk monitoring and control is achieved through a clear organisational structure with defined roles and responsibilities, delegated authorities and risk limits. Erste Group's risk management organisation is presented in detail in Erste Group's annual report 2019, Note 46. to the Group financial statements.

### GROUP GOVERNANCE FOR 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:

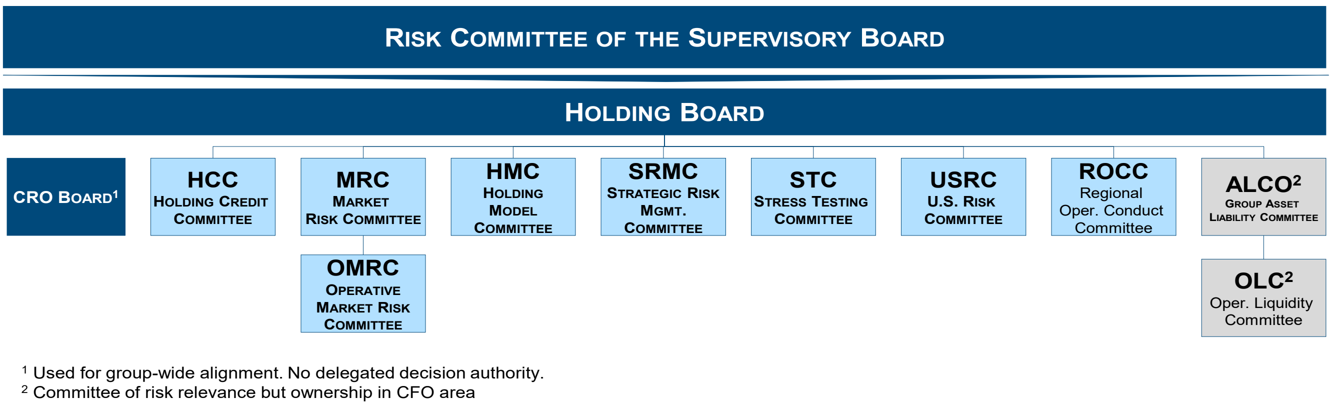


Figure 1: Risk Management Committees

The **Risk Committee of the Supervisory Board** is responsible for granting approval in all cases in which loans and exposures reach an amount exceeding the approval authority of the management board according to the Credit Risk Approval Authority Regulations. It is in charge of granting approval to large exposures pursuant to Article 392 CRR, if such a claim is equal to or exceeds 10% of the eligible capital of a credit institution. Within the competence assigned to it, the committee may grant advance approvals to the extent permitted by law. In addition, it is responsible for supervising the risk management of Erste Group Bank AG. The risk committee meets regularly. As the central risk control body, the risk committee is regularly briefed on the risk status across all risk types.

The **CRO Board** is responsible for the consistent coordination and implementation of risk management activities within Erste Group. The CRO Board consists of the Group CRO, the chief risk officers of major subsidiaries within Erste Group and the B-1 managers of the CRO division of Erste Group Bank AG. Chaired by the Group CRO, the CRO Board is the primary body for aligning on strategically relevant topics of the risk division across Erste Group entities, including (but not limited to) the group-wide strategic planning, the project portfolio and Change the Bank (CtB) investments. The CRO Board ensures a consistent flow of information from and to the group functions and supports the setting of the overall risk agenda.

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

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

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

The **Holding Model Committee** (HMC) is the steering and control body for Pillar 1 IRB and Pillar 2 EL model development, validation and monitoring. All new or changed models and model related aspects (e.g. risk parameters, group-wide methodology standards) are reviewed by the Holding Model Committee and require its approval.

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

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

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

The **Regional Operational Conduct Committee** (ROCC) 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 risk), and takes care of the setting of group standards and limits for the members of Erste Group. In addition, it approves policies and strategies for controlling liquidity risk as well as interest rate risk (net interest income) and examines proposals, statements and opinions of ALM, risk management, controlling and accounting functions. The approved investment strategy complies with the guidelines agreed with Risk Management.

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

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

## GROUP-WIDE RISK AND CAPITAL MANAGEMENT

Enterprise wide Risk Management (ERM) includes as its fundamental component the Internal Capital Adequacy Assessment Process (ICAAP) required under Pillar 2 of the Basel framework. The ERM framework is designed to support the bank's management in managing the risk portfolios as well as the coverage potential to ensure that the bank holds adequate capital for the nature and magnitude of its risk profile at all times. The framework is tailored to the Erste Group's business and risk profile and reflects the strategic goal of protecting shareholders and senior debt holders while ensuring the sustainability of the organisation. ERM framework is a modular and comprehensive management and steering system within Erste Group as well as an essential part of the overall steering and management instruments. The ERM components necessary to ensure all aspects, in particular to fulfil regulatory requirements and to provide an effective internal steering tool, can be clustered as follows:

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

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

### Risk appetite

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

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

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

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

Moreover, stress indicators are defined for selected core metrics and integrated into the assessment of the stress test results. They are reported as early warning signals to the management board to support proactive management of the risk and capital profile. In addition, supporting metrics and principles are defined by material risk type in the Group Risk Strategy based on Group RAS. These support implementation of the mid- to long-term strategy. Risk management governance ensures full oversight of risk decisions and sound execution of the group risk strategy. Mitigating actions are undertaken as part of the regular risk management process to ensure that the Group remains within its RAS.
Group RAS for 2019 was approved by the management board and acknowledged by the risk committee of supervisory board and supervisory board. The Group further developed an aggregated and consolidated risk appetite dashboard (Risk Dashboard) illustrating the Group's and local entities' risk profile developments by comparing the risk exposure and risk limits. The Risk Dashboard is regularly presented to the management board, risk committee of the supervisory board and to the supervisory board to support its review, oversight, and monitoring of the group risk profile and the risk profile of its local entities. The table below provides an overview of Group performance at year-end 2019 against the approved Group RAS[1]:

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[1] For further information on governance see chapter "Group Governance for Risk Management Activities".

| RAS core metrics | Category | Year-end 2019 | Status | Governance |
|---|---|---|---|---|
| Solvency Ratio (fully loaded) | Capital | 18.5% | ● | Strategic Risk Management Committee / Holding Board |
| Tier 1 Ratio (fully loaded) | Capital | 15.0% | ● | Strategic Risk Management Committee / Holding Board |
| Common Equity Tier 1 Ratio (fully loaded) | Capital | 13.7% | ● | Strategic Risk Management Committee / Holding Board |
| Economic Capital Adequacy Ratio | Capital | 57.9% | ● | Strategic Risk Management Committee / Holding Board |
| Leverage Ratio (fully loaded) | Capital | 6.8% | ● | Strategic Risk Management Committee / Holding Board |
| Survival Period Analysis (SPA) | Liquidity | buffers kept under all scenarios | ● | Operational Liquidity Committee / Group Asset Liability Committee / Strategic Risk Management Committee / Holding Board |
| Liquidity Coverage Ratio (LCR) | Liquidity | EUR 15.0 billion | ● | Operational Liquidity Committee / Group Asset Liability Committee / Strategic Risk Management Committee / Holding Board |
| Net Stable Funding Ratio (NSFR) | Liquidity | 134.8% | ● | Operational Liquidity Committee / Group Asset Liability Committee / Strategic Risk Management Committee / Holding Board |
| Risk-Earnings Ratio | Earnings / Profitability | 0.8% | ● | Strategic Risk Management Committee / Holding Board |

Table 3: Group Risk Appetite Assessment

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.

Group RAS framework streamlines core capital, liquidity, and risk/earnings metrics as well as reinforces key risk principles that form part of the guidelines for managing risks. In addition, Group RAS strengthens internal governance responsible for oversight of risk profile development, embeds RAS into strategic planning and budgeting processes as well as day-to-day management, and ensures timely management actions in case of adverse developments.

## Portfolio and risk analytics

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

### Risk materiality assessment

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

Insights generated by the assessment are used to improve risk management practices and further mitigate risks within the Group. The assessment also serves as input for the design and definition of the group 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 essential 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 impetus and help to optimise Erste Group's risk-return profile. Stress tests help to factor in severe but plausible scenarios providing further robustness to measurement, steering and management. Risk modelling and stress testing are vital forward-looking elements of the ICAAP. Finally, sensitivities and stress scenarios are considered within the group's planning process.

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

Erste Group has developed specific tools to translate macroeconomic variables (e.g. GDP or unemployment rate) into risk parameters in order to support the stress testing process, which combines bottom-up and top-down approaches. For adapting the stress parameters, Erste Group additionally leverages the experience of its local professionals and uses, where appropriate, their statistical models to simulate the impacts of macroeconomic variables on the probabilities of default in the respective markets. Special attention is given to account for adequate granularity and special characteristics (i.e. countries and industries) when determining the segmentation in which the stressed parameters are defined. Results from Erste Group's internal stress tests are analysed in order to decide on appropriate measures. The internal comprehensive stress tests performed in 2019 indicated no breach of stressed RAS triggers after the application of scenario contingent measures in the last year of adverse scenario.

### Risk-bearing capacity calculation

The Risk-bearing Capacity Calculation (RCC) defines the level of capital adequacy required by the ICAAP. In contrast to the regulatory view of Pillar 1, starting with 2019 the RCC is based on an economic view assuming continuation of Erste Group[2] and determines whether the bank has sufficient capital for covering all risks it is exposed to. Based on the results of the RMA, economic capital is considered for relevant risk types as approved by the management board. The aggregated capital requirements are then compared to internally available capital, as reflected by the coverage potential.

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

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

Credit risk accounts for 73.4% of total economic capital requirements at the end of 2019. Reflecting Erste Group's conservative risk management policy and strategy, the Group does not offset diversification effects between the risk types. Starting with 2019, the economic capital requirements for unexpected losses are computed on a one-year time horizon with a 99.92% confidence level, ensuring group-wide consistency (Group and local entities) and coherence between ICAAP processes where ICAAP is integrated. The internal capital or coverage potential required to cover Pillar 2 risks / unexpected losses is based on CRR[3]/CRR II[3] fully loaded regulatory own funds adjusted by Pillar 2 add-ons (e.g. year-to-date profit, if not already considered in Pillar 1 capital, exclusion of Tier 2 capital instruments, IRB expected loss excess/shortfall add-on, etc.). The coverage potential must be sufficient to absorb unexpected losses resulting from the group's operations at any point in time, as reflected in the Group's Risk Appetite through the limits set for utilization of coverage potential.

### Risk planning

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

**Methods and instruments applied.** Key risk indicators covered by the Risk Planning framework include indicators that provide an overview of incurred or potential risks, with respect to both portfolio and economic environment developments. Indicators include RWA (and related indicators), portfolio quality indicators (impairments, NPL/NPE and relevant performance indicators etc.), as well as indicators required by the regulatory authorities under the responsibility of the Risk division. Planning activities are performed in close cooperation with all stakeholders in the group´s overall process, and follow a clear governance structure to ensure sound risk planning process.

#### Capital allocation

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

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[2] As expected by ECB Guide to ICAAP

[3] Regulation (EU) No. 575/2013

[3] Regulation (EU) No. 876/2019 amending Regulation (EU) No. 575/2013

### Recovery and resolution plans

The Directive 2014/59/EU as amended (Bank Recovery and Resolution Directive - BRRD) has been implemented in Austria into national law by the Austrian Recovery and Resolution Act (Sanierungs- und Abwicklungsgesetz - BaSAG). On 7 June 2019 a legislative package (EU Banking Package) was published in the Official Journal of the EU. The EU Banking Package comprises the Directive (EU) No 2013/36 (CRD IV), and the Regulation (EU) No 575/2013 (CRR) as well as the BRRD and the Regulation (EU) No 806/2014 as amended (SRMR). The EU Banking Package entered into force on 27 June 2019. The EU Member States shall implement the amendments of the BRRD into national legislation by 28 December 2020.

**Recovery Planning.** In compliance with the current Austrian Banking Recovery and Resolution Law (Bundesgesetz über die Sanierung und Abwicklung von Banken – BaSAG), Erste Group submits a Group Recovery Plan to JST every year. The Group Recovery Plan is regularly assessed by ECB and auditors. The Group Recovery Plan identifies potential options for the replenishment of capital and liquidity resources of the bank in order to cope with a range of severe scenarios including both idiosyncratic and market-wide stress. The recovery governance described in the plan ensures timely identification and proper management of a recovery situation of Erste Group.

**Resolution Planning.** Erste Group collaborates with the resolution authorities in the drawing up of resolution plans as required by BaSAG and EU RegulationNo 806/2014 establishing the Single Resolution Mechanism (SRM Regulation). The legislative framework allows for a multiple-point-of-entry (MPE) or a single-point-of-entry (SPE) resolution strategy. Erste Group aims at the MPE approach forming separate resolution groups with Erste Group's core CEE subsidiaries but with SPE approaches on country level. Under the MPE strategy, a group has more than one Resolution Entity Level which is the entry point for resolution. The resolution plans (including resolution strategy and MREL decisions) are subject to Resolution College and jointly assessed by Resolution College Members.

**MREL.** The new EU Banking Package, implements the term "Resolution Group" levels which are relevant for determining the level of application of the rules on loss absorbing and recapitalisation capacity that financial institutions should comply with and defines the desired resolution strategy. The minimum requirement for own funds and eligible liabilities (MREL) should reflect the resolution strategy which is appropriate to a group in accordance with the resolution plan.

In order to ensure the effectiveness of bail-in and other resolution tools all institutions have to meet an individual MREL requirement, to be calculated (based on current legislation) as a percentage of total liabilities and own funds and set by the relevant resolution authorities. Under the new legislative framework of the EU Banking Package MREL shall be expressed as a percentage of the total risk exposure amount.

## RISK MONITORING

All risks group is exposed to and the relevant exposures are monitored on a continuous basis and managed on the following levels: portfolio, organisational and risk type level. The following figure presents an overview of the risk monitoring framework at Group level consisting of both strategic and operational oversight as set out below.

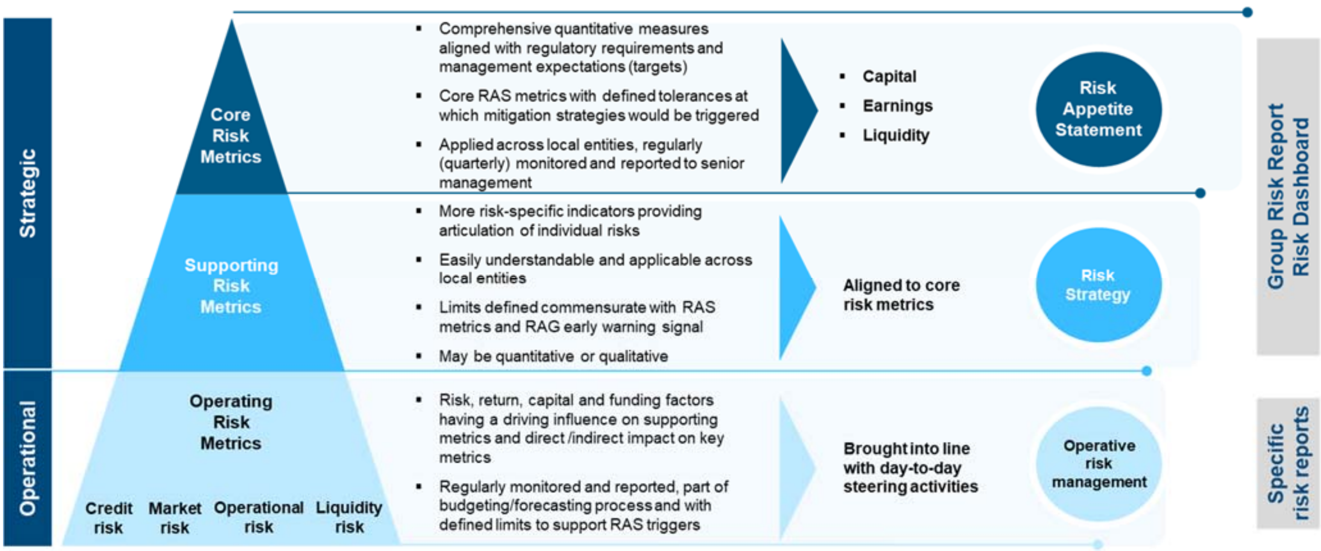

Figure 2: Strategic and operational risk oversight and management at Erste Group

### Strategic oversight

The RAS sets the boundary for the maximum risk the bank is willing to accept in order to pursue its business objectives; this includes a set of core steering metrics with trigger levels providing strategic guidelines for risk management and planning. The risk strategy defines the overall strategic direction of Group in terms of risk-taking and sets strategic-level limits by risk type, based on the target risk profile and RAS, and provides a balanced risk-return view considering the strategic focus and business plans.

Both are regularly monitored and reported in the Group Risk Report including a traffic light overview together with respective measures to address deviations from strategic plans or objectives identified. Group and local RAS are also reported in the Risk Dashboard. The Group Risk Report and the Risk Dashboard are presented and discussed in the management board, the risk committee of the supervisory board, as well as the supervisory board on a quarterly basis.

### Operational oversight

Risk management by risk type ensures that the risk-specific profile remains in line with the risk strategy and operational limits support achievement of the strategic targets. The development of the specific risk profile (i.e. retail credit, corporate credit, operational risks, etc.) is reported through dedicated risk reports in a more granular way and supports risk decision-making of the dedicated risk functions to ensure the risk profile remains within the risk strategy (i.e. operational risk report, retail risk report, etc.). These reports also include specific monitoring metrics that provide an early warning signal for adverse developments of, e.g., portfolio quality (client, segment, countries and industries) or risk drivers.

# Management bodies

Erste Group has a two-tier governance structure with a management board and a supervisory board as management bodies. Details on the supervisory board mandates or similar functions, on the recruitment policy for the selection and assessment of members of management bodies, as well as on the policy on diversity are contained in the corporate governance report, which is part of the annual report. Details on career and education of the management board and the supervisory board members are available on Erste Group's website under https://www.erstegroup.com/en/about-us.

## RISK COMMITTEE OF THE SUPERVISORY BOARD

The risk committee is one of six committees set up by the supervisory board of Erste Group. It advises the management board with regard to Erste Group's current and future risk appetite and risk strategy and monitors the implementation of this risk strategy. The committee also reviews whether the services and products offered are adequately priced in accordance with the bank's business model and risk strategy. Without prejudice to the duties of the remuneration committee, the risk committee is also responsible for reviewing whether the incentives offered by the internal remuneration system adequately take into account risk, capital, liquidity and the probability and timing of profit realisation. The risk committee is responsible for granting approval in all those cases in which loans and exposures reach an amount exceeding the approval authority of the management board defined in the approval authority regulation. The approval of the risk committee is required for any exposure as defined in section 28b of the Austrian Banking Act. In addition, it may grant advance approvals to the extent permitted by law.

The risk committee is responsible for monitoring the risk management of Erste Group Bank AG. The supervisory board has delegated to the risk committee the right to approve the establishment and closure of branches and to grant special statutory power of attorney (Prokura) or commercial power (Handlungsvollmacht) for all business operations. The committee is responsible for monitoring the Group's portfolio of participations except in cases where this is the responsibility of the audit committee. The tasks of the risk committee include the acknowledgement of reports on legal disputes as well as on important audits of subsidiaries conducted by regulatory authorities. In addition, the risk committee is responsible for reviewing potential stress scenarios in order to assess how the bank's risk profile reacts to external and internal events. Furthermore, the risk committee assesses recommendations of internal and external auditors and monitors the appropriate implementation of measures taken that are not covered by reports of other committees. It also advises and supports the supervisory board in monitoring current and future risk appetite and the risk strategy and submits recommendations on required adjustments to the risk strategy to the supervisory board.

The risk committee held fourteen meetings in 2019, at which it regularly took decisions within its duties and powers as outlined above and was briefed on loans granted within the scope of authorization of the management board.

# Material risks at Erste Group

At Erste Group, the risk materiality assessment is performed for risk types to which a credit institution is or could be potentially exposed to. This Disclosure Report presents the qualitative and quantitative features of the following material risk types in detail:

- Credit risk
- Market risk (including market risks in the banking book)
- Operational risk
- Strategic risk
- Reputational risk
- Compliance risk

In addition, this report describes other risk types as requested by Regulation (EU) 575/2013 and Regulation (EU) 876/2019 amending Regulation (EU) 575/2013.

# Scope of application

## DISCLOSURE REQUIREMENTS Art. 436 CRR

In the application of the Article 436 (b) CRR, Erste Group is disclosing the differences due to scope of consolidation, followed by the differences between carrying amounts available in financial statements and exposure used for the regulatory purpose.

### Differences in scope of consolidation and mapping with regulatory risk categories – Assets

| | | | Carrying amounts of the items | | | | |
|---|---|---|---|---|---|---|---|
| in EUR million | IFRS | CRR | Subject to credit risk framework | Subject to counterparty credit risk framework | Subject to the securitisation framework | Subject to the market risk framework | Not subject to capital requirements or subject to deduction from capital |
| **Cash and cash balances** | **10,693** | **10,683** | **9,562** | **165** | **0** | **1,121** | **0** |
| Cash on hand | 6,032 | 6,032 | 6,032 | 0 | 0 | 0 | 0 |
| Cash balances at central banks | 3,466 | 3,466 | 3,369 | 0 | 0 | 97 | 0 |
| Other demand deposits | 1,195 | 1,185 | 161 | 165 | 0 | 1,024 | 0 |
| **Financial assets held for trading** | **5,760** | **5,757** | **0** | **2,807** | **0** | **5,591** | **32** |
| Derivatives | 2,805 | 2,807 | 0 | 2,807 | 0 | 2,642 | 0 |
| Other financial assets held for trading | 2,954 | 2,949 | 0 | 0 | 0 | 2,949 | 32 |
| **Non-trading financial assets at fair value through profit or loss** | **3,208** | **2,952** | **2,930** | **0** | **22** | **0** | **22** |
| Equity instruments | 390 | 381 | 381 | 0 | 0 | 0 | 0 |
| Debt securities | 2,335 | 2,088 | 2,066 | 0 | 22 | 0 | 22 |
| Loans and advances to customers | 483 | 483 | 483 | 0 | 0 | 0 | 0 |
| **Financial assets at fair value through other comprehensive income** | **9,047** | **9,047** | **9,047** | **0** | **0** | **0** | **31** |
| Equity investments | 210 | 210 | 210 | 0 | 0 | 0 | 0 |
| Debt securities | 8,836 | 8,836 | 8,836 | 0 | 0 | 0 | 31 |
| **Financial assets at amortised cost** | **204,162** | **204,684** | **182,634** | **20,188** | **1,809** | **4,920** | **54** |
| Debt securities | 26,764 | 26,763 | 26,763 | 0 | 0 | 0 | 0 |
| Loans and advances to banks | 23,055 | 23,054 | 3,013 | 20,041 | 0 | 4,593 | 0 |
| Loans and advances to customers | 154,344 | 154,868 | 152,858 | 148 | 1,809 | 327 | 54 |
| **Finance lease receivables** | **4,034** | **4,019** | **4,019** | **0** | **0** | **0** | **0** |
| **Hedge accounting derivatives** | **130** | **130** | **0** | **130** | **0** | **14** | **0** |
| **Fair value changes of the hedged items in portfolio hedge of interest rate risk** | **-4** | **-4** | **0** | **-4** | **0** | **0** | **0** |
| **Property and equipment** | **2,629** | **2,426** | **2,426** | **0** | **0** | **0** | **0** |
| **Investment property** | **1,266** | **1,096** | **1,096** | **0** | **0** | **0** | **0** |
| **Intangible assets** | **1,368** | **1,358** | **0** | **0** | **0** | **0** | **1,358** |
| **Investments in joint ventures and associates** | **163** | **436** | **436** | **0** | **0** | **0** | **0** |
| **Tax assets** | **558** | **555** | **453** | **0** | **0** | **0** | **102** |
| Current tax assets | 81 | 80 | 80 | 0 | 0 | 0 | 0 |
| Deferred tax assets | 477 | 475 | 373 | 0 | 0 | 0 | 102 |
| **Assets held for sale** | **269** | **146** | **146** | **0** | **0** | **0** | **0** |
| **Trade and other receivables** | **1,408** | **1,407** | **1,407** | **0** | **0** | **0** | **0** |
| **Other assets** | **1,001** | **848** | **848** | **0** | **0** | **0** | **0** |
| **Total assets** | **245,693** | **245,540** | **215,004** | **23,287** | **1,831** | **11,646** | **1,599** |

Table 4.1: Differences between accounting and regulatory scope of consolidation of assets and mapping with regulatory risk categories (EU LI1- EBA/GL/2016/11)

## Differences in scope of consolidation and mapping with regulatory risk categories – Liabilities

| in EUR million | IFRS | CRR | Carrying amounts of the items: Subject to credit risk framework | Subject to counterparty credit risk framework | Subject to the securitisation framework | Subject to the market risk framework | Not subject to capital requirements or subject to deduction from capital |
|---|---|---|---|---|---|---|---|
| **Financial liabilities held for trading** | **2,421** | **2,423** | **0** | **2,007** | **0** | **1,366** | **0** |
| Derivatives | 2,005 | 2,007 | 0 | 2,007 | 0 | 951 | 0 |
| Other financial liabilities | 416 | 416 | 0 | 0 | 0 | 416 | 0 |
| **Financial liabilities designated at fair value through profit or loss** | **13,494** | **13,289** | **0** | **0** | **0** | **0** | **13,289** |
| Deposits from banks | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Deposits from customers | 265 | 265 | 0 | 0 | 0 | 0 | 265 |
| Debt securities in issue | 13,011 | 13,024 | 0 | 0 | 0 | 0 | 13,024 |
| Other financial liabilities | 219 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Financial liabilities measured at amortised cost** | **204,143** | **204,426** | **0** | **2,780** | **0** | **0** | **201,646** |
| Deposits from banks | 13,141 | 13,203 | 0 | 1,357 | 0 | 0 | 11,846 |
| Deposits from customers | 173,066 | 173,290 | 0 | 1,422 | 0 | 0 | 171,868 |
| Debt securities in issue | 17,360 | 17,361 | 0 | 0 | 0 | 0 | 17,361 |
| Other financial liabilities | 576 | 572 | 0 | 0 | 0 | 0 | 572 |
| **Finance lease liabilities** | **515** | **520** | **0** | **0** | **0** | **0** | **520** |
| **Hedge accounting derivatives** | **269** | **269** | **0** | **20** | **0** | **0** | **249** |
| **Fair value changes of the hedged items in portfolio hedge of interest rate risk** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| **Provisions** | **1,919** | **1,915** | **0** | **0** | **0** | **0** | **1,915** |
| **Tax liabilities** | **78** | **59** | **0** | **0** | **0** | **0** | **59** |
| Current tax liabilities | 61 | 55 | 0 | 0 | 0 | 0 | 55 |
| Deferred tax liabilities | 18 | 4 | 0 | 0 | 0 | 0 | 4 |
| **Liabilities included in disposal groups classified as held for sale** | **6** | **4** | **0** | **0** | **0** | **0** | **4** |
| **Other liabilities** | **2,369** | **2,238** | **0** | **0** | **0** | **0** | **2,238** |
| **Total equity** | **20,477** | **20,397** | **0** | **0** | **0** | **0** | **20,397** |
| Equity attributable to non-controlling interests | 4,857 | 4,874 | 0 | 0 | 0 | 0 | 4,874 |
| Equity attributable to the owners of the parent - additional equity instruments | 1,490 | 1,490 | 0 | 0 | 0 | 0 | 1,490 |
| Equity attributable to the owners of the parent | 14,129 | 14,033 | 0 | 0 | 0 | 0 | 14,033 |
| Equity attributable to the owners of the parent - subscribed capital | 860 | 860 | 0 | 0 | 0 | 0 | 860 |
| Equity attributable to the owners of the parent - additional paid-in capital | 1,478 | 1,478 | 0 | 0 | 0 | 0 | 1,478 |
| Equity attributable to the owners of the parent - retained earnings and other reserves | 11,792 | 11,695 | 0 | 0 | 0 | 0 | 11,695 |
| **Total liabilities and equity** | **245,693** | **245,540** | **0** | **4,807** | **0** | **1,366** | **240,317** |

Table 4.2: Differences between accounting and regulatory scope of consolidation of liabilities and mapping with regulatory risk categories (EU LI1- EBA/GL/2016/11)

Information on the differences between IFRS and CRR scope of consolidation is disclosed in Erste Group's annual report, as stated in table 1 of this report. Brake down of carrying amounts refer to the risk frameworks under which capital requirement is calculated in accordance with Part Three of the CRR. Overlapping between risk frameworks exist for trading book derivatives and repo transactions, as they are part of both counterparty credit risk and market risk framework. Another overlap exists between deduction and securitisation framework for the part of securitisation exposure with risk weight of 1250% (as explained in more detail in securitisation part of this report). Therefore the sum of different frameworks is not equal to the total carrying values presented under CRR scope of consolidation. In the last column, on-balance positions deducted from own funds in accordance with Part Two of the CRR are presented. As a part of deductions, additional value adjustments in accordance with Article 34 of the CRR are included for the assets measured at FV. Detailed information on deductions from own funds are disclosed in annual report, as presented in table 1 of this report.

The aim of table below is to provide information on the main sources of difference between the financial statements carrying amounts and exposure values used for regulatory purposes by relevant risk frameworks.

| in EUR million | Total | Items subject to Credit risk framework | Items subject to Counterparty credit risk framework | Items subject to Securitisation framework |
|---|---|---|---|---|
| **Assets carrying value amount under regulatory scope of consolidation** | **245,540** | **215,004** | **23,287** | **1,831** |
| Liabilities carrying value amount under regulatory scope of consolidation | 225,142 | 0 | 4,807 | 0 |
| **Total net amount under regulatory scope of consolidation** | **245,540** | **215,004** | **23,287** | **1,831** |
| Off-balance sheet amount | 46,579 | 22,095 | 0 | 0 |
| Effect of CCF to off-balance | -24,484 | 0 | 0 | 0 |
| Differences in valuations | 0 | 0 | 0 | 0 |
| Differences due to SFT | 4,615 | 0 | 4,615 | 0 |
| Differences due to derivatives | 330 | 0 | 330 | 0 |
| Differences due to consideration of allowances for on-balance exposure | 3,211 | 3,201 | 1 | 9 |
| Specific credit risk adjustment for exposure in STA | -776 | -776 | 0 | 0 |
| Differences due to securitisation | 34 | 0 | 0 | 34 |
| Other | 683 | 683 | 0 | 0 |
| **Exposure amount considered for regulatory purposes before CRM** | **270,312** | **240,207** | **28,232** | **1,873** |

Table 5: Main sources of differences between regulatory exposure amount and carrying value amount in financial statements (EU LI2- EBA/GL/2016/11)

Assets carrying value amount represents total assets of the bank under the regulatory scope of consolidation, while in respective columns portion related to relevant risk frameworks is presented. Exposures subject to market risk include only positions booked in the trading book (see table 4), hence are not included in the framework split of the table above, but only in the column Total. As on-balance items subject to deductions are not considered in regulatory exposure, they are as well not included in the framework split of the table above, but only in the column Total. Derivatives liabilities are not considered in the total net amount, while the netting benefit from derivative liabilities is included in the line Differences due to derivatives.

In the column total, off-balance sheet amount represent the nominal value of the off-balance items under the regulatory scope of consolidation, while in the column credit risk framework, off-balance amount after application of credit conversion factors is disclosed. Effect of CCF to off-balance is shown separately in the following row.

Differences in valuations represent consideration of credit value adjustments (CVA) for derivatives in the carrying value. Differences due to SFTs refer to regulatory exposures from reverse repo transactions. Differences due to derivatives stem from different treatment of netting, i.e. balance sheet netting vs. regulatory netting, as well as from regulatory add-ons according to Article 274 CRR that increase the regulatory exposure.

In the subsequent row, differences due to consideration of allowances for on-balance exposure assigned are disclosed. In order to present exposure value after specific credit risk adjustments for the exposure under STA, allowances are deducted in following row.

Differences due to securitisation refer to the net effect of (1) tranches placed with the investors; (2) reserve fund and synthetic excess spread that are not collateralized with the assets; and (3) replenishment ledger for transaction CSAS 2019-1 in Ceska Sporitelna.

Other differences in credit risk are mainly driven by Trustee loans considered in regulatory exposure and differences due to FX rates used for non-EUR portfolios.

Total regulatory exposure is shown before application of credit risk mitigation.

# Capital requirements

## DISCLOSURE REQUIREMENTS Art. 438 CRR

Based on the business activities of Erste Group, capital requirements are derived for the Pillar 1 risk types credit risk, market risk and operational risk. The capital requirements were complied with at all times during the reporting period.

### Overview of RWAs and capital requirements calculated in accordance with Article 92 of the CRR

| | RWAs | | Minimum capital requirements |
|---|---|---|---|
| in EUR million | Dec 19 | Dec 18 | Dec 19 |
| Credit risk (excluding CCR) | 92,703 | 89,079 | 7,416 |
| of which the standardised approach | 16,840 | 15,263 | 1,347 |
| of which the foundation IRB (FIRB) approach | 58,034 | 54,553 | 4,643 |
| of which the advanced IRB (AIRB) approach | 16,347 | 17,629 | 1,308 |
| of which equity IRB under the simple risk-weighted approach or the IMA | 1,482 | 1,634 | 119 |
| CCR | 2,127 | 2,155 | 170 |
| of which mark to market | 1,056 | 1,028 | 85 |
| of which original exposure | 22 | 29 | 2 |
| of which the standardised approach | 0 | 0 | 0 |
| of which internal model method (IMM) | 0 | 0 | 0 |
| of which comprehensive method | 478 | 437 | 38 |
| of which risk exposure amount for contributions to the default fund of a CCP | 2 | 0 | 0 |
| of which CVA | 569 | 661 | 46 |
| Settlement risk | 0 | 0 | 0 |
| Securitisation exposures in the banking book (after the cap) | 253 | 89 | 20 |
| of which IRB approach | 0 | 0 | 0 |
| of which IRB supervisory formula approach | 253 | 89 | 20 |
| of which internal assessment approach | 0 | 0 | 0 |
| of which standardised approach | 0 | 0 | 0 |
| Market risk | 2,795 | 3,434 | 224 |
| of which the standardised approach | 832 | 981 | 67 |
| of which IMA | 1,963 | 2,453 | 157 |
| Large exposures | 0 | 0 | 0 |
| Operational risk | 14,934 | 15,241 | 1,195 |
| of which basic indicator approach | 3,605 | 3,403 | 288 |
| of which standardised approach | 0 | 0 | 0 |
| of which advanced measurement approach | 11,329 | 11,838 | 906 |
| Amounts below the thresholds for deduction (subject to credit risk 250% risk weight) | 1,811 | 1,886 | 145 |
| Floor adjustment | 0 | 0 | 0 |
| Other exposure amounts | 3,483 | 2,715 | 279 |
| **Total** | **118,105** | **114,599** | **9,448** |

Table 6: Overview of RWAs and capital requirement (EU OV1- EBA/GL/2016/11)

Position amounts below the threshold for deduction (subject to credit risk 250% risk weight) is shown as a separate figure, although it represents part of capital requirement under credit risk.

Since the end of the second quarter of 2017, Erste Group reports on consolidated level a RWA add-on in view of the calculation of risk-weighted assets for credit risk in Banca Comercială Română (BCR) in the amount of around EUR 2.4 billion. This RWA increase front-loads the expected difference in BCR between the treatment of exposures under the Standardised Approach compared to the treatment under IRB Approach and is limited in time until the authorization of the IRB Approach in BCR. This figure is shown in table above in the row Other exposure amounts. Erste Group was informed by the ECB in the third quarter of 2018 about the final decision in view of credit risk models, which became effective at the end of September 2018. The decision had effect on risk weighted assets (RWA) on consolidated level of around EUR 300 million. 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 514 million as of the first quarter 2019.

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 289 million as of December 2019.

## CREDIT AND COUNTERPARTY CREDIT RISK

The Austrian Financial Market Authority (FMA) together with the Austrian National Bank (OeNB) approved the application to use the IRB Approach for the majority of the credit risk positions of Erste Group in January 2007. The Supervisory Slotting Approach is applied to Specialised Lending (SL). The remaining risk positions are covered by the Standardised Approach. Further information on the topic is included in the chapters “Use of ECAIs”, “Use of the IRB Approach to Credit Risk” and “Counterparty Credit Risk”. More details on securitisations are included in the chapter “Exposure to Securitisation Positions”, and for equity exposures in the chapter “Exposures in Equities not included in the Trading Book”.

The table below shows an overview of capital requirements to cover credit risk, counterparty credit risk and securitisation. The capital requirements under the IRB Approach and the Standardised Approach respectively are broken down into the relevant exposure classes.

## Capital requirements for credit, counterparty credit risk and securitisation by exposure class

| in EUR million | Capital requirements | Capital requirements (% of total) |
|---|---|---|
| **IRB Approach** | | |
| Central Governments and Central Banks | 142 | 1.8% |
| Institutions | 256 | 3.3% |
| Corporates | 4,087 | 53.0% |
| Specialised lending | 1,281 | 16.6% |
| Retail | 1,308 | 17.0% |
| SME | 275 | 3.6% |
| Secured by immovable property collateral | 488 | 6.3% |
| Other retail | 545 | 7.1% |
| Equity | 217 | 2.8% |
| Simple Risk Weight Approach | 119 | 1.5% |
| PD/LGD Approach | 53 | 0.7% |
| Significant Investments with RW of 250% | 46 | 0.6% |
| Securitisation Positions | 20 | 0.3% |
| Other non-credit obligation assets | 235 | 3.1% |
| **IRB Approach Total** | **6,265** | **81.3%** |
| **Standardised Approach** | | |
| Central Governments and Central Banks | 141 | 1.8% |
| Regional Governments or Local Authorities | 30 | 0.4% |
| Public Sector Entities | 21 | 0.3% |
| Multilateral Development Banks | 0 | 0.0% |
| International Organisations | 0 | 0.0% |
| Institutions | 14 | 0.2% |
| Corporates | 629 | 8.2% |
| Retail | 291 | 3.8% |
| Exposures secured by mortgages on immovable property | 118 | 1.5% |
| Exposures in default | 23 | 0.3% |
| Exposures associated with particular high risk | 15 | 0.2% |
| Covered Bonds | 0 | 0.0% |
| Securitisation Positions | 0 | 0.0% |
| Exposures to institutions and corporates with a short-term credit assessment | 0 | 0.0% |
| Collective Investment Undertakings | 6 | 0.1% |
| Equity | 18 | 0.2% |
| Institutions in Standardised Approach | 17 | 0.2% |
| Permanent Partial Use | 1 | 0.0% |
| Other items | 136 | 1.8% |
| **Standardised Approach Total** | **1,441** | **18.7%** |
| **Total** | **7,706** | **100.0%** |

Table 7: Capital requirements for credit risk by exposure class under the Standardised Approach and the IRB Approach (Art. 438 (c) (d) CRR)

## Additional disclosure of specialised lending and equity under the simple risk-weight approach

### Specialised lending by regulatory categories

| in EUR million | Remaining maturity | On-balance sheet amount | Off-balance sheet amount | Risk weight | Exposure amount | RWA | Expected loss |
|---|---|---|---|---|---|---|---|
| Category 1 | Less than 2.5 years | 1,193 | 206 | 50% | 1,329 | 745 | - |
| | Equal to or more than 2.5 years | 6,288 | 781 | 70% | 6,855 | 5,426 | 27 |
| Category 2 | Less than 2.5 years | 1,517 | 525 | 70% | 1,887 | 1,409 | 8 |
| | Equal to or more than 2.5 years | 4,178 | 751 | 90% | 4,720 | 4,609 | 38 |
| Category 3 | Less than 2.5 years | 457 | 185 | 115% | 576 | 703 | 16 |
| | Equal to or more than 2.5 years | 1,212 | 262 | 115% | 1,395 | 1,782 | 39 |
| Category 4 | Less than 2.5 years | 176 | 59 | 250% | 213 | 587 | 17 |
| | Equal to or more than 2.5 years | 233 | 57 | 250% | 276 | 748 | 22 |
| Category 5 | Less than 2.5 years | 106 | 5 | - | 110 | - | 55 |
| | Equal to or more than 2.5 years | 330 | 58 | - | 375 | - | 187 |
| **Total** | **Less than 2.5 years** | **3,450** | **980** | | **4,116** | **3,443** | **96** |
| | **Equal to or more than 2.5 years** | **12,241** | **1,910** | | **13,621** | **12,564** | **314** |

### Equities under the simple risk-weight approach by categories

| in EUR million | On-balance sheet amount | Off-balance sheet amount | Risk weight | Exposure amount | RWA | Capital requirements |
|---|---|---|---|---|---|---|
| Exchange-traded equity exposures | 37 | 18 | 190% | 56 | 106 | 8 |
| Private equity exposures | 93 | - | 290% | 93 | 270 | 22 |
| Other equity exposures | 296 | 3 | 370% | 299 | 1,107 | 89 |
| **Total** | **427** | **21** | | **448** | **1,482** | **119** |

Table 8: Calculation of RWA in accordance with Article 153 (5) and Article 155 (2) of CRR for specialised lending and equity (EU CR10 EBA/GL/2016/11)

# MARKET RISK

## Capital requirements to cover position risk, commodities risk, foreign-exchange risk and settlement risk

| in EUR million | Capital requirements | Capital requirements (% of total) |
|---|---|---|
| Standardised Approach | 67 | 29.7% |
| position risk with interest rate instruments | 48 | 21.3% |
| position risk in equity instruments | 7 | 3.2% |
| commodities risk | 0 | 0.0% |
| foreign-exchange risk (incl. gold) | 12 | 5.3% |
| Internal Model | 157 | 70.1% |
| Settlement Risk | 0 | 0.0% |
| **Total** | **224** | **100.0%** |

Table 9: Capital requirements of position, foreign-exchange, commodities and settlement risk (Art. 438 (e) CRR)

The main driver for the decrease of own funds requirements for market risk is due to changed exposures towards governments. Position changes led to higher diversification and a decrease of stressed VaR also translating to lower internal model contribution in 2019.

# OPERATIONAL RISK

For the calculation of regulatory capital requirements for operational risk at Erste Group, the Advanced Measurement Approach (AMA) has been used since approval by the OeNB in the first half of 2009. In subsidiaries which do not yet use the AMA, the Basic Indicator Approach (BIA) is used. The table below shows the capital requirements for operational risk under the AMA and the BIA. Details on the management of operational risk at Erste Group are presented in the chapter “Operational Risk”.

| in EUR million | Capital requirements | Capital requirements (% of total) |
|---|---|---|
| Advanced Measurement Approach | 906 | 75.9% |
| Basic Indicator Approach | 288 | 24.1% |
| **Total** | **1,195** | **100.0%** |

Table 10: Capital requirements for operational risk (Art. 438 (f) CRR)

## NON-DEDUCTED PARTICIPATIONS IN INSURANCE UNDERTAKINGS

The table below provides information on not deducted holdings of own funds instruments of an insurance undertaking, a re-insurance undertaking or insurance holding company in which the bank has a significant investment (according to Article 49 (1) CRR).

| in EUR million | Dec 19 |
|---|---|
| Carrying amount of holdings of own funds instruments of a financial sector entity where the institution has a significant investment not deducted from own funds (before risk weighting) | 281 |
| RWAs | 703 |

Table 11: Non-deducted participations in insurance undertakings (Article 438 (c) (d) CRR & EU INS1 - EBA/GL/2016/11)

## INTERNAL CAPITAL ADEQUACY ASSESSMENT PROCESS

### DISCLOSURE REQUIREMENTS Art. 438 (a) CRR

The Internal Capital Adequacy Assessment Process (ICAAP) and the Risk-bearing Capacity Calculation (RCC) form integral parts of Pillar 2 requirements pursuant to the Basel regime. Erste Group's RCC measures the economic capital across all relevant Pillar 2 risk types and compares them to the internal capital or the coverage potential Erste Group holds for covering such risks. More specifically, the risk side of the calculation serves to determine the economic capital requirement from unexpected losses in respect of credit, market, operational and other risks (interest rate risk in the banking book, foreign exchange risk arising from equity investments, credit spread risk in the banking book, risk from foreign currency loans, risk from repayment vehicles as well as business risk). Starting with 2019, the risk is calculated at a confidence level of 99.92%. This economic capital requirement is then compared to the internal capital held as coverage potential, which is based on CRR[4]/CRR II[5] fully loaded regulatory own funds adjusted by Pillar 2 add-ons (e.g. year-to-date profit if not already considered in Pillar 1 capital, exclusion of Tier 2 capital instruments, IRB expected loss excess/shortfall add-on, etc.), thus determining the Group's ability to absorb potential unexpected losses.

The calculation of RCC is designed in accordance with the business strategy and risk profile of Erste Group and is accounted for in the Risk Appetite Statement (RAS) of the Group. The RAS defines, from a strategic perspective, the risk level that the Group is willing to expose itself to. The RAS specifies restrictions and limits required for daily operations. In general, the entire coverage potential has to be higher than or equal to the bank's overall risk exposure.

The Group has defined Economic Capital Adequacy limits as one of several measures to express and monitor the Group's risk appetite. To determine the Group's capital adequacy, Erste Group deploys a forward-looking traffic light system. In this manner, management may assess at any time the extent to which the economic capital adequacy of the Group is appropriate and sufficient. This process enables the management to respond in time to changes, and, if necessary, to take the relevant measures on either the Pillar 2 risk/economic capital side or the available internal capital/coverage potential side.

The management board, risk management committees and supervisory board are briefed regularly, at least quarterly, on the results of the risk-bearing capacity determined, including the movements in Pillar 2 risk/economic capital and in available internal capital/coverage potential, the degree of utilisation of limits, and the planned Pillar 2 risks/economic capital and the planned available internal capital/coverage potential. The calculation of the RCC forms a vital part of the management of risk and capital at Erste Group.

The figure below shows the distribution of risk types which make up the economic capital requirement of Erste Group. Other risks encompass business risk.

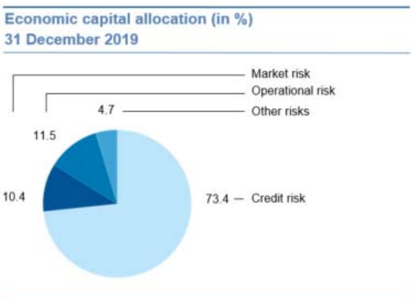


Figure 3: Economic capital composition

[4] Regulation (EU) No. 575/2013
[5] Regulation (EU) No. 876/2019 amending Regulation (EU) No. 575/2013

### Risk bearing capacity calculation

| in EUR million | Dec 19 |
|---|---|
| Economic capital requirement | 10,773 |
| Coverage potential | 18,591 |
| **Excess** | **7,818** |

Table 12: Risk-bearing capacity calculation

## RISK STEMMING FROM FOREIGN CURRENCY LOANS AND LOANS WITH REPAYMENT VEHICLE

Pursuant to FMA Minimum Standards for the Risk Management and Granting of Foreign Currency Loans and Loans with Repayment Vehicles (FMA - FXTT-MS), published in June 2017, institutions are obliged to disclose risk arising from foreign currency loans and loans with repayment vehicle.

Funding gap for loans with repayment vehicles is over prescribed threshold for enhanced monitoring and reporting of 20%, therefore Erste Group is providing in the tables below information on the loan portfolio with repayment vehicles on consolidated basis. The share of loans with repayment vehicles in total loan portfolio amounts to 2.3%, while the share of non-performing loans in loans with repayment vehicles amounts to 4.3%. The forecasted interest rate for repayment vehicles has been determined by 1% since September 2017. It is valid for all products without any distinctions. The forecast value is based on the surrender value or the current market value. The remaining time as well as the saving premium are also considered in this calculation.

### Loans with repayment vehicle

| in EUR million | Loans with repayment vehicle | of which bullet loans | of which amortising loans |
|---|---|---|---|
| up to 1 year | 43 | 0 | 43 |
| from 1 to 5 years | 593 | 493 | 99 |
| from 5 to 10 years | 1,108 | 823 | 285 |
| from 10 to 15 years | 1,494 | 1,082 | 412 |
| above 15 years | 444 | 145 | 299 |
| **Total** | **3,682** | **2,544** | **1,138** |

Table 13: Breakdown of loans with repayment vehicle by residual maturity and repayment type

### Asset quality of loans with repayment vehicle

| in EUR million | Loans with repayment vehicle |
|---|---|
| Total loans | 3,682 |
| of which non-performing loans | 158 |
| Total LLP | 78 |
| of which LLP on non-performing loans | 65 |

Table 14: Asset quality of loans with repayment vehicle

Calculation of the funding gap is based on portfolio booked in Austria, which encompasses 83.8% of total loans with repayment vehicle in Erste Group.

### Funding gap of the loan portfolio with repayment vehicle

| Currency of the loan | Gap |
|---|---|
| EUR | 33.6% |
| USD | 45.1% |
| CHF | 34.1% |
| Other | 43.1% |
| **Total** | **34.6%** |

Table 15: Funding gap of the loan portfolio with repayment vehicle by currencies

# Capital buffers

## DISCLOSURE REQUIREMENTS Art. 440 CRR

Erste Group calculates countercyclical buffer requirements at consolidated level in accordance with Title VII, Chapter 4 of Directive 2013/36/EU (CRD IV). A small number of jurisdictions (United Kingdom, Hong Kong, Norway, Sweden, Lithuania, Czech Republic, Slovak Republic, Iceland) applied countercyclical buffer rates of more than 0%, resulting in an overall countercyclical buffer rate for the Group of 0.4053%.

Tables below set out the geographical distribution of credit exposures relevant for the calculation of the countercyclical buffer as well as the institution-specific countercyclical buffer rate for the Group. The disclosure follows templates prescribed by Commission Delegated Regulation (EU) 2015/1555 with regard to regulatory technical standards for the disclosure of information in relation to the compliance of institutions with the requirement for a countercyclical capital buffer.

The table detailing the distribution of credit exposures has been simplified by listing individually only those countries which either represent core markets for the Group or have communicated countercyclical buffer rates other than zero. All other countries are shown in aggregated country groupings that reflect the geographical segmentation used in other tables in this report.

| | General credit exposures | | Trading book exposures | | Securitisations exposures | | Own funds requirements | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| in EUR million | STA | IRB | Sum of long and short positions of trading book exposure for STA | Value of trading book exposure for internal models | STA | IRB | General credit exposure | Trading book exposure | Securi-tisation exposure | Total | Own funds require-ments weight | Counter-cyclical capital buffer rate | Institution specific counter-cyclical capital buffer rate |
| Czech Republic | 1,050 | 32,815 | 2 | 2 | 0 | 935 | 1,284 | 0 | 15 | 1,299 | 18.42% | 1.50% | 0.28% |
| Slovakia | 217 | 15,790 | 3 | 3 | 0 | 0 | 556 | 0 | 0 | 556 | 7.89% | 1.50% | 0.12% |
| Sweden | 7 | 162 | 19 | 19 | 0 | 0 | 8 | 1 | 0 | 9 | 0.13% | 2.50% | 0.00% |
| Hong Kong | 1 | 80 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 0.05% | 2.00% | 0.00% |
| Norway | 2 | 21 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0.01% | 2.50% | 0.00% |
| Iceland | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00% | 1.75% | 0.00% |
| Austria | 3,244 | 90,194 | 61 | 62 | 0 | 886 | 2,843 | 3 | 5 | 2,852 | 40.43% | 0.00% | 0.00% |
| Croatia | 1,014 | 6,311 | 1 | 1 | 0 | 0 | 403 | 0 | 0 | 403 | 5.72% | 0.00% | 0.00% |
| Hungary | 251 | 5,936 | 1 | 1 | 0 | 0 | 363 | 0 | 0 | 363 | 5.15% | 0.00% | 0.00% |
| Romania | 8,590 | 777 | 1 | 1 | 0 | 0 | 496 | 0 | 0 | 496 | 7.03% | 0.00% | 0.00% |
| Serbia | 1,674 | 479 | 91 | 0 | 0 | 0 | 134 | 1 | 0 | 135 | 1.91% | 0.00% | 0.00% |
| Asia | 9 | 509 | 9 | 7 | 0 | 0 | 22 | 1 | 0 | 22 | 0.32% | 0.00% | 0.00% |
| Latin America | 17 | 45 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 0.08% | 0.00% | 0.00% |
| MiddleEast/ Africa | 15 | 698 | 4 | 4 | 0 | 0 | 21 | 0 | 0 | 21 | 0.30% | 0.00% | 0.00% |
| SE Europe/CIS | 2,058 | 177 | 0 | 0 | 0 | 0 | 134 | 0 | 0 | 134 | 1.90% | 0.00% | 0.00% |
| Other EU countries | 1,677 | 9,658 | 24 | 68 | 0 | 0 | 576 | 5 | 0 | 581 | 8.24% | 4,75%* | 0.01% |
| Other industri-alised countries | 227 | 2,783 | 0 | 11 | 0 | 0 | 170 | 1 | 0 | 171 | 2.43% | 0.00% | 0.00% |
| **Total** | **20,052** | **166,434** | **216** | **179** | **0** | **1,821** | **7,020** | **13** | **20** | **7,053** | **100.00%** | **0.00%** | **0.41%** |

Table 16: Geographical distribution of credit exposures relevant for the calculation of the countercyclical capital buffer (Art. 440 (1) (a) CRR)

Czech Republic, Slovakia, Austria, Croatia, Hungary, Romania and Serbia are core market countries. Emerging markets are the following geographical areas: Asia, Latin America, Middle East/Africa and SE Europe/CIS. In the position other EU countries, in the column countercyclical capital buffer rate are included: Great Britain (1%), Ireland (1%), Denmark (1%), Lithuania (1%), Bulgaria (0.5%) and France (0.25%).

| in EUR million | Dec 19 |
|---|---|
| Total risk exposure amount | 118,105 |
| Institution specific countercyclical capital buffer rate | 0.4053% |
| **Institution specific countercyclical buffer requirement** | **479** |

Table 17: Amount of institution-specific countercyclical capital buffer (Art. 440 (1) (b) CRR)

# Credit risk

## Goals and principles of risk management

DISCLOSURE REQUIREMENTS Art. 435 (1) (a) (b) (c) (d) CRR

Credit risk arises in the traditional lending and capital market business and includes losses incurred due to the default of a borrower or the impairment of a credit exposure due to the downgrading of a debtor. Country risk is implicitly considered when assessing credit risk.

Credit risk in retail lending arises from the probability that customers may fail to settle their financial obligations as stipulated by the contractual terms. Managing credit risk in retail involves dealing with a large number of relatively small exposures extended to private individuals, independent/free professionals, entrepreneurs or to micro companies in line with the Basel definitions. These exposures can be clustered into different risk segments with similar characteristics based on their rating and/or payment behaviour and treated accordingly by applying a rule-based approach. Credit risk related to retail loan portfolios is managed at the Group and local entity level with a common interest to ensure regulatory compliant risk management practices and to provide customers with manageable loan facilities that are within their financial capacities supported by underlying profitability.

At the Group level, retail credit risk is managed by the Group retail lending framework that sets out specific risk management policy requirements. All local entities engaged in lending activities must comply with these requirements. In addition, a standardised retail risk specific reporting platform is in place throughout the Group. This ensures that loan portfolio dynamics can be monitored and analysed regularly, identifying potential adverse developments early on and developing targeted mitigating actions.

Local banks develop their local lending strategy in which input from local risk management plays a key role. Local retail risk management supports the local business lines by identifying which customer segments should be in focus in terms of new lending initiatives. Moreover, local retail risk management ensures that any new products or changes in lending criteria are in line with the Group lending framework requirements and are adequately supported by the existing risk infrastructure. Local risk management also has the primary responsibility for ensuring that country-specific know-how is incorporated into risk management practices and that implications of the local environment (market, competitive, economic, political and legal/regulatory) are appropriately addressed.

In the non-retail business, the Group Risk Strategy sets Credit Risk Management Principles to ensure sound risk management and responsible banking in corporate lending. It sets quantitative credit risk portfolio limits and qualitative risk principles to ensure that the credit risk profile remains in line with the Group Risk Strategy. Further limits are derived from the credit risk portfolio limits and include industries, countries, single names and products. These are established to manage credit risk concentration and align the portfolio composition to the approved relevant business and risk strategies and the related documents (Policies and Procedures). For single names, the business and risk strategies are defined jointly by business and risk managers. The underlying principle is to ensure that lending activities are in compliance with the client rating based maximum (including uncollateralised) credit limit, are based on expert opinions and analyses and involve relevant cross-functional support from other departments. In addition, as and when available, peer group analyses and information from industry leaders/losers are used to identify industry consolidation trends early on and to adjust the business and risk strategies accordingly.

At the Group level, credit risk of the non-retail business is furthermore managed through the Group credit risk management framework that sets out specific credit risk management policy requirements and lending standards. All local entities engaged in credit business have to comply with these requirements.

In non-retail business no transaction can be executed without prior approval by credit risk management in accordance with the procedural requirements and explicitly delegated approval authorities. No credit decision is taken without a thorough assessment of the industry each borrower operates in, its risk profile, repayment capability and the assignment of an internal rating.

Collateral and credit enhancements are evaluated pursuant to internally defined rules. Depending on a rating grade, purpose and tenor, risk-bearing products are protected against losses by stipulating adequate collateral that is fully and indisputably legally enforceable and sufficiently documented for the bank. Nevertheless, collateral and credit enhancements can never substitute repayment capability.

The credit monitoring process is used to ensure consistency between the credit decision and the loan agreement, and to monitor the fulfilment of contractual obligations of a client. The process encompasses pre-drawn checks (i.e. fulfilment of all conditions precedent and other contractual conditions) and ongoing monitoring (i.e. fulfilment of conditions subsequent and operationalised covenants). Counterparty credit risk limits are monitored daily in an internal limit management system with remedial actions taken in case limits are exceeded. Group-wide standardised early warning monitoring process is implemented to proactively identify negative developments. When early warning signals are identified, adequate risk mitigating actions are taken as defined in the Group Early Warning Signal Monitoring Policy.

## ORGANISATION

Group Credit Risk Management is the operative risk management function covering underwriting, portfolio management and workout activities for both the retail (private individual and micro customers) and the non-retail portfolio (medium-sized enterprises, large corporate and real estate customers, corporate finance, institutional clients and counterparties, sovereigns and countries). It reports directly to the Group Chief Risk Officer (CRO) of the Management Board of Erste Bank Group AG.

Group Credit Risk Management is responsible for setting standards and steering the Group's retail and non-retail lending portfolios, including defining the lending and portfolio analytical framework and policies as well as operating the group-wide credit decision-making process, early warning system, NPL steering and credit monitoring requirements for the corporate portfolio. It recommends the unconditional approval authorities of the local management boards for approval by the Management Board of Erste Bank Group AG and fosters group-wide credit know-how and culture through regular training activities and sharing lessons learnt. It ensures that only credit risk that is in line with the risk appetite, the risk strategy and limits set by Group Enterprise-wide Risk Management is taken on the books of Erste Group. In addition, this function is the first line risk management for business booked in Erste Group Bank AG, and, above defined thresholds, the second line risk management for business booked in Erste Group's subsidiaries and the 'Haftungsverbund'. In its capacity as second line risk management, it provides the local management boards with recommendations for credit decisions that take into account the Group perspective. It is also responsible for monitoring and reporting relevant credit risk limit utilizations. Furthermore it conducts regular in-depth portfolio reviews with local risk management to understand portfolio dynamics and identify potential adverse portfolio developments early on. As third line of defence, Internal Audit ensures an independent and objective view and assurance of credit risk management activities.
Group Credit Risk Management is represented in several relevant governance committees as described in the section on Group Governance for risk management activities.

## RISK MEASUREMENT AND CONTROL

Prior to granting a loan, the creditworthiness of a retail client is determined and verified in view of the risk-return trade-off supported by clients' rating. Loans can only be granted if the repayment capacity of the borrower is sufficient to service the regular repayments. Risk-adjusted pricing ensures a balanced relationship between risk and return. Following the loan origination, clients are monitored and in case of adverse developments serviced by the Collection units.

For non-retail clients, the creditworthiness and repayment capacity is determined via in-depth financial analyses and individual rating, based on the clients' financials, projections, industry analyses and assessments of the clients' business model. Defined lending standards apply and credit decisions are taken in line with the currently valid internal credit risk approval authority rules. Counterparty limits are set towards a client / client group and monitored on a daily basis to ensure that the credit risk remains within the approved limits. For each client / client group a credit review is performed at least once a year. In addition, early warning signals are regularly monitored in order to timely recognise adverse developments and immediately take appropriate mitigating actions. In case of further negative developments, clients are handled in specialised Workout units with the aim to minimize potential losses.

Regular group-wide credit risk reports are prepared and contain relevant information for the risk management committees, Management Board and Supervisory Board. These reports inform about development of the credit portfolios in all segments, and provide detailed risk-relevant information on customers at risk of default or already defaulted. To further manage credit risk concentration in the portfolio, limits are also set on products, industries and countries, regularly monitored and reported in the group-wide credit risk reports. These reports also include specific monitoring metrics that provide an early warning signal for adverse developments of, e.g. portfolio quality (client, segment, countries and industries) and risk drivers. In instances where certain risk portfolios or clients / client groups are identified as potentially in distress, these are closely monitored by the dedicated risk functions (i.e. Group Credit Risk Management and Group Enterprise-wide Risk Management) to manage the risk impact and to develop effective strategies to minimize potential losses. This process facilitates early risk detection and reaction. In addition, these reports serve as the basis for reviewing the credit lending standards and the risk strategy.

Complementing the group-wide credit risk report, Group Credit Risk Management prepares a consolidated, group-wide retail risk management report that shows retail loan portfolio dynamics across local entities with monthly frequency. This report, building on up-to-date portfolio monitoring techniques (vintage analysis, delinquency trends, segment analyses, correlation analysis, etc.) shows the key drivers behind specific portfolio developments. The report covers new loan bookings as well as the main developments (including FX share trends) in the existing portfolio. In case of the non-retail customers (i.e. SME), the report includes information on rating and industry segmentation, debt and collateral coverage, etc.

A management summary of the key developments is distributed at least quarterly to senior management and key decision makers. In addition, key lending criteria relaxations planned by the local entities are also reviewed and aligned with Group Credit Risk Management prior to implementation.

It is the interest of Erste Group not to put customers into a position in which they are no longer able to meet their contractual obligations. This also includes the principle of matching the term of the debt to the object financed, in particular, as regards the relationship between operating output, cash flow, repayment capability and financing need; the recoverability of the loan and its use must be plausible and verifiable. Transactions with financial holding companies are entered into only in well-defined cases based on detailed (also intragroup) cash flow analyses. Foreign currency loans depend on regional market conditions and customer class. Generally, financing in local currency is given preference, especially if the customer does not have any income in foreign currency. However, market practices vary in the different CEE markets along with different business strategies. Interest rate hedging is provided where deemed necessary or risk is explicitly covered by buffers in repayment capacity of clients. Erste Group has established clear policies with respect to FX lending across countries and businesses. This includes appropriate monitoring and governance in place with distinct limits set as part of the Group Risk Strategy to manage and ensure proper oversight of FX lending risk.

Erste Group strictly follows a cash-flow based corporate lending approach. Any financing is based on a corporate client's ability to generate future cash-flows. Lending based exclusively on collateral is avoided as collateral only serves to reduce potential losses caused by unexpected cash-flow shortfalls. All corporate lending activities (including leverage financing) are regulated by the lending policies applied to the entire Group, prescribing limits and minimum requirements.

## RISK MITIGATION

Erste Group has implemented a sound risk management framework for identification, assessment, monitoring and mitigation of credit risks, including policies and procedures for credit application and approval process, fraud prevention, early warning and credit monitoring, collateral management, risk materiality assessment and determination of controls to mitigate the material risks in the credit process.

Apart from economic creditworthiness, the provision of collateral is a central element of risk mitigation and is particularly important for specialised lending. However, collateral is no substitute for lacking creditworthiness. The eligibility of collateral is determined in accordance with the bank's internal collateral catalogue. Non-collateralised portions of debt are usually not accepted for new customers below a certain credit quality as expressed by rating grades. In addition, risk mitigation for retail and non-retail clients is based, above all, on prudent lending criteria.

In non-retail lending Maximum and Rating Based Lending framework is established to proactively manage and limit single name/ group of connected clients concentrations and to ensure monitoring, reporting and steering of single name concentrations in line with the approved Risk Appetite Statement and Risk Strategy. These frameworks are operationalized through the Operating Lending Limit framework that is applied in the credit application and approval process.

Single clients belonging to a group of connected clients are financed only if the lending principles of Erste Group are met (any deviations needs to be brought to special attention). All single clients belonging to a group of connected clients are considered in a rating process. In such cases, the group rating and the "corporate ceiling" are taken into account. Beyond a predefined total debt level, single clients or groups of connected clients that have credit relations with more than one fully consolidated company of Erste Group are classified as limit relevant customers, with the limit cap being determined in the respective limit application. In the case of sector clusters, once a certain size is reached, joint business strategies are defined following the GO/HOLD/STOP logic.

In retail lending, the debt-to-income and loan-to-value ratios have to be limited to a percentage that allows for a sufficient buffer in case of stressed conditions. Furthermore, FX loans (i.e. loans that are at least partially receivable in currencies other than the legal tender of the country in which the borrower is domiciled) are not allowed – with the exception of the following:

- customers have a natural hedge (i.e. no FX risk involved)
- the loan is fully secured with matching currency liquid collateral
- explicitly approved loan share in the Group Risk Strategy

Retail and non-retail customers experiencing financial difficulties are managed by Collection and Workout units. These units proactively support customers with payment difficulties as appropriate by applying different collection and workout strategies in order to maintain a healthy portfolio, increase recoveries and save costs.

# Definition of past due, substandard, defaulted and impaired

DISCLOSURE REQUIREMENTS Art. 442 (a) CRR

The Group's ongoing assessment of the customers' capacity to fulfil their obligations is carried out using a large number of risk management instruments. This includes the constant monitoring of the Group's portfolio of past due, substandard and defaulted exposures.

### Past due

In the case of payments in arrears, payments are considered past due as of the date when the borrower exceeded an approved credit limit, or the borrower was advised of a lower limit than the current outstanding, or drew on an unauthorised credit facility, or did not make a contractually agreed payment in due time, and the amount concerned is significant. Unpaid credit card debt is deemed past due from the earliest due date.

### Substandard

The borrower is vulnerable to negative financial and economic impacts; as a rule, such loans are managed in specialised risk management departments.

### Defaulted

There is a default if one or more of the default criteria under the Basel capital adequacy framework apply

- 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,
- initiation of bankruptcy proceedings or
- the customer is regarded as impaired.

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 EUR 100 and relative 1% on client level;
- non-retail exposure as an absolute limit on client level of EUR 500 and relative 1% on client level.

### Impaired

Credit-impaired is defined as the occurrence of one or more events that have a detrimental impact on the estimated future cash flows of a financial asset.

Implementation of IFRS 9 Financial instruments standard as of 1 January 2018 led to harmonization of defaulted and impaired definitions in Erste Group. A financial instrument is credit-impaired if the customer is in default; internal rating "R" is assigned. This means that all financial instruments of a defaulted customer are credit-impaired. If a customer is upgraded to a non-defaulted rating grade, then all his financial assets will not be credit-impaired any longer.

# Credit risk adjustments

DISCLOSURE REQUIREMENTS Art. 442 (a) (b) (i) (ii) CRR

The following paragraphs provide a description of the approaches and methods adopted for determining value adjustments and credit risk adjustments.

## CREDIT RISK ADJUSTMENT CALCULATION

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

According to IFRS9 there are three main stages outlined for credit risk adjustments, defined as expected credit loss (ECL), determination. Stage 1 includes financial instruments which are not credit-impaired at initial recognition and for which credit risk has not increased significantly since initial recognition. In Stage 1, credit risk adjustments are calculated as twelve-month ECL. If a significant increase in credit risk (SICR) since initial recognition is identified but the financial instrument is not yet deemed to be credit impaired, it is moved to Stage 2. For financial instruments in Stage 2 the ECL is measured on a lifetime (LT) basis. If the financial instrument is credit-impaired, the financial instrument is then moved to Stage 3. For financial instruments in Stage 3 the ECL is measured on a lifetime basis.

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

Pursuant to Commission Delegated Regulation (EU) No 183/2014 in connection with EBA/RTS/2013/04[6], all credit risk adjustments are treated as specific credit risk adjustments in COREP.

Erste Group regularly reviews its expected credit risk adjustments. These exercises include the parameters and methodologies used in the credit risk adjustment calculation. Adjustments can take place in the context of specific reviews (cash flow assessment in case of individually assessed credit risk adjustments), routine maintenance of parameters (such as regular calibration) or in the case of specific events (e.g. improved knowledge about recovery behaviour, back-testing results).

## SIGNIFICANT INCREASE IN CREDIT RISK DETERMINATION

In the area of ECL modelling and calculation of ensuing credit risk adjustments, Erste Group has concluded that one of the key drivers of the impact from applying the ECL model required by IFRS 9 is the assessment of SICR based on whether an instrument's credit risk as at the reporting date has increased significantly to the date it was initially originated, for exposures that are not identified as credit-impaired as at the date of initial application of IFRS 9 (for retrospective application) or as at any given reporting period after transition to IFRS 9 (for prospective application). 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.

Quantitative SICR indicators include adverse changes in annualised lifetime probability of default and in lifetime probability of default with significance being assessed by reference to a mix of relative and absolute change thresholds. The bank has established thresholds for significant increases in credit risk based on both a percentage (relative) and absolute change in PD compared to initial recognition. In order for the SICR to occur for a particular financial instrument, both the relative and absolute thresholds need to be breached. The relative measure is calculated as a ratio between current annualised PD and annualised PD value on initial recognition. The breach means that such ratio has reached or is higher than the established threshold. These relative thresholds for SICR assessment are established at PD segment level or client rating level for each consolidated entity, as necessary, and are subject to initial and on-going validation. The absolute threshold refers to difference of LT PD on initial recognition and current LT PD. It is set to a maxi-mum of 50 bps and serves as a back-stop for migrations between the best ratings (LT PDs considered for remaining maturity). In such cases, relative thresholds may be breached, however overall PD is very low, and therefore SICR is not positively concluded.

[6] Recital (9) of Commission Delegated Regulation (EU) No 183/2014 states "Whereas the treatment of losses exclusively related to credit risk recognised under applicable accounting frameworks depends on the fulfilment of those criteria, the large majority of those amounts should normally be classified as Specific Credit Risk Adjustments given the restrictive nature of the criteria for General Credit Risk Adjustments".[6] EBA Final draft Regulatory Technical Standards on specification of the calculation of specific and general credit risk adjustments, 26 July 2013 states in answer 3 to Question 1 of the consultation "impairments recognised in accordance with current IAS 39 rules, also referred to as an 'incurred loss' model, would be considered as Specific Credit Risk Adjustments. For the IFRS framework as it currently stands, no example for General Credit Risk Adjustments can be given.

Qualitative SICR indicators include forbearance-type flags (identification of regulatory forbearance), workout transfer flag (when account starts being monitored by workout department), information from early-warning-system (if it is not sufficiently considered in rating) and fraud indicators. The assignment of some of the qualitative indicators inherently relies on experienced credit risk judgement being exercised adequately and timely. 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 client level, the assessment of significant increase in credit risk is performed on portfolio level if the increase in credit risk on individual instrument or client level is only available with a certain time lag or is observable exclusively on portfolio level. Examples are stage 2 overrides for parts of Swiss franc retail portfolio or in case of high LTV loans resulting from a specific law in Romania (clients are allowed to give up on real estate collateral against waiver of principal).

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

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.

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

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

## GROUPING OF INSTRUMENTS AND CALCULATION OF CREDIT RISK ADJUSTMENTS

Credit risk adjustments are calculated individually or collectively.

The individual 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 net 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 materiali-ty limit. Otherwise, the customer is considered as insignificant and a rule-based approach is used for the calculation of the related credit risk adjustments 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 adjustments are calculated according to a rule-based approach irrespective of the significance of the customer. The calculation of collective adjustments requires grouping the relat-ed exposures into homogenous clusters on the basis of shared risk characteristics. The grouping criteria may differ based on the customer segment (retail, corporate) and include product type, collateral type, repayment type, loan to value band, and credit rating band.

The calculation of credit risk adjustments 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 expo-sure at the time of default (EAD).

### Life-time parameters

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

The 1Y and LT EADs are determined based on the expected payment profiles, which vary by product type. The LT EAD calculation utilizes 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, cur-rent conditions and forecasts on future economic trends. Generally, the risk parameters applied in the calculation of collective ad-justments differ from the risk parameters compliant with capital requirement regulations, calculated on a through-the-cycle basis, if the characteristics of the respective portfolio in combination with IFRS standards necessitate this.

### Incorporation of forward-looking information

Parameters are determined to reflect the risk as a 'point-in-time' measure and with consideration of forward-looking information (FLI). This results in using a baseline forecast and a number of alternative scenarios for selected macroeconomic variables. The alternative scenarios are derived, together with their probabilities of occurrence, as a deviation from baseline forecasts, where the base-line forecasts are, with a few exceptions, internally determined by Erste Group's research department. Given multiple scenarios, the 'neutral' PDs (and, with a few exceptions, also LGDs) are adjusted using macro models that link relevant macroeconomic variables with risk drivers. The same macro-shift models as for external and internal stress test are used.

Forward-looking information is incorporated for first three years of ECL measurement. Measurement of the parameters for the remaining lifetime returns back to through-the-cycle observations immediately in year four.

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

### 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 of Erste Group's core markets to support citizens and companies. While such measures mitigate the negative economic effects, they complicate a timely reflection of a potential deterioration of the loan portfolios.

### Expected credit loss measurement

As described, 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.

Although ECL is expected to increase, considering the current high degree of uncertainty regarding the economic development we decided to re-assess the macroeconomic parameters – i.e. the update of the FLI (forward looking information) – in the second quarter of 2020 on the assumption the macro predictions should then be more reliable.

We have concluded so far that all moratoria introduced in our core markets fulfil the conditions as defined in the EBA guidelines published on 25 March and 2 April 2020. Relief offered to credit owners thus did not result in an automatic transfers 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.

Erste Group has assessed its industry exposures and prepared a heat map highlighting industries that are expected to be most affected by the COVID-19 situation. Clients within those industries (cyclical industries, transportation, hotels and leisure) were reviewed and those with – by expert assessment – higher risk were migrated to lifetime ECL. The industry heat map will be regularly reviewed. During the first quarter of 2020 such manual overlays were performed only in limited cases due to the high degree of uncertainties. They resulted in EUR 61 million ECL increase as of 31 March 2020.

Erste Group expects a significant increase in ECLs in the upcoming quarters based on

- a deterioration of the credit risk parameters (mainly PDs) due to a FLI update
- further manual portfolio overlays in affected industries and
- an increase in defaults especially after state aid measures, in particular moratoria, are lifted.

# Quantitative disclosure on credit risk

## DISCLOSURE REQUIREMENTS Art. 442 (c) (d) (e) (f) (g) (h) (i) CRR

In the following table total and average credit risk exposure over the period by significant exposure classes is provided. The table comprises all asset positions and off-balance items relevant for credit risk framework and based on the accounting values reported in financial statements. Exposure is reported net of credit risk adjustments. Exposures related to counterparty credit risk and securitisation are not subject of this chapter.

### Exposure classes and net exposure subject to credit risk framework

| in EUR million | Net exposure at the end of the period | Average net exposure over the period |
|---|---|---|
| Central Governments and Central Banks | 3,774 | 3,695 |
| Institutions | 7,635 | 7,164 |
| Corporate | 90,655 | 87,740 |
| of which Specialised Lending | 18,257 | 17,125 |
| of which SME | 35,689 | 36,035 |
| Retail | 84,363 | 82,043 |
| of which Retail SME secured by immovable property | 7,714 | 7,629 |
| of which Retail SME non-secured by immovable property | 7,088 | 6,978 |
| of which Retail secured by immovable property | 45,917 | 44,856 |
| of which Retail revolving | 0 | 0 |
| of which Other retail | 23,643 | 22,579 |
| Equity | 1,000 | 1,008 |
| Other | 7,276 | 6,918 |
| **IRB Approach Total** | **194,703** | **188,569** |
| Central Governments and Central Banks | 30,282 | 33,677 |
| Regional governments or local authorities | 5,305 | 5,165 |
| Public Sector Entities | 3,049 | 3,174 |
| Multilateral Development Banks | 252 | 250 |
| International Organisations | 282 | 298 |
| Institutions | 766 | 663 |
| Corporates (including secured by immovable property) | 11,572 | 10,947 |
| of which SME | 3,770 | 3,570 |
| Retail (including secured by immovable property) | 10,159 | 9,700 |
| of which SME | 1,301 | 1,289 |
| Exposures in default | 271 | 311 |
| Equity exposures | 152 | 151 |
| Other items | 4,475 | 3,813 |
| **Standardised Approach Total** | **66,566** | **68,148** |
| **Total** | **261,269** | **256,717** |

Table 18: Credit Risk – Total and average net amount of credit exposure (Art. 442 (c) (e) CRR and in line with EU CRB-B EBA/GL/2016/11)

In order to present the clear view of the credit risk in the following tables, loans and advances, finance lease receivables, trade and other receivables and debt securities are presented. On top of the asset relevant positions, off-balance items are included.

## Disclosed and undisclosed balance sheet positions in credit risk tables

| in EUR million | Subject to credit risk framework | Undisclosed positions | Credit risk tables |
|---|---|---|---|
| **Cash and cash balances** | **9,562** | **6,032** | **3,530** |
| Cash on hand | 6,032 | 6,032 | - |
| Cash balances at central banks | 3,369 | - | 3,369 |
| Other demand deposits | 161 | - | 161 |
| **Financial assets held for trading** | **0** | **-** | **0** |
| Derivatives | 0 | - | 0 |
| Other financial assets held for trading | - | - | - |
| **Non-trading financial assets at fair value through profit or loss** | **2,930** | **381** | **2,550** |
| Equity instruments | 381 | 381 | - |
| Debt securities | 2,066 | 0 | 2,066 |
| Loans and advances to customers | 483 | - | 483 |
| **Financial assets at fair value through other comprehensive income** | **9,047** | **210** | **8,836** |
| Equity investments | 210 | 210 | - |
| Debt securities | 8,836 | - | 8,836 |
| **Financial assets at amortised cost** | **182,634** | **-** | **182,634** |
| Debt securities | 26,763 | - | 26,763 |
| Loans and advances to banks | 3,013 | - | 3,013 |
| Loans and advances to customers | 152,858 | - | 152,858 |
| **Finance lease receivables** | **4,019** | **-** | **4,019** |
| **Hedge accounting derivatives** | **-** | **-** | **-** |
| **Fair value changes of the hedged items in portfolio hedge of interest rate risk** | **-** | **-** | **-** |
| **Property and equipment** | **2,426** | **2,426** | **-** |
| **Investment property** | **1,096** | **1,096** | **-** |
| **Intangible assets** | **-** | **-** | **-** |
| **Investments in joint ventures and associates** | **436** | **436** | **-** |
| **Tax assets** | **453** | **453** | **-** |
| Current tax assets | 80 | 80 | - |
| Deferred tax assets | 373 | 373 | - |
| **Assets held for sale** | **146** | **146** | **-** |
| **Trade and other receivables** | **1,407** | **-** | **1,407** |
| **Other assets** | **848** | **848** | **-** |
| **Total assets** | **215,004** | **12,028** | **202,976** |

Table 19: Overview on disclosed and undisclosed balance sheet positions in credit risk tables

Positions that are not included in following quantitative disclosures are cash on hand, equity instruments and equity investments, property and equipment, investment property, investment in joint ventures and associates, current tax assets, deferred tax assets not subject to deduction, assets held for sale and other assets, which in total comprise 5.6% of assets under the credit risk framework.

The table below presents net credit risk exposure (net value of the on-balance and off-balance sheet exposure corresponding to accounting values) by significant geographical areas based on country of residence of the counterparty. Geographical areas are defined by the operating country markets based on locations of the banking and other financial institution participations.

## Exposure classes and significant areas

| | Core Markets | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| in EUR million | Austria | Croatia | Czech Republic | Hungary | Romania | Serbia | Slovakia | Emerging Markets | Other EU Countries | Other Industri-alised Countries | Total |
| Central Governments and Central Banks | 0 | 959 | 0 | 70 | 548 | 0 | 80 | 456 | 877 | 542 | 3,531 |
| Institutions | 1,043 | 7 | 1,614 | 956 | 0 | 0 | 376 | 831 | 2,190 | 618 | 7,637 |
| Corporate | 48,890 | 3,761 | 13,675 | 3,372 | 792 | 510 | 5,705 | 978 | 9,903 | 3,024 | 90,610 |
| Retail | 47,450 | 2,522 | 19,364 | 2,825 | 5 | 10 | 10,923 | 100 | 959 | 204 | 84,361 |
| Equity | 102 | 2 | 19 | 0 | 0 | 0 | 3 | 0 | 34 | 39 | 199 |
| Other | 45 | 0 | 0 | 1 | 0 | 0 | 9 | 0 | 0 | 0 | 55 |
| **IRB Approach Total** | **97,529** | **7,250** | **34,673** | **7,224** | **1,346** | **521** | **17,096** | **2,364** | **13,964** | **4,426** | **186,394** |
| Central Governments and Central Banks | 4,588 | 1,404 | 8,758 | 2,652 | 5,402 | 421 | 4,602 | 494 | 1,777 | 0 | 30,097 |
| Regional governments or local authorities | 3,578 | 192 | 0 | 126 | 825 | 11 | 280 | 61 | 232 | 0 | 5,305 |
| Public Sector Entities | 2,051 | 200 | 10 | 67 | 40 | 24 | 1 | 8 | 647 | 0 | 3,048 |
| Multilateral Development Banks | 0 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 220 | 13 | 251 |
| International Organisations | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 282 | 0 | 282 |
| Institutions | 362 | 2 | 8 | 25 | 29 | 9 | 0 | 23 | 259 | 46 | 763 |
| Corporates (including secured by immovable property) | 1,563 | 746 | 798 | 222 | 4,569 | 1,108 | 197 | 1,324 | 848 | 202 | 11,579 |
| Retail (including secured by immovable property) | 618 | 494 | 625 | 133 | 5,418 | 894 | 15 | 1,016 | 942 | 3 | 10,157 |
| Exposures in default | 8 | 40 | 21 | 19 | 115 | 6 | 12 | 15 | 24 | 7 | 267 |
| Exposures associated with particular high risk | 0 | 0 | 126 | 0 | 2 | 0 | 0 | 0 | 24 | 0 | 152 |
| Covered bonds | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 2 | 0 | 11 |
| Collective investment undertakings (CIUs) | 102 | 19 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 121 |
| Equity exposures | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 0 | 6 | 20 |
| Other items | 792 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 794 |
| **Standardised Approach** | **13,662** | **3,114** | **10,346** | **3,253** | **16,400** | **2,473** | **5,108** | **2,954** | **5,260** | **277** | **62,847** |
| **Total** | **111,191** | **10,364** | **45,019** | **10,477** | **17,746** | **2,994** | **22,204** | **5,318** | **19,225** | **4,703** | **249,241** |

Table 20: Credit Risk – Net credit risk exposure by significant area and exposure class (Art. 442 (d) CRR and in line with EU CRB-C EBA/GL/2016/11)

Emerging markets include Asia, Latin America, Middle East and Africa and other (the non-EU countries in South-Eastern Europe as well as Georgia, Ukraine and CIS countries (e.g. Russia, Belarus, Armenia, Kazakhstan, Uzbekistan, etc.)).

The table below provides the breakdown of the net credit risk exposure by significant industries.

Industry breakdown is based on the NACE codes, and includes following:
_ (A) Agriculture, forestry and fishing;
_ (C) Manufacturing;
_ (D) Electricity, gas, steam and air conditioning supply;
_ (F) Construction;
_ (G) Wholesale and retail trade;
_ (H) Transport and storage;
_ (I) Accommodation and food service activities;
_ (K) Financial and insurance services;
_ (L) Real estate activities;
_ (M) Professional, scientific and technical activities;
_ (O) Public administration and defence, compulsory social security;
_ (T) Private households.

All industries that are below 1% of total credit risk exposure are aggregated in the position Other and together represent 5.5% of total.

Other includes the following industries: (B) Mining and quarrying; (E) Water supply; (J) Information and communication; (N) Administrative and support service activities; (P) Education; (Q) Human health services and social work activities; (R) Arts, entertainment and recreation; (S) Other services and (U) extraterritorial organisations and bodies.

## Exposure classes and significant industries

| in EUR million | A | C | D | F | G | H | I | K | L | M | O | T | Other | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Central Governments and Central Banks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 73 | 0 | 4 | 3,347 | 0 | 107 | 3,531 |
| Institutions | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 6,345 | 0 | 0 | 1,048 | 12 | 231 | 7,637 |
| Corporate | 1,222 | 15,716 | 3,095 | 9,291 | 9,369 | 3,335 | 3,485 | 5,345 | 24,657 | 8,120 | 22 | 85 | 6,869 | 90,610 |
| Retail | 1,061 | 994 | 76 | 1,249 | 1,852 | 357 | 1,194 | 170 | 2,982 | 1,339 | 0 | 70,474 | 2,612 | 84,361 |
| Equity | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 160 | 0 | 1 | 0 | 0 | 37 | 199 |
| Other | 0 | 0 | 0 | 1 | 0 | 4 | 0 | 17 | 3 | 1 | 2 | 0 | 26 | 55 |
| **IRB Approach Total** | **2,283** | **16,711** | **3,171** | **10,541** | **11,221** | **3,696** | **4,679** | **12,110** | **27,642** | **9,466** | **4,420** | **70,571** | **9,883** | **186,394** |
| Central Governments and Central Banks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3,795 | 0 | 0 | 26,299 | 0 | 3 | 30,097 |
| Regional governments or local authorities | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 4,907 | 0 | 395 | 5,305 |
| Public Sector Entities | 0 | 2 | 3 | 159 | 0 | 511 | 0 | 618 | 257 | 1 | 993 | 0 | 504 | 3,048 |
| Multilateral Development Banks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 251 | 0 | 0 | 0 | 0 | 0 | 251 |
| International Organisations | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 282 | 282 |
| Institutions | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 486 | 0 | 0 | 0 | 0 | 277 | 763 |
| Corporates (including secured by immovable property) | 443 | 2,388 | 590 | 1,265 | 2,189 | 566 | 125 | 805 | 1,176 | 192 | 23 | 18 | 1,799 | 11,579 |
| Retail (including secured by immovable property) | 236 | 289 | 14 | 198 | 443 | 234 | 84 | 34 | 77 | 135 | 0 | 8,128 | 285 | 10,157 |
| Exposures in default | 12 | 29 | 8 | 21 | 18 | 12 | 6 | 1 | 21 | 7 | 1 | 83 | 47 | 267 |
| Exposures associated with particular high risk | 8 | 1 | 0 | 12 | 1 | 1 | 2 | 0 | 124 | 4 | 0 | 0 | 0 | 152 |
| Covered bonds | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 11 |
| Collective investment undertakings (CIUs) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 120 | 121 |
| Equity exposures | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 0 | 0 | 0 | 0 | 0 | 20 |
| Other items | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 788 | 0 | 0 | 0 | 0 | 7 | 794 |
| **Standardised Approach Total** | **698** | **2,709** | **619** | **1,653** | **2,650** | **1,326** | **217** | **6,810** | **1,657** | **339** | **32,223** | **8,229** | **3,719** | **62,847** |
| **Total** | **2,980** | **19,420** | **3,790** | **12,195** | **13,871** | **5,022** | **4,896** | **18,920** | **29,299** | **9,804** | **36,643** | **78,799** | **13,602** | **249,241** |

Table 21: Credit Risk – Net credit risk exposure by industry group and exposure class (Art. 442 (e) CRR and in line with EU CRB-D EBA/GL/2016/11)

The table below provides information on the breakdown of the net credit risk exposure to residual maturity by significant exposure classes.

## Exposure classes and residual maturity

| in EUR million | On demand | <=1 year | > 1 year <= 5 years | > 5 years | No stated maturity | Total |
|---|---|---|---|---|---|---|
| Central Governments and Central Banks | 9 | 316 | 1,872 | 1,333 | 0 | 3,531 |
| Institutions | 649 | 2,087 | 2,960 | 1,941 | 0 | 7,637 |
| Corporate | 6,339 | 14,819 | 31,267 | 38,184 | 0 | 90,610 |
| Retail | 7,687 | 4,038 | 7,945 | 64,691 | 0 | 84,361 |
| Equity | 56 | 6 | 0 | 138 | 0 | 199 |
| Other | 30 | 11 | 14 | 0 | 0 | 55 |
| **IRB Approach Total** | **14,769** | **21,278** | **44,059** | **106,287** | **0** | **186,394** |
| Central Governments and Central Banks | 3,014 | 4,092 | 11,464 | 11,425 | 101 | 30,097 |
| Regional governments or local authorities | 205 | 433 | 1,131 | 3,536 | 0 | 5,305 |
| Public Sector Entities | 142 | 479 | 615 | 1,810 | 1 | 3,048 |
| Multilateral Development Banks | 0 | 47 | 186 | 17 | 0 | 251 |
| International Organisations | 0 | 18 | 165 | 100 | 0 | 282 |
| Institutions | 162 | 293 | 185 | 89 | 34 | 763 |
| Corporates (including secured by immovable properties) | 1,019 | 3,703 | 3,375 | 3,278 | 205 | 11,580 |
| Retail (including secured by immovable properties) | 217 | 829 | 3,173 | 5,772 | 166 | 10,157 |
| Exposures in default | 31 | 89 | 69 | 78 | 1 | 267 |
| Exposures associated with particular high risk | 1 | 16 | 125 | 10 | 0 | 152 |
| Covered bonds | 0 | 1 | 10 | 0 | 0 | 11 |
| Collective investment undertakings (CIUs) | 1 | 0 | 101 | 0 | 20 | 121 |
| Equity exposures | 6 | 0 | 0 | 14 | 0 | 20 |
| Other items | 0 | 0 | 7 | 0 | 787 | 794 |
| **Standardised Approach Total** | **4,798** | **10,000** | **20,606** | **26,129** | **1,315** | **62,847** |
| **Total** | **19,567** | **31,278** | **64,665** | **132,416** | **1,315** | **249,241** |

Table 22: Credit Risk – Net credit risk exposure by residual maturity and exposure class (Art. 442 (f) CRR and in line with EU CRB-E EBA/GL/2016/11)

In the following tables, detailed split of gross credit exposure, specific credit risk adjustments, accumulated write-offs and credit relevant charges are presented, by the significant exposure classes, industries and geographical areas. Charges for credit risk adjustments are reported as a difference between allocation and release of credit risk adjustments (net allocation) booked over the year. The accumulated write-offs represent amounts to which institution's rights are not extinguished, even in cases where exposure has been completely derecognised and no enforcement action has been taking place.

Figures related to defaulted clients in STA approach are shown in original classes (in which they would be classified assuming there was no default). To complete the picture, exposure class Exposure in default is shown as "out of which" in table below.

## Credit quality by exposure classes

| | Gross exposure | | | | | |
|---|---|---|---|---|---|---|
| in EUR million | Non-defaulted | Defaulted | Specific credit risk adjustments | Accumulated write-offs | Credit risk adjustments charges | Net values |
| Central Governments and Central Banks | 3,534 | 0 | 3 | 0 | -3 | 3,531 |
| Institutions | 7,646 | 2 | 11 | 0 | 0 | 7,637 |
| Corporate | 90,086 | 1,902 | 1,378 | 332 | 75 | 90,610 |
| of which Specialised Lending | 17,946 | 507 | 338 | 28 | 10 | 18,115 |
| of which SME | 35,262 | 1,363 | 936 | 58 | 14 | 35,689 |
| Retail | 83,834 | 1,775 | 1,248 | 324 | 67 | 84,361 |
| Retail SME secured by immovable property | 7,544 | 296 | 111 | 34 | 11 | 7,729 |
| Retail SME non-secured by immovable property | 7,112 | 209 | 214 | 29 | 16 | 7,108 |
| Retail secured by immovable property | 45,568 | 661 | 309 | 43 | -32 | 45,920 |
| Retail revolving | 0 | 0 | 0 | 8 | -2 | 0 |
| Other retail | 23,610 | 608 | 614 | 146 | 58 | 23,604 |
| Equity | 199 | 0 | 0 | 0 | 0 | 199 |
| Other | 62 | 3 | 9 | 2 | 0 | 55 |
| **IRB Approach Total** | **185,360** | **3,681** | **2,648** | **659** | **139** | **186,394** |
| Central Governments and Central Banks | 30,107 | 17 | 12 | 0 | 0 | 30,113 |
| Regional governments or local authorities | 5,313 | 35 | 23 | 0 | -7 | 5,324 |
| Public Sector Entities | 3,059 | 0 | 11 | 0 | -1 | 3,048 |
| Multilateral Development Banks | 253 | 0 | 2 | 0 | 1 | 251 |
| International Organisations | 282 | 56 | 32 | 0 | 0 | 306 |
| Institutions | 764 | 0 | 1 | 0 | 5 | 763 |
| Corporates (including secured by immovable properties) | 11,753 | 233 | 338 | 483 | -38 | 11,648 |
| of which SME | 3,798 | 47 | 69 | 34 | 8 | 3,776 |
| Retail (including secured by immovable properties) | 10,293 | 466 | 462 | 142 | 65 | 10,297 |
| of which SME | 1,244 | 21 | 41 | 6 | 13 | 1,225 |
| Exposures associated with particular high risk | 149 | 6 | 3 | 11 | -4 | 0 |
| Covered bonds | 11 | 0 | 0 | 0 | 0 | 0 |
| Collective investment undertakings (CIUs) | 121 | 0 | 0 | 0 | 0 | 0 |
| Equity exposures | 20 | 0 | 0 | 0 | 0 | 20 |
| Other items | 794 | 0 | 0 | 10 | 0 | 794 |
| **Standardised Approach Total** | **62,920** | **814** | **886** | **646** | **22** | **62,847** |
| of which Exposures in default | 4 | 771 | 508 | 499 | -14 | 267 |
| **Total** | **248,280** | **4,495** | **3,534** | **1,305** | **161** | **249,241** |
| of which: Loans | 164,352 | 4,150 | 3,196 | 1,305 | 224 | 165,307 |
| of which: Debt securities | 37,690 | 4 | 25 | 0 | 6 | 37,669 |
| of which: Off-balance-sheet exposures | 46,239 | 341 | 314 | 0 | -69 | 46,265 |

Table 23: Credit Risk – Gross and net credit risk exposure, credit risk adjustments, accumulated write-offs and credit risk charges by exposure class (Art. 442 (g) CRR and in line with EU CR1-A EBA/GL/2016/11)

## Credit quality by industries

| in EUR million | Gross carrying amount | of which non-performing | of which defaulted | of which loans and advances subject to impairment | Accumulated impairment | Accumulated negative changes in fair value due to credit risk on non-performing exposures |
|---|---|---|---|---|---|---|
| Agriculture, forestry and fishing | 1,509 | 65 | 65 | 1,509 | -51 | 0 |
| Mining and quarrying | 297 | 28 | 28 | 297 | -11 | 0 |
| Manufacturing | 12,165 | 409 | 409 | 12,165 | -343 | 0 |
| Electricity, gas, steam and air conditioning supply | 2,715 | 70 | 70 | 2,715 | -73 | 0 |
| Water supply | 481 | 3 | 3 | 481 | -7 | 0 |
| Construction | 6,412 | 256 | 256 | 6,396 | -208 | 0 |
| Wholesale and retail trade | 8,276 | 367 | 367 | 8,275 | -282 | 0 |
| Transport and storage | 2,876 | 68 | 68 | 2,876 | -58 | 0 |
| Accommodation and food service activities | 3,417 | 164 | 164 | 3,416 | -100 | 0 |
| Information and communication | 1,250 | 16 | 16 | 1,250 | -16 | 0 |
| Financial and insurance services | 311 | 2 | 2 | 311 | -1 | 0 |
| Real estate activities | 23,601 | 328 | 328 | 23,490 | -241 | -16 |
| Professional, scientific and technical activities | 5,602 | 110 | 110 | 5,602 | -104 | 0 |
| Administrative and support service activities | 1,755 | 53 | 53 | 1,731 | -29 | 0 |
| Public administration and defence, compulsory social security | 14 | 0 | 0 | 14 | 0 | 0 |
| Education | 95 | 1 | 1 | 95 | -1 | 0 |
| Human health services and social work activities | 747 | 128 | 128 | 747 | -73 | 0 |
| Arts, entertainment and recreation | 562 | 36 | 36 | 562 | -35 | 0 |
| Other services | 512 | 16 | 16 | 512 | -14 | 0 |
| **Total** | **72,598** | **2,119** | **2,119** | **72,445** | **-1,648** | **-16** |

Table 24: Credit quality of loans and advances to non-financial corporations by industries (Art. 442 (g) CRR and in line with Template 6 EBA/GL/2018/10)

## Credit quality by geography

| in EUR million | Gross carrying/nominal amount | of which non-performing | of which defaulted | of which subject to impairment | Accumulated impairment | Provisions on off-balance-sheet commitments and financial guarantees given | Accumulated negative changes in fair value due to credit risk on non-performing exposures |
|---|---|---|---|---|---|---|---|
| **On-balance-sheet exposures** | **232,283** | **4,166** | **4,165** | **226,808** | **-3,211** | | **-19** |
| Core Market - Austria | 89,831 | 1,578 | 1,578 | 88,357 | -944 | | 0 |
| Core Market - Croatia | 9,356 | 588 | 588 | 9,059 | -437 | | 0 |
| Core Market - Czech Republic | 54,751 | 651 | 651 | 54,623 | -557 | | 0 |
| Core Market - Hungary | 9,999 | 154 | 153 | 9,027 | -126 | | -3 |
| Core Market - Romania | 16,321 | 356 | 356 | 15,754 | -420 | | 0 |
| Core Market - Serbia | 2,579 | 21 | 20 | 2,390 | -32 | | 0 |
| Core Market - Slovakia | 19,989 | 427 | 427 | 19,909 | -344 | | 0 |
| Emerging Markets | 4,900 | 109 | 109 | 4,111 | -135 | | 0 |
| Other EU including Slovenia | 20,006 | 271 | 271 | 19,357 | -198 | | -16 |
| Other Industrialised Countries | 4,552 | 11 | 11 | 4,222 | -18 | | 0 |
| **Off-balance-sheet exposures** | **46,579** | **341** | **341** | | | **-314** | |
| Core Market - Austria | 23,631 | 110 | 110 | | | -144 | |
| Core Market - Croatia | 1,582 | 27 | 27 | | | -12 | |
| Core Market - Czech Republic | 7,648 | 47 | 47 | | | -33 | |
| Core Market - Hungary | 1,363 | 6 | 6 | | | -8 | |
| Core Market - Romania | 2,658 | 41 | 41 | | | -47 | |
| Core Market - Serbia | 629 | 1 | 1 | | | -3 | |
| Core Market - Slovakia | 2,627 | 47 | 47 | | | -6 | |
| Emerging Markets | 1,054 | 4 | 4 | | | -14 | |
| Other EU including Slovenia | 4,357 | 46 | 46 | | | -40 | |
| Other Industrialised Countries | 1,029 | 12 | 12 | | | -7 | |
| **Total** | **278,861** | **4,507** | **4,506** | **226,808** | **-3,211** | **-314** | **-19** |

Table 25: Quality of non-performing exposures by geography (Art. 442 (h) CRR and in line with Template 5 EBA/GL/2018/10)

In the tables below past due credit exposure (performing and non-performing) is reported by financial instruments, countries and exposure classes.

## Past due exposure by financial instruments

| in EUR milion | Performing exposures | | | Non-performing exposures | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Not past due or past due ≤ 30 days | Past due > 30 days ≤ 90 days | | Unlikely to pay that are not past due or are past due ≤ 90 days | Past due > 90 days ≤ 180 days | Past due > 180 days ≤ 1 year | Past due > 1 year ≤ 2 years | Past due > 2 years ≤ 5 years | Past due > 5 years ≤ 7 years | Past due > 7 years | Of which defaulted |
| **Loans and advances** | **187,524** | **187,002** | **522** | **4,162** | **1,879** | **338** | **385** | **383** | **601** | **246** | **330** | **4,161** |
| Central banks | 19,576 | 19,576 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| General governments | 7,205 | 7,197 | 8 | 20 | 7 | 3 | 10 | | 0 | 0 | 0 | 20 |
| Credit institutions | 8,162 | 8,144 | 18 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Other financial corporations | 3,718 | 3,706 | 13 | 13 | 7 | 0 | 0 | 1 | 4 | 0 | 0 | 13 |
| Non-financial corporations | 70,479 | 70,320 | 159 | 2,119 | 990 | 203 | 183 | 154 | 294 | 154 | 142 | 2,119 |
| Of which SMEs | 32,206 | 32,102 | 104 | 1,446 | 675 | 193 | 113 | 103 | 189 | 90 | 82 | 1,446 |
| Households | 78,384 | 78,060 | 324 | 2,008 | 873 | 133 | 192 | 228 | 303 | 91 | 187 | 2,007 |
| **Debt securities** | **40,592** | **40,589** | **3** | **4** | **4** | **0** | **0** | **0** | **0** | **0** | **0** | **4** |
| Central banks | 53 | 53 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| General governments | 30,992 | 30,989 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Credit institutions | 5,831 | 5,831 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other financial corporations | 1,659 | 1,659 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Non-financial corporations | 2,058 | 2,058 | 0 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| **Off-balance-sheet exposures** | **46,238** | | | **341** | | | | | | | | **341** |
| Central banks | 21 | | | 0 | | | | | | | | 0 |
| General governments | 2,139 | | | 0 | | | | | | | | 0 |
| Credit institutions | 1,089 | | | 0 | | | | | | | | 0 |
| Other financial corporations | 1,857 | | | 4 | | | | | | | | 4 |
| Non-financial corporations | 29,683 | | | 307 | | | | | | | | 307 |
| Households | 11,450 | | | 30 | | | | | | | | 30 |
| **Total** | **274,355** | **227,592** | **525** | **4,507** | **1,883** | **338** | **385** | **383** | **601** | **246** | **330** | **4,506** |

Table 26: Credit quality of performing and non-performing exposures by past due days (EBA/GL/2018/10)

For the purpose of credit quality overviews per industry, geography and past due days given in the tables above, the exposure includes part of credit risk relevant portfolio subject to capital requirement frameworks other then credit risk (securitisation, counterparty credit risk and market risk).

## Credit quality of forborne exposures

Credit quality of the forborne exposure is presented in the table below, including information on defaulted and impaired forborne exposure. Coverage of the exposure by allowances and collateral is also disclosed.

| in EUR million | Gross carrying amount/nominal amount of exposures with forbearance measures | | | | Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions | | Collateral received and financial guarantees received on forborne exposures | |
|---|---|---|---|---|---|---|---|---|
| | Performing forborne | Non-performing forborne | | | On performing forborne exposures | On non-performing forborne exposures | | Of which collateral and financial guarantees received on non-performing exposures with forbearance measures |
| | | | Of which defaulted | Of which impaired | | | | |
| **Loans and advances** | **910** | **1,303** | **1,302** | **1,267** | **-33** | **-678** | **1,005** | **462** |
| Central banks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| General governments | 36 | 3 | 3 | 3 | -1 | -3 | 0 | 0 |
| Credit institutions | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other financial corporations | 18 | 6 | 6 | 6 | 0 | -5 | 8 | 1 |
| Non-financial corporations | 396 | 871 | 871 | 836 | -20 | -489 | 476 | 258 |
| Households | 460 | 423 | 422 | 422 | -12 | -182 | 521 | 203 |
| **Debt securities** | **0** | **3** | **3** | **3** | **0** | **-2** | **1** | **1** |
| **Loan commitments given** | **30** | **67** | **67** | **67** | **-4** | **-11** | **8** | **2** |
| **Total** | **939** | **1,373** | **1,372** | **1,337** | **-37** | **-691** | **1,014** | **465** |

Table 27: Credit quality of forborne exposures (EBA/GL/2018/10)

In the table above the difference between non-performing exposure and defaulted exposure is related to non-defaulted part of non-performing forbearance portfolio.

| in EUR milion | Gross carrying amount/nominal amount | | | | | | Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions | | | | | | Accumulated partial write-off | Collateral and financial guarantees received | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Performing exposures | | | Non-performing exposures | | | Performing exposures – accumulated impairment and provisions | | | Non-performing exposures – accumulated impairment, accumulated negative changes in FV due to credit risk and provisions | | | | On performing exposures | On non-performing exposures |
| | | Stage 1 | Stage 2 | | Stage 2 | Stage 3 | | Stage 1 | Stage 2 | | Stage 2 | Stage 3 | | | |
| **Loans and Advances** | **187,524** | **173,191** | **13,873** | **4,162** | **1** | **4,119** | **-872** | **-349** | **-523** | **-2,333** | **0** | **-2,314** | **-181** | **112,067** | **1,327** |
| Central banks | 19,576 | 19,576 | 0 | 0 | 0 | 0 | -1 | -1 | 0 | 0 | 0 | 0 | 0 | 15,363 | 0 |
| General governments | 7,205 | 6,857 | 346 | 20 | 0 | 20 | -23 | -19 | -3 | -4 | 0 | -4 | 0 | 1,553 | 0 |
| Credit institutions | 8,162 | 8,143 | 19 | 2 | 0 | 2 | -7 | -7 | -1 | -2 | 0 | -2 | 0 | 5,588 | 0 |
| Other financial corporations | 3,718 | 3,455 | 263 | 13 | 0 | 13 | -14 | -5 | -9 | -8 | 0 | -8 | -2 | 1,435 | 3 |
| Non-financial corporations | 70,479 | 63,769 | 6,592 | 2,119 | 0 | 2,085 | -440 | -189 | -251 | -1,224 | 0 | -1,208 | -130 | 35,855 | 619 |
| of which SMEs | 32,187 | 27,895 | 4,137 | 1,446 | 0 | 1,359 | -251 | -114 | -137 | -762 | 0 | -762 | -44 | 17,858 | 464 |
| Households | 78,384 | 71,391 | 6,654 | 2,008 | 1 | 2,000 | -387 | -128 | -259 | -1,094 | 0 | -1,091 | -48 | 52,272 | 705 |
| **Debt securities** | **40,592** | **35,343** | **278** | **4** | **0** | **4** | **-23** | **-13** | **-10** | **-2** | **0** | **-2** | **0** | **2,298** | **1** |
| Central banks | 53 | 53 | 0 | 0 | 0 | 0 | -1 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| General governments | 30,992 | 28,903 | 36 | 0 | 0 | 0 | -7 | -6 | 0 | 0 | 0 | 0 | 0 | 399 | 0 |
| Credit institutions | 5,831 | 4,378 | 29 | 0 | 0 | 0 | -4 | -3 | -1 | 0 | 0 | 0 | 0 | 1,529 | 0 |
| Other financial corporations | 1,659 | 277 | 55 | 0 | 0 | 0 | -2 | 0 | -2 | 0 | 0 | 0 | 0 | 44 | 0 |
| **Non-financial corporations** | **2,058** | **1,733** | **158** | **3** | **0** | **3** | **-9** | **-2** | **-7** | **-2** | **0** | **-2** | **0** | **326** | **1** |
| **Off-balance-sheet exposures** | **46,238** | **39,031** | **2,464** | **341** | **0** | **312** | **-155** | **-68** | **-76** | **-159** | **0** | **-154** | | **4,293** | **29** |
| Central banks | 21 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 |
| General governments | 2,139 | 1,803 | 27 | 0 | 0 | 0 | -1 | -1 | 0 | 0 | 0 | 0 | | 165 | 0 |
| Credit institutions | 1,089 | 987 | 58 | 0 | 0 | 0 | -2 | -1 | -1 | 0 | 0 | 0 | | 222 | 0 |
| Other financial corporations | 1,857 | 1,606 | 101 | 4 | 0 | 4 | -7 | -4 | -3 | -4 | 0 | -4 | | 247 | 0 |
| Non-financial corporations | 29,683 | 24,199 | 1,532 | 307 | 0 | 280 | -122 | -54 | -59 | -141 | 0 | -135 | | 2,518 | 24 |
| Households | 11,450 | 10,416 | 746 | 30 | 0 | 28 | -22 | -9 | -13 | -15 | 0 | -15 | | 1,141 | 4 |
| **Total** | **274,355** | **247,565** | **16,615** | **4,507** | **1** | **4,435** | **-1,050** | **-430** | **-609** | **-2,494** | **0** | **-2,469** | **-181** | **118,658** | **1,357** |
| of which: POCI | 134 | 0 | 134 | 281 | 0 | 281 | 0 | 0 | 0 | -140 | 0 | 0 | -26 | 92 | 99 |

Table 28: Performing and non-performing exposures and related provisions (EBA/GL/2018/10)

Table above presents split of performing and non-performing credit risk exposures per stage, as well as respective accumulated impairements, write-offs and collateral irrespective of the risk framework, meaning they include small part of credit risk relevant exposures for which capital requirement is calculated under securitisation, counterparty credit or market risk. The total perfoming and non performing credit risk exposures include part of portfolio which is not subject to IFRS 9 impairement calculation per stage (such as FVTPL portfolio). The non-performing exposure includes small part of non-performing portfolio subject to other risk frameworks (mainly subject to securitisation).

## Change of specific credit risk adjustments of defaulted exposures

| in EUR million | Dec 19 |
|---|---|
| **Opening balance** | **2,941** |
| Increases due to origination and acquisition | 133 |
| Decreases due to derecognition | -504 |
| Changes due to change in credit risk (net) | 454 |
| Changes due to modifications without derecognition (net) | 3 |
| Changes due to update in the institution's methodology for estimation (net) | 0 |
| Decrease in allowance account due to write-offs | -560 |
| Other adjustments | 2 |
| **Closing balance** | **2,469** |
| Total recoveries on credit risk adjustments recorded directly to the statement of profit or loss | -159 |
| Total specific credit risk adjustments recorded directly to the statement of profit or loss | 36 |

Table 29: Credit Risk – Changes in the stock of specific credit risk adjustments held against defaulted exposures (Art. 442 (i) CRR and in line with EU CR2-A EBA/GL/2016/11)

In row ‘Increases due to origination and acquisition’ increases of CLA due to the initial recognition of loans and advances to customers at AC or FVTOCI during the current reporting period are disclosed. Additions in Stage 3 reflect transfers from Stage 1 or Stage 2, having occurred between commitment and drawing dates of related credit facilities. Releases of CLA following the derecognition of the related loans and advances to customers are reported in ‘Decreases due to derecognition’.

Row ‘Changes due to change in credit risk (net)’ show net CLA changes resulting from changes in credit risk that triggered re-assignments of the related loans and advances to customers from Stage 1 or 2 at 1 January 2019 (or initial recognition date, if later) to Stages 3 at 31 December 2019. This position also captures the passage-of-time adverse effect (unwinding correction) over the lifetime expected cash shortfalls of loans and advances to customers that were assigned to Stage 3 for any period throughout the year, as well as of any POCI loans and advances to customers. ‘Changes due to modifications without derecognition (net)’ reflects the effect on CLA arising from contractual modifications of loans and advances to customers which do not trigger their full derecognition. The use of CLA triggered by full or partial write-offs of loans and advances to customers is reported in row ‘Decrease in allowance account due to write-offs’.

Specific credit risk adjustments (held against defaulted exposures) decreased by EUR 472 million, or 16%, throughout the financial year largely in line with the overall decrease of the NPL portfolio.

## Asset repossesion

The table below shows the information on the instruments that were cancelled in exchange of the collateral obtained by taking possession and on the value of collateral obtained by taking possession.

| | Collateral obtained by taking possession | |
|---|---|---|
| in EUR milion | Value at initial recognition | Accumulated negative changes |
| **Property, plant and equipment (PP&E)** | **1** | **0** |
| **Other than PP&E** | **201** | **-43** |
| Residential immovable property | 69 | -19 |
| Commercial immovable property | 125 | -23 |
| Movable property (auto, shipping, etc.) | 3 | 0 |
| Equity and debt instruments | 0 | 0 |
| Other | 3 | -1 |
| **Total** | **202** | **-43** |

Table 30: Collateral obtained by taking possession and execution processes (EBA/GL/2018/10)

“Value at initial recognition” respresents the gross carrying amount of the repossessed collateral at initial recognition in the balance sheet. “Accumulated impairment, accumulated negative changes” shows a negative difference between the current and the initial value of the collateral obtained by taking possession.

## Yearly development of defaulted exposures

| in EUR million | Gross carrying value |
|---|---|
| **Opening balance** | **5,267** |
| Loans and debt securities that have defaulted or impaired since the last reporting period | 1,302 |
| Returned to non-defaulted status | -498 |
| Amounts written off | -606 |
| Other changes | -971 |
| **Closing balance** | **4,495** |

Table 31: Credit Risk – Changes in the stock of defaulted exposures (EU CR2-A EBA/GL/2016/11)

The substantial improvement of asset quality resulted on one side from a strong decline of new non-performing loans, and on the other side from high recoveries and write-offs, including sales of non-performing loans. The development was positive across all customer segments, but most visibly among SME and Large Corporate

# Use of ECAIs

## Scope of application and use of external ratings

DISCLOSURE REQUIREMENTS Art. 444 (a) (b) (c) (d) CRR

Pursuant to Article 4 (98) CRR, external credit assessment institution (ECAI) means a credit rating agency that is registered or certified in accordance with Regulation (EC) No 1060/2009.

Erste Group generally uses the IRB Approach for determining the minimum capital requirements pursuant to Basel 3. The Standardised Approach is applied to exposures in insignificant business areas and business units as well as when the rollout plan specifies a later date for transition to the IRB Approach. Furthermore, specific legal regulations for certain business segments may trigger the application of the Standardised Approach (e.g. zero weighting for Austrian municipalities).

### STANDARD & POOR'S RATINGS

Erste Group generally uses Standard & Poor's (S&P) ratings (Art. 444 (a) CRR). The assignment of the rating grades to credit quality steps is undertaken according to Article 136 CRR.

External ratings are used to a limited extent in some exposure classes to calculate the RWA in the Standardised Approach (Art. 444 (b) CRR):

- in case of central governments and central banks, the RW has to be determined pursuant to Article 114 CRR
- in case of institutions, if an external rating by an ECAI of the counterparty is available, the risk weight (RW) has to be determined pursuant to Article 120 CRR;
- in case an external rating by an ECAI of the counterparty in the institution exposure class is not available, the RW has to be determined pursuant to Article 121 CRR;
- In addition, the external ratings published by S&P are used by Erste Group Bank AG as well as by the Austrian subsidiaries for the sub-portfolio of insurance companies of the corporates exposure class. Furthermore, the S&P ratings of securities issuers are used for determining the eligibility of financial collateral according to Article 197 CRR and the calculation of the volatility adjustment pursuant to Article 224 (1) CRR.

#### Transfer and allocation of external ratings to credit quality steps and risk weights

The transfer of the issuer credit ratings onto comparable assets in the banking book is pursuant to Article 138 CRR (Art. 444 (c)). The allocation of the ratings to credit quality steps is as follows:

| Standard & Poor's | Credit quality step |
|---|---|
| AAA to AA- | 1 |
| A+ to A- | 2 |
| BBB+ to BBB- | 3 |
| BB+ to BB- | 4 |
| B+ to B- | 5 |
| CCC+ and below | 6 |

Table 32: Allocation of external ratings to credit quality steps (Art. 444 (d) CRR (1/2))

The risk weight allocation depending on the credit quality step and the exposure class is as follows:

| Credit quality step | Central governments and central banks (Article 114 CRR) | Institutions (Article 121 CRR) | Institutions long-term (Article 120 -1 CRR) | Institutions short-term (Article 120 -2 CRR) | Corporates (Article 122 CRR) |
|---|---|---|---|---|---|
| 1 | 0% | 20% | 20% | 20% | 20% |
| 2 | 20% | 50% | 50% | 20% | 50% |
| 3 | 50% | 100% | 50% | 20% | 100% |
| 4 | 100% | 100% | 100% | 50% | 100% |
| 5 | 100% | 100% | 100% | 50% | 150% |
| 6 | 150% | 150% | 150% | 150% | 150% |

Table 33: Allocation of external ratings to credit quality steps and risk weights (Art. 444 (d) CRR (2/2))

# Quantitative disclosure on credit risk – Standardised Approach

## DISCLOSURE REQUIREMENTS Art. 444 (e) CRR

### Regulatory exposure by exposure classes and CRM effects

| in EUR million | Exposure before CCF and CRM | | Exposure post CCF and CRM | | RWA | RWA density |
|---|---|---|---|---|---|---|
| | On-balance | Off-balance | On-balance | Off-balance | | |
| Central Governments and Central Banks | 46,056 | 159 | 50,145 | 104 | 1,759 | 3.5% |
| Regional governments or local authorities | 4,374 | 1,011 | 5,734 | 398 | 378 | 6.2% |
| Public Sector Entities | 2,694 | 419 | 1,322 | 64 | 260 | 18.8% |
| Multilateral Development Banks | 258 | 2 | 572 | 15 | 4 | 0.6% |
| International Organisations | 287 | 0 | 287 | 0 | 0 | 0.0% |
| Institutions | 1,075 | 150 | 843 | 42 | 169 | 19.1% |
| Corporates | 7,931 | 3,875 | 7,288 | 900 | 7,859 | 96.0% |
| Retail | 5,793 | 934 | 4,810 | 280 | 3,635 | 71.4% |
| Exposures secured by mortgages on immovable property | 4,046 | 55 | 4,046 | 25 | 1,472 | 36.1% |
| Exposures in default | 249 | 39 | 230 | 11 | 283 | 117.7% |
| Exposures associated with particular high risk | 96 | 57 | 96 | 28 | 186 | 150.0% |
| Covered bonds | 11 | 0 | 11 | 0 | 2 | 18.2% |
| Collective investment undertakings (CIUs) | 130 | 0 | 130 | 0 | 77 | 59.2% |
| Equity exposures | 143 | 0 | 143 | 0 | 222 | 154.8% |
| Other items | 2,840 | 0 | 2,848 | 0 | 1,699 | 59.7% |
| **Total** | **75,982** | **6,702** | **78,504** | **1,868** | **18,006** | **22.4%** |

Table 34: Standardised approach – Credit risk exposure and CRM effect (Art. 453 (f) (g) CRR and in line with the EU CR4 EBA/GL/2016/11)

Exposure before CCF and CRM is regulatory exposure net of credit risk adjustments, before application of credit conversion factor to off-balance and before application of the credit risk mitigation techniques.

### Regulatory exposure before CCF and CRM

| in EUR million | Risk weights | | | | | | | | | | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0% | 2% | 10% | 20% | 35% | 50% | 70% | 75% | 100% | 150% | 250% | Other | Deducted | |
| Central governments or central banks | 43,720 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 939 | 0 | 146 | 1,404 | 0 | 46,215 |
| Regional governments or local authorities | 3,740 | 0 | 0 | 1,444 | 0 | 0 | 0 | 0 | 201 | 0 | 0 | 0 | 0 | 5,385 |
| Public Sector Entities | 749 | 0 | 0 | 2,025 | 0 | 1 | 0 | 0 | 338 | 0 | 0 | 0 | 0 | 3,113 |
| Multilateral Development Banks | 242 | 0 | 0 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 260 |
| International Organisations | 287 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 287 |
| Institutions | 16 | 584 | 0 | 465 | 0 | 82 | 0 | 0 | 78 | 0 | 0 | 0 | 0 | 1,224 |
| Corporates | 395 | 0 | 0 | 42 | 0 | 133 | 0 | 0 | 11,234 | 3 | 0 | 0 | 0 | 11,807 |
| Retail | 47 | 0 | 0 | 0 | 0 | 0 | 0 | 6,680 | 0 | 0 | 0 | 0 | 0 | 6,727 |
| Exposures secured by mortgages on immovable property | 0 | 0 | 0 | 0 | 3,501 | 592 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 4,101 |
| Exposures in default | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 186 | 102 | 0 | 0 | 0 | 288 |
| Exposures associated with particular high risk | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 153 | 0 | 0 | 0 | 153 |
| Covered bonds | 0 | 0 | 2 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 |
| Securitisation positions | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exposures to institutions and corporates with a short-term credit assessment | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Collective investment undertakings (CIUs) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 22 | 0 | 0 | 108 | 0 | 130 |
| Equity exposures | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 91 | 0 | 52 | 0 | 0 | 143 |
| Other items | 1,132 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,689 | 0 | 0 | 19 | 0 | 2,840 |
| **Total** | **50,327** | **584** | **8** | **4,003** | **3,501** | **807** | **0** | **6,680** | **14,787** | **258** | **198** | **1,531** | **0** | **82,684** |

Table 35.1: Standardised approach – Credit risk exposure value by risk weights (Art. 444 (e) CRR)

## Regulatory exposure after CCF and CRM

| in EUR million | Risk weights 0% | 2% | 10% | 20% | 35% | 50% | 70% | 75% | 100% | 150% | 250% | Other | Deducted | Total | Unrated |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Central governments or central banks | 47,346 | 0 | 6 | 0 | 0 | 9 | 0 | 0 | 939 | 0 | 146 | 1,803 | 0 | 50,249 | 1,002 |
| Regional governments or local authorities | 4,859 | 0 | 0 | 1,121 | 0 | 0 | 0 | 0 | 153 | 0 | 0 | 0 | 0 | 6,133 | 48 |
| Public Sector Entities | 629 | 0 | 0 | 621 | 0 | 1 | 0 | 0 | 135 | 0 | 0 | 0 | 0 | 1,386 | 30 |
| Multilateral Development Banks | 568 | 0 | 0 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 586 | 145 |
| International Organisations | 287 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 287 | 0 |
| Institutions | 16 | 351 | 0 | 408 | 0 | 59 | 0 | 0 | 51 | 0 | 0 | 0 | 0 | 885 | 162 |
| Corporates | 0 | 0 | 0 | 42 | 0 | 168 | 0 | 0 | 7,973 | 3 | 0 | 0 | 0 | 8,187 | 8,027 |
| Retail | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 5,090 | 0 | 0 | 0 | 0 | 0 | 5,091 | 4,970 |
| Exposures secured by mortgages on immovable property | 0 | 0 | 0 | 0 | 3,486 | 577 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 4,071 | 664 |
| Exposures in default | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 155 | 85 | 0 | 0 | 0 | 240 | 161 |
| Exposures associated with particular high risk | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 124 | 0 | 0 | 0 | 124 | 124 |
| Covered bonds | 0 | 0 | 2 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 9 |
| Securitisation positions | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exposures to institutions and corporates with a short-term credit assessment | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Collective investment undertakings (CIUs) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 22 | 0 | 0 | 108 | 0 | 130 | 20 |
| Equity exposures | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 91 | 0 | 52 | 0 | 0 | 143 | 110 |
| Other items | 1,140 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,689 | 0 | 0 | 19 | 0 | 2,848 | 1,771 |
| **Total** | **54,844** | **351** | **8** | **2,219** | **3,486** | **815** | **1** | **5,090** | **11,218** | **213** | **198** | **1,930** | **0** | **80,372** | **17,245** |

Table 35.2: Standardised approach – Exposure post CCF and CRM by risk weights (Art. 444 (e) CRR and in line with EU CR5 EBA/GL/2016/11)

Table above presents exposure post CCF and CRM with the breakdown to credit quality steps. It includes only exposure under credit risk framework, while the split of counterparty credit risk relevant exposure is presented in corresponding chapter. Under column Unrated, exposures for which credit risk assessment by a nominated ECAI is not used and for which specific risk weights are applied depending on their exposure class.

# Leverage

## Leverage ratio

### DISCLOSURE REQUIREMENTS Art. 451 (1) (a) CRR

The leverage ratio represents the relationship between Tier 1 capital and the leverage exposure pursuant to Article 429 CRR, more specifically the Delegated Regulation (EU) 2015/62 with regard to leverage ratio (Delegated Act) of 10 October 2014, which was published in the Official Journal of the European Union on 17 January 2015. Essentially, the leverage exposure represents the sum of unweighted on-balance sheet and off-balance sheet positions considering valuation and risk adjustments as defined in the Delegated Act.

The leverage ratio for Erste Group Bank AG at consolidated level amounted to 6.8%, comfortably above the 3.0% minimum recommendation. The Regulation (EU) 2019/876 (Capital Requirements Regulation - CRR2) amending Regulation (EU) No 575/2013, with the application date 28th June 2021, sets the Tier 1 capital-based leverage ratio requirement at 3% for all EU banks as per the EBA's recommendation (Article 92 (d)).The ratio is calculated on period-end values for both leverage exposure and Tier 1 capital, with the Tier 1 capital based on fully-fledged CRR definitions, i.e. not including any transitional provisions.

## Leverage exposure breakdown and reconciliation

### DISCLOSURE REQUIREMENTS Art. 451 (1) (a) (b) (c) CRR

Erste Group discloses its CRR leverage ratio in accordance with the Commission Implementing Regulation (EU) 2016/200 which specifies implementing technical standards for the disclosure of the leverage ratio. Items included in the prescribed disclosure tables which are not relevant for Erste Group are omitted from the tables disclosed in this section in order improve the readability of the information. As a consequence, the numbering of rows in the tables may not be consecutive.

#### Reconciliation of the Group's published financial statements to the total leverage ratio exposure

| in EUR million | Category | Applicable amount |
|---|---|---|
| 1 | Total assets as per published financial statements | 245,693 |
| 2 | Adjustment for entities which are consolidated for accounting purposes but are outside the scope of regulatory consolidation | 153 |
| 4 | Adjustments for derivative financial instruments | 718 |
| 5 | Adjustments for securities financing transactions (SFTs) | 774 |
| 6 | Adjustment for off-balance sheet items (i.e. conversion to credit equivalent amounts of off-balance sheet exposures) | 15,845 |
| 7 | Other adjustments | -2,746 |
| **8** | **Leverage ratio total exposure measure** | **260,437** |

Table 36: Reconciliation of accounting assets and leverage ratio exposure (Art. 451 (1) (b) CRR / Table LRSum)

Under IFRS accounting standards, Erste Group does not recognise fiduciary items on its balance sheet. As such, there are no derecognised fiduciary items in accordance with Article 429 (13) CRR. Equally, there are no adjustments for intragroup exposures as disclosure is at consolidated Group level. Article 429 (14) CRR is not applicable to Austrian banks; therefore, no exclusions to the leverage ratio exposure in accordance with this article apply. As a result, rows relating to these items have been excluded from all disclosure tables.

The following table provides a breakdown of the total leverage exposure measure into its main constituent parts as well as the calculation of the period-end leverage ratio.

| in EUR million | | CRR leverage ratio exposures |
|---|---|---|
| **On-balance sheet exposures (excluding derivatives and SFTs)** | | |
| 1 | On-balance sheet items (excluding derivatives, SFTs and fiduciary assets, but including collateral) | 221,174 |
| 2 | (Asset amounts deducted in determining Tier 1 capital) | -1,762 |
| **3** | **Total on-balance sheet exposures (excluding derivatives, SFTs and fiduciary assets)** | **219,412** |
| **Derivative exposures** | | |
| 4 | Replacement cost associated with all derivatives transactions (i.e. net of eligible cash variation margin) | 1,721 |
| 5 | Add-on amounts for PFE associated with all derivatives transactions (mark-to-market method) | 1,468 |
| EU-5a | Exposure determined under Original Exposure Method | 35 |
| 9 | Adjusted effective notional amount of written credit derivatives | 431 |
| **11** | **Total derivative exposures** | **3,656** |
| **SFT exposures** | | |
| 12 | Gross SFT assets (with no recognition of netting), after adjusting for sales accounting transactions | 20,751 |
| 14 | Counterparty credit risk exposure for SFT assets | 774 |
| **16** | **Total securities financing transaction exposures** | **21,525** |
| **Other off-balance sheet exposures** | | |
| 17 | Off-balance sheet exposures at gross notional amount | 47,101 |
| 18 | (Adjustments for conversion to credit equivalent amounts) | -31,256 |
| **19** | **Other off-balance sheet exposures** | **15,845** |
| **Capital and total exposure measure** | | |
| 20 | Tier 1 capital | 17,770 |
| **21** | **Leverage ratio total exposure measure** | **260,437** |
| **Leverage ratio** | | |
| 22 | Leverage ratio | 6.8% |

Table 37: Leverage ratio common disclosure (Art. 451 (1) (b) CRR / Table LRCom)

The following table provides a breakdown of on-balance sheet exposures (excluding derivatives, SFTs and exempted exposures) by exposure class.

| in EUR million | Category | CRR leverage ratio exposures |
|---|---|---|
| EU-1 | Total on-balance sheet exposures (excluding derivatives, SFTs and exempted exposures), of which: | 221,174 |
| EU-2 | Trading book exposures | 3,884 |
| EU-3 | Banking book exposures, of which: | 217,290 |
| EU-4 | Covered bonds | 1,625 |
| EU-5 | Exposures treated as sovereigns | 38,485 |
| EU-6 | Exposures to regional governments, MDB, international organisations and PSE not treated as sovereigns | 3,915 |
| EU-7 | Institutions | 4,370 |
| EU-8 | Secured by mortgages / immovable property | 43,950 |
| EU-9 | Retail exposures | 52,746 |
| EU-10 | Corporate | 57,450 |
| EU-11 | Exposures in default | 1,845 |
| EU-12 | Other exposures (e.g. equity, securitisations and other non-credit obligation assets) | 12,904 |

Table 38: Split-up of on-balance sheet exposures (Art. 451 (1) (b) CRR / Table LRSpl)

# Management of the risk of excessive leverage

## DISCLOSURE REQUIREMENTS Art. 451 (1) (d) CRR / Table LRQua

The focus of Erste Group's business model, in line with its stated strategic objectives, is on retail and corporate lending businesses. Therefore, the Group's leverage exposure is mainly driven by on-balance sheet and off-balance sheet credit-related exposures with limited impact from derivatives and securities financing transactions. As a result, the risk of excessive leverage is mitigated by Erste Group's solid and diversified business model. Since the lending-focused business model results in a relatively high RWA density (defined as RWA/leverage exposure), the risk-based capital requirements (capital requirements expressed as a percentage of total RWA) rather than the leverage ratio currently represent the primary capital constraint for the business activities of Erste Group.

This notwithstanding, the leverage ratio is planned as part of the annual forecasting and budgeting process and also represents a core risk metric included in the Group RAS with defined RAS thresholds, which, when breached, trigger management discussions and actions to manage and control excessive leverage. As a RAS metric, the development of the Group leverage ratio is regularly monitored by the management board (reported in the Group Risk Report) and the supervisory board (reported in the Group Risk Report and RAS Monitor). Local leverage ratio limits and triggers are also defined in the Local RAS by relevant local entities and monitoring is undertaken at local entity level.

# Factors influencing the development of leverage exposure

DISCLOSURE REQUIREMENTS Art. 451 (1) (e) CRR / Table LRQua

The leverage ratio increased by 21 basis points to 6.8% compared to year-end 2018, driven by Tier 1 capital increase which was offset by growth in leverage exposure. Tier 1 capital increased by 7.5% or by EUR 1.2 billion mainly due to the inclusion of the profit for the year and additional tier 1 capital issuance of EUR 500 million in March 2019. The overall leverage exposure increased by 4.1% to EUR 260 billion. This change was mainly driven by an increase in on-balance sheet primarily as a result of business and loan growth in the retail and corporate segments as well as increased reverse repo transactions.

# Use of the IRB Approach to credit risk

## Approved approaches and transitional rules by the regulator

### DISCLOSURE REQUIREMENTS Art. 452 (a) CRR

Erste Group was authorised by the Austrian Financial Market Authority (FMA) and Oesterreichische Nationalbank (Austrian central bank) to calculate risk-weighted exposure amounts for credit risk using the IRB Approach as of 1 January 2007.

The following segments fall under the Foundation IRB Approach:

- Institutions
- Sovereigns (exposures to central governments and central banks of the Member States and their regional governments, local authorities and public sector entities assigned with a 0% risk weight remain under the Permanent Partial Use)
- Corporates
- Specialised Lending - Slotting Criteria approach

The following segment falls under the Advanced IRB Approach:

- Retail

For equity exposures, the PD/LGD approach is applied. If the IRB-approach of equity exposures is set to PD/LGD approach and the PD-value is missing due to a STA-rating method, then equity exposures are treated under the simple risk weight approach. For certain intra-group equity exposures, the Standardised Approach under PPU is applied.

The authorisation to calculate risk-weighted exposure amounts for credit risk using the IRB approaches by the supervisory authorities was issued for an indefinite period of time.

### IRB OFFICIAL NOTICES AND IRB ROLL-OUT PLAN

#### IRB official notice for single banking entities and at consolidated level in Austria

The following savings banks in the cross-guarantee system and domestic operating subsidiaries of Erste Group were audited locally by the FMA/OeNB and received approval to apply the IRB Approach indefinitely as of 1 January 2007 or later:

#### IRB approval with application starting from 1 January 2007

- Erste Group Bank AG
- Allgemeine Sparkasse Oberösterreich Bank AG
- Dornbirner Sparkasse Bank AG
- Kärntner Sparkasse AG
- Sparkasse Imst AG
- Sparkasse Niederösterreich Mitte West AG
- Steiermärkische Bank und Sparkassen AG
- Tiroler Sparkasse Bank AG Innsbruck
- Bausparkasse der oesterreichischen Sparkassen AG
- Sparkasse Baden
- Sparkasse Bregenz Bank AG
- Sparkasse Herzogenburg-Neulengbach Bank AG
- Lienzer Sparkasse AG
- Salzburger Sparkasse Bank AG
- Sparkasse Bludenz Bank AG
- Sparkasse der Stadt Feldkirch
- Sparkasse Korneuburg AG
- Sparkasse Frankenmarkt AG
- Sparkasse Hainburg-Bruck-Neusiedl AG
- Sparkasse Horn-Ravelsbach-Kirchberg AG
- Waldviertler Sparkasse Bank AG
- Sparkasse der Gemeinde Egg
- Sparkasse der Stadt Amstetten AG
- Sparkasse Eferding-Peuerbach-Waizenkirchen
- Sparkasse Feldkirchen/ Kärnten
- Sparkasse Lambach Bank AG
- Sparkasse Langenlois
- Sparkasse Mühlviertel-West Bank AG
- Sparkasse Mürzzuschlag AG
- Sparkasse Neuhofen Bank AG
- Sparkasse Neunkirchen
- Sparkasse Pöllau AG
- Sparkasse Pottenstein N.Ö.
- Sparkasse Poysdorf AG
- Sparkasse Pregarten – Unterweißenbach AG
- Sparkasse Rattenberg Bank AG
- Sparkasse Scheibbs AG
- Sparkasse Voitsberg-Köflach Bank AG
- Wiener Neustädter Sparkasse
- Bankhaus Krentschker & Co. AG
- Kremser Bank und Sparkassen AG

#### IRB approval with application from a later date

- Sparkasse Salzkammergut AG (IRB Official Notice 30 June 2008)
- Erste Bank der Oesterreichischen Sparkassen AG (IRB Official Notice 9 August 2008 after the split-off from Erste Group)
- Sparkasse Ried im Innkreis-Haag am Hausruck (IRB Official Notice 20 July 2009)

The following savings banks were granted an individual IRB Official Notice prior to joining the cross-guarantee system that was supplemented when they joined the cross-guarantee system:

_ Sparkasse Schwaz AG (IRB Official Notice 28 June 2007 / 29 September 2008)
_ Sparkasse Reutte AG (IRB Official Notice 18 April 2007 / 22 September 2008)
_ Sparkasse der Stadt Kitzbühel (IRB Official Notice 18 April 2007 / 22 September 2008)
_ Sparkasse Mittersill Bank AG (IRB Official Notice 18 April 2007 / 22 September 2008)
_ Sparkasse Kufstein, Tiroler Sparkasse von 1877 (IRB Official Notice 18 April 2007 / 1 October 2009)

### IRB official notice for single banking entities and at consolidated level for institutions abroad

The following foreign banks have been audited by the local supervisory authorities on behalf of the FMA and have been granted an indefinite approval to apply the IRB Approach as of 1 January 2007 or later:

_ Česká spořitelna, a.s. (IRB Official Notice 1 January 2007)
_ Stavebni sporitelna Ceske sporitelny a.s. (IRB Official Notice 1 January 2007)
_ Erste Bank Hungary Zrt (IRB Official Notice 1 April 2008)
_ Slovenská sporiteľňa, a.s. (IRB Official Notice 1 July 2008)
_ Erste & Steiermärkische bank d.d., Rijeka (IRB Official Notice for the consolidated level 1 July 2009 and single-entity level 7 October 2011)

### IRB official notice at consolidated level only

The following financial institutions have been audited by the OeNB or by local supervisory authorities on behalf of the FMA and were granted approval to apply the IRB Approach at the consolidated level indefinitely:

_ Erste Bank und Sparkassen Leasing GmbH
_ Erste Group Immorent AG
_ Sparkassen Leasing Süd GmbH
_ Sparkassen Leasing Süd GmbH & Co KG
_ s Wohnbaubank AG

### IRB application planned – Temporary partial use (TPU)

The following members of the Group of credit institutions will be gradually included in the application of the IRB Approach, for which a specific rollout plan is in place:

_ Banca Comercială Română SA
_ Waldviertler Sparkasse Bank AG (only business area Czech Market)
_ Erste Bank Hungary Zrt (Specialised Lending Project Finance) & (Micro Enterprises - Sole Entrepreneur & Micro Enterprise)

## PERMANENT PARTIAL USE

Based on the approval of the FMA, Permanent Partial Use (PPU) is applicable to the following exposure classes and in the following cases:

_ Exposures with respect to the mandatory liquidity reserve with the central institution;
_ Exposures with insignificant risk profiles in minor business areas and exposure classes of insignificant volume;
_ Exposures in the exposure classes of the federal government, the federal states, municipalities and public sector entities;
_ Exposures regarding claims of a credit institution vis-à-vis its parent company, its subsidiaries or a subsidiary of its parent company;
_ Investments within the scope of government programmes of the member states to promote specific economic sectors;
_ Exposures in the form of mandatory minimum reserves;
_ Liabilities and back-to-back guarantees of central governments;
_ Investments in companies if the exposures to these companies are assigned a weighting of 0% under the credit risk Standardised Approach.

## Overview of EAD based on exposure classes (FIRB, AIRB, TPU, PPU)

| in EUR million | EAD | % of total | Total TPU EAD | Total TPU EAD (% of total) | Banca Comercială Română SA | Erste Bank Hungary Zrt | Waldviertler Sparkasse Bank AG |
|---|---|---|---|---|---|---|---|
| Retail-SME secured by immovables | 7,519 | 2.8% | | | | | |
| Retail-secured by immovable property | 45,307 | 16.8% | | | | | |
| Retail revolving | 0 | 0.0% | | | | | |
| Retail SME non-secured by immovables | 6,421 | 2.4% | | | | | |
| Other retail | 21,081 | 7.8% | | | | | |
| **Advanced IRB Approach Total** | **80,329** | **29.8%** | | | | | |
| Central governments and central banks | 4,426 | 1.6% | | | | | |
| Institutions | 16,226 | 6.0% | | | | | |
| Corporates-SME without supporting factor | 22,028 | 8.2% | | | | | |
| Specialised lending | 17,737 | 6.6% | | | | | |
| Other corporates | 37,243 | 13.8% | | | | | |
| Equity exposures | 1,075 | 0.4% | | | | | |
| Securitisation positions | 1,873 | 0.7% | | | | | |
| Other non-credit obligation assets | 8,023 | 3.0% | | | | | |
| **Foundation IRB Approach Total** | **108,630** | **40.3%** | | | | | |
| Central governments or central banks | 50,249 | 18.7% | 6,232 | 2.3% | 6,222 | 0 | 10 |
| Regional governments or local authorities | 6,133 | 2.3% | 647 | 0.2% | 647 | 0 | 0 |
| Public Sector Entities | 1,386 | 0.5% | 29 | 0.0% | 29 | 0 | 0 |
| Multilateral Development Banks | 586 | 0.2% | 68 | 0.0% | 68 | 0 | 0 |
| International Organisations | 287 | 0.1% | 0 | 0.0% | 0 | 0 | 0 |
| Institutions | 885 | 0.3% | 146 | 0.1% | 144 | 0 | 2 |
| Corporates | 8,187 | 3.0% | 2,840 | 1.1% | 2,670 | 98 | 72 |
| Retail | 5,091 | 1.9% | 1,861 | 0.7% | 1,735 | 55 | 71 |
| Exposures secured by mortgages on immovable property | 4,071 | 1.5% | 2,562 | 1.0% | 2,309 | 1 | 252 |
| Exposures in default | 240 | 0.1% | 108 | 0.0% | 88 | 1 | 19 |
| Exposures associated with particular high risk | 124 | 0.0% | 106 | 0.0% | 2 | 0 | 105 |
| Covered bonds | 11 | 0.0% | 0 | 0.0% | 0 | 0 | 0 |
| Collective investment undertakings (CIUs) | 130 | 0.0% | 0 | 0.0% | 0 | 0 | 0 |
| Other items | 2,848 | 1.1% | 1,195 | 0.4% | 1,185 | 0 | 10 |
| Equity exposures | 143 | 0.1% | 23 | 0.0% | 23 | 0 | 0 |
| **Standardised Approach Total** | **80,372** | **29.8%** | **15,817** | **5.9%** | **15,120** | **155** | **541** |
| **Total** | **269,332** | **100.0%** | | | | | |

Table 39: EAD overview based on exposure classes according to the approaches in the rollout plan

In the table above EAD figure represents exposure value used as a base for RWA calculation (post CCF and CRM) and includes exposure under credit risk, counterparty credit risk and securitisation frameworks.

# Rating systems

DISCLOSURE REQUIREMENTS Art. 452 (b) (i) CRR

A rating system comprises all models, methods, processes, controls, data collection and data processing that serve the assessment of credit risks, the allocation of exposures to rating grades and the quantification of default probabilities and loss estimates for certain types of exposures. The rating systems used by Erste Group meet the requirements for the application of the IRB Approach.

## RATING MODELS

The internal rating models and the estimates of related risk parameters play a key role in credit risk management, in the decision-making processes and in lending operations. Furthermore, they deliver the main determinants for the procedures to assess capital requirements. Erste Group uses empirical-statistical and expert-based model types. A periodic validation ensures the quality of the rating models and risk parameters.

### Empirical-statistical models

Empirical-statistical models of risk assessment require a large data base and are especially suitable for mass market businesses.

Based on sufficiently large empirical data bases (data of a large population from the customer base of the bank), scorecards are developed using logistic regression techniques. The key criterion used for selecting the best scorecard is the accuracy ratio. The accuracy ratio indicates the ability of the scorecard to differentiate between customers with low and high default risk. The result of the scorecard is presented as a rating grade, which is associated with a probability of default estimate.

The key element in rating models applied to retail portfolios is the assessment of account behaviour, which is updated on a monthly basis. This enables continuous risk monitoring of customer portfolios in the retail banking business. Furthermore, the rating models also include customer information that is updated at least once a year but in any case when a credit application is made (in the event of a credit decision).

The rating results (rating grades) are verifiable and objective, i.e. if the input information is the same they supply the same rating grade regardless of the individual assessment by the account manager.

Empirical-statistical models are used not only in the retail business, but also in the corporate segment. In the case of corporates, the emphasis is on statistically developed financial ratings (evaluation of financial statement ratios). Apart from the financial rating (hard facts), qualitative customer information (soft facts) also enters into the risk evaluation of corporate customers, which is updated at least once a year or through behavioral components where feasible.

### Expert-based models

For expert-based models, the empirical-statistical component is not as important – due to the lack of a sufficiently large population of customers in the respective customer segments or a sufficient number of defaulted customers – and is replaced by expert know-how, which takes into account quantitative criteria (e.g. financial statements), qualitative criteria (e.g. market and industry developments), but also macroeconomic factors (e.g. country rating).

By helping to assess the specific debtor- and business-specific features, this expert knowledge makes an important contribution to the rating models for the following customer segments: specialised lending, banks (for which the rating model is currently being amended with an empirical-statistical financial rating) and sovereigns.

These rating models ensure a sound assessment of the debtor- and business-specific features, risk differentiation as well as precise and consistent quantitative risk estimates.

## RATING METHODS

DISCLOSURE REQUIREMENTS Art. 452 (c) CRR

### Exposure classes of the IRB Approach and applied rating methods

| | Empirical-statistical models | | | | Expert-based models | | |
|---|---|---|---|---|---|---|---|
| Exposure class/rating method | Rating Private Individuals | Rating SME | Rating Corporates | Rating Specialised Lending | Bank Rating | Country Rating | External ratings (ECAIs) |
| Retail | • | • | | | | | |
| Corporate incl. SME, SL | | • | • | • | • | | |
| Institutions | | | | | • | | |
| Central government and central banks | | | | | | • | |
| Equity | | | • | • | • | | |
| Securitisations | | | | | | | • |
| Other assets | | | | | | | |

Table 40: Map of rating methods (Art. 452 (c) (i) CRR)

The rating methods Bank Rating and Country Rating are used as centralised methods throughout Erste Group without any regional modifications. The rating grades are determined by Erste Group centrally and made available to the Group companies.

The other rating methods (Rating Private Individuals, Rating SME, Rating Corporates and Rating Specialised Lending (Rating SL)) follow uniform modelling guidelines and – where possible – model structures, and feature regional adaptations appropriate to the respective portfolios in the individual Group companies.

### Rating Private Individuals

#### Classification

Customers are classified as private individuals according to their occupational status. They are assigned to the rating method Rating Private Individuals in the customer database.

#### Development

The rating method Rating Private Individuals was developed by experts at Erste Group as an empirical-statistical model. The variants used at the various subsidiaries were developed on the basis of the local customer database, making it possible to take local specifics into account. The rating method is applied in case of applications for a financing decision (e.g. new loan applications) and automatically within the monthly update of customer ratings.

#### Rating determinants

The rating model assigns scores based on demographic information, account data (e.g. debit balances and days in overdraft), product attributes as well as external data (e.g. information supplied by Kreditschutzverband, an Austrian creditor protection association, or other credit reference agencies). The assessment of account behaviour is performed monthly and provides an essential input for timely risk assessment. Analyses done in the case of applications take into account not only the input factors for the rating, but also the current customer information on their income and expenditure.

#### Outputs of the rating process

Based on a scorecard, every private individual is assigned a rating grade on a rating scale of 8 grades. The customers with rating grade A1 have the lowest and customers with rating grade D2 have the highest PD. The customer rating serves as the basis for the calculation of capital requirements and is an indicator for the credit decision and the lending terms. Private individual ratings derived from the analysis of the loan application, which includes all loans granted and applied for, are an integral part of the decision recommendation. Rating grades of customers are updated at the monthly reappraisal of account behaviour. The monthly processing of customer and account data is also the basis for the early warning system. The early warning list supplies account managers with valuable information on current risk assessments and also contains private individuals of substandard creditworthiness because of specific customer or account features. Such customers may include, for example, those with regular overdrafts or customers that have been sent reminders.

### Rating SME

#### Classification

The rating method Rating SME (incl. small commercial customers and independent professionals) is applied to SMEs with sales revenues of up to EUR 5 million as well as to independent professionals.

#### Development

Statistically-derived rating models are used in all subsidiaries. Ratings for SME customers and independent professionals must be determined taking into account the financial situation before and after the financing being applied for. This Basel requirement is complied with by means of an online rating initiated manually for determining the current rating grade and the rating in the case of a loan application (rating by type of financing). In addition to the online rating, there is also a monthly batch rating in which the current rating grade is determined based on behaviour. This automatically updates the rating grade (based on an evaluation of account behaviour and any available external information).

### Rating determinants

According to differences in income patterns, the method is broken down into three sub-groups: customers using double-entry book-keeping, customers using single-entry book-keeping and customers using simplified accounting. Depending on these accounting types, the following six rating determinants apply:

_ Double-entry book-keeping: From the analysis of financial statements, condensed information is extracted (financial rating) that can be adjusted by entering any corrections relevant to financial strength (such as hidden reserves or liabilities).
_ Single-entry book-keeping: A financial rating is also calculated based on the statement of income and expenses.
_ Asset and liability status: The asset and liability position may be considered in the financial rating for customers that use single-entry book-keeping. For customers using simplified accounting, it is used to calculate a debt ratio, which in turn is considered in the overall rating.
_ Qualitative factors: Qualitative factors make it possible to take into account input factors that cannot be derived directly from financial statements. Examples are management, accounting practices, market and its trends, and external information (credit bureau notifications).
_ Account behaviour: Particular attention is paid to account behaviour, which is automatically assessed and updated on a monthly basis. The evaluation considers and scores, for example, the incidence of payment difficulties, account balances and the extent to which available credit and overdraft facilities are used.
_ Creditworthiness based on cash flow considerations: Finally, the ability to service debts is evaluated. To this end, disposable income derived from the business documentation and from revenue and expenditure accounting is compared to current liabilities.

### Outputs of the rating process

A specific rating grade from a scale of 13 grades is assigned to every SME or professional customer. This customer rating serves as the basis for determining the required regulatory capital, as an indicator for the credit decision and as a factor in credit terms.

## Rating Corporates

### Classification

Corporates, i.e. commercial customers with sales revenues above specified thresholds, are rated by the "Rating Corporates" method. Within the corporate segment a further size differentiation exists. In addition, some locally specific corporate rating methods exist adapted to the nature of certain portfolio segments.

### Development

Statistically-derived rating models are used in all subsidiaries.

### Rating determinants

The assignment of ratings for corporates is done systematically both with respect to information on past developments as well as future prospects, with special attention being paid to the relevant customer segment (e.g. whether the customers' business is capital goods intensive) and the characteristics of the relevant markets (e.g. divergent accounting rules in Eastern European countries).

Rating Corporates is a two-stage process including the assignment of individual customer ratings and group ratings.

_ Individual customer rating: The cornerstone is the evaluation of the company's financials. Based on ratios from the financial statements, a so-called "financial rating" (hard facts) is calculated. This financial rating also takes into account local factors based on the country where the company has its registered office. Another component for rating corporates are qualitative factors (soft facts). Unlike the hard facts that enter into the financial rating, these soft facts also include projections into the future. A company's potential, opportunities and risks are determined, evaluated and documented according to a standardised procedure.
_ Group rating: In a second step, the company is considered within the context of a Group of companies that form an economic unit. A separate customer rating is produced for the Group as a whole. The capacity and the willingness to provide support are analysed, which may have a positive influence on the individual customer rating. Additionally, the Group's rating is the cap for the rating of the individual customer. Rating caps also result from country ratings.

### Outputs of the rating process

Based on the score, every corporate is assigned a rating grade on a scale of 13 grades. The customer rating serves as the basis for determining the regulatory capital requirement, as an indicator for the credit decision and as a factor in the credit terms and conditions.

## Rating Specialised Lending

### Classification

The Corporates customer category includes the specialised lending customer segment. These are mainly real estate projects (e.g. rental, tourism and for-sale properties) and other project financing (e.g. power plants, infrastructure).

### Rating determinants
Both the hard facts (financial ratios) and the soft facts differ substantially from the rating for general corporates. The indicators include the loan-to-value and the debt service coverage ratio, features of the object financed (e.g. location quality) and project risks.

### Outputs of the rating process
The model output is mapped to the regulatory risk categories in the Supervisory Slotting Approach within the IRB Approach. These categories are the basis for the calculation of the capital requirement.

## Bank Rating

### Classification
The rating method "Banks" is used to evaluate foreign and domestic banks, investment banks as well as financial institutions belonging to banking groups.

### Development
The expert-based Bank Rating model was developed and is supported centrally by Erste Group.
A credit institution or financial institution is to be assigned a rating grade if
- a bank overdraft limit is granted;
- there is an exposure vis-à-vis the Group;
- Erste Group has a nostro account with the institution or
- the institution has a loro account with Erste Group with overdraft privileges.

### Rating determinants
The central component of the bank rating is a peer group comparison on the basis of quantitative, qualitative and country-related criteria. The institution to be analysed is compared with a group of banks of similar size, business activities, geographic location, ownership structure, etc. The following quantitative data for the institution to be rated are automatically compared by the rating model to the data for the peer group and evaluated:
- profitability (e.g. return on equity)
- liquidity (e.g. deposit base)
- asset quality (e.g. ratio of non-performing loans to gross loans)
- capitalisation (e.g. capital ratio).

The following qualitative criteria are evaluated by the expert analyst:
- likelihood of support (e.g. by the owner or the state)
- importance of the institution for the country's financial system
- quality of banking supervision
- experience to date
- future potential.

To recognise transfer risk, the country rating of the home country of the bank is also considered in the rating. The model automatically assigns scores depending on the country's rating.

### Outputs of the rating process
Based on the score achieved in the rating model, every customer from the Bank rating segment is assigned a rating grade on a scale of 13 grades. The rating serves as the basis for the calculation of the limit for the maximum exposure that the bank is prepared to enter into with a given customer. The rating grade must be stated in every limit and credit application. After approval of the rating, the rating grade is made available to all member institutions of Erste Group.

## Country Rating

### Classification
The rating method Country Rating is a rating for the sovereign and, at the same time, covers central governments, central banks and institutions guaranteed by the central government.

### Development
The expert-based country rating model was developed in 1992/1993, adapted after the Asian crisis (1997/1998) and implemented in 2001 and subsequently adjusted as a consequence of the financial crisis 2008/2009. External ratings do not enter into the model as input factors.
The rating reflects the risk of a default in foreign currency and thus primarily represents the transfer risk (risk arising from cross-border transactions). The country ratings are determined centrally by Erste Group with binding effect for the entire Group (generally quarterly, at least once a year) and are made available to the Group entities.

### Rating determinants

Two groups of countries are distinguished: industrialised nations and emerging markets. The reason for the distinction is that foreign debt and debt service play an important role in emerging markets, but are of minor importance as indicators in established industrialised countries. For industrialised countries, the Maastricht criteria are used as indicators to help determine creditworthiness.

The emerging markets model contains 18 indicators. Of these, 12 are quantitative and 6 qualitative indicators. Eight further quantitative indicators are indirectly incorporated via the qualitative variables. The data are obtained from the research organisation Economist Intelligence Unit. The qualitative indicators have a weighting of about 40%.

### Outputs of the rating process

Based on the score achieved in the rating model, every customer from the Country Rating segment is assigned a rating grade on a scale of 13 grades. The country rating assigned is a key factor for determining the limits for countries and their sovereign institutions. Usually, the country rating serves as a cap for the assessment of the companies located in a given country ("sovereign ceiling"); exceptions exist, for example, when sovereign powers are transferred to higher-ranking supranational organisations (e.g. in the euro zone).

### External ratings (ECAIs)

External ratings are used for securitisations only.

## RELATION BETWEEN INTERNAL AND EXTERNAL RATINGS

### DISCLOSURE REQUIREMENTS Art. 452 (b) (i) CRR

All IRB rating models currently in use at Erste Group are internally-developed models. External ratings are not used directly for internal ratings and are used as input factors only in the Corporates model. For the segment "Large Corporates", the valuation of the soft fact "capacity for raising external capital" takes external ratings into consideration, if available. Therefore, external ratings play almost no role in the internally-developed rating models and do not influence the rating grades that result from the model.

## RATING PROCESS

Mandatory elements of any rating process are defined group-wide. These include:

- A definition of persons who are authorised to assign ratings
- A definition of rating and re-rating triggers
- The rating approval process
- A regulation of manual override of a rating
- General principles of the 3rd party support
- Mandatory downgrading rules in case of missing or outdated risk information
- A synchronization process for ratings of the same client in different entities

### Rating by the selected method

#### Decentralised methods

Under the decentralised methods – Rating Private Individuals, Rating SME, Rating Corporates, and Rating SL – the input data needed for the rating is entered into the IT system by the account manager or the risk manager or is inferred from historical data on payment and account behaviour. The result is a computer-assisted rating grade.

#### Centralised methods

The centralised approaches are the rating methods Bank Rating and Sovereign Rating. The input data is captured by central specialised departments; the process results in an internal rating grade.

### Rating confirmation by risk management

As a main principle, the rating determined based on any of these methods must be confirmed by the risk management function. The only exceptions are certain assets in the retail portfolio, where the risk management decision may be derived from an automation-assisted rating result (unless this is manually overridden).

## CONTROL MECHANISMS FOR RATING SYSTEMS

DISCLOSURE REQUIREMENTS Art. 452 (b) (iv) CRR

### Independent validation

Every new IRB model developed must be validated prior to use by the independent validation function. Compliance with development standards and the quality of the results are assessed based on documented validation standards.

The final decision on a models related aspects are taken by the Holding Model Committee (HMC) for central models and Local Model Committee for local models.

The rating systems are regularly validated and reviewed by Model Validation by means of a standardised validation process carried out annually. The validation comprises the following methods (as applicable):

- review of the documentation of the rating method
- review of the basic assumptions underlying the models (representativeness)
- testing of the data quality
- testing of the correlations and the multi-collinearity structure
- benchmarking based on external ratings
- testing of the discriminatory power of the rating method
- testing of the discriminatory power of the rating method in sub-portfolios
- testing of the coefficients of the risk variables
- review of the distribution of rating grades
- testing of migration matrices
- testing of calibration
- analysis of manual overrides of model results.

The validation methods comprise qualitative methods (data quality, model design, overrides) and quantitative methods (discriminatory power, stability, calibration) with the results being presented on the basis of objective assessment criteria. If the validation of a rating model reveals a weakness, appropriate actions are agreed to remediate the relevant deficiencies; for example further analysis, re-calibration, partial or full re-development as necessary.

Apart from the rating model, the rating process is also reviewed. This review comprises an evaluation of the model's coverage of the portfolio (lacking/overdue ratings) and of cross-portfolio migration (rating method switching). In this case as well, measures are developed and implemented to address any shortcomings.

### Review of the rating systems in use by exposure segment

The usage of rating method is determined depending on the customer classification:

- retail
- corporates
- banks
- sovereigns

Every customer is assigned to a specific rating method. This allocation process is highly automated to keep the percentage of manual decisions as low as possible. It includes a number of checks executed by the IT system, e.g. the permanent monitoring of the criteria occupational status, operating income, legal form and industry code, which are needed for the automated allocation of rating methods to customers.

The checks conducted by the system for plausibility and correct completion of the data entry fields inform the user of any errors by sending a warning or error message. Ensuring data quality is done by special periodic evaluations. The responsibility for the correct application of the rating methods and correct data entry ultimately lies with the local level, from the account managers to the persons responsible in operative risk management departments.

## KEY ROLES AND RESPONSIBILITIES IN RATING SYSTEM LIFE-CYCLE

### Model Development

Main principle of Model Development is a "Subsidiarity model" approach. It means that as a rule, responsibilities are assigned to the lowest level that can effectively execute, i.e.:

- Model development is executed by large local banks for their local models locally;
- Models of smaller local banks are developed by the Holding.
- All group-wide models are developed by the Holding.

The Holding is responsible to set standards for the development of all models and provides methodological support to ensure consistency within the Group. A subsidiarity model for model development is therefore balancing development efforts between the Holding and local banks and is simplifying tailoring of approaches to local requirements and data situation. This design fosters local acceptance and ownership and facilitates involvement of local experts and business stakeholders.

### Model Validation

Model validation is organized in a "Hub-and-Spoke" model, which means that all validation responsibilities are bundled within the Holding validation unit, but local banks remain responsible for the sign-off of the results and for taking appropriate remediation action when necessary. Such design ensures independence and control of model validation, as well as enforce adherence to uniform standards. The local responsibility for sign-off implicitly requires local understanding of the validation results and of the actions required for the remediation.

### Model Approval

Model approval is carried out via a dual approval model approach - corresponding Holding and Local Model committee structures to reflect responsibilities depending on model perimeter. The ultimate responsibility for models used within the Group (at consolidated level) lies with the Group CRO. Notwithstanding this, locally developed and used models are within the responsibility of the respective local CROs. A formal process of Local & Holding model approvals is implemented via a tailored committee structures. This setup for model approval reflects ownership requirements across Group entities.

### Model Monitoring

Model monitoring is following a "subsidiarity model" analogue to model development:

- Local banks are monitoring local models in both large and smaller local banks.
- Holding is monitoring group-wide models.

A subsidiarity model for model monitoring fosters harmonization with model development and ensures close local oversight and understanding of models through proximity to local business and local use of models. Holding remains responsible for setting the standards and approach for model monitoring to ensure a consistent application throughout the Group. This enables group-wide oversight and benchmarking of similar models across the Group, as well as appropriate reporting at both levels.

### Internal Audit

Internal audit or another comparable independent auditing unit shall review at least annually the institution's rating systems and its operations, including the operations of the credit function and the estimation of PDs, LGDs, ELs and conversion factors (according to Article 191 CRR).

In order to allow an objective assessment, the internal audit function is granted an adequate level of independence from the reviewed processes and units in order to ensure that (according to Guide for the Targeted Review of Internal Models (TRIM), Chapter 2.6):

- there is an effective separation between the staff performing the internal audit function and the staff involved in the operation of the internal models: model development, model validation and the relevant business area;
- the internal audit reports directly to the management body; and
- no undue influence is exerted on the staff responsible for the audit conclusions.

Independence between internal audit and risk management functions is ensured by the separation up to the board level (audit - CEO, risk management - CRO). Ensuring that internal audit provides independent and objective assurance on risk management is vital for risks to be managed effectively.

Audit's assessment includes a confirmation of the fulfilment of tasks of quantitative nature performed by the units responsible for development and initial validation of the rating model(s) according to CRR (Article 191), RTS (Article 17) and internal requirements.

## DEFINITIONS, METHODS, AND DATA FOR THE ESTIMATION AND VALIDATION OF THE RISK PARAMETERS

### DISCLOSURE REQUIREMENTS Art. 452 (c) (i) CRR

### Probability of default

The PD represents the probability that a given customer will default within the subsequent twelve months period (one-year PD). The PD is estimated internally for the portfolios Retail, Corporates, Banks and Sovereigns.

An updated PD methodology was approved and implemented in December 2019 to replace Lando and Skødeberg for most rating systems in Erste Group Bank AG. The new methodology focuses on recently issued regulatory guidance and its resulting PDs shall reflect long run average default rates on rating grade level. Additionally, when estimating PD, a safety margin or margin of conservatism is added for each portfolio in order to ensure a conservative estimate as per IRB Approach standards.

PDs for low default portfolios are calculated based on long term average default experience in the default rates. The estimations include conservative margins defined by the regulations. The regulatory floors on the minimal level of PD are applied. The difference between PDs and actual default rates arise due to long term average nature of PDs and conservative margins defined in the regulation that are applied in the PD estimation.

The validation of the PDs employs both qualitative and quantitative methods:
_ review of the documentation
_ review of the underlying model assumptions
_ testing of data quality
_ analysis of time series
_ back-testing

In the quantitative validation, the estimated PDs are validated using the binomial test (back-testing). This involves comparing actual default rates with estimated probabilities of default. Qualitative methods comprise population distribution tests, time-series analysis of default rates and analysis of raw data. Both the qualitative and quantitative validation is performed annually in conjunction with the validation of the rating models by the independent validation function. Where appropriate, improvement measures are initiated depending on the results. The same also applies to the risk parameters LGD and CCF described below.

The table below shows the estimated PDs per exposure asset classes compared to average historical annual default rate based on minimum 10 years of history. From a Group-wide perspective, the PD estimates are higher than the actual default rates for all exposure classes, confirming the conservativeness of the estimates.

| | | | | Number of obligors | | | | |
|---|---|---|---|---|---|---|---|---|
| Exposure class | PD range | Weighted average PD | Arithmetic average PD by obligors | End of previous year | End of this year | Defaulted obligors in the year | Of which new obligors | Average historical annual default rate |
| Central governments and central banks | 0.01% - 39.12% | 0.13% | 2.89% | 124 | 124 | 0 | 0 | 1.03% |
| Institutions | 0.03% - 29.46% | 0.43% | 1.22% | 1,022 | 1,022 | 1 | 0 | 0.24% |
| Corporate | 0.03% - 52.21% | 1.48% | 1.66% | 25,527 | 28,162 | 184 | 1 | 1.77% |
| Retail SME | 0.03% - 50.41% | 2.44% | 2.79% | 191,144 | 184,209 | 3901 | 22 | 2.90% |
| Retail Private Individuals | 0.03% - 70.92% | 1.68% | 1.76% | 4,100,188 | 4,127,948 | 47,151 | 77 | 2.04% |

Table 41: Back-testing PD (Art. 452 (i) CRR (1/3))

### Loss given default

LGD is estimated at Erste Group for the retail portfolio for Pillar 1 purposes. LGD is defined as the expected economic loss after recoveries (from collateral and other repayments) as a percentage of EAD. Depending on data availability and local factors (e.g. processes, business needs), modelling is based either on a total recovery rate or on a combination of a redemption recovery rate (customer repayments) and a collateral recovery rate (proceeds of realisation of collateral). Depending on credit exposure, LGD is calculated taking into account proportionately allocated costs and a margin of conservatism. The risk drivers are identified, homogenous segments (pools) formed and a recovery rate calculated for every segment. This rate is directly incorporated into the modelling and estimation of LGD.

LGDs for low default portfolios are assigned on exposures that are currently in the workout phase. These LGDs are calculated based on the models that use both experience from closed exposures are well as workout strategies projections. The time lapse between default event and closure of exposure may differ based on exposure type and may be from few months up to more years of workout process. LGD include regulatory conservative margins as well as down turn add on.

Regular validation of the LGD risk parameter is performed by the independent validation function once a year, using both qualitative and quantitative methods:
_ review of the documentation
_ review of the underlying model assumptions
_ testing of data quality
_ analysis of time series
_ back-testing.
The quantitative validation (back-testing) consists primarily of the comparison of actual and expected LGDs. Qualitative methods address the assessment of compliance with all relevant rules in the models (e.g., investigation of documentation and data quality).

The table below shows the LGD back-testing results for defaulted customers at Group level on the long-term EAD-weighted average. All defaults over a period of at least five years (years from 2006 to 2018 from internal validation reports) were considered, with the model valid as of the beginning of 2013 being used for the calculation of estimated LGD. The estimated LGDs were higher than the observed value for all sub-classes of the retail exposure class, indicating the conservativeness of the estimates.

| Asset class | Average LGD estimates | Average annual observed LGD |
|---|---|---|
| Retail | 27.57% | 19.95% |
| thereof SME | 29.47% | 19.73% |
| thereof Private Individuals | 27.22% | 19.98% |

Table 42: Back-testing LGD (Art. 452 (i) CRR (2/3))

As LGD is estimated on own LGD pools at client level in some geographical areas; hence Erste Group omitted the segmentation by exposure class within the retail portfolio (private individuals and SMEs) due to comparison reasons.

## Credit conversion factor

The CCF is estimated internally in the Retail portfolio for Pillar 1 purposes. It is defined as the expected drawdown of off-balance sheet, non-derivative positions within twelve months on the condition that the customer defaults within this period. EAD represents current drawings plus the off-balance sheet non-derivative positions (that is, the available undrawn credit), multiplied by the CCF. The CCF is estimated in a two-stage process: In the first step, empirical conversion rates are determined based on the data collected on defaulted customers. The conversion rate represents the relationship between the net credit increase from the reference date to the default date, on the one hand, and the available undrawn credit at the reference date on the other hand. The reference date is the date one year before default. The second step consists of the identification of risk drivers and, based on this, the segmentation and the estimation of the CCF for each homogeneous segment. The estimates of CCFs are calculated by segment as the respective mean of all conversion rates per given segment over the entire period, plus a margin of conservatism allowance for estimation error. The relevant amount of error is determined based on a bootstrapping method.

Regular validation of the CCF risk parameter is performed by independent validation function once a year, using both qualitative and quantitative methods:
_ review of the documentation
_ review of the underlying model assumptions
_ segmentation
_ outlier rules
_ use test
_ approval of limits
_ testing of data quality
_ analysis of time series
_ benchmarking
Quantitative methods consist primarily of the comparison of actual and expected CCFs. Qualitative methods are large population distribution tests, such as analysis of raw data and time series analysis of defaults, of conversion rates and of exposure at the reference date.

The following table presents the results of back-testing at Group level over the time period from year 2006 to 2018 based on the internal validation reports.

| Asset class | Average CCF estimates | Average observed CCF |
|---|---|---|
| Retail | 49.20% | 45.08% |
| thereof SME | 54.81% | 46.65% |
| thereof Private Individuals | 48.02% | 44.75% |

Table 43: Back-testing CCF (Art. 452 (i) CRR (3/3))

As CCF is estimated on own CCF pools at retail asset class level in some geographical areas; hence Erste Group omitted the segmentation by exposure class within the retail portfolio (private individuals and SMEs) due to comparison reasons.

# Use of internal estimates for purposes other than for calculating risk-weighted exposure amounts

DISCLOSURE REQUIREMENTS Art. 452 (b) (ii) CRR

Having qualified for the IRB Approach under Basel, Erste Group has internal risk parameters which, aside from the calculation of regulatory capital requirements, are also employed for the purposes of loan loss provision calculation and standard risk costs (SRC).

## LOAN LOSS PROVISION CALCULATION

In general, internally-assessed risk parameters are applied to the recognition of expected credit losses, either one year or life-time, according to IFRS 9 (in case of on-balance sheet exposures) or the expected loss concept according to IAS 37 (in case of off-balance sheet exposures) is applied. Generally, risk parameters used in the calculation of expected credit losses may be different to the Basel 3 Pillar 1 or Pillar 2 risk parameters if the properties of the respective portfolio in combination with accounting rules necessitate this.

## STANDARD RISK COSTS

SRC are used in Erste Group as a component of risk-adjusted pricing. SRC at the time of origination (internally called "expected risk margin") represent, in absolute terms, the sum of revenues that the bank should obtain over the lifetime (or until the next re-pricing date) of a given product to cover losses generated by this product. Based on SRC, the bank is able to estimate losses until the final maturity date or until the next re-pricing date.

IRB parameters are not used directly in the calculation of SRC. This is particularly the case for PD, as:

_ a different granularity of segmentation is required for SRC
_ PD until maturity (or until the next re-pricing date) is required as opposed to the one-year IRB PDs used in the RWA calculation.

## STRESS TESTING

Stress testing is a vital component of the risk management framework at Erste Group and is incorporated into the planning process, capital and liquidity assessments. The assessment of the ability of the bank to sustain losses in severe but plausible macroeconomic scenarios provides information on the adequacy of the overall business model and supports the planning of emergency and mitigation measures.

Stress testing for credit risk is undertaken at Erste Group for all portfolios including the portfolios under the Standardised Approach. Especially with respect to the IRB portfolio, the internal risk parameters are used for stress tests by simulating the values of these parameters under stressed conditions. Erste Group models sensitivities for individual set of parameters (e.g. PD or LGD, PD and LGD) as well as employing complex crisis testing scenarios based on simulations.

Simulations are calculated for the individual exposures by performing downgrades of rating grades and by applying shifts to the current values of the PD, LGD and CCF parameters and collaterals in the IRB portfolio in order to compute the effects on RWA, expected loss, non-performing loans and risk costs. The results are used to define the impact on the income statement and overall capital position.

Stress testing results are integrated into financial projections, budgeting processes, the assessment of risk concentrations as well as into calculation of the stressed capital metrics (stressed Pillar 1 capital ratios and Economic Capital Adequacy). These capital metrics are part of the Risk Appetite Statement (RAS), and are monitored regularly.

# Quantitative disclosure on credit risk – IRB Approach

## DISCLOSURE REQUIREMENTS Art. 452 (d) (e) (f) (g) (j) CRR IN CONJUNCTION WITH Art. 447 (c) CRR

The table below presents distribution of EAD (post CCF and CRM) in IRB portfolio broken down by exposure classes.

IRB exposures included in counterparty credit risk and securitisation frameworks are not covered by table below, but within respective chapters.

### IRB Approach - exposure classes

| in EUR million | EAD | EAD (% of total) |
|---|---|---|
| Central governments and central banks | 4,378 | 2.5% |
| Institutions | 5,587 | 3.2% |
| Corporate | 75,030 | 42.9% |
| Specialised Lending | 17,589 | 10.1% |
| Retail | 80,328 | 45.9% |
| Retail SME secured by immovable property | 7,519 | 4.3% |
| Retail SME non-secured by immovable property | 6,421 | 3.7% |
| Retail secured by immovable property | 45,307 | 25.9% |
| Other retail | 21,080 | 12.1% |
| Equity | 1,075 | 0.6% |
| Other | 8,541 | 4.9% |
| **Total** | **174,937** | **100.0%** |

Table 44: IRB Approach (incl. supervisory slotting) – EAD by exposure classes (Art. 452 (d) CRR)

Table below presents the flow statement explaining yearly development of the RWA calculated in accordance with the Part Three, Title II, Chapter 3 of the CRR. The counterparty credit risk relevant exposures are not subject of the table below.

### IRB Approach - RWA flow

| in EUR million | RWAs | Capital requirements |
|---|---|---|
| **RWAs as of Dec 18** | **74,599** | **5,968** |
| Asset size | 6,962 | 557 |
| Asset quality | -2,436 | -195 |
| Model updates | -1,779 | -142 |
| Methodology and policy | 0 | 0 |
| Acquisitions and disposals | 0 | 0 |
| Foreign exchange movements | 200 | 16 |
| Other: | (675) | -54 |
| Out of which Securitisation | (645) | -52 |
| **RWAs as of Dec 19** | **76,872** | **6,150** |

Table 45: RWA flow statement of credit risk exposure under IRB approach (EU CR8 EBA/GL/2016/11)

Credit RWA under IRB approach (exluding counterparty credit risk) increased by EUR 2.3 bn during the reporting period, as a result of asset growth mainly in Austria. Rating upgrades in Retail and Corporate are main component of asset quality change and together with the model updates (new PD methodology and regular updates of LGD and CCF parameters) are decreasing credit RWA. In Other effect dominant impact comes from from syntetic securitisation in Ceska Sporitelna.

With respect to exposures under IRB Approach, a breakdown is given below of the exposure classes of central governments and central banks, institutions, corporates and retail by PD scales. Equity exposures, specialised lending and other non-credit obligation assets are not subject to following tables.

### Probability of default bands (PDs used in calculation of RWA)

| PD scale | Lower band | Upper band |
|---|---|---|
| 1 | 0.00% | 0.15% |
| 2 | 0.15% | 0.25% |
| 3 | 0.25% | 0.50% |
| 4 | 0.50% | 0.75% |
| 5 | 0.75% | 2.50% |
| 6 | 2.50% | 10.00% |
| 7 | 10.00% | 99.99% |
| 8 (Default) | | 100.00% |

Table 46: Probability of default lower and upper bands

## IRB Approach – Central governments and central banks

| in EUR million | On-balance | Off-balance | Average CCF | EAD | Average PD | Number of Obligors | Average LGD | Average maturity | RWA | RWA density | EL | Value adjustments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PD scale** | | | | | | **Central governments and central banks** | | | | | | |
| 1 | 3,472 | 78 | 12.8% | 4,242 | 0.1% | 367 | 41.8% | 2.5 | 1,641 | 38.7% | 1 | |
| 2 | 0 | 0 | | 0 | | 0 | | | 0 | | 0 | |
| 3 | 19 | 0 | 75.0% | 19 | 0.3% | 62 | 45.0% | 2.5 | 11 | 56.2% | 0 | |
| 4 | 64 | 0 | | 30 | 0.6% | 63 | 44.3% | 2.5 | 24 | 79.6% | 0 | |
| 5 | 193 | 22 | 75.0% | 82 | 1.2% | 84 | 45.0% | 2.5 | 84 | 102.6% | 0 | |
| 6 | 12 | 2 | 75.0% | 4 | 3.9% | 71 | 45.0% | 2.5 | 7 | 146.9% | 0 | |
| 7 | 0 | 0 | | 0 | 39.1% | 26 | 45.0% | 2.5 | 1 | 255.7% | 0 | |
| 8 | 0 | 10 | 0.0% | 0 | | 1 | | | 0 | | 0 | |
| **Total** | **3,760** | **112** | **24.9%** | **4,378** | **0.1%** | **674** | **41.9%** | **2.5** | **1,767** | **40.4%** | **2** | **3** |

Table 47: IRB Approach – Exposure class: Central Governments and Central Banks by PD classes (Art. 452 (e) CRR and EU CR6 EBA/GL/2016/11 )

## IRB Approach – Institutions

| in EUR million | On-balance | Off-balance | Average CCF | EAD | Average PD | Number of Obligors | Average LGD | Average maturity | RWA | RWA density | EL | Value adjustments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PD scale** | | | | | | **Institutions** | | | | | | |
| 1 | 2,093 | 629 | 46.2% | 2,650 | 0.1% | 1,907 | 41.4% | 2.5 | 890 | 33.6% | 1 | |
| 2 | 2,094 | 253 | 29.1% | 1,815 | 0.2% | 1,057 | 28.3% | 2.5 | 623 | 34.3% | 1 | |
| 3 | 1,505 | 203 | 41.3% | 787 | 0.3% | 540 | 31.7% | 2.5 | 373 | 47.4% | 1 | |
| 4 | 131 | 147 | 30.3% | 160 | 0.6% | 190 | 35.5% | 2.5 | 119 | 74.3% | 0 | |
| 5 | 117 | 6 | 15.5% | 101 | 1.1% | 130 | 20.3% | 2.5 | 47 | 45.9% | 0 | |
| 6 | 136 | 32 | 24.8% | 36 | 4.0% | 111 | 38.5% | 2.5 | 53 | 149.7% | 1 | |
| 7 | 124 | 11 | 21.0% | 36 | 10.7% | 64 | 45.0% | 2.5 | 75 | 208.4% | 2 | |
| 8 | 2 | 0 | | 2 | 100.0% | 1 | 45.0% | 2.5 | 0 | 0.0% | 1 | |
| **Total** | **6,201** | **1,281** | **39.3%** | **5,587** | **0.3%** | **4,000** | **35.2%** | **2.5** | **2,181** | **39.0%** | **7** | **10** |

Table 48: IRB Approach – Exposure class: Institutions by PD classes (Art. 452 (e) CRR and EU CR6 EBA/GL/2016/11)

## IRB Approach – Corporates (excluding SL)

| in EUR million | On-balance | Off-balance | Average CCF | EAD | Average PD | Number of Obligors | Average LGD | Average Maturity | RWA | RWA density | EL | Value adjustments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PD scale** | | | | | | **SME** | | | | | | |
| 1 | 1,564 | 591 | 51.3% | 1,813 | 0.1% | 2,144 | 40.1% | 2.5 | 304 | 16.8% | 1 | |
| 2 | 1,078 | 503 | 49.2% | 1,328 | 0.2% | 1,483 | 41.5% | 2.5 | 418 | 31.4% | 1 | |
| 3 | 2,195 | 1,156 | 48.2% | 2,687 | 0.3% | 3,261 | 41.1% | 2.5 | 1,108 | 41.2% | 3 | |
| 4 | 2,728 | 1,233 | 50.0% | 3,221 | 0.6% | 3,432 | 41.1% | 2.5 | 1,824 | 56.6% | 8 | |
| 5 | 4,683 | 1,890 | 45.1% | 5,409 | 1.5% | 6,042 | 41.1% | 2.5 | 4,286 | 79.2% | 34 | |
| 6 | 4,491 | 1,268 | 48.8% | 4,908 | 4.0% | 6,430 | 40.3% | 2.5 | 4,759 | 97.0% | 79 | |
| 7 | 709 | 216 | 26.7% | 738 | 21.1% | 2,717 | 41.3% | 2.5 | 1,202 | 163.0% | 63 | |
| 8 | 871 | 67 | 46.2% | 879 | 100.0% | 1,616 | 41.6% | 2.5 | 0 | 0.0% | 366 | |
| **Total** | **18,320** | **6,922** | **47.5%** | **20,983** | **6.4%** | **27,125** | **40.9%** | **2.5** | **13,900** | **66.2%** | **556** | **649** |
| **PD scale** | | | | | | **Other corporates** | | | | | | |
| 1 | 12,406 | 6,143 | 47.5% | 14,372 | 0.1% | 2,768 | 41.6% | 2.5 | 2,882 | 20.1% | 3 | |
| 2 | 3,325 | 2,379 | 39.6% | 4,071 | 0.2% | 1,789 | 44.4% | 2.5 | 1,654 | 40.6% | 3 | |
| 3 | 4,641 | 2,067 | 41.4% | 5,262 | 0.3% | 1,824 | 43.1% | 2.5 | 2,928 | 55.6% | 7 | |
| 4 | 3,527 | 2,617 | 39.1% | 4,157 | 0.6% | 1,571 | 43.5% | 2.5 | 3,158 | 76.0% | 11 | |
| 5 | 4,249 | 2,378 | 38.3% | 5,000 | 1.5% | 1,766 | 43.1% | 2.5 | 5,310 | 106.2% | 33 | |
| 6 | 2,621 | 1,108 | 37.6% | 2,907 | 4.3% | 3,014 | 43.2% | 2.5 | 4,147 | 142.7% | 54 | |
| 7 | 354 | 256 | 24.9% | 363 | 24.5% | 2,535 | 42.5% | 2.5 | 810 | 223.2% | 38 | |
| 8 | 390 | 87 | 31.1% | 326 | 100.0% | 291 | 42.7% | 2.5 | 0 | 0.0% | 139 | |
| **Total** | **31,513** | **17,034** | **42.0%** | **36,458** | **1.8%** | **15,558** | **42.7%** | **2.5** | **20,890** | **57.3%** | **288** | **376** |
| **Total** | **49,833** | **23,957** | **43.6%** | **57,441** | **3.5%** | **42,683** | **42.0%** | **2.5** | **34,789** | **0.0%** | **844** | **1,025** |

Table 49: IRB Approach – Exposure class: Corporates (excluding SL) by PD classes (Art. 452 (e) CRR and EU CR6 EBA/GL/2016/11)

## IRB Approach – Retail

| in EUR million | On-balance | Off-balance | Average CCF | EAD | Average PD | Number of Obligors | Average LGD | RWA | RWA density | EL | Value adjustments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **PD scale** | | | | | **SME secured by immovable property** | | | | | | |
| 1 | 1,737 | 249 | 47.5% | 1,855 | 0.1% | 10,966 | 13.2% | 40 | 2.1% | 0 | |
| 2 | 497 | 59 | 49.7% | 526 | 0.2% | 2,406 | 19.2% | 35 | 6.6% | 0 | |
| 3 | 1,026 | 98 | 54.4% | 1,079 | 0.3% | 6,638 | 14.5% | 72 | 6.7% | 1 | |
| 4 | 739 | 65 | 48.7% | 771 | 0.7% | 3,956 | 16.9% | 99 | 12.8% | 1 | |
| 5 | 990 | 62 | 56.6% | 1,025 | 1.4% | 5,432 | 21.4% | 261 | 25.5% | 3 | |
| 6 | 1,365 | 114 | 47.1% | 1,419 | 3.8% | 7,578 | 17.5% | 577 | 40.7% | 10 | |
| 7 | 528 | 27 | 72.9% | 548 | 21.6% | 2,781 | 24.2% | 586 | 107.0% | 30 | |
| 8 | 293 | 4 | 49.8% | 296 | 100.0% | 1,932 | 15.8% | 80 | 27.0% | 84 | |
| **Total** | **7,176** | **678** | **50.6%** | **7,519** | **6.6%** | **41,689** | **17.0%** | **1,750** | **23.3%** | **128** | **113** |
| **PD scale** | | | | | **Retail-secured by immovable property** | | | | | | |
| 1 | 14,555 | 675 | 25.8% | 14,729 | 0.0% | 163,778 | 12.8% | 273 | 1.9% | 1 | |
| 2 | 6,527 | 112 | 100.0% | 6,639 | 0.2% | 126,355 | 20.6% | 480 | 7.2% | 2 | |
| 3 | 13,741 | 415 | 38.5% | 13,901 | 0.3% | 170,112 | 12.9% | 1,125 | 8.1% | 6 | |
| 4 | 434 | 3 | 100.0% | 437 | 0.5% | 18,926 | 30.1% | 113 | 25.9% | 1 | |
| 5 | 5,867 | 152 | 41.5% | 5,930 | 1.2% | 103,569 | 19.7% | 1,770 | 29.8% | 15 | |
| 6 | 2,391 | 88 | 17.8% | 2,406 | 5.7% | 39,792 | 16.6% | 1,415 | 58.8% | 22 | |
| 7 | 606 | 9 | 25.0% | 608 | 27.6% | 11,038 | 18.6% | 665 | 109.2% | 30 | |
| 8 | 657 | 4 | 27.2% | 658 | 100.0% | 13,156 | 19.1% | 259 | 39.4% | 240 | |
| **Total** | **44,777** | **1,457** | **36.4%** | **45,307** | **2.4%** | **646,726** | **15.4%** | **6,098** | **13.5%** | **316** | **312** |
| **PD scale** | | | | | **Retail SME non-secured by immovable property** | | | | | | |
| 1 | 1,029 | 719 | 53.7% | 1,415 | 0.1% | 48,448 | 33.0% | 73 | 5.1% | 0 | |
| 2 | 611 | 185 | 55.1% | 712 | 0.2% | 12,959 | 34.8% | 88 | 12.4% | 1 | |
| 3 | 360 | 266 | 54.8% | 505 | 0.3% | 24,746 | 36.0% | 81 | 16.1% | 1 | |
| 4 | 389 | 188 | 54.7% | 492 | 0.7% | 19,499 | 36.2% | 120 | 24.4% | 1 | |
| 5 | 1,108 | 265 | 68.8% | 1,290 | 1.3% | 34,000 | 35.3% | 411 | 31.8% | 6 | |
| 6 | 1,107 | 426 | 52.4% | 1,330 | 4.0% | 45,496 | 34.9% | 550 | 41.3% | 19 | |
| 7 | 414 | 76 | 74.5% | 470 | 21.2% | 60,631 | 36.8% | 309 | 65.6% | 37 | |
| 8 | 200 | 11 | 41.4% | 204 | 100.0% | 11,860 | 38.0% | 57 | 27.9% | 138 | |
| **Total** | **5,217** | **2,136** | **56.3%** | **6,421** | **5.9%** | **257,639** | **35.0%** | **1,688** | **26.3%** | **202** | **211** |
| **PD scale** | | | | | **Other retail** | | | | | | |
| 1 | 3,709 | 4,770 | 56.3% | 6,393 | 0.0% | 1,344,121 | 40.7% | 393 | 6.2% | 1 | |
| 2 | 821 | 494 | 70.7% | 1,170 | 0.2% | 367,300 | 39.6% | 165 | 14.1% | 1 | |
| 3 | 4,268 | 1,198 | 62.9% | 5,022 | 0.3% | 636,380 | 41.2% | 1,226 | 24.4% | 7 | |
| 4 | 216 | 246 | 68.6% | 385 | 0.5% | 160,923 | 63.1% | 191 | 49.7% | 1 | |
| 5 | 4,481 | 743 | 57.2% | 4,906 | 1.2% | 695,633 | 44.3% | 2,512 | 51.2% | 27 | |
| 6 | 1,848 | 240 | 64.7% | 2,003 | 5.4% | 302,402 | 44.0% | 1,397 | 69.7% | 48 | |
| 7 | 548 | 58 | 80.7% | 595 | 25.6% | 225,800 | 47.1% | 680 | 114.3% | 73 | |
| 8 | 599 | 12 | 49.3% | 605 | 100.0% | 100,204 | 45.8% | 247 | 40.7% | 414 | |
| **Total** | **16,491** | **7,761** | **59.1%** | **21,080** | **4.5%** | **3,832,763** | **42.6%** | **6,811** | **32.3%** | **572** | **621** |
| **Total** | **73,660** | **12,033** | **55.4%** | **80,328** | **3.6%** | **4,778,817** | **24.3%** | **16,347** | **20.4%** | **1,218** | **1,257** |

Table 50: IRB Approach – Exposure class: Retail by exposure classes and PD classes (Art. 452 (f) CRR and EU CR6 EBA/GL/2016/11)

## IRB Approach – Group of countries

| in % - EAD weighted | Retail LGD | Retail PD | Non-Retail PD |
|---|---|---|---|
| Core Market - Austria | 19.2% | 3.0% | 2.8% |
| Core Market - Croatia | 34.9% | 9.5% | 7.6% |
| Core Market - Czech Republic | 30.6% | 3.0% | 5.4% |
| Core Market - Hungary | 43.3% | 7.7% | 2.4% |
| Core Market - Romania | 36.0% | 18.6% | 0.5% |
| Core Market - Serbia | 29.5% | 7.2% | 1.3% |
| Core Market - Slovakia | 26.7% | 4.9% | 2.5% |
| Other EU Countries | 16.3% | 6.5% | 1.8% |
| Other Industrialised Countries | 18.8% | 4.5% | 0.8% |
| Emerging Markets | 21.6% | 2.9% | 1.3% |
| **Total** | **24.3%** | **3.6%** | **3.0%** |

Table 51: IRB Approach – Retail and non-retail average parameters by country groups (based on country of residence) (Art. 452 (j) CRR)

In the table above, EAD weighted average parameters by country of the residence in IRB portfolios are reported.

The following table shows the development of total specific credit risk adjustments for both IRB and Standardised Approach portfolios by exposure class during the reporting period:

| in EUR million | Specific credit risk adjustments 1 Jan | Specific credit risk adjustments 31 Dec | Change (%) | Specific credit risk adjustments (% of total) |
|---|---|---|---|---|
| Sovereigns | 2 | 2 | -6.9% | 0.1% |
| Institutions | 2 | 2 | -0.2% | 0.1% |
| Corporates | 1,588 | 1,203 | -24.3% | 48.7% |
| Retail | 1,350 | 1,263 | -6.4% | 51.1% |
| **Total** | **2,941** | **2,469** | **-16.1%** | **100.0%** |

Table 52: Specific credit risk adjustments and changes by main exposure class (Art. 452 (g) CRR)

The specific credit risk adjustments decrease was driven mainly by an overall decrease of the NPL portfolio, impacted mainly by continued clean-up actions across the Group.

# Credit risk mitigation techniques

## Management and recognition of credit risk mitigation

DISCLOSURE REQUIREMENTS Art. 452 (b) (iii)

Group Collateral Management is a staff unit within the Group Credit Risk Management that is responsible for the standardised and consistent management of credit collateral across Erste Group. Jointly with Trading Book Risk Management within Group Liquidity and Market Risk Management it also coordinates the roll-out of risk management standards to ensure consistent management of treasury collateral across Erste Group. For this purpose, Group Collateral Management issues the Group Collateral Management Policy as a framework for compliance with the CRR.

The Group Collateral Management Policy provides guidelines for a robust end-to-end process and responsibilities for managing collateral including valuation, revaluation and monitoring standards, requirements for consideration of collateral for internal risk calculation and criteria for eligibility of collateral according to CRR. All collateral assets accepted by Erste Group are described in the Group Collateral Catalogue – as a part of the Group Collateral Policy - including their definitions and eligibility criteria, as well as the minimum requirements of valuation, revaluation and monitoring. Each local entity defines an exhaustive list of acceptable and eligible collateral depending on the locally used approach.

In each subsidiary of Erste Group, the local Collateral Management unit is responsible for the implementation of the framework by issuing a local policy and working instructions taking into consideration any additional local legal and regulatory requirements and the organisation of the subsidiary. The local implementation is supervised by Group Collateral Management and Trading Book Risk Management.

## Collateral valuation and netting

### COLLATERAL VALUATION AND MANAGEMENT

DISCLOSURE REQUIREMENTS Art. 453 (b) (c) CRR

Collateral is accepted at Erste Group only to back up loans and capital market transactions and does not serve as a substitute for the borrower's ability to meet his obligations. Therefore, collateral can only be evaluated in the credit application along with the assessment of the borrower's creditworthiness and capacity for repayment.

The calculation of credit collateral values is performed pursuant to the following process:

| Base value | Valuation rate | Reduction of the base (encumbrances) | Nominal value and Exposure ceiling | Acceptable (Allocated) value |
|---|---|---|---|---|
| The base value is the conservative market value of the collateral asset according to the definition in the Collateral Catalogue. | The valuation rate is a percentage applied to the base value representing a prudential haircut to the base value. | A reduction of the base considers prior-ranking rights on the collateral asset, e.g. encumbrances in favour of other creditors registered in the land register. | The nominal value ceiling limits the acceptable value in case of a contractual ceiling defined in the collateral contract. The exposure ceiling limits the acceptable value to the maximum exposure amount. | The acceptable value is the result of the calculation and represents an internal risk view on collateral. The allocated value is the part of the acceptable value assigned to a specific credit exposure. |

Figure 4: Credit collateral valuation

Collateral valuation is based on current market prices, considering an amount that can be recovered within a reasonable time period. The calculation methodology for the base value is specified by Group Collateral Management taking into consideration the collateral asset type. In the collateral valuation process, a pre-defined prudential haircut, i.e. valuation rate, is applied to the base value. The valuation rates are set by Local Collateral Management based on empirical data representing the past experience of workout departments and on the results of the data collected regarding the proceeds from the realisation of collateral. The valuation rates depend on the collateral types.

The valuation processes are defined and technically implemented by authorised staff using the appropriate software applications. The valuation rates and methods are back-tested regularly – at least once a year – to current recovery proceeds. When facing significant changes in market developments, the valuation rates are adjusted ad hoc.

Collateral revaluation is done periodically and is automated as far as possible. The relevant interfaces are used for external data sources. The maximum periods for the revaluation of individual collateral are predefined and compliance is monitored with a support of software applications. Irrespective of the periodically conducted revaluations, revaluations must also be carried out when information becomes available indicating that the value of the collateral has decreased for special reasons.

Only standard contracts of the local legal departments or contracts with sufficient legal review are used to ensure the enforceability of the collateral in the relevant jurisdiction, including the event of insolvency and bankruptcy of the borrower or the collateral provider. Local Collateral Management Policies and working instructions determine responsibilities for the end-to-end collateral management process from activation of collateral to release (liquidation) of collateral to ensure the best results in case of a realisation of collateral.

The following types of credit collateral are accepted:
- real estate: both residential and commercial real estate
- financial collateral: securities, cash deposits and life insurance policies
- guarantees: guarantees of sovereigns and public sector entities, financial institutions, other corporate entities and individuals
- movables: equipment, investment goods, machinery, motor vehicles, inventories and commodities
- claims and rights: accounts receivable, leasehold rights and shares in a company's capital.

Real estate, financial collateral and guarantees are the most frequently used types of collateral and are discussed in more detail in the following sections. Movables as well as claims and rights are accepted collateral by Erste Group but have less relevance.

### Real estate
Real estate is the most important collateral within Erste Group. Residential real estate (i.e. real estate which is or will be occupied or let by the owner for residential purposes) and commercial real estate are used for credit risk mitigation. Real estate properties are evaluated at a conservative market value. The applicable appraisal methods are predefined and depend on the type of real estate. In general, the comparative method is used for residential real estate whereas the income method is used for commercial real estate. Only independent external or internal appraisers, who are not involved in the lending decision process, are permitted to perform real estate valuations. Local Collateral Management defines the accepted appraisers. For quality assurance purposes, real estate valuations are validated on an ongoing basis and real estate appraisers who do not fulfil the quality requirements are eliminated from future valuations as a consequence.

The monitoring of real estate values is performed at least yearly. Statistical monitoring based on official transaction data is used for residential real estate. If statistical method is not applicable or the market value exceeds defined thresholds individual monitoring is done by real estate experts. Revaluations follow the same process as initial valuations. It is performed at least every three years when the loan amount secured by residential real estate exceeds EUR 3 million or when the loan amount secured by commercial real estate situated in Austria, Czech Republic or Slovakia exceeds EUR 1 million or when the loan amount secured by commercial real estate situated in all other countries exceeds EUR 500.000.

### Financial collateral
Financial collateral assets are mainly security accounts, cash deposits (accounts, savings books) and life insurance policies. Gold (bullion and coins) is accepted and used for risk mitigation. The pledge or assignment of financial collateral has to be unconditional and irrevocable. If the financial collateral is held by third party institutions, they are to be notified of the pledge or assignment. The base value of the financial collateral depends on the type of collateral asset. The base value of the cash deposit is the pledged amount. The base value of security accounts (securities) is their market value on the stock exchange, whereas the base value of life insurance policies is the cash surrender value. The revaluation is carried out automatically at least semi-annually.

### Guarantees
Guarantees are mostly provided by corporates, financial institutions, sovereigns, and public sector-related entities in combination with special credit products. The guarantee must represent a direct claim on the guarantor. The contract must not contain any condition, the fulfilment of which is outside the direct control of the bank and could prevent the guarantor from being obliged to pay.

All guarantors must be checked with regards to their economic capacity. They must have a minimum credit rating which is reviewed at least annually. The PD of the guarantor is used for risk weighted asset calculation when the defined preconditions are met.

### Receivables
Trade accounts receivables are used for credit risk mitigation if they fulfil the requirements of CRR. The base value is the average level of gross monthly receivables. Overdue receivables, receivables against affiliates of the borrower and claims with high commercial dependency between the collateral borrower and the garnishee as well as receivables against garnishee with doubtful economic quality or domiciled in countries where the enforcement may be problematic are excluded. The revaluation is performed at least annually.

### Treasury Collateral

For more details see chapter “Counterparty Credit Risk”

### POLICIES AND PROCESSES FOR NETTING

DISCLOSURE REQUIREMENTS Art. 453 (a) CRR

Netting is currently not used for risk mitigation in the on-balance sheet customer lending business. The consideration of netting agreements for the over-the-counter (OTC) derivative business is described in the chapter “Counterparty Credit Risk”.

## Main types of guarantors and credit derivative counterparties

DISCLOSURE REQUIREMENTS Art. 453 (d) CRR

Most guarantees are provided by corporates, financial institutions, sovereigns and public sector-related entities.

The credit derivatives business is conducted only with credit institutions of sufficient credit quality based in Austria or abroad, and only within a limit that is based on the counterparty’s credit rating. Furthermore, the transactions are executed with credit institutions with a rating in the investment grade range assigned by recognised rating agencies.

## Risk concentrations within credit risk mitigation

DISCLOSURE REQUIREMENTS Art. 453 (e) CRR

Risk concentrations resulting from CRM techniques are understood to be the risk of a detrimental correlation of risks that may arise from the use of these techniques. This may affect a single customer, but also a portfolio defined by region, industry or type of collateral.

Due to Erste Group’s retail banking model, its customer structure and the different markets in which it does business, it is not facing any concentrations with respect to collateral.

The following processes are applied for monitoring and preventing possible concentrations:

- in the case of corporate guarantees, all loans and guarantee liabilities of the provider across Erste Group are taken into consideration in the credit application process
- in the case of guarantees provided by a sovereign, a public sector entity or a financial institution, the guarantee amount has to be covered within the approved limit of the guarantor.

# Quantitative disclosure on credit risk mitigation

## DISCLOSURE REQUIREMENTS Art. 453 (f) (g) CRR

The following table gives an overview on the extent of the use of CRM techniques applied to the exposures under credit risk framework.

### Overview on CRM techniques

| in EUR million | Exposure unsecured | Exposure to be secured | Exposure secured by collateral | Exposure secured by financial guarantees |
|---|---|---|---|---|
| **Total exposure STA** | **56,623** | **13,203** | **10,792** | **6,417** |
| of which loans and debt securities | 45,633 | 12,427 | 10,151 | 5,989 |
| of which defaulted | 208 | 152 | 124 | 56 |
| **Total exposure IRB** | **117,387** | **77,431** | **63,796** | **2,168** |
| of which loans and debt securities | 72,406 | 73,063 | 60,815 | 1,929 |
| of which defaulted | 2,153 | 1,497 | 1,163 | 90 |
| **Total exposure** | **174,010** | **90,634** | **74,588** | **8,585** |
| of which loans and debt securities | 118,040 | 85,491 | 70,965 | 7,918 |
| of which defaulted | 2,361 | 1,649 | 1,287 | 147 |

Table 53: CRM overview ( Art. 453 (f) (g) CRR and EU CR3 EBA/GL/2016/11)

In the table above, for the standardised approach exposure net of specific credit risk adjustments (before application of CCF to off-balance items) is reported, while for IRB approach gross exposure (before application of CCF to off-balance items) is disclosed. Exposure amounts that have at least one CRM mechanism associated, irrespective of its value, are included in the column exposure to be secured. Exposure secured by collateral equals the value secured by the eligible collateral.

### Collateral types by exposure classes

| in EUR million | Guarantees | Mortgage collateral | Financial and other collateral |
|---|---|---|---|
| Central Governments and Central Banks | 827 | 0 | 0 |
| Institutions | 545 | 50 | 40 |
| Corporates | 175 | 14,300 | 1,647 |
| Specialised Lending | 0 | 0 | 0 |
| Retail | 621 | 43,135 | 2,452 |
| SME | 294 | 5,016 | 783 |
| Secured by immovable property collateral | 67 | 38,118 | 749 |
| Other retail | 260 | 0 | 919 |
| Equity | 0 | 0 | 0 |
| Securitisation Positions | 0 | 0 | 0 |
| Other non-credit obligation assets | 0 | 5 | 0 |
| **IRB Approach Total** | **2,168** | **57,490** | **4,139** |
| Central Governments and Central Banks | 4,300 | 0 | 56 |
| Regional Governments or Local Authorities | 1,622 | 0 | 14 |
| Public Sector Entities | 41 | 1 | 6 |
| Multilateral Development Banks | 330 | 0 | 0 |
| International Organisations | 0 | 0 | 0 |
| Institutions | 2 | 0 | 0 |
| Corporates | 116 | 27 | 149 |
| Retail | 6 | 12 | 41 |
| Exposures secured by mortgages on immovable property | 0 | 4,001 | 0 |
| Exposures in default | 0 | 63 | 5 |
| Exposures associated with particular high risk | 0 | 0 | 0 |
| Covered Bonds | 0 | 0 | 0 |
| Securitisation Positions | 0 | 0 | 0 |
| Exposures to institutions and corporates with a short-term credit assessment | 0 | 0 | 0 |
| Collective Investment Undertakings | 0 | 0 | 0 |
| Equity | 0 | 0 | 0 |
| Other items | 0 | 0 | 0 |
| **Standardised Approach Total** | **6,417** | **4,104** | **271** |
| **Total** | **8,585** | **61,594** | **4,410** |

Table 54: Eligible collateral values by exposure class and type of collateral (Art. 453 (f) (g) CRR)

As the bank does not have credit derivatives as collaterals, template EU CR7 – Effect on the RWAs of credit derivatives used as CRM techniques is not applicable.

# Counterparty credit risk

## Goals and principles of risk management

DISCLOSURE REQUIREMENTS Art. 435 (1) (a) (b) (c) (d) CRR

Counterparty credit risk (CCR) for OTC derivatives and securities financing transactions (securities repurchasing transactions and securities lending) is measured as the sum of current replacement costs in the case of default of the counterparty (i.e. the positive market value taking into account netting agreements) and of potential replacement costs that may result from future changes in market values due to a change in the underlying market risk factors (e.g. interest rates, currencies, equity or commodity prices).

Counterparty credit risks are monitored and controlled at transaction level as well as at portfolio level. Erste Group has a real-time limit monitoring system for the entire Group to which the entities of the Group, especially the units with trading activities, are connected online. The availability of unused limits must be checked before a transaction is executed.

### ORGANISATION

Credit risks from derivatives, repurchase agreements and securities lending transactions are fully integrated into the general credit risk management system. A requirement for entering into derivative transactions is the compliance with the credit process, where the same standards with respect to classification, limits and monitoring apply as in the case of conventional credit transactions. Counterparty credit risks are measured and monitored on a daily basis by an independent risk management unit in Group Credit Risk Management. Counterparty default risk is taken into consideration in credit risk reporting.

### RISK MEASUREMENT AND CONTROL

For the internal measurement of credit risk arising from derivatives, repurchase transactions and securities lending transactions, the current market values (replacement values) and potential fluctuations of the replacement values (Potential Future Exposure) due to changes in the underlying market risk factors until maturity are taken into account.

The calculation of the potential future exposure uses standard methods as well as Monte Carlo simulation methods. The simulation method is used especially for interest rate and currency derivatives. These derivatives account for the larger part of the portfolio.

For repurchase agreements and derivatives that are not included in the simulation method, a standard method is used. This method takes into account the current market value and an add-on for potential changes to the EAD in the future. The add-on values are based on internal estimates (derived from historic volatilities) depending on the product, maturity and underlying risk factors.

For the calculation of current and potential credit risks, netting procedures are taken into account only if they can be legally enforced (depending on business partner and jurisdiction). The legal enforcement of netting agreements is examined based on legal expert opinions.
The amounts receivable are limited by own limits as well as within the scope of the limits of the overall credit risk exposure of the respective counterparty, groups of counterparties and countries. Additionally, settlement risk is controlled by adequate limits.

### NETTING AND COLLATERAL

An important basis for the reduction of counterparty credit risk is entering into framework agreements (international framework agreements for derivatives of the International Swaps and Derivatives Association (ISDA), Austrian or German framework agreements, framework agreements for securities lending transactions and repurchase deals) with the respective business partners. Based on these agreements, it is 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. Erste Group does not make use of cross product netting (i.e. exposures, including both derivatives and SFTs netted at counterparty level).

Furthermore, collateral agreements (e.g. ISDA Credit Support Annex) are used for reducing the credit risk from derivatives. 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.

# Internal capital allocation and definition of credit limits for counterparty credit exposures

### DISCLOSURE REQUIREMENTS Art. 439 (a) CRR

Counterparty credit risk is assessed as part of the centralised calculation of RWAs and treated as a component of credit risk in the RCC. In part, portfolios subject to the Standardised Approach are recalculated using IRB parameters in order to gain an economic perspective. RWAs are scaled to the confidence level of 99.92% in the RCC. Counterparty credit risk is incorporated into the Group RCC, which is reported quarterly to the management board. It forms one of the vital components of the Economic Capital Adequacy Limit, which is approved by the management board.

A credit limit for counterparties at individual customer level is requested and approved by the appropriate credit processing channels. Individual customer limits are regularly monitored and tracked in the reporting system. Further relevant credit limits include the maximum lending limit for the group of connected clients and industry limits which are defined in line with the Group RAS and the Group Risk Strategy and also periodically reviewed and reported to the management board and supervisory board.

# Securing of collateral and establishing of reserves

### DISCLOSURE REQUIREMENTS Art. 439 (b) CRR

On the basis of bilateral contracts (securities repurchase transactions, securities lending, ISDA netting agreements, credit support annexes, etc.), Erste Group has the ability to apply risk mitigating measures (netting, taking of security). Erste Group incurs credit risk only when the net market value is positive (replacement risk). As this risk depends mainly on fluctuations in the market risk parameters (exchange rates, interest rate movements, share prices, credit spreads), open transactions must regularly be revalued and the collateral adjusted.

Acceptable collateral usually consists of cash denominated in certain defined major currencies (generally EUR, USD) and securities of top-rated issuers (government bonds of several European countries and the US or issues of Austrian banks backed by the Austrian government). In the case of securities used as collateral, an additional valuation discount (haircut) depending on the residual maturity is applied. The adjustment of the collateral to the current risk situation (mark-to-market valuation of the transactions with the respective counterparty) and the review of the current collateral value (taking into account exchange rate fluctuations for collateral in foreign currency, market value of securities) are performed at contractually agreed intervals. Valuation frequencies customary in the market are daily or weekly; Erste Group strives to ensure daily valuation.

The ability to realise collateral in the event of counterparty insolvency and to reuse collateral (notably to re-pledge it to third parties, or to reuse it for lending or repo transactions) is ensured based on legal opinions issued on behalf of ISDA for the relevant jurisdictions of the individual counterparties. As Erste Group accepts either cash deposits or securities with the best credit ratings issued by sovereign issuers as collateral, no further reserves are being created for exposures secured in this manner. Credit value adjustments are made for unsecured exposures from derivative transactions contingent on the credit rating or PD of the counterparty and the maturity of the contract.

For repurchase and securities lending agreements, collateral limits are set for single issuers and rating groups contingent on credit quality. As the mutual obligation to meet margin calls ensures full collateralisation on an ongoing basis, no additional reserves are formed for these transactions.

# Limitation on wrong-way risk

### DISCLOSURE REQUIREMENTS Art. 439 (c) CRR

Erste Group is using various scenarios and standard reports to identify wrong-way risk. Based on the results, specific limits are set in order to avoid general and specific wrong-way risk (e.g. limitations for acceptable collateral for OTC and repurchase agreements, limitations on trades where specific wrong-way risk could occur).

## Impact on collateralisation of a rating downgrade

### DISCLOSURE REQUIREMENTS Art. 439 (d) CRR

Contractual provisions concerning dependencies between collateralisation and the credit rating of Erste Group exist in the context of collateral agreements. The variables affected by this in some of the collateral agreements are the exposure-independent amount of collateral (referred to as the independent amount), the amount of exposure the counterparty is willing to accept before Erste Group is required to post collateral (the threshold amount), and the minimum amount of additional collateral that may be requested (the minimum transfer amount). A process for additional liquidity outflows due to contracts with downgrade triggers shown in the Liquidity Coverage Ratio and yearly reporting of all relevant contracts has been established in Erste Group.

## Quantitative disclosure on counterparty risk

### DISCLOSURE REQUIREMENTS Art. 439 (e) (f) (g) (h) CRR

The table below provides an overview of the methods used to calculate CCR regulatory requirements, the main parameters used within each method, as well as the resulting net exposures and RWAs. Erste Group does not use the Standardised approach or an internal model for the calculation of exposures for CCR purposes. Replacement costs related to OTC derivative transactions remained stable (2018: EUR 1,898 million). The reduction in EAD (2018: EUR 2,820 million) is mainly driven by signing new netting agreements with some of the larger counterparties and shorter average life of the derivatives posrtfolio. The increase in EADs under the financial collateral method for SFTs (2018: EUR 21,611 million) results from intensifying business in repo style transactions in some of the key home markets.

#### Methods calculating CCR

| in EUR million | Notional | Replacement cost/ current market value | Potential future credit exposure | EEPE | Multiplier | EAD post CRM | RWAs |
|---|---|---|---|---|---|---|---|
| Mark to market | | 1,882 | 1,398 | | | 2,100 | 1,056 |
| Original exposure | 884 | | | | | 35 | 22 |
| Standardised approach | | 0 | | | 0 | 0 | 0 |
| IMM (for derivatives and SFTs) | | | | 0 | 0 | 0 | 0 |
| of which securities financing transactions | | | | 0 | 0 | 0 | 0 |
| of which derivatives and long settlement transactions | | | | 0 | 0 | 0 | 0 |
| of which from contractual cross-product netting | | | | 0 | 0 | 0 | 0 |
| Financial collateral simple method (for SFTs) | | | | | | 0 | 0 |
| Financial collateral comprehensive method (for SFTs) | | | | | | 26,015 | 478 |
| VaR for SFTs | | | | | | 0 | 0 |
| **Total** | | | | | | | **1,556** |

Table 55: Analysis of CCR exposure by approach (Art. 436 (e) (f) (i) CRR and EU CCR1 EBA/GL/2016/11)

As IMM (internal model method) for derivatives and SFTs is not used, template EU CCR7 – RWA flow statement of CCR exposures under the IMM according to EBA/GL/2016/11 is not disclosed.

The table below provides an overview of the exposures subject to CVA capital charges in accordance with Part three, Title VI, Article 382 CRR. Erste Group applies the standardised method to compute CVA capital charges exclusively. Compared to 2018 there was a increase in exposure values subject to CVA (2018: EUR 3,956 million) and a reduction in CVA RWAs (2018: EUR 661 million) driven by shifts in the portfolio composition and overall shorter maturities.

#### CVA capital charges

| in EUR million | Exposure Value | RWAs |
|---|---|---|
| Total portfolios subject to the advanced method | 0 | 0 |
| (i) VaR component (including the 3× multiplier) | | 0 |
| (ii) SVaR component (including the 3× multiplier) | | 0 |
| All portfolios subject to the standardised method | 3,956 | 569 |
| Based on the original exposure method | 0 | 0 |
| **Total subject to the CVA capital charge** | **3,956** | **569** |

Table 56: Analysis of CCR CVA Capital Charge (Art. 439 (e) (f) CRR and EU CCR2 EBA/GL/2016/11)

The table below provides an overview of the exposures towards central counterparties (CCPs) in the scope of Part Three, Title II, Chapter 6, Section 9 of the CRR and related capital requirements. Compared to 2018 there was an increase in overall exposures to CCPs as more business is done via counterparty clearing brokers (2018: EUR 187 million). Default fund contributions remained stable (2018: EUR 16 million). Erste Group does not have exposures to non-qualifying CCPs.

## Exposures to central counterparties

| in EUR million | EAD post CRM | RWAs |
|---|---|---|
| Exposures to QCCPs (total) | | 12 |
| Exposures for trades at QCCPs (excluding initial margin and default fund contributions); of which | 336 | 7 |
| (i) OTC derivatives | 336 | 7 |
| (ii) Exchange-traded derivatives | - | - |
| (iii) SFTs | - | - |
| (iv) Netting sets where cross-product netting has been approved | - | - |
| Segregated initial margin | 49 | |
| Non-segregated initial margin | 183 | 4 |
| Prefunded default fund contributions | 16 | 2 |
| Alternative calculation of own funds requirements for exposures | | - |
| Exposures to non-QCCPs (total) | | - |
| Exposures for trades at non-QCCPs (excluding initial margin and default fund contributions); of which | - | - |
| (i) OTC derivatives | - | - |
| (ii) Exchange-traded derivatives | - | - |
| (iii) SFTs | - | - |
| (iv) Netting sets where cross-product netting has been approved | - | - |
| Segregated initial margin | - | |
| Non-segregated initial margin | - | - |
| Prefunded default fund contributions | - | - |
| Unfunded default fund contributions | - | - |

Table 57: Exposures to CCPs (Art. 439 (e) (f) CRR and in line with EU CCR8 EBA/GL/2016/11)

The table below provides a breakdown of CCR exposure calculated in accordance with Part Three, Title II, Chapter 6 of the CRR and risk-weighted according to Chapter 3 of the same title: by portfolio (type of counterparties) and by risk weight (riskiness attributed according to the standardised approach).

## CCR portfolio in STA

| | Risk weights | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| in EUR million | 0% | 2% | 4% | 10% | 20% | 50% | 70% | 75% | 100% | 150% | Others | Total | Unrated |
| Central governments or central banks | 15,818 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15,818 | 0 |
| Regional governments or local authorities | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 9 | - |
| Public Sector Entities | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | - |
| Multilateral Development Banks | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | - |
| International Organisations | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| Institutions | 0 | 336 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 2 | 0 | 341 | 0 |
| Corporates | 0 | 0 | 0 | 0 | 5 | 0 | 1 | 0 | 0 | 90 | 0 | 96 | 90 |
| Retail | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 1 |
| Exposures secured by mortgages on immovable property | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| Exposures in default | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 1 | 10 | 1 |
| Exposures associated with particular high risk | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| Covered bonds | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| Securitisation positions | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| Exposures to institutions and corporates with a short-term credit assessment | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| Collective investment undertakings (CIUs) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| Equity exposures | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| Other items | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| **Total** | **15,827** | **336** | **0** | **0** | **8** | **0** | **1** | **0** | **4** | **105** | **1** | **16,281** | **93** |

Table 58: Standardised approach – CCR exposures by regulatory portfolio and risk (Art. 444 (e) CRR and in line with EU CCR3 EBA/GL/2016/11)

In the table above, under column Unrated, exposures are presented for which credit risk assessment by a nominated ECAI is not used and for which specific risk weights are applied depending on their exposure class.

The table below provides an overview of RWAs and parameters used in RWA calculations for exposures subject to the CCR framework (excluding CVA charges or exposures cleared through a CCP) and where the credit risk approach is used (in accordance with Article 107 CRR) to compute RWAs in IRB approach. The same PD scale applies as for credit risk exposures.

## CCR portfolio in IRB approach

| in EUR million | EAD post CRM | Average PD | Number of obligors | Average LGD | Average maturity | RWA | RWA density |
|---|---|---|---|---|---|---|---|
| **PD scale** | | | | **Institutions** | | | |
| 1 | 5,345 | 0.1% | 103 | 8.8% | 0.8 | 380 | 7.1% |
| 2 | 4,252 | 0.2% | 96 | 11.4% | 0.9 | 464 | 10.9% |
| 3 | 453 | 0.3% | 46 | 16.1% | 0.9 | 92 | 20.2% |
| 4 | 274 | 0.6% | 5 | 10.6% | 0.7 | 53 | 19.3% |
| 5 | 292 | 1.0% | 14 | 5.7% | 0.7 | 31 | 10.8% |
| 6 | 16 | 4.0% | 2 | 0.0% | 0.9 | 0 | 0.0% |
| 7 | 7 | 10.3% | 3 | 0.0% | 0.5 | 0 | 0.1% |
| 8 | | | | | | | |
| **Total** | **10,639** | **0.2%** | **269** | **10.1%** | **0.8** | **1,020** | **9.6%** |
| **PD scale** | | | | **Corporate** | | | |
| 1 | 555 | 0.1% | 104 | 7.3% | 0.8 | 18 | 3.3% |
| 2 | 270 | 0.2% | 87 | 7.0% | 0.8 | 15 | 5.6% |
| 3 | 209 | 0.3% | 186 | 15.5% | 1.2 | 40 | 19.3% |
| 4 | 283 | 0.6% | 168 | 13.4% | 1.1 | 66 | 23.3% |
| 5 | 187 | 1.1% | 300 | 18.5% | 1.3 | 79 | 42.3% |
| 6 | 297 | 3.7% | 430 | 7.8% | 0.8 | 69 | 23.2% |
| 7 | 27 | 19.0% | 61 | 4.9% | 0.7 | 7 | 25.0% |
| 8 | 1 | 100.0% | 21 | 45.0% | 2.5 | 0 | 0.0% |
| **Total** | **1,829** | **1.2%** | **1,357** | **10.3%** | **0.9** | **295** | **16.1%** |
| Other | 198 | 0.03% | 454 | | | 143 | 72.2% |
| **Total** | **12,666** | | **2,080** | | | **1,457** | **11.5%** |

Table 59: IRB approach – CCR portfolio by exposure class, PD scale (Art. 452 (e) CRR and EU CCR4 EBA/GL/2016/11)

The table below provides an overview of the impact of netting and collateral held on exposures for which the exposure value is measured as per Part Three, Title II, Chapter 6 of the CRR, including exposures arising from transactions cleared through a CCP. Erste Group does not make use of counterparty netting for SFT transactions for the purposes of RWA calculations and there are no cross product netting agreements in place. Compared to 2018 there is an increase in the net credit exposures to OTC derivatives (2018: EUR 626 million) which reflects the increase in gross positive fair value (2018: EUR 4,522 million) and mildly lower level of collateral held (2018: EUR 1,122 million). There is a significant increase in the net carrying amount for SFTs (2018: EUR 21,450 million) which is largely due to increased business volumes in some of the home markets and is also reflected in the SFT net credit exposures (2018: EUR 1,968 million).

| in EUR million | Gross positive fair value or net carrying amount | Netting benefits | Netted current credit exposure | Collateral held | Net credit exposure |
|---|---|---|---|---|---|
| Derivatives | 4,819 | 2,937 | 1,882 | 1,122 | 760 |
| SFTs | 26,015 | 0 | 26,015 | 24,438 | 1,577 |
| Cross-product netting | 0 | 0 | 0 | 0 | 0 |
| **Total** | **30,834** | **2,937** | **27,897** | **25,560** | **2,337** |

Table 60: Impact of netting and collateral held on exposure values (Art. 439 (e) CRR and EU CCR5-A EBA/GL/2016/11)

The table below provides an overview of all types of collateral posted or received by Erste Group to support or reduce CCR exposures related to derivative transactions or to SFTs, including transactions cleared through a CCP. Compared to 2018 for OTCD transactions there is a reduction in the volume of collateral received (2018: EUR 1,283 million) and an increase in collateral posted (2017: EUR 694 million) which reflects shifts in the composition of the derivatives portfolio. The proportion of exposures collateralized by cash remains high at 94.4% (2018: 93.0%) for received collateral but is slightly higher at 66.0% (2017: 57.2%) for posted collateral. For SFTs the overall level of collateral received grew significantly for both collateral received (2018: EUR 20,108 million) with an emphasis on government bonds and collateral posted (2018: EUR 21,450 million) mainly in cash due to higher volumes placed with central banks.

| | Collateral used in derivative transactions | | | | Collateral used in SFTs | |
|---|---|---|---|---|---|---|
| | Fair value of collateral received | | Fair value of posted collateral | | | |
| in EUR million | Segregated | Unsegregated | Segregated | Unsegregated | Fair value of collateral received | Fair value of posted collateral |
| Cash | 0 | 1,060 | 32 | 396 | 5,264 | 19,972 |
| Government bonds | 0 | 0 | 18 | 174 | 17,785 | 3,040 |
| Corporate bonds | 0 | 61 | 16 | 77 | 2,966 | 1,426 |
| **Total** | **0** | **1,122** | **65** | **647** | **26,015** | **24,438** |

Table 61: Composition of collateral for exposures to CCR (Art. 439 (e) CRR and EU CCR5-B EBA/GL/2016/11)

The table below provides an overview of Erste Group's exposures to credit derivative transactions broken down between derivatives bought or sold. Compared to 2018 there is a decrease in credit protection bought (2018: EUR 574 million) and decrease in protection sold (2018: EUR 567 million). Erste Group does not have exposures to exotic credit derivatives and currently has no credit derivative positions purchased for hedging in the banking book.

| in EUR million | Credit derivative hedges | | Other credit derivatives |
|---|---|---|---|
| | Protection bought | Protection sold | |
| **Notionals** | | | |
| Single-name credit default swaps | 377 | 374 | - |
| Index credit default swaps | 103 | 100 | - |
| Total return swaps | - | - | - |
| Credit options | - | - | - |
| Other credit derivatives | - | - | - |
| **Total notionals** | **480** | **474** | **-** |
| **Fair values** | **-** | **-** | **-** |
| Positive fair value (asset) | 1 | 8 | - |
| Negative fair value (liability) | 12 | 1 | - |

Table 62: Credit derivatives exposures (Art. 439 (g) (h) CRR and EU CCR6 EBA/GL/2016/11)

# Exposure to securitisation positions

## Investments in securitisation positions

DISCLOSURE REQUIREMENTS Art. 435 (1) (a) (b) (c) (d), 449 (a) (c) (f) (h) (n) (v) CRR

In the past, securitisation deals were concluded by Erste Group to diversify risks and returns when acting as an investor in securitisation positions. There have not been any new investments in securitisation positions since 2011. It is planned to phase out this portfolio through amortisations.

Credit decisions are reached on the basis of a fundamental analysis of the underlying pools, while on a regular basis a waterfall simulation of the pool is done, for which structural risks of securitisation are taken into account. The continuous monitoring of the remaining securitisation portfolio is undertaken via a standardised process using various impairment tests. Changes in market risk are analysed on a monthly basis using current market prices for each of the securitisation positions. Furthermore, developments in credit spreads are analysed in the asset classes of the securitisation portfolio and used in the regular monitoring of market liquidity. Valuations by external rating agencies as well as a series of performance-linked indicators are used for the monthly assessment of credit risk. Additionally, annual reviews are prepared at the individual transaction level to check for impairment and measure the development of the securitisation positions. Transactions that fall below certain defined thresholds would be furthermore tracked in a watch list that is regularly updated, however, there are none at the moment.

To value securitisation positions, Erste Group receives third-party pricing for each of its US investments on a monthly basis. Third party pricing for the last US Student Loan ABS is based on observable inputs including (i) discount margins, (ii) conditional prepayment rate (CPR) and (iii) yield curves. For the European ABS Portfolio, Erste Group receives prices from external market data providers on a daily basis. Erste Group's pricing validation practice has been in place since 2013. There have been no changes in the valuation methods.

Erste Group is using the Ratings Based Method pursuant to Article 261 CRR for investor positions to calculate risk-weighted exposure amounts.

From 31 December 2016 onwards, Erste applies to all 1250% risk-weighted securitisation positions on its balance sheet the deduction of the exposure amount from the amount of Common Equity Tier 1 items pursuant to the Article 266 (3) CRR and Article 36 (1)(k) CRR as an alternative to applying a risk weight of 1250%. The 1250% securitisation positions deducted from own funds as of 31 December 2019 include the two first loss positions of the two originated transactions Bee SME 2018-1 (EUR 25 million) and CSAS 2019-1 (EUR 18 million) as well as the synthetic excess spread of Bee SME 2018-1 (EUR 2 million) and CSAS 2019-1 (EUR 9 million).

# Securitisation activities at Erste Group

DISCLOSURE REQUIREMENTS Art. 449 (a) (b) (d) (e) (g) (h) (j) (k) (n) CRR

As an originator, securitisation transactions can improve the risk/return profile and enable growth through the following effects:
transfer of credit risk to the capital market

- _ freeing of credit limits for customers of Erste Group
- _ release of economic and regulatory capital
- _ raising liquidity at attractive terms.

On 11 January 2019, Erste Group terminated its Edelweiss 2013-1 transaction with the 10% clean-up call option. The remaining outstanding Classes B, C and D were fully redeemed at that date. On 19 December 2018, Erste Group's second synthetic securitisation transaction ("Bee SME 2018-1") became effective. The main objective of the new EUR 1,325 million transaction was credit protection of a predominantly Austrian SME credit portfolio via an unfunded financial guarantee on the mezzanine tranches. The significant risk transfer pursuant to Article 244 (2) (a) Regulation (EU) 575/2013 contributes to regulatory capital relief. The transaction has a final legal maturity on 31 May 2043 and includes loans to SME, corporate and self-employed customers. The reference portfolio was not sold but remains on the balance sheet of Erste Bank der Oesterreichischen Sparkassen AG. No SSPE was involved in the transaction.

Erste Group used until 31 December 2019 the Supervisory Formula Method pursuant to Article 262 Regulation (EU) 575/2013 for this transaction to calculate risk-weighted exposure amounts and from 1 January 2020 onwards the SEC IRBA formula of Article 259 Regulation (EU) 2017/2401. No rating agency was involved in the transaction. The transaction was structured in three tranches whereby the mezzanine tranche is guaranteed by the European Investment Fund (EIF). The European Investment Bank (EIB) with funds from European Fund for Strategic Investments (EFSI) supports the new transaction with a back-to-back guarantee with EIF and retrocession of part of the guarantee premium to Erste Group in case a certain new loan origination requirement is reached, as part of its mission to support SME lending and economic growth in the European Union. The structure of the transaction is set out in the table below.

### Bee SME 2018-1 synthetic securitisation transaction

| in EUR million | Notional value outstanding as of 31 December 2019 | Seniority of tranche | Tranche characteristic |
|---|---|---|---|
| Senior Tranche | 864 | Senior | Retained |
| Mezzanine Tranche | 31 | Mezzanine | Guaranteed |
| Junior Tranche | 25 | Junior | Retained |
| **Total** | **920** | | |
| Excess Spread | 2 | | |

Table 63: Overview of Bee SME 2018-1 securitisation tranche structure and characteristics

The transaction has no replenishment period. As of the end of reporting period the tranches of the transaction have been paid down by 30.5% of their initial balance. The redemption of the senior and mezzanine tranches is on a pro-rata basis and losses are allocated to the tranches in the reverse order of seniority. The transaction includes a synthetic excess spread in the amount of the expected loss of the portfolio. Losses are first allocated to the excess spread and then to the tranches starting with the junior tranche. The excess spread as well as the junior tranche are deducted from the amount of Common Equity Tier 1 items pursuant to Article 266 (3) CRR and Article 36 (1)(k) Regulation (EU) 575/2013. No hedging or unfunded credit protection is used to mitigate the risk of the retained tranches.

The specific provisions booked for a credit event loan are used as an estimate for the final loss ("initial loss") in respect of the credit event loan in the transaction. Revised estimates of the loss lead to positive or negative loss adjustments during the workout process. After completion of the workout process the total loss accounted for in respect of the credit event loan is the final loss. In case of losses above the excess spread and the junior tranche and up to the mezzanine tranche Erste Bank der Oesterreichischen Sparkassen AG receives credit protection payments from the investor.

The 5% originator retention required under Article 405 Regulation (EU) 575/2013 was met by retaining exposures with a volume of EUR 70 million or 5% prior to securitisation at Erste Bank der Oesterreichischen Sparkassen AG level by random selection.

On 30 November 2019, the first synthetic securitisation ("CSAS 2019-1") of Erste Group's Czech entity, Ceska Sporitelna, became effective. The transaction is similar to the Austrian Bee SME 2018-1 with the same main objective being credit protection of a predominantly Czech SME credit portfolio via an unfunded financial guarantee on the mezzanine tranches. The significant risk transfer pursuant to Article 245 (2) (a) Regulation (EU) 2017/2401 contributes to regulatory capital relief. The transaction has a final legal maturity on 31 August 2036 and includes SME and corporate loans. The reference portfolio was not sold but remains on the balance sheet of Ceska Sporitelna.

As in Bee SME 2018-1, no SSPE and no rating agency was involved in CSAS 2019-1. The transaction was also structured in three tranches whereby the mezzanine tranche is again guaranteed by the European Investment Fund (EIF) with a back-to-back guarantee by the European Investment Bank (EIB) with funds from European Fund for Strategic Investments (EFSI) and a retrocession agreement with EIB in case a certain new loan origination requirement is reached. The structure of the transaction is set out in the table below.

### CSAS 2019-1 synthetic securitisation transaction

| in EUR million | Notional value outstanding as of 31 December 2019 | Seniority of tranche | Tranche characteristic |
|---|---|---|---|
| Senior Tranche | 935 | Senior | Retained |
| Mezzanine Tranche | 77 | Mezzanine | Guaranteed |
| Junior Tranche | 18 | Junior | Retained |
| **Total** | **1,030** | | |
| Excess Spread | 9 | | |

Table 64: Overview of CSAS 2019-1 securitisation tranche structure and characteristics

The transaction has a replenishment period of 2 years. The redemption of the senior and mezzanine tranches is on a pro-rata basis and losses are allocated to the tranches in the reverse order of seniority. The transaction includes a synthetic excess spread in the amount of the expected loss of the portfolio. Losses are first allocated to the excess spread and then to the tranches starting with the junior tranche. The excess spread as well as the junior tranche are deducted from the amount of Common Equity Tier 1 items pursuant to Article 253 (1) Regulation (EU) 2017/2401 and Article 36 (1)(k). No hedging or unfunded credit protection is used to mitigate the risk of the retained tranches.

As in Bee SME 2018-1, the specific provisions booked for a credit event loan are used as an estimate for the final loss ("initial loss") in respect of the credit event loan in the transaction. Revised estimates of the loss lead to positive or negative loss adjustments during the workout process. After completion of the workout process the total loss accounted for in respect of the credit event loan is the final loss. In case of losses above the excess spread and the junior tranche and up to the mezzanine tranche Ceska Sporitelna receives credit protection payments from the investor.

The 5% originator retention required under Article 6 3(c) Regulation (EU) 2017/2401 was met by retaining exposures with a volume of EUR 55 million or 5% prior to securitisation at Ceska Sporitelna level by random selection.

The administration and monitoring of the two synthetic transactions is executed according to the policy "process documentation for execution and administration of synthetic securitisation transactions" in the internal IT securitisation platform. The policy covers the roles, responsibilities, governance and organisation of the synthetic securitisation process within Erste Group, Ceska Sporitelna and Erste Bank der Oesterreichischen Sparkassen AG.

Besides the the issuance of CSAS 2019-1 no further securitisation transaction was executed at Erste Group in 2019. Erste Group is planning to sign its first synthetic securitisation for Slovenska Sporitelna in 2020 again with EIF and EIB as investors.

In cases in which Erste Group invested in synthetic securitisations, assets were allocated to the financial category available-for-sale and measured at fair value. On the balance sheet, available-for-sale assets are disclosed under the line item "Financial assets – available for sale". Assets awaiting securitisation are loans which are valued at amortised cost and are not recorded in the credit institution's trading book or trading. On the balance sheet, loans are disclosed under the line items "Loans and receivables to credit institutions" and "Loans and receivables to customers".

# Quantitative disclosure on securitisation positions

## SECURITISATION ACTIVITIES

### DISCLOSURE REQUIREMENTS Art. 449 (m) (n) (p) CRR

#### Type of securitisation

| in EUR million | Type of exposure | Exposure | Exposure (% of total) |
|---|---|---|---|
| Traditional | Car finance | 0 | 0% |
| Synthetic | Corporate and SME loans | 1,950 | 100% |
| **Total** | | **1,950** | **100.0%** |

Table 65: Overview on outstanding exposures securitised (Art. 449 (n) (i) CRR)

The total amount of outstanding exposures securitised increased due to the issuance of the EUR 1,05 million CSAS 2019-1. This outweighed the termination of Edelweiss 2013-1. The securitized exposures are all on-balance. The aggregate amount of off-balance sheet securitisation exposures is 0.

#### Risk category

| in EUR million | Type of exposure | Exposure | Exposure (% of outstanding exposures) |
|---|---|---|---|
| Impaired / past due assets | Car finance | 0.0 | 0.0% |
| Losses | Car finance | 0.0 | 0.0% |
| Impaired / past due assets | Corporate and SME loans | 2.7 | 0.3% |
| Losses | Corporate and SME loans | 0.3 | 0.0% |

Table 66: Impaired/past due assets (Art. 449 (p) CRR)

The amount of impaired/past due and loss amounts for corporate and SME loans are shown for the Bee SME 2018-1 transaction. The amount of impaired/past due loans is the notional amount of credit event loans since effective date 19 December 2018. The amount of losses for Bee SME 2018-1 are the initial specific provisions as well as positive and negative loss adjustments of the loans with a credit event since effective date 19 December 2018. For CSAS 2019-1 no assets were impaired or took losses as of 31 December 2019.

## EXPOSURE AMOUNTS FOR INVESTMENTS IN SECURITISATION

### DISCLOSURE REQUIREMENTS Art. 449 (o) CRR

Securitisation that is deducted from own funds is also included in total EAD figure presented in tables below. None of the positions are in trading book. Investments in securitisation positions differ by type of securitisation and are broken down by risk weight bands and rating approach.

### By type of securitisation

| in EUR million | | EAD | EAD (% of total) | Capital requirements |
|---|---|---|---|---|
| Asset Backed Securities | ABS | 22 | 1.2% | 0.2 |
| out of which retained | | 0 | 0.0% | 0 |
| Collateralised Bond Obligation | CBO | 0 | 0.0% | 0 |
| Collateralised Loan Obligation | CLO | 1,851 | 98.8% | 74 |
| out of which retained | | 1,851 | 98.8% | 74 |
| Commercial Mortgage Backed Securities | CMBS | 0 | 0.0% | 0 |
| Collateralised Mortgage Obligation | CMO | 0 | 0.0% | 0 |
| Other Collateralised Debt Obligation | Other CDO | 0 | 0.0% | 0 |
| Residential Mortgage Backed Securities | RMBS | 0 | 0.0% | 0 |
| Resecuritisations | Resecuritisations | 0 | 0.0% | 0 |
| **Total** | | **1,873** | **100.0%** | **74** |

Table 67: Securitisation positions – EAD and capital requirements by type of securitisation (Art. 449 (n)(ii) (o)(i) CRR (1/3))

### By risk weight band

| in EUR million | EAD | EAD (% of total) | Capital requirements |
|---|---|---|---|
| <=10% RW | 884 | 47.1% | 5 |
| >10% to 20% RW | 1 | 0.1% | 0 |
| >20% to 50% RW | 935 | 49.9% | 15 |
| >50% to 100% RW | 0 | 0.0% | 0 |
| >100% to 350% RW | 0 | 0.0% | 0 |
| >350% to 650% RW | 0 | 0.0% | 0 |
| >650% to <1250% RW | 0 | 0.0% | 0 |
| 1250% RW | 0 | 0.0% | 0 |
| **Total** | **1,819** | **97.1%** | **20** |
| deducted from capital | 54 | 2.9% | 54 |
| **Total** | **1,873** | **100.0%** | **74** |

Table 68: Securitisation positions – EAD and capital requirements by risk weight band (Art. 449 (o)(i) CRR (2/3))

### By rating approach and by securitisation and re-securitisation exposures

| in EUR million | | EAD | EAD (% of total) |
|---|---|---|---|
| IRB Approach | Resecuritisation Exposure | 0 | 0.0% |
| | Securitisation Exposure | 1,873 | 100.0% |
| Standardised Approach | Resecuritsation Exposure | 0 | 0.0% |
| | Securitisation Exposure | 0 | 0.0% |
| **Total** | | **1,873** | **100.0%** |

Table 69: Securitisation positions – EAD by rating approach and by securitisation and re-securitisation exposures (Art. 449 (o)(i) CRR (3/3))

# Market Risk

## Goals and principles of risk management

DISCLOSURE REQUIREMENTS Art. 435 (1) (a) (b) (c) (d) AND 445 CRR

Market risks arise due to fluctuations of interest rates, exchange rates, equity prices and commodity prices. Market risks derive from short-term trading in instruments whose prices are determined daily (trading book) as well as from the traditional banking business (banking book). The measurement method for risk in the trading book is Value at Risk (VaR).

### ORGANISATION

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

Banking Book Risk Management is responsible for the group wide governance of market and liquidity risk of the banking book. This includes the identification, measurement and controlling of market and liquidity risk as well as the integration into the group's enterprise wide risk management and risk appetite framework. Furthermore, this department is responsible for setting, controlling, and monitoring of group wide liquidity and market risk limits in the banking book and respective limit escalation procedures.

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

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

Market and Liquidity Risk Model Validation is responsible for the independent review and validation of market and liquidity risk related methods and models.

### RISK MEASUREMENT AND CONTROL

VaR is calculated based on the method of historic simulation. A confidence interval of 99% and a holding period of one day apply. The software package MRS is used for this purpose. The validity of the statistical methods used is constantly checked through back-testing.

The management board sets the strategic framework for market risk management in the Group, approves the risk appetite, which is appropriate to the business strategy, and approves the Group strategy. The breakdown and allocation of strategic market risk limits to segments follows a proposal of the risk management department Trading Book Risk Management, which is subject to approval by the MRC. The MRC is the ultimate decision-making body for market risk and other trading book-related issues of all entities of Erste Group. Its key function is to discuss and decide on important risk management issues related to Group Markets activities, in particular, to approve and implement common risk management standards, limit structures, trading strategies and to establish the overall governance framework. The chairman of the MRC is the CRO. The MRC further comprises of the Chief Financial Officer, the board member responsible for the Group capital markets business, key staff from risk management and the relevant business units. Limit compliance is verified at several levels by the appropriate local decentralised risk management units as well as by the department Trading Book Risk Management.

### METHODS AND INSTRUMENTS OF RISK MITIGATION

The general standards of market risk controlling and management (standards, limits and analyses) are defined by Erste Group and are described in the Group Principles for Managing Market Risk which are constantly reviewed and improved.

Risk measurement is guaranteed by the daily calculation of VaR for the entire Group and for each of the trading units. Additionally, sensitivity limits are in place for all asset classes. This system permits control that extends to the level of the individual trading desks and the individual traders. The limits are monitored daily. Furthermore, a consistency check between the VaR limits and the sensitivity limits is carried out on a regular basis.

Risk measurement by purely statistical methods such as VaR does not adequately take into account the consequences of crisis situations. For this reason, Erste Group supplements its VaR-based risk measurement with stress testing based on several methods (stressed Value at risk (sVaR), daily and ad-hoc scenario analysis). These assessments help to analyse the effects of market movements of low probability; the results are made available to the MRC.

## MARKET RISK REPORTING

Risk reporting is divided into internal and external reporting.

Internal reporting comprises:
_ daily measurement and limit control of the market risk for all trading books at Group level (includes VaR, sensitivity and stop-loss limit reporting to management)
_ detailed monthly reports including the banking book sent to the management board and supervisory board
_ VaR overview for the Group, movements over time by risk type, banking book, hedge funds, detailed analyses of the trading book, limit utilisation
_ stress testing: sVaR, standard scenarios, combination scenarios

External reporting comprises:
_ capital requirements based on the internal model
_ quarterly reports to the Joint Supervisory Team
_ reports on exceptions in back-testing of the internal model as required

## OWN FUNDS REQUIREMENT FOR EXPOSURE TO MARKET RISK UNDER THE STANDARDISED APPROACH

The table below provides an overview of the capital requirements of Erste Group for market risk covered by the Standardised Approach, broken down by risk type. Own funds in the Standardised Approach is calculated for entities and risk types not part of the internal model on the consolidated level. In particular:

Entities scope of the Standardised Approach: Trading books in
_ Banca Comercială Română (BCR),
_ Erste Bank Croatia (EBC),
_ Erste Bank Serbia (EBS),
_ Allgemeine Sparkasse OÖ (ASK).

Risk types not covered in the internal model:
_ specific interest rate risk
_ CIUs.

In addition, Standardised Approach is applied to residual positions in entities generally covered in the internal model but with market data not sufficient in length and quality to be modelled (e.g. new shares whose price history is too short or certain types of collective investment undertakings).

| in EUR million | RWA | Capital requirement |
|---|---|---|
| Outright products | | |
| Interest rate risk (general and specific) | 595 | 48 |
| Equity risk (general and specific) | 84 | 7 |
| Foreign exchange risk | 148 | 12 |
| Commodity risk | 0 | 0 |
| Options | | |
| Simplified approach | 0 | 0 |
| Delta-plus method | 5 | 0 |
| Scenario approach | 0 | 0 |
| Securitisation (specific risk) | 0 | 0 |
| **Total** | **832** | **67** |

Table 70: Market risk under the Standardised approach (Art. 445 CRR and in line with EU MR1 EBA/GL/2016/11)

# Internal Market risk model

## SCOPE OF APPLICATION AS APPROVED BY THE SUPERVISORY AUTHORITY

### DISCLOSURE REQUIREMENTS Art. 455 (b) CRR

Erste Group Bank AG calculates own funds requirements for market risk based on an internal model in accordance with Part 3, Title IV Chapter 5 CRR. The VaR model was originally approved on 3 September 2001 for the trading book of Erste Group Bank AG. The model was expanded on multiple occasions to meet market developments and new regulatory requirements with the most recent changes having been approved by the regulator in December 2016. Besides the earlier approved extensions like the integration of event risk of equity instruments and the implemented sVaR calculation the current model was expanded to use OIS discounting for derivatives, FX-derived curves for VaR and sVaR calculation and applies benchmark curves as new risk factors.

The following entities within Erste Group (consolidated level) are within the application scope of the internal model:

- Erste Group Bank (including the branches in London, New York and Hong Kong),
- Česká spořitelna (CS),
- Slovenská sporiteľňa (SLSP),
- Erste Bank Hungary (EBH),
- Erste Bank Investment Hungary (EBIH).

The model considers the following risk positions:

- general position risk in interest-related instruments
- specific and general position risk in equity instruments
- commodity position risk
- risk from positions in foreign currency and gold
- gamma risk
- vega risk.

## CHARACTERISTICS OF THE INTERNAL MODEL

### DISCLOSURE REQUIREMENTS COVERED: Art. 455 (a) (i) CRR

The internal model uses the method of historical simulation for the VaR and sVaR calculation. VaR is the maximum loss that will not be exceeded within a defined period with a certain probability. To calculate VaR by this method, a historical time series is needed for every market parameter that enters into the valuation of the portfolio. Subsequently, the assumption is made that past price changes are an approximation of future market behaviour.

The calculation of VaR involves three stages:

- in the first step, the NPV of the positions being assessed is calculated based on current market data (e.g. interest rates, volatilities);
- in the second step, the changes in market data are determined for every day – within a selected historical time period. The current market data are adapted to take account of these changes and then the value of the portfolio is re-assessed. The difference between the current NPV and the new NPV based on historical changes is calculated for every day of the simulation period. This produces a time series of gains and losses;
- in the third step, the NPV gains and losses are analysed statistically. To this end, confidence intervals and ranks are calculated.

The computation is based on a confidence level of 99% and a holding period of one day. VaR and sVaR are calculated on a daily basis. For VaR, the simulation period is the past two years. For sVaR, the simulation period is only one year and the calibration of the relevant period for sVaR is performed weekly.

For the purpose of event-specific risk for equity exposures Erste Group applies a combination of historical simulation and Monte-Carlo simulation based. Equity risk factors are augmented with idiosyncratic and market wide events and VaR is calculated by using the augmented time series. The maximum of the original historical VaR and the VaR including events is the final Event VaR number used for the calculation of own funds requirements.

For the purposes of determining capital requirements, the calculated values are scaled to a holding period of ten days using the square-root-of-time rule.

The methodology described is consistently applied to all portfolios and positions included in the internal market risk model.

As Erste Group does not have an approval for specific risk in interest-linked instruments, no model for incremental default and migration risk is used. Additionally, Erste Group does not have a correlation trading portfolio therefore no related model is used.

All components of the internal market risk model are subject to at least annual validation by the department Market & Liquidity Risk Model Validation.

## OWN FUNDS REQUIREMENT FOR MARKET RISK UNDER THE INTERNAL MODEL

| in EUR million | RWAs | Capital requirements |
|---|---|---|
| VaR (higher of values a and b) | 446 | 36 |
| Previous day's VaR (Article 365(1) of the CRR (VaRt-1)) | | 10 |
| Average of the daily VaR (Article 365(1)) of the CRR on each of the preceding 60 business days (VaRavg) x multiplication factor (mc) in accordance with Article 366 of the CRR | | 36 |
| SVaR (higher of values a and b) | 1,516 | 121 |
| Latest SVaR (Article 365(2) of the CRR (SVaRt-1)) | | 37 |
| Average of the SVaR (Article 365(2) of the CRR) during the preceding 60 business days (SVaRavg) x multiplication factor (ms) (Article 366 of the CRR) | | 121 |
| IRC (higher of values a and b) | 0 | 0 |
| Most recent IRC value (incremental default and migration risks calculated in accordance with Article 370 and Article 371 of the CRR) | | 0 |
| Average of the IRC number over the preceding 12 weeks | | 0 |
| Comprehensive risk measure (higher of values a, b and c) | 0 | 0 |
| Most recent risk number for the correlation trading portfolio (Article 377 of the CRR) | | 0 |
| Average of the risk number for the correlation trading portfolio over the preceding 12 weeks | | 0 |
| 8% of the own funds requirement in the standardised approach on the most recent risk number for the correlation trading portfolio (Article 338(4) of the CRR) | | 0 |
| Other | 0 | 0 |
| **Total** | **1,963** | **157** |

Table 71: Market risk under the IMA (Art. 455 (e) CRR and EU MR2-A EBA/GL/2016/11)

In accordance with Article 364 CRR, the own funds contributions from both VaR and sVaR are derived from the average VaR and sVaR of the past 60 business days scaled to 10 days and using a multiplier determined by the regulator. The regulatory multiplier was 3.0. Based on the results of the back-testing no add-on to the regulatory multiplier was applied at year end 2019. Erste Group does not use an internal model for the specific risk of debt instruments and, therefore, does not calculate capital requirements for incremental default and migration risk. In addition, Erste Group does not have a correlation trading portfolio.

The own funds requirement for market risk under the IMA has decreased in 2019 (from EUR 196 million in Q4 2018 to EUR 157 million in Q4 2019). The decrease is a combined effect of lower VaR and SVaR contribution due to lower market volatility.

## RWA FLOWS FOR MARKET RISK IN THE IMA

| in EUR million | VaR | SVaR | Total RWAs | Total capital requirements |
|---|---|---|---|---|
| **RWAs as of 31.12.2018** | **726** | **1,726** | **2,453** | **196** |
| Regulatory adjustment [1] | -505 | -1,238 | -1,743 | -139 |
| RWAs at end of previous period-end (end of the day) | 221 | 489 | 710 | 57 |
| Movement in risk levels [2] | -99 | -29 | -128 | -10 |
| Model updates/changes [3] | 0 | 0 | 0 | 0 |
| Methodology and policy | 0 | 0 | 0 | 0 |
| Acquisitions and disposals | 0 | 0 | 0 | 0 |
| Foreign exchange movements | 0 | 0 | 0 | 0 |
| Other | 0 | 0 | 0 | 0 |
| RWAs at the end of the reporting period (end of the day) | 122 | 459 | 582 | 47 |
| Regulatory adjustment [4] | 324 | 1,057 | 1,381 | 110 |
| Change in backtesting multiplier (QoQ) | 0 | 0 | 0 | 0 |
| **RWAs as of 31.12.2019** | **446** | **1,516** | **1,963** | **157** |

1) Difference between: single day RWAs without multiplier and RWAs at end of period (higher of either 60-day average with multiplier, or single end of day without multiplier).
2) changes due to position changes.
3) updates to the model, as well as significant changes in model scope.
4) difference between: RWAs at end of period (higher of either 60-day average with multiplier, or single end of day without multiplier) and single day RWAs without multiplier

Table 72: RWA flow statements of market risk exposures under the IMA (Art. 455 (e) CRR and EU MR2-B EBA/GL/2016/11)

The market risk RWA under the IMA are determined by the 60-day average of VaR and SVaR. The main drivers for RWA changes in 2019 can be attributed to market volatility.

## DESCRIPTION OF THE STRESS TESTS APPLIED

DISCLOSURE REQUIREMENTS Art. 455 (a) (iii) CRR

### Stressed value at risk (sVaR)

In contrast to the normal VaR calculation, the simulation does not cover the past two years, but rather a 12-month period during which there were particularly adverse market price fluctuations for the position of the bank. At present, this is the period from 1 July 2008 to 30 June 2009.

### Standard scenarios

The following standard scenarios are calculated:

- four interest rate scenarios with a respective shift of 1, 25, 50, 100, 200 and 500 basis points upward and downward in the currencies EUR, CZK, HUF, RON, HRK, USD and CHF
- increases and declines of 10%, 25% and 50% in the equity index
- appreciation and depreciation of USD, CZK, HUF, RON and HRK vs. EUR by 6%, 25% and 50%
- increases and declines in volatilities of interest rates, exchange rates and equities of 50%

### Comprehensive stress tests

On the one hand, historical scenarios are used as a basis for calculations, i.e. actual historical market crises are replicated and applied to the current position. The historical scenarios contain, but are not restricted to, e.g. Lehman default crisis 2008, recession hits Europe 2009, the 9/11 attacks etc. The advantage of this approach is that no assumptions need to be made about the correlations between market risk factors and that the scenarios are always realistic since they actually happened in the past. Calculations are made for holding periods of 1, 10 and 20 working days, which also generates information on the development of the portfolio under illiquid market conditions.

In addition, the method also relies on probabilistic scenarios in which the strongest historical fluctuations in the most relevant market risk factors are applied to the portfolio. Such scenarios can be computed with different holding periods and difference percentiles.

## BACK-TESTING AND VALIDATION OF THE INTERNAL MODEL

DISCLOSURE REQUIREMENTS Art. 455 (a) (iv) CRR

Back-testing is performed mark-to-model, i.e. based on hypothetical changes in the portfolio value at unchanged daily closing positions as well as on the economic result.

Back-testing is executed in three steps based on the mark-to-model method:

- first, the net present value of the daily closing position is measured at current prices;
- in a second step, the position is then revalued at the next business day's prices;
- the difference represents the hypothetical profit or loss on the trading position given a one-day holding period.

Back-testing is done both for the overall risk and the individual risk types (interest rate, currency, equities, commodity, and volatility) as well as at unit and trading desk level. As for the determination of VaR, the back-testing calculations also employ MRS.

For the economic back-testing, actual profit and loss results are used and, if necessary, corrected for profit and loss resulting from positions not covered by the internal model. The validation methods used that exceed regulatory back-testing include:

- as statistical methods, Kupiec's dual proportion-of-failure test and testing of the independence of outliers to each other
- validation of the scaling of the holding period of ten days using the square-root-of-time rule
- validation of the validity of risk factors in product valuation as well as the influence of proxies on market risk factors.

## DESCRIPTION OF THE EXTENT AND METHODOLOGIES FOR COMPLIANCE WITH THE REQUIREMENTS PURSUANT TO ART. 104 AND 105 CRR

DISCLOSURE REQUIREMENTS Art. 455 (c) CRR

Market risks are actively taken as part of trading activities including market making, specific types of client servicing and proprietary trading. The definition of the trading book is included in the Group Principles for Managing Market Risks.

### Valuation at market prices

Generally, all positions in the trading book are valued daily in the front-office system independent of trading operations. The valuation of all positions is done, if possible, based on market data obtained from independent external providers such as Reuters, Bloomberg, etc. Bond positions are valued on bid-ask prices, and exchange-traded securities and trades are valued using the closing prices or the last traded price.

### Valuation at model prices

If it is not possible to conduct the valuation at market prices, model prices are used. For this purpose, models commonly used in the market are used (e.g. Black Scholes, Hagan, Hull White, Libor Market). If available, the input data is obtained from the same data providers that are used for determining market prices. The valuation of the positions is done at mean rates. The figures of relevance for the internal model are determined daily in a system independent of trading operations.

The periodic review of market conformity of the models, model parameters and model prices determined is the responsibility of Trading Book Risk Management which operates separately from the trading business. The sections of the trading book for which model prices are used are reported periodically to the management board.

### Independent price review

The valuations are coordinated periodically between Mid-Office and Risk Management. Additionally, at least once a month, a reconciliation of the valuations is conducted with Accounting.

### Valuation adjustments or reserves

For financial instruments for which a mid-model price is determined, product-specific valuation adjustments are determined that take into account the usual market bid-ask spreads, remaining times to maturity and nominal values which reflect the model and liquidity risks as well as ask-bid spreads. The adjustments are reported separately in the risk systems.

### Systems and controls

All models used are documented and aligned with Risk Management, Trading and the auditors. An independent validation of valuation models is done by department Market & Liquidity Risk Model Validation. All model parameters and data that cannot be obtained from market providers are documented and are reviewed periodically for market conformity independently of the Front Office.

The valuation method applied for a specific product is defined and documented in the Product Approval Process. The final approval is given by the MRC, which serves as Product Approval Board.

Generally, three categories are distinguished for positions in the trading book:

**Level 1.** Financial instruments for which there is a price in an active market belong to this category. An active market is a market in which there are transactions in sufficient frequency and volume. In some cases, it may occur that a price on an active market does not reflect the fair value. For example, if a major event occurs after the market closes but before the value date. If the price quoted needs to be adjusted (to account for this), it results in a classification at a lower level.

**Level 2.** Level 2 instruments use inputs to the valuation that are not included in Level 1; these inputs may be directly observable (prices) or indirectly observable inputs (derived from prices). When a financial instrument has a fixed maturity, Level 2 inputs must be observable for the entire life (for example the discount curve for a bond or swap). The following inputs belong to Level 2:

- prices quoted for similar instruments in active markets;
- prices quoted for identical or similar financial instruments in inactive markets;
- inputs that do not represent prices such as interest rates (if available for the entire life), volatilities, prepayment rates and default rates
- and inputs that may be derived from observable market data.

**Level 3.** These are instruments where the valuation uses inputs that are not based on observable market data. Unobservable inputs may be used if there are no observable inputs to determine the fair value of a financial instrument for which there is no active market. Unobservable inputs must reflect the assumptions that market participants would make in their assessment. When measuring unobservable inputs as much information as possible must be used, including internal data.

### Prudent valuation

The CRR sets out requirements relating to prudent valuation adjustments (Article 105) of all asset and liability positions measured at fair value, including those positions not in the trading book, to determine prudent values that achieve an appropriate degree of certainty.

In Article 34 ("Additional value adjustments") of the CRR, the demand for additional value adjustments, as specified in Article 105 CRR ("Requirements for prudent valuation") is laid down as mandatory from 1 January 2014. In accordance with the CRR and the relevant Regulatory Technical Standards, the absolute sum of fair valued assets and liabilities lies above the threshold of EUR 15 billion and hence Erste Group implemented additional value adjustments under the 'core approach'. Additional value adjustments are applied to the fair values of the positions to calculate an asset's 'prudent' value in the sense that the prudent value is unfavourable or equal to a realised value with a certainty of 90%. The implemented valuation adjustment framework encompasses the following valuation adjustment types: market price uncertainty, model risk, unearned credit spreads, investing and funding costs, concentrated positions, and future administrative costs. Valuation adjustments for operational risk, early termination and close out costs are not evaluated explicitly in the prudent valuation process in order to avoid double counting, as they are covered elsewhere in the risk and valuation measurement framework. The valuation adjustment calibration relies primarily on quantitative methods for measuring the individual valuation adjustments with only limited use of expert based approaches where a straightforward quantification cannot be applied to the bank's methodological valuation approach. The additional value adjustments reduce the regulatory Common Equity Tier 1 capital.

# Quantitative disclosure on market risk

## DISCLOSURE REQUIREMENTS Art. 455 (d) (i) (ii) (g) CRR

The table below shows the maximum, the mean and the minimum VaR and sVaR values of the reporting period as well as the value at the end of the reporting period.

| | |
|---|---|
| **VaR (10 day 99%)** | |
| Maximum value | 20 |
| Average value | 14 |
| Minimum value | 8 |
| Period end | 10 |
| **SVaR (10 day 99%)** | |
| Maximum value | 49 |
| Average value | 39 |
| Minimum value | 30 |
| Period end | 37 |
| **IRC (99.9%)** | |
| Maximum value | 0 |
| Average value | 0 |
| Minimum value | 0 |
| Period end | 0 |
| **Comprehensive risk capital charge (99.9%)** | |
| Maximum value | 0 |
| Average value | 0 |
| Minimum value | 0 |
| Period end | 0 |

Table 73: IMA values for trading portfolios (Art. 455 (d) CRR and EU MR3 EBA/GL/2016/11)

The figure below shows the back-testing results referring to the market risk in the trading book of the reporting year. It provides a comparison of the daily VaR estimates with both the mark-to-model back-testing and actual gains/losses of the bank. Valuation adjustment related to bid-ask spread of securities are included in the actual back-testing. All other reserves and valuation adjustments are not included in back-testing.

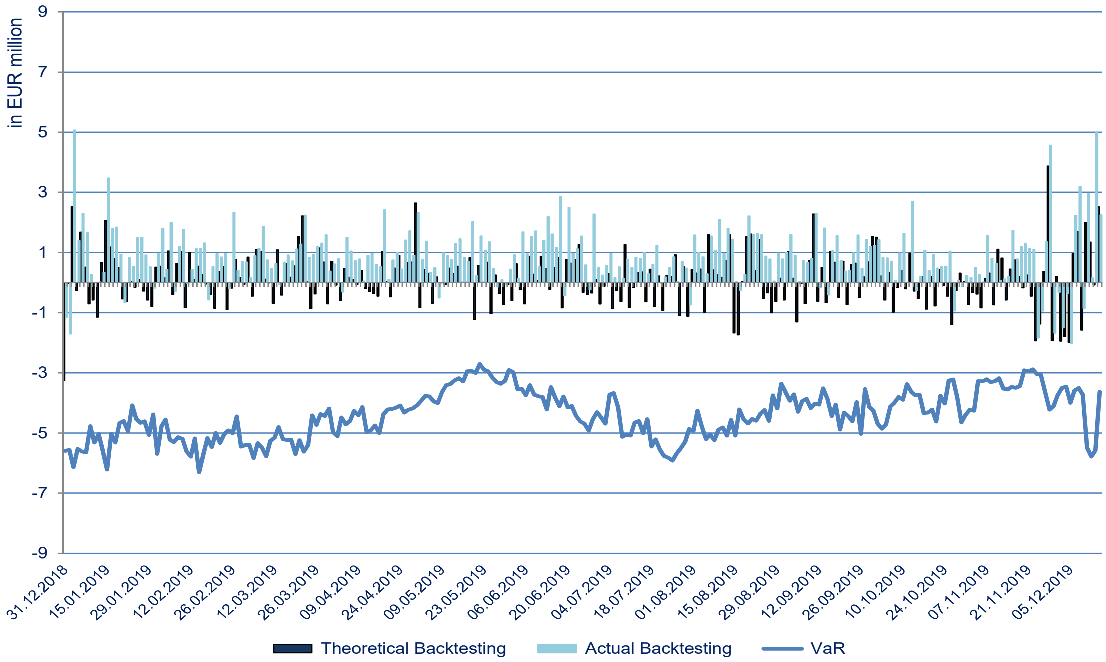


Figure 5: Results for actual back-testing (EU MR4 EBA/GL/2016/11)

In the reporting year 2019 the internal market risk model showed no outliers in the hypothetical back-testing and zero outliers in the actual back-testing.

# Interest rate risk

## Goals and principles of risk management

DISCLOSURE REQUIREMENTS Art. 435 (1) (a) (b) (c) (d) AND 448 (a) CRR

Interest rate risk is the risk that the bank's earnings and/or economic value might be negatively affected by changes in interest rates. Changes in the yield curve can have a negative effect on net interest income. These changes also affect the market value of assets, liabilities and off-balance sheet items, as the future payments (and thus also their NPV) vary directly with changes in interest rates. As a consequence, an effective risk management process that keeps the impacts of interest rate changes on the bank's balance sheet within appropriate limits is of fundamental importance for the security and creditworthiness of the bank.

The types of interest rate risk to which the Group is exposed are:

_ re-pricing risk – results from the mismatch in the maturity and repricing of assets and liabilities and off-balance sheet short and long term positions.
_ yield curve risk – is caused by changes in the slope and shape of the interest rate curve
_ basis risk – results from the imperfect correlation in the adjustment of the credit and debit interest rates of different products that otherwise would have the same interest rate terms
_ optionality risk – is derived mainly from options (gamma and vega effect) that are contained in positions of the banking book (e.g. prepayments, embedded optionalities such as caps/ floors, call rights on bonds, etc.).

The first three types represent traditional interest rate risk. The fourth type is becoming increasingly important with the growing number of options embedded in products reported both on and off the balance sheet.

The interest rate risk management process is governed by clear responsibilities of all stakeholders in the interest rate risk framework (Organisation) and can be divided into four high level components:

_ Risk identification
_ Risk measurement
_ Risk management and Risk control
_ Risk reporting.

### ORGANISATION

The Asset Liability Committee (ALCO) is the highest decision making committee concerning all aspects of interest rate risk management in the banking book and consists of all members of the Board of Directors. The purpose of the ALCO is to manage the consolidated balance sheet (BS) of Erste Group, focusing on a trade-off between all consolidated balance sheet risks (interest rate (IR), foreign exchange (FX), liquidity, credit) and Erste Group's P&L by performing management actions on the Holding BS and by setting the group standards and limits for EGB members. It meets monthly within the scope of the regular management board meetings.

The tasks of Asset and Liability Management (ALM) comprise the management of interest risk on the banking book of Erste Group and also the further development and maintenance of the Funds Transfer Pricing (FTP) System while Banking Book Risk Management (BBRM) is responsible for risk controlling. For Erste Group's Austrian subsidiaries and the savings banks a special service model is applied where local ALCO coverage is provided by ALM of EBOe and Group BBRM respectively. The foreign subsidiaries have their own ALM and Risk departments, which are responsible for the analyses and the preparation of the documents. With respect to these subsidiaries, the responsibility of Erste Group's ALM and Risk department is to safeguard uniform standards of analysis and ensure that the ALM tasks in the subsidiaries are performed in accordance with the Group guidelines.

### RISK IDENTIFICATION

The ALM software QRM Balance Sheet Management is used throughout the entire Group. This software makes both Group-level planning and consolidation as well as the modelling of interest rate risk on the balance sheet of Erste Group possible. This system is capable of capturing all sources of interest rate risk and calculates their effect on the balance sheet of Erste Group. The data for the current portfolio, market data for the cut-off date in question and the assumptions on future portfolio developments (volume, margins, etc.) are all entered into this system. It measures both the effect on profit/loss and the market value of the banking book positions. The data is organised by account and product. The account structure corresponds to that of the IFRS balance sheet, while the product structure represents the currency and the interest rate-related behaviour of the products in the Group.

## KEY ASSUMPTIONS USED IN RISK MODELLING

The behavioral model for demand deposits (split into entity dependent clusters like retail, SME, corporates, sovereign, …) used for risk measurement are based on a life cycle framework. The number of accounts (attrition model), the average balance per account (average balance model) and the average deposit rate (deposit rate model) are modelled separately. For each cluster the core and non-core balances and interest rate sensitivity of the balance are derived. The run-off profile is determined by the combination of the attrition rate model (for core balances) and a short term outflow (for non-core balances). The estimated future interest rate cash flows are determined by the deposit rate model. The weighted average life resulting from the run-off profiles for demand deposits is capped with 5 years according to the regulatory maximum defined in EBA/GL/2018/02.

A model for client behavior regarding loan prepayment is also used for the measurement and steering of interest rate risk in the banking book. Similar to the demand deposits loans are clustered combining loans with similar characteristics (entity, client type, loan type, currency, interest rate behavior). The prepayment ratio is estimated from historical observations and clusters are tested for interest rate sensitivity of the prepayment ratio.

## RISK MEASUREMENT

In general there are four methods which are used to measure interest rate risk in the banking book:
- Sensitivity measures (BP01, CR01) to assess the market value sensitivity of certain portfolios
- Economic value measures (EVE) to assess the market value change under certain scenarios
- Earnings at risk measure (NII sensitivity, OCI sensitivity) to assess the impact on operating income of certain scenarios on Group level.
- Value at Risk based measures to assess all aggregated risk types on Group level and used for economic capital allocation under Pillar 2

Based on these tools a big variety of scenarios are assessed on a regular basis to capture all aspects of interest rate risk.

## RISK MANAGEMENT AND RISK CONTROL

For the practical management of interest rate risk three main tools are used and monitored on a regular basis:
- Sensitivity measures (BP01, CR01)
- Economic value measure (EVE)
- Earnings at risk measure (NII sensitivity)

The sensitivity measures (BP01, CR01) focus on the general positioning of the banking book portfolio and serve as an initial starting point for deeper analysis. The economic value measure (EVE) analyses the banking book by means of NPV simulations of the market value, for example the effect of a +/- 200 bps interest rate shock and the EBA standard scenarios on market values. It provides insights on the balance of fixed rate assets versus fixed rate liabilities and indicates the impact of yield curve shocks on the future profitability of the bank in the long run. The earnings at risk measure assesses the accounting impact of interest rate changes under various scenarios with main focus on the next 12 months and provides insights on P&L changes stemming from changes in interest rates.

The interest rate risk strategy of the Group sets out interest rate targets and is based on the optimisation of market risk and income possibilities, i.e. all measures developed in the interest rate strategy are analysed with respect to their effect on the income defined in the financial projections and on the market value. The interest rate risk strategy is approved by the ALCO on an annual basis and periodically reviewed to ensure that it is up to date. A modification may become necessary due to changes in the business plan or the market situation and is therefore a requirement for active risk control.

Based on the targets set out in the interest rate strategy, the results of the regular analysis and the economic forecast, investment and hedging recommendations are presented to the ALCO. These recommendations may increase or decrease risk. They may be implemented by means of on-balance sheet or off-balance sheet transactions. For cash flow hedges and fair value hedges, the relationship between the underlying transaction and the hedge (effectiveness) is continually monitored and documented.

### INTEREST RATE RISK REPORTING

The interest rate risk of Erste Group is calculated separately for each relevant currency and reported on the monthly basis to Group ALCO. Furthermore, materials on the following topics are prepared for the Group ALCO:

_ Market overview;
_ Periodic and economic risk ratios and measures related to market risk(Market Risk Banking Book Pillar 2 RWA, EVE, BP01, CR01, VaR, etc);
_ Positions (held-to-maturity portfolios in the Group, strategies);
_ Balance sheet movements (equity, liquidity, primary deposits, non-bank business) and
_ Liquidity management.

## Quantitative disclosure on interest rate risk

### DISCLOSURE REQUIREMENTS Art. 448 (b) CRR

The potential effects of interest rate changes on equity of the Group are analysed at Erste Group using the simulation method already described under "Risk Measurement and Control". Simulation models make it possible to apply maximum precision and flexibility to risk measurement, also for complex portfolio structures. The NPV simulation accounts for all future cash flows based on current knowledge.

The following table exhibits the risk of a change in the market value of equity in the case of a 1 bp upward shock of the interest rate curve.

**Interest rate risk**

| in EUR thousand | EGB | EBOe | CS | SLSP | BCR | EBH | EBC | EBNS | Others | SPKs | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EUR | -3,219 | -373 | -159 | 337 | 61 | 148 | -309 | 150 | 39 | -18 | -3,343 |
| USD | -618 | 36 | -23 | -18 | 71 | 9 | -41 | -1 | -0 | 1 | -584 |
| CZK | 24 | 0 | -1,721 | 0 | 0 | 0 | 0 | 0 | 156 | -18 | -1,558 |
| HUF | -0 | 0 | -0 | 0 | 0 | -84 | 0 | 0 | 11 | 0 | -73 |
| RON | -7 | 0 | -0 | 0 | 9 | 0 | 0 | 0 | -0 | 0 | 2 |
| HRK | -0 | 0 | 0 | 0 | 0 | 0 | 177 | 0 | -0 | 0 | 177 |
| RSD | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -31 | 0 | 0 | -31 |
| CHF | -64 | -5 | 0 | 0 | 0 | -2 | 0 | -0 | 22 | -16 | -64 |
| Others | -4 | 0 | 1 | 0 | 0 | 0 | 0 | -0 | -0 | -73 | -77 |
| **Total** | **-3,889** | **-342** | **-1,902** | **318** | **141** | **73** | **-173** | **117** | **228** | **-123** | **-5,552** |

EGB: Erste Group Bank; EBOe: Erste Bank Österreich; CS: Česká spořitelna, Stavebni sporitelna Ceske sporitelny, a.s. SLSP: Slovenská sporiteľňa; BCR: Banca Comercială Română; EBH: Erste Bank Hungary, Erste Lakas-Takarekpenztar Zrt, ERSTE Jelzálogbank Zrt; EBC: Erste Bank Croatia; EBNS: Erste Bank Serbia; SPK: Savings Banks, Bausparkasse der österreichischen Sparkassen, s Autoleasing.

Table 74: Changes in the market value by interest rate shock (Art. 448 (b) CRR)

The table below shows the sensitivity of Erste Groups Net Interest Income (NII) result to a +200 bps shock of the interest rate curve.

**Net interest income**

| in EUR thousand | EGB | EBOE | CS | SLSP | BCR | EBH | EBC | EBNS | Others | SPKs | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EUR | -66,573 | 31,045 | 5,110 | 15,987 | 26,672 | 8,684 | 18,381 | 5,370 | 596 | 181,580 | 226,850 |
| USD | -7,727 | 1,875 | -3,368 | -485 | 6,664 | -2,666 | -722 | -422 | 0 | -1,171 | -8,025 |
| CZK | 7,852 | 170 | 120,260 | 108 | 0 | 0 | 0 | 0 | 0 | 426 | 128,817 |
| HUF | 891 | 48 | 0 | 0 | 0 | 19,141 | 0 | 0 | 0 | 0 | 20,080 |
| RON | -350 | 0 | 0 | 0 | 11,002 | 0 | 0 | 0 | 0 | 0 | 10,652 |
| HRK | -1,121 | 0 | 0 | 0 | 0 | 0 | 9,428 | 0 | 0 | 2 | 8,309 |
| RSD | -0 | 0 | 0 | 0 | 0 | 0 | 0 | 2,690 | 0 | 0 | 2,690 |
| CHF | -2,242 | 1,079 | 0 | 0 | 0 | -20 | 0 | -194 | 0 | -289 | -1,666 |
| Others | 741 | 205 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 946 |
| **Total** | **-68,529** | **34,421** | **122,001** | **15,610** | **44,337** | **25,138** | **27,086** | **7,444** | **596** | **180,548** | **388,652** |

EGB: Erste Group Bank; EBOe: Erste Bank Österreich; CS: Česká spořitelna, Stavebni sporitelna Ceske sporitelny, a.s. SLSP: Slovenská sporiteľňa; BCR: Banca Comercială Română; EBH: Erste Bank Hungary, Erste Lakas-Takarekpenztar Zrt, ERSTE Jelzálogbank Zrt; EBC: Erste Bank Croatia; EBNS: Erste Bank Serbia; SPK: Savings Banks, Bausparkasse der österreichischen Sparkassen, s Autoleasing.

Table 75: Earnings at risk by interest rate risk shock (Art. 448 (b) CRR)

# Exposures in equities not included in the trading book

## Goals and principles of risk management

DISCLOSURE REQUIREMENTS Art. 435 (1) (a) (b) (c) (d) CRR

Investment risk refers to the potential loss in value resulting from a lack of dividend payouts, the (partial) write-off of assets, losses from divestments and the reduction of hidden reserves from invested own funds, from profit transfer contracts (loss transfers) or from liability risks (e.g. letters of comfort). Investment risk covers both strategic investments as well as operating equity investments and includes all equity investments of the Group (irrespective of type of consolidation).

The continuing implementation of the concept of a comprehensive financial services provider is Erste Group's strategy for equity exposures aimed primarily at complementing and rounding out the bank's core business through investment companies that provide financial products and services (esp. Bausparkasse der österreichischen Sparkassen Aktiengesellschaft, Erste Group Immorent GmbH, Erste Asset Management GmbH, s Real Immobilienvermittlung GmbH). Investments outside the bank's core business (except for providers of support services for banking operations) are being reduced in the interest of the strategic focus. Within its international business activities in Europe, the USA and Asia, Erste Group places particular emphasis on Central and Eastern Europe ("CEE") as it views the region as its core market.

### ORGANISATION

The responsibility for equity investments lies with Participation Management, a staff unit of Erste Group that reports to the Head of Group Accounting and Group Controlling of Erste Group Bank AG. The Participation Management unit assists the management board and business units of Erste Group Bank AG by providing coordination and information processing services as well as support for decision-making. Inside the Group, it acts as contact, interface, service provider and coordinator for the various units and governing bodies of the subsidiaries. Outside the Group, it serves as contact and coordinator for auditors, notaries, lawyers, public authorities and other parties for business, legal, tax and equity investment related matters. In the case of sub-groups with equity investments of their own (currently CEE subsidiaries and Erste Group Immorent GmbH), Group Participation Management fulfils its Group responsibilities by ensuring that an equity investment management framework in line with the system of Erste Group is established at these sub-groups (policy-making powers rest with Erste Group Bank AG) and by assuming Group-wide responsibility for defined topics (e.g. offshore investments).

In detail, this results in the following responsibilities of the Participation Management unit:

- equity investment related decision support (relating to any kind of equity measure) to the management board and other governing bodies of Erste Group Bank AG in line with applicable guidelines on decision-making powers;
- preparation of reports on equity investments (quarterly reports as reporting instrument and as basis for budget approvals);
- preparation of valuations of equity investments
- implementation, management and ongoing administration of the equity investment database AMI and central information distributor of the banks' equity investment data (for internal and external purposes);
- implementation of notifications and reports to the OeNB, the Ministry of Finance and foreign authorities and organisations; and
- implementation and support for company setups, acquisition and selling processes.

### RISK MEASUREMENT AND CONTROL

At least once a year, all equity investments are subject to a standardised earning-capacity value calculation based on future budgets and multiple year projections, taking into account, among other things, the valid (local) capital adequacy regulations for each of the entities. These calculations are based on standards for the valuation of goodwill from the acquisition of investments pursuant to IFRS from which the required depreciations and write-ups, capital measures and hidden reserves are derived. Since 2012, a standardised valuation tool has been used for this purpose. The valuation model has been developed and upgraded jointly with leading audit firms. The result of these calculations is discussed in detail with other units in Group Accounting and Group Controlling, and the corresponding measures (accounting entries, reports) are initiated. Moreover, any capital measures required are accorded with the business area responsible for operations prior to execution.

### REPORTING ON EQUITY EXPOSURES

As part of the monitoring and control process, the economic development of all significant direct and indirect equity investments and any risk provisions or revaluations that may become necessary during the course of the year are evaluated regularly on the basis of standardised reports and internal procedures. Any adjustments to provisions or valuations that may become necessary during the year are done based on the actual and projected figures presented for each individual equity investment. Any corrections required are forwarded to the banks' accounting and controlling units for further processing.

# Description of the investment objectives

DISCLOSURE REQUIREMENTS Art. 447 (a) CRR

The objective of Erste Group is to achieve market leadership in financial services for retail customers and corporates in the region of CEE by establishing a supranational network of banks. According to the core strategy, the objective of Erste Group is to offer a wide range of financial services, and for this reason, investments in banking-related entities (fully consolidated banks and financial institutions, ancillary units, financial holding companies and other financial services providers) are regularly made for business policy or strategic reasons. This usually also applies to minority interests in equity investments in the area of universal banking. If such services cannot be provided directly by Erste Group, investments are made in new subsidiaries or by acquiring existing entities.

In connection with the realisation of collateral, decisions to acquire ownership are taken on a case-by-case basis in order to facilitate orderly realisation, which is done primarily in the area of real estate. To a limited extent, Erste Group enters positions with the basic intention of earning returns on capital through its private equity investments.

# Accounting policies and valuation methods

DISCLOSURE REQUIREMENTS Art. 447 (a) CRR

Equity investments are either classified as “Financial assets at fair value through other comprehensive income” (FVOCI) or “Financial assets at fair value through profit or loss” (FVPL).

### Financial assets at fair value through other comprehensive income

For certain investments in equity instruments that are not held for trading, Erste Group makes use of the option to measure them at FVOCI. This election is applied to strategic, significant banking business relationship investments (except for insurance business). The fair value gains or losses for the period are reported as OCI in the line ‘Fair value reserve of equity instruments’ of the statement of comprehensive income. The cumulative gains or losses are included under ‘Fair value reserve’ in the statement of changes in equity. The amount recognised in OCI is never reclassified to profit or loss. However, upon derecognition of the investments in equity instruments at FVOCI the amount accumulated in OCI is transferred to retained earnings. Dividends received on these investments are reported under the line ‘Dividend income’ of the statement of income. On the balance sheet, financial assets measured at fair value through OCI are included as ‘Equity instruments’ under the line ‘Financial asset at fair value through other comprehensive income’.

### Financial assets at fair value through profit or loss

Investments in equity instruments that are not held for trading are measured at FVPL (unless they are designated at FVOCI). They are presented in the balance sheet under ‘Non-trading financial assets at fair value through profit or loss’, sub-item ‘Equity instruments’, sub-category ‘mandatorily at fair value through profit or loss’.

In the statement of income, the profit or loss effects of such equity instruments measured at FVPL are split into dividend income and fair value gains and losses. The dividend income is presented in the line ‘Dividend income’. The fair value gains or losses are calculated net of the dividend income and are reported in the line ‘Gains/losses from financial instruments measured at fair value through profit or loss’.

# Quantitative disclosure on exposures in equities not included in the trading book

## DISCLOSURE REQUIREMENTS Art. 447 (b) (c) (d) (e) CRR

The following table presents an overview of the different valuations in the individual exposures not included in the trading book.

### Type of equity exposures

| in EUR million | Type of instrument | Carrying Amount | Fair value | Market value (Exchange traded) |
|---|---|---|---|---|
| **Credit institutions** | | | | |
| | Exchange traded instruments | 11 | 11 | 11 |
| | Instruments not traded on an equity exchange | 48 | 48 | n.a. |
| **Financial institutions** | | | | |
| | Exchange traded instruments | 0 | 0 | 0 |
| | Instruments not traded on an equity exchange | 65 | 65 | n.a. |
| **Others** | | | | |
| | Exchange traded instruments | 66 | 66 | 66 |
| | Instruments not traded on an equity exchange | 1,016 | 1,016 | n.a. |
| **Total** | | **1,206** | **1,206** | |

Table 76: Exposures in equities not included in the trading book (Art. 447 (b) (c) CRR)

The category instruments not traded on an equity exchange in the section others includes private equity exposures at a book value of EUR 29.3 million and a fair value of EUR 39.4 million.

The following gains and losses from sales and liquidations of investees were achieved in the reporting period:

### Realised and unrealised gains or losses from exposures in equities

| in EUR million | Dec 19 |
|---|---|
| Realised gains or losses from sales and liquidations | 24 |
| Unrealized gains or losses | 329 |
| Deferred revaluation gains or losses | 0 |
| values in core capital | 0 |
| values in supplementary capital | 0 |

Table 77: Realised and unrealised gains or losses from exposures in equities not included in the trading book (Art. 447 (d) (e) CRR)

# Operational Risk

## Goals and principles of risk management

DISCLOSURE REQUIREMENTS Art. 435 (1) (a) (b) (c) (d) CRR

Pursuant to Article 4 (52) CRR, Erste Group defines operational risk as the risk of loss resulting from inadequacy or failure of internal processes, people or systems, or from external events, including legal risks. Both quantitative and qualitative methods are used to identify operational risks, and are refined further in order to capture all information relevant to risk management.

### ORGANISATION

While the business areas and infrastructure units are responsible for the daily management of operational risks, Group Operational & Non-Financial Risk is responsible for operational risk control across all business areas and countries as well as for the uniform application of the strategy and Group standards for operational risk management in all areas of the bank. In detail, this results in the following tasks:

- identification of potential risks; including measures for early detection and risk avoidance
- definition of ratios, risk indicators and guidelines
- implementation, management and ongoing administration of the loss database
- calculation of scenarios and assessment of specific risk situations
- Group-wide calculation of the own funds requirement for all operational risks and execution of stress tests
- analysis and periodic reporting
- promoting “three lines of defence” governance model through operational risk methods
- definition of the Group’s risk appetite and setting the limits of the residual operational risk tolerated by Erste Group
- further development of methods

Operational risk management as of 1.1.2019 is part of the division Enterprise wide Risk Management (until 31.12.2018 was part of Group Non Financial Risk division). The structure of operational risk management and control at Erste Group is also defined in the Group Risk Policy Framework in order to safeguard the complete identification of all risk components and consistent treatment of all operational risks.

### RISK MEASUREMENT AND CONTROL

The quantitative measurement methods are based on internal loss data, which is collected throughout the Group using a standard methodology and entered in a central data pool. In order to model losses that have not yet occurred but are nonetheless possible, scenarios and external data are used. In this context it is worth noting that Erste Group has been a member of the Operational Riskdata eXchange Association, an international risk loss data consortium, since 2006, and participates in the consortium on a Group-wide basis.

Apart from quantitative approaches, qualitative approaches are used to determine operational risk, primarily by performing risk analysis surveys (Risk Control Self Assessments). In order to also ensure early detection of potential risks, a series of risk indicators were developed and implemented at the Group level.

The results and proposals for risk control derived from the quantitative and qualitative processes are reported to line management and form the basis for measures to reduce operational risk. Furthermore, Erste Group defined its risk appetite for operational risk and all operational risk decisions are to be taken bearing in mind adequately balanced costs and benefits commensurate with the RAS.

### RISK HEDGING

Since the beginning of 2004, the insurance contracts for operational risks of Erste Group’s core institutions have been combined in a Group-wide insurance programme. This reduced the cost of meeting the Group’s traditional property insurance needs and thus made it possible to buy additional insurance for previously uninsured banking-specific risks. The savings potential and the additional cover are achieved – while keeping expenses unchanged as far as possible – by having a certain share of the loss or damage assumed by the Group’s own insurance company, Erste Reinsurance S.A. This makes it possible to diversify operational risk within Erste Group.

### OPERATIONAL RISK REPORTING

Information on operational risks is reported regularly to the management board. This is done within the scope of various reports, most importantly the quarterly Group Risk Report, which informs on recent losses, loss trends, qualitative information derived from Risk Control Self-Assessments, risk indicators, key ratios and the Erste Group VaR for operational risk.

# Approaches for the assessment of minimum capital requirements

### DISCLOSURE REQUIREMENTS Art. 446 CRR

In 2009, Erste Group was granted approval by the supervisory bodies to apply the AMA at the Group level for five entities:
- Erste Group Bank AG
- Erste Bank der Oesterreichischen Sparkassen AG
- Česká spořitelna a.s.
- Slovenská sporiteľňa a.s.
- Erste Bank Hungary Zrt.

In 2010 the approval was extended to two further entities:
- Banca Comercială Română
- Erste & Steiermärkische Bank d.d.

The scope of application of the AMA was further enlarged in the second half of 2011 by two entities:
- Bausparkasse der österreichischen Sparkassen AG
- Stavební spořitelna České spořitelny, a.s.

In 2012, another five entities were approved:
- Steiermärkische Sparkasse Bank AG
- Kärntner Sparkasse AG
- Salzburger Sparkasse AG
- Tiroler Sparkasse Bank AG Innsbruck
- Brokerjet Bank AG

In 2013 the following entity was approved:
- ERSTE BANK AD NOVI SAD

In 2014 Brokerjet Bank AG was merged into EBOe.

The AMA is used in all entities listed above in all areas of application.

Steiermärkische Sparkasse Bank AG was added to the Insurance program on Group level (approved in Q4 2017); Hence risk mitigating effects within the Advanced Measurement Approach are applied to all entities as of Q4 2018.

Minimum capital requirements for those subsidiaries that do not yet apply the AMA are calculated using the BIA.

# Advanced Measurement Approach

### DISCLOSURE REQUIREMENTS Art. 454 CRR

The AMA is a complex approach used for the valuation of operational risk. The required capital is calculated using an internal VaR model taking into account the following factors:
- internal loss data (historic gross loss)
- external loss data (data from the external consortium Operational Riskdata eXchange Association)
- scenario analysis (supplements the internal and external data by rare events that may lead to large loss or damage)
- business environment and internal risk control factors (such as risk indicators and risk assessment)

The key ratio in this context for regulatory capital requirements is the VaR at a confidence level of 99.9% for one year, which is computed for all units using the AMA and is distributed across the respective subsidiaries based on a risk-sensitive allocation key.

Furthermore, apart from the regulatory capital requirement under the CRR, the economic risk capital is represented for the material part of the Group using the AMA. Here, all entities providing sufficient loss data information – irrespective of the AMA approval for regulatory capital requirement purposes - are covered within the AMA methodology calculating the VaR at a confidence level of 99.92% for one year. The remaining part is taken into account using the BIA method.

The quantitative methods outlined (based on the central data pool, scenarios and external data) and the qualitative methods (e.g. risk control self-assessments) including the insurance strategy and the modelling approaches, form the operational risk framework of Erste Group.

For the modelling of operational risk, Erste Group uses the Loss Distribution Approach. The modelling of the aggregate loss distribution is done in two steps. In a first step, the individual distributions of loss frequency and loss severity are calculated and then combined using a Monte Carlo simulation. The structure of the Loss Distribution Approach model complies with the CRR requirements.

Apart from internal and external loss data, scenario analyses, the business external and internal control factors (the outputs of risk and control self-assessments, key risk indicators, product approval process, outsourcing process, emerging risks analysis) and the resulting changes to the risk profile are all input factors for the Erste Group AMA model. Erste Group does not take any correlation effects into account in its model. The regulatory capital requirement is not reduced by the expected loss.

The AMA capital value of Erste Group takes into account both unexpected and expected losses of all banks using the AMA. Both the expected loss and the unexpected loss are reported to the management.

The model assumptions and input factors are validated annually by an independent validation function. Following the move of operational risk management to the division Enterprise wide Risk Management the results of the validation are reported to the Strategic Risk Management Committee (before it was reported to Regional Operational Conduct Committee). Furthermore, Erste Group conducts periodic stress tests and sensitivity analyses to assess risk potential.

### Differentiation of operational risk from credit and market risk

A loss event relating to credit risk is reported as an operational risk event in the loss database when the operational risk was the actual cause of the loss. In line with regulatory requirements, these losses are not considered in the AMA model for the purposes of calculating operational risk capital requirements. Whenever an event occurs that may be attributed to operational risk or that triggers a loss or gain on the market side, then this is deemed an operational risk, reported as such and included in the AMA capital calculation.

The different types of event categories are defined as follows:
**Internal fraud.** Losses due to acts intended to defraud, misappropriate property or circumvent regulations, the law or company policy, excluding diversity/discrimination loss events, which involve at least one internal party.
**External fraud.** Losses due to acts of a type intended to defraud, misappropriate property or circumvent the law by a third party.
**Employment practices and workplace safety.** Losses arising from acts in breach of employment, health or safety laws and agreements; losses from payment of personal injury claims; from diversity/discrimination events.
**Clients, products and business practices.** Losses arising from an unintentional or negligent failure to meet a professional obligation to specific clients (including fiduciary and suitability requirements); losses due to the nature or design of a product
**Damage to physical assets.** Losses arising from loss or damage to physical assets caused by natural disasters or other events.
Business disruption and system failures. Losses arising from disruption of business or system failures.
**Execution, delivery and process management.** Losses from failed transaction processing or process management; from relations with trade counterparties and suppliers/vendors.

## Use of insurance for risk mitigation in AMA

DISCLOSURE REQUIREMENTS Art. 454 CRR

Risk mitigating insurance effects under existing insurance contracts, taking into account all applicable legal provisions, are included in the models developed for the insurance-related reduction of capital requirements for operational risk only when the risk is reinsured on the external insurance market. The risk mitigating insurance effects are calculated using a Monte Carlo simulation for all eligible losses. In selecting insurance partners, Erste Reinsurance S.A. strictly observes supervisory requirements. The insurance portfolio and the captive reinsurance activities are periodically audited by Group Audit.

# Other risks

## Liquidity risk

### GOALS AND PRINCIPLES OF RISK MANAGEMENT

DISCLOSURE REQUIREMENTS Art. 435 (1) (a) (b) (c) (d) CRR

#### Liquidity risk management framework

Liquidity risk is defined in Erste Group in line with the principles set out by the Basel Committee on Banking Supervision, European and the Austrian regulations (Capital Regulations Requirement (CRR) – Regulation (EU) No 575/2013, Delegated Regulation (EU) 2015/61, 'Kreditinstitute-Risikomanagement-Verordnung – KI-RMV') as well as the Guidelines on ICAAP and ILAAP EBA/GL/2016/10. 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 material adverse impact to 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.

Erste Group has defined and implemented a Group Risk Strategy, which is approved by the Holding Board and the Supervisory Board on an annual basis. The Group Risk Strategy defines, inter alia, the Risk Appetite for liquidity risk as a part of the Group Risk Appetite Statement. In line with the Group Risk Appetite Statement, key liquidity principles are defined to ensure that processes are in place to manage the liquidity risk profile and the strategic limits are set in the Group Risk Strategy. These are further translated into operating limits and liquidity risk management policies. In addition to that, governance arrangements are in place to address any adverse developments of the Erste Group's liquidity profile.

#### Structure and organization of the liquidity risk management function

Erste Group Bank AG has the central liquidity risk management function for Erste Group in addition to the responsibility for its solo level functions, i.e. it defines the principles and methodology for liquidity risk management for the other entities and ensures their proper implementation at local level. The legal entity structure of Erste Group consists of 3 levels, with Erste Group Bank AG as the top institute for the Group. Level 2 includes the core subsidiaries of Erste Group Bank AG and the Austrian savings banks, while Level 3 includes the other subsidiaries of Erste Group Bank AG and the subsidiaries of the entities at Level 2. They are also responsible for the accurate and timely delivery of the data relevant for liquidity risk measurement to the Erste Group Bank AG.

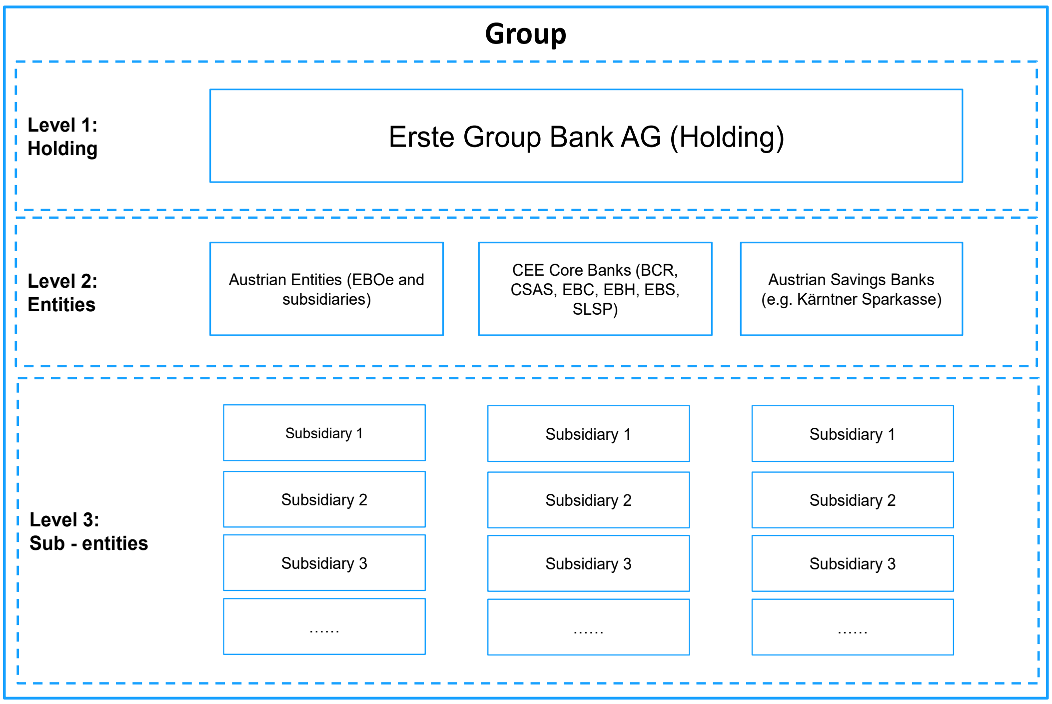


Figure 6: Levels of Erste Group's legal entity structure

The organizational structure of Erste Group ensures the Liquidity Risk Management at both decision-making and operational level. The figure below provides an overview of the governance structure for liquidity risk management at Group level:

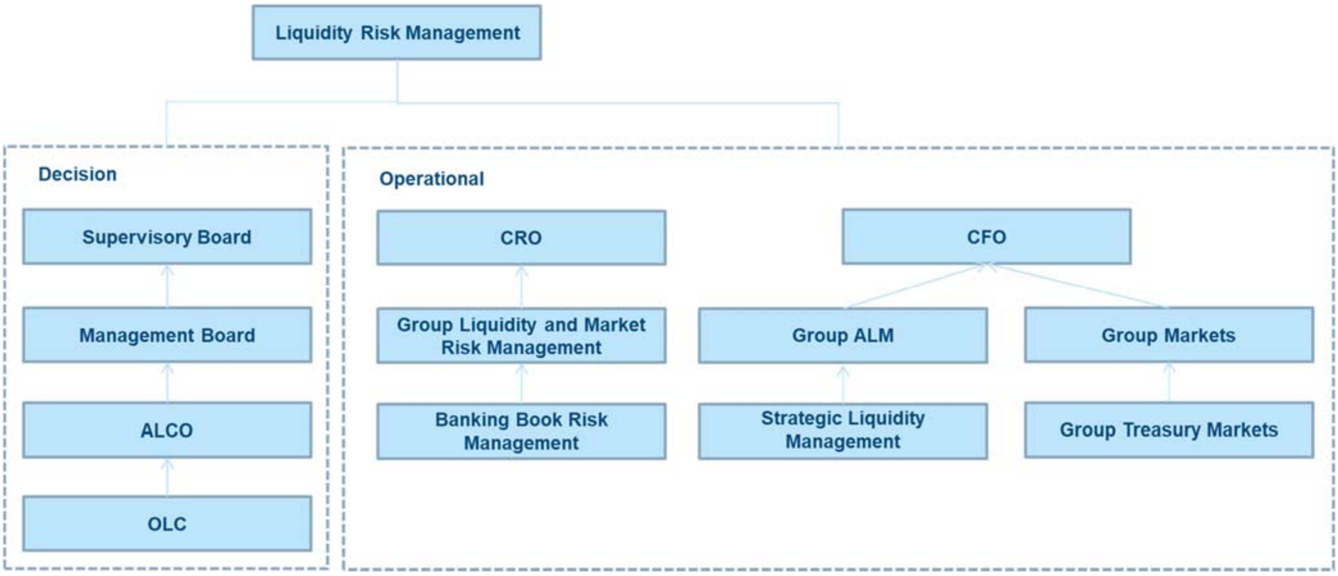

Figure 7: Governance structure for liquidity risk management

A detailed overview of the various bodies and organizational units involved in the liquidity risk governance process at both the group and local entity level is described in the Group ILAAP Policy.

## RISK MEASUREMENT AND CONTROL

Erste Group produces a number of regular reports for both internal and external (predominantly supervisory authorities) stakeholders. These reports are covering both, structural liquidity risk as well as insolvency risk and are used to monitor and steer the liquidity position in Erste Group.

### Survival period analysis (SPA)

The short-term insolvency risk is monitored and limited by calculating the survival period for each material currency 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 collateralized derivative transactions estimating the effect of collateral outflows in the case of adverse market movements. The SPA is part of the Group RAS ensuring sufficient short term liquidity to overcome pre-defined liquidity stress scenarios.

### Structural Liquidity Ratio (STRL)

The structural liquidity metric is measuring the structural funding gap ensuring an appropriate balance between assets and liabilities in the medium and long term time horizons avoiding excessive maturities transformation and consequently avoiding increased pressure on the short term liquidity position. The STRL is part of the Group Risk Strategy ensuring a sound long term funding structure.

### Liquidity coverage ratio (LCR)

Erste Group is reporting the Liquidity Coverage ratio according to the delegated regulation (EU) 2015/61 to the authorities on solo and group level. The LCR is part of the Group RAS targeting to be well above the regulatory requirement.

### Net Stable Funding Ratio (NSFR)

Erste Group is calculating the Net Stable Funding Ratio (NSFR) according to the draft CRR 2 requirements. Internally, the NSFR is monitored on entity level as well as on group level. Additionally, Erste Group is reporting the NSFR according to the BCBS template and weights in the quarterly Short Term Exercise to the regulator. The NSFR is part of the Group RAS targeting to be well above the regulatory requirement.

### Concentration analysis

Concentration risks in terms of funding providers, products and assets in the counterbalancing capacity (CBC) are regularly monitored and reported to the regulator. Additionally, the diversification of the High Quality Liquid Assets is monitored internally on solo and Group level.

### Comprehensive stress testing and recovery and resolution planning

Additional scenarios are analysed to further elaborate on the main vulnerabilities of Erste Group's liquidity position. These scenarios are elaborated based on specific storylines. The scenarios and the relevant stress parameters are taken from historical evidence where available. When historical evidence is not available, expert opinions and assumptions are used.

### Funds transfer pricing (FTP)

The Funds Transfer Pricing (FTP) of Erste Group has proven to be an efficient control instrument for the management of structural liquidity risk.

## METHODS AND INSTRUMENTS OF RISK MITIGATION

Erste Group uses a number of measurement tools and metrics to quantify liquidity risk. In addition to regulatory measures (e.g. LCR, NSFR, ALMM and LLSFR), Erste Group defines its own internal metrics. The key internal metric is the Survival Period Analysis (SPA), which serves as the key tool to measure insolvency risk in Erste Group. It focuses on a up to one-year horizon and uses a dynamic stress testing methodology. The FTP system is yet another important instrument for managing and steering the liquidity risk within Erste Group Bank AG in relation to its subsidiaries. Early warning indicators also form an integral part of the liquidity risk management framework, in particular with respect to detecting the type and severity of liquidity stress events.

Limits are defined centrally and locally in the Risk Appetite Statement and the Risk Strategies. Limit breaches are reported to the Operational Liquidity Committee (OLC) and the Group Asset Liability Committee (ALCO).

Additional important information for liquidity management can be obtained via the process of planning funding needs. Therefore, a detailed overview of funding needs is prepared over the whole planning horizon. It covers all major entities in the Group and is prepared at least annually as part of the Group ALM Strategy.

The Contingency Funding Plans (CFPs) of Erste Group's entities ensure an adequate set of liquidity enhancing actions in times of stress as well as the necessary coordination of all parties involved in the liquidity management process. The CFPs are reviewed at least annually and are checked for compliance with minimum standards set within the Group Liquidity Management Policy.

## ADEQUACY OF LIQUIDITY RISK MANAGEMENT

The concise statement on liquidity risk or more exact the Comprehensive Statement on Liquidity Adequacy provides an overview of major principles for managing the liquidity adequacy of Erste Group. It is following the bank's business strategy and operational environments in order to keep the current amount of liquid resources on an adequate level and to ensure a prudent funding profile. In addition major liquidity risk measures and limits for external and internal reporting and for internal steering of liquidity risk are included. The statement is updated on a yearly basis in course of ILAAP.

## Quantitative information on LCR

| in EUR million | | Total unweighted value | | | | Total weighted value | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Mar 19 | Jun 19 | Sep 19 | Dec 19 | Mar 19 | Jun 19 | Sep 19 | Dec 19 |
| Number of data points used in the calculation of averages | | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| **High-quality liquid assets** | | | | | | | | | |
| 1 | Total high-quality liquid assets (HQLA) | | | | | 44,134 | 45,611 | 47,697 | 49,562 |
| **Cash-outflows** | | | | | | | | | |
| 2 | Retail deposits and deposits from small business customers, of which: | 98,864 | 100,670 | 102,617 | 104,978 | 7,605 | 7,772 | 7,916 | 8,083 |
| 3 | Stable deposits | 56,296 | 57,203 | 58,340 | 59,705 | 2,815 | 2,860 | 2,917 | 2,985 |
| 4 | Less stable deposits | 42,378 | 43,251 | 44,063 | 45,067 | 4,601 | 4,697 | 4,785 | 4,891 |
| 5 | Unsecured wholesale funding | 53,022 | 54,272 | 54,659 | 55,454 | 28,450 | 29,003 | 28,887 | 29,059 |
| 6 | Operational deposits (all counterparties) and deposits in networks of cooperative banks | 6,275 | 6,327 | 6,348 | 6,258 | 1,399 | 1,409 | 1,414 | 1,399 |
| 7 | Non-operational deposits (all counterparties) | 46,517 | 47,645 | 48,030 | 48,901 | 26,820 | 27,294 | 27,192 | 27,365 |
| 8 | Unsecured debt | 231 | 300 | 281 | 295 | 231 | 300 | 281 | 295 |
| 9 | Secured wholesale funding | | | | | 223 | 226 | 233 | 160 |
| 10 | Additional requirements | 28,504 | 29,210 | 29,107 | 29,720 | 14,766 | 15,574 | 15,554 | 16,089 |
| 11 | Outflows related to derivative exposures and other collateral requirements | 13,395 | 14,200 | 14,262 | 14,774 | 13,395 | 14,200 | 14,262 | 14,774 |
| 12 | Outflows related to loss of funding on debt products | 106 | 109 | 39 | 57 | 106 | 109 | 39 | 57 |
| 13 | Credit and liquidity facilities | 15,004 | 14,902 | 14,806 | 14,889 | 1,265 | 1,265 | 1,253 | 1,258 |
| 14 | Other contractual funding obligations | 1,383 | 1,320 | 1,186 | 1,115 | 1,110 | 1,050 | 905 | 873 |
| 15 | Other contingent funding obligations | 28,851 | 29,281 | 30,118 | 30,804 | 1,280 | 1,146 | 1,088 | 1,129 |
| **16** | **Total cash outflows** | | | | | **53,434** | **54,771** | **54,582** | **55,392** |
| **Cash-inflows** | | | | | | | | | |
| 17 | Secured lending (eg reverse repos) | 17,436 | 17,949 | 18,640 | 19,448 | 739 | 654 | 752 | 1,022 |
| 18 | Inflows from fully performing exposures | 4,495 | 4,595 | 4,729 | 4,815 | 3,243 | 3,299 | 3,387 | 3,436 |
| 19 | Other cash inflows | 14,899 | 15,785 | 15,965 | 16,148 | 13,441 | 14,291 | 14,388 | 14,856 |
| EU-19a | (Difference between total weighted inflows and total weighted outflows arising from transactions in third countries where there are transfer restrictions or which are denominated in non-convertible currencies) | | | | | 0 | 0 | 0 | 0 |
| EU-19b | (Excess inflows from a related specialised credit institution) | | | | | 0 | 0 | 0 | 0 |
| **20** | **Total cash inflows** | **36,829** | **38,328** | **39,334** | **40,411** | **17,423** | **18,244** | **18,527** | **19,314** |
| EU-20a | Fully exempt inflows | - | - | - | - | - | - | - | - |
| EU-20b | Inflows Subject to 90% Cap | - | - | - | - | - | - | - | - |
| EU-20c | Inflows Subject to 75% Cap | 36,809 | 38,286 | 39,292 | 40,369 | 17,423 | 18,244 | 18,527 | 19,314 |
| **21** | **Liquidity buffer** | | | | | **51,120** | **52,642** | **52,885** | **53,132** |
| **22** | **Total net cash outflows** | | | | | **36,010** | **36,527** | **36,056** | **36,078** |
| **23** | **Liquidity coverage ratio (%)** | | | | | **142%** | **144%** | **147%** | **147%** |

Table 78: Quantitative information on LCR (values are calculated as averages of month-end observations over the number of data points as outlined in the table)

### Further details on the items included in the quantitative information of LCR

Diversification of the liquidity buffer and funding sources in Erste Group is ensured by the relevant policies and the implementation of regular monitoring of the HQLA and funding concentration in diverse categories. Derivative exposures and all potential collateral calls are considered in Erste Group's LCR calculation and reported accordingly in the appropriate categories. The LCR is calculated and monitored for all significant currencies of Erste Group. The review of significant currencies is done either in case of significant business strategy changes or at least on an annual basis.

## LIQUIDITY MANAGEMENT IN ERSTE GROUP

Liquidity management is a joint effort of ALM units and Group Markets units within Erste Group. Generally ALM units are responsible for structural liquidity management while Group Markets units are responsible for day-to-day liquidity management and execution of liquidity relevant transactions.

Structural Liquidity Management is performed by local ALM units for the entities falling under their local scope of consolidation, thereby following the principles and guidelines outlined in the Group Liquidity Management Policy, whose owner is Group ALM. Hence, local ALM units are responsible to create a local Liquidity Strategy for their partial subgroup, which is approved by the local Board of Directors after alignment with Group ALM.

Furthermore, Group ALM sets requirements on the set-up and statutes of the local Operative Liquidity Committees. In addition, Group ALM performs an analysis of whether each local entity's liquidity strategy meets the requirements set out in the Group Liquidity Management Policy. Based on all local entities' liquidity strategies, Group ALM creates the Group's (and Holding's) Liquidity Strategy which is approved by Group ALCO in the beginning of each year.

Throughout the year Group ALM oversees liquidity management across the Group by monitoring liquidity indicators and balance sheet developments of all entities on individual and on Group level. In addition, Group ALM manages the liquidity flows within the Group in its role as a central liquidity hub for all entities of the Group in major currencies and as the owner of the intra-group funding pricing policy. Furthermore, guidance is provided to local ALM units regarding principles and minimum standards for the management of local liquidity buffers. Group ALM is also responsible to reflect the costs and benefits of compliance with different liquidity-related limits and regulations in the internal Funds Transfer Price system, whose design and methodology are defined in the Group FTP policy. In terms of crisis management, Group ALM sets minimum standards for local entities' Contingency Funding Plans and performs a check of whether each entity's CFP is compliant with those requirements.

# Encumbered and unencumbered assets

## DISCLOSURE REQUIREMENTS Art. 443 CRR AND EBA GUIDELINES ON DISCLOSURE OF ENCUMBERED AND UNENCUMBERED ASSETS

Erste Group is obliged to report encumbered and unencumbered assets at Group level based on the CRR scope of consolidation in the manner set out in the EBA guidelines on disclosure of encumbered and unencumbered assets: The median value of the fair value of encumbered assets that are notionally eligible to the qualification of Extremely High Quality Liquid Assets (EHQLA) and of High Quality Liquid Assets (HQLA) are presented.

### Template A – Assets

| | Carrying amount of encumbered assets | | Fair value of encumbered assets | | Fair value of non-encumbered assets | | Fair value of non-encumbered assets | |
|---|---|---|---|---|---|---|---|---|
| Median in EUR million | | of which notionally eligible EHQLA and HQLA | | of which notionally eligible EHQLA and HQLA | | of which EHQLA and HQLA | | of which EHQLA and HQLA |
| Assets of the reporting institution | 33,216 | 4,474 | | | 213,442 | 28,170 | | |
| Equity instruments | 13 | 0 | 0 | 0 | 733 | 0 | 555 | 0 |
| Debt securities | 5,629 | 4,474 | 5,888 | 4,694 | 35,223 | 26,936 | 36,141 | 27,765 |
| Covered bonds | 167 | 116 | 170 | 120 | 1,603 | 822 | 1,638 | 859 |
| Asset-backed securities | 0 | 0 | 0 | 0 | 6 | 2 | 6 | 2 |
| Issued by general governments | 3,998 | 3,845 | 4,235 | 4,055 | 27,277 | 24,433 | 28,013 | 25,198 |
| Issued by financial corporations | 1,202 | 510 | 1,194 | 516 | 6,230 | 1,670 | 6,359 | 1,817 |
| Issued by non-financial corporations | 292 | 74 | 320 | 91 | 1,771 | 685 | 1,848 | 729 |
| Other assets | 27,356 | 0 | | | 177,719 | 1,234 | | |
| IC & at equity valuation | | | | | -12,273 | | | |

Table 79: Encumbered and unencumbered assets – assets

## Template B – Collateral received

| in EUR million | Fair value of encumbered collateral received or own debt securities issued | of which notionally eligible EHQLA and HQLA | Non-encumbered fair value of collateral received or own debt securities issued available for encumbrance | of which EHQLA and HQLA |
|---|---|---|---|---|
| Collateral received by the reporting institution | 2,880 | 2,698 | 23,516 | 18,768 |
| Loans on demand | 0 | 0 | 0 | 0 |
| Equity instruments | 23 | 0 | 125 | 1 |
| Debt securities | 2,851 | 2,698 | 21,695 | 18,768 |
| Covered bonds | 53 | 14 | 1,378 | 1,172 |
| Asset-backed securities | 0 | 0 | 0 | 0 |
| Issued by general governments | 807 | 807 | 2,291 | 1,073 |
| Issued by financial corporations | 107 | 98 | 3,436 | 1,202 |
| Issued by non-financial corporations | 30 | 16 | 794 | 181 |
| Loans and advances other than loans on demand | 0 | 0 | 0 | 0 |
| Other collateral received | 0 | 0 | 685 | 0 |
| Own debt securities issued other than own covered bonds or ABSs | | | | |
| Own covered bonds and asset-backed securities issued and not yet pledged | | | 2,510 | |
| Total assets, collateral received and own debt securities issued | 36,061 | 18,883 | | |

Table 80: Encumbered and unencumbered assets – collateral received

## Template C – Encumbered assets/collateral received and associated liabilities

| in EUR million | Matching liabilities, contingent liabilities or securities lent | Assets, collateral received and own debt securities issued other than covered bonds and ABSs encumbered |
|---|---|---|
| Carrying amount of selected financial liabilities | 25,012 | 36,061 |
| Derivatives | 2,114 | 2,183 |
| Deposits | 10,615 | 13,663 |
| Debt securities issued | 12,154 | 15,448 |
| Covered bonds issued | 12,129 | 15,423 |
| Other sources of encumbrance | 877 | 5,485 |

Table 81: Encumbered and unencumbered assets – encumbered assets/collateral received and associated liabilities

Any difference between the regulatory consolidation scope used for the purpose of the disclosures on asset encumbrance and the scope retained for the application of the liquidity requirements on a consolidated basis as defined in Part II, Chapter 2 of Regulation (EU) No 575/2013 are evaluated on Erste Group Bank AG level and considered negligible (Average 2017: > EUR 25million).

In 2019, EUR 36 billion (2018: EUR 34.6 billion) of the Group's own and received assets were identified as being encumbered based on the EBA definition. Main sources of encumbrance in Erste Group are:

_ issuance of covered bonds,
_ collateralised trading activities as well as
_ collateralised open market transactions with the ECB.

Asset classes used for the above mentioned purposes are loans and advances to customers (mortgage and public cover pool collateral assets) and debt securities predominately central bank eligible collateral as well as qualifying as HQLA under the LCR Delegated Act. As a result of the total unsecured funding position, for the most part made up of customer savings and current accounts, the median amount of encumbered assets is relatively low in proportion to total assets of Erste Group Bank AG at around 13% over 2019 (down from 14% in 2018).

There is material intragroup encumbrance in Erste Group which does not affect the external encumbrance level, whereby it should be distinguished between long term and short term intragroup encumbrance. The long term portion is almost exclusively driven by intragroup encumbrance due to the Austrian covered bond issuance platform involving Erste Group Bank AG (Holding) and Austrian entities (Erste Bank der Oesterreichischen Sparkassen AG and Savings Banks belonging to the IPS). The Austrian subsidiaries contribute mortgage and public loan assets to the cover pools of Erste Group Bank AG (Holding) which in turn issues covered bonds on said pool of assets. The Austrian cover pool model and central bank eligible non-marketable assets pooling platform (used for central bank funding) constitute approximately half of the total intragroup encumbrance within the banking group. The short term portion making up the remaining third of intra-group encumbrance is driven by collateralized transactions for the purpose of liquidity optimization and market making across the Group.

Unchanged to the previous year the main drivers of asset encumbrance in Erste Group are the 4 rated covered bond programs with relevant over collateralization levels required for external ratings. The programs are situated in countries with different risk profiles regarding the issuance of covered bonds. The issuance models differ significantly between certain jurisdictions (e.g. Austria: Off balance asset pooling on Holding level and on balance issuance of covered bonds; Hungary: Issuance from specialised mortgage bank institution) and therefore have varying effects on the level of encumbrance of the relevant issuing entity. With EUR 9.7 billion (carrying amount as of Q4 2019 up from

EUR 8.8 billion in Q4 2018) out of the total consolidated Group covered bond issuance of EUR 12.27 billion, Erste Group Bank AG (Holding) is the main driver of encumbrance stemming from covered bond issuance. The over collateralization requirement for Erste Group Bank AG's current covered bond ratings as of Q2 2019 is 8.0% (NPV for the mortgage program currently rated Aaa by Moody's, stable from 2018) and 12.5% (NPV for the public program currently rated Aaa by Moody's, up from 10% in 2018) both percentages are used to determine encumbered assets resulting from the issuance from said covered bond programs. The other programs' over collateralization requirements currently range from 5% (in voluntary form for Erste Bank Hungary Mortgage Bank) to 20.5% (SLSP for Moody's Aaa rating).

Erste Group Bank AG currently holds retained own covered bonds in the amount of EUR 4.4 billion (nominal, stable since 2018). The assets backing the mentioned covered bonds are considered unencumbered unless the covered bonds are used to collateralize any transactions constituting a source of encumbrance pursuant the EBA ITS on asset encumbrance reporting under Article 100 of the Capital Requirements Regulations (EUR 1.6 billion nominal used externally as of Q4 2019, down from 1.8 billion as of Q4 2018).

The actual Group level of asset encumbrance is reviewed quarterly by the Asset Liability Committee (Group ALCO) of Erste Group Bank AG, where material changes are discussed and potential steering measures approved. It is worth mentioning that the levels of individual asset encumbrance vary on single entity level mainly due to heterogeneous business models within the Group and secured intragroup transactions not affecting external asset encumbrance. Any risk arising from such discrepancies is sufficiently monitored and managed at both Group and individual entity level (local ALCO equivalent). To further ensure proper management of asset encumbrance throughout the group, an internal governance framework is in place, which includes a Group-wide policy on reporting, steering and limiting the level of asset encumbrance on Group and individual entity level. Furthermore, asset encumbrance is an integral part of the Group's ALM and Risk Strategies. Local levels are monitored and managed by the relevant local committees (ALCO equivalent). The prevailing as well as projected encumbrance levels (Group and local) are taken into consideration when setting up the Group's and individual entities funding plans and the respective liquidity risk profiles during the yearly budgeting process.

# Macroeconomic risk

DISCLOSURE REQUIREMENTS Art. 435 (1) (a) (b) (c) (d) CRR

Macroeconomic risk is the risk that the bank incurs losses due to adverse changes in the overall economic environment, i.e. business cycle risk.

### METHODS AND INSTRUMENTS APPLIED

In the course of stress testing, scenarios are developed based on the assumption of deteriorating economic conditions. These macroeconomic scenarios apply not only to the entire portfolio of the Group, but also to earnings and capital adequacy. This method reveals how the changed economic conditions affect the risk and earnings situation as well as own funds. Risk modelling and stress testing are vital forward-looking elements of the ICAAP. Sensitivities and macroeconomic stress scenarios are considered within the Group's planning and budgeting process.

# Credit risk concentration

DISCLOSURE REQUIREMENTS 435 (1) (a) (b) (c) (d) CRR

Credit risk concentration refers to the potential adverse consequences, which may arise from concentrations, such as exposures to same counterparties, groups of connected counterparties, and counterparties in the same economic sector, geographic region or from the same activity or commodity, the application of credit risk mitigation techniques, and including in particular risks associated with large indirect credit exposures (e.g. to a single collateral issuer).

### METHODS AND INSTRUMENTS APPLIED

Erste Group has implemented a comprehensive system for the identification, measurement, control, reporting and management of credit risk concentration. This is of key importance for securing the long-term viability of credit institution especially in phases with an adverse macroeconomic environment.

Credit risk concentration management at Erste Group is based upon a framework of processes, methods and reports covering both single name and industry concentrations. Diverse analyses are conducted on a regular basis, reviewed and reported. Credit risk concentration is also taken into account systematically in the stress factors of stress tests. The output of the risk concentration analysis additionally contributes to the identification of material risks within the risk materiality assessment as well as to the Risk Appetite Statement and to the setting/calibration of Erste Group's limit system.

# Strategic risk

DISCLOSURE REQUIREMENTS Art. 435 (1) (a) (b) (c) (d) CRR

Strategic risk is the current or prospective risk to earnings and capital arising from the changes in the business environment and from adverse business decisions, improper implementation of decisions or lack of responsiveness to changes in the business environment. Within the strategic risk, four components are differentiated:

- Business risk is the risk of suffering unexpected operating losses due to decreases in operating revenues or increases in costs, which cannot be compensated by cost reduction or revenue increases, respectively. All revenue or cost fluctuations which are attributable to position taking (market risk), credit losses (credit risk) or operational events (operational risk) are excluded
- Capital risk is the risk of losses due to the possible erosion of capital as a result of dividend policy, ownership structure, remuneration policy and lack of access to supplementary capital sources.
- Profitability risk means the risk which arises due to inadequate composition and distribution of earnings or inability of the credit institution to ensure adequate and constant level of profitability.
- Management risk means the risk of loss caused by the fact that credit institutions, due to its size, have a limited capacity to put in place sophisticated operational mechanisms, systems and controls.

### METHODS AND INSTRUMENTS APPLIED

Erste Group has implemented a comprehensive framework for the identification, measurement, control, reporting and management of strategic risk. As part of its overall risk management framework, Erste Group is regularly reviewing strategic risk at both Group and local entity levels, reflecting current developments in different macroeconomic environments, legal jurisdictions as well as different business strategies and balance sheet structures. For Pillar 2 purposes, Erste Group quantifies business risk by using a quantitative model, using the deviation of budgeted vs realised values. The results of the model are used in economic capital and risk bearing capacity computations.

# Reputational risk

DISCLOSURE REQUIREMENTS Art. 435 (1) (a) (b) (c) (d) CRR

Reputational risk is the current or prospective risk arising from negative perceptions on the part of customers, suppliers, stakeholders, the public or other relevant parties that can adversely affect the bank's earnings, funds and liquidity. It mostly depends on competence, integrity, social responsibility and reliability of the bank. Reputational risk issues usually arise from transactions with clients or through different business activities.

Reputational risk (impact) can also be considered as a secondary effect of other risk categories, such as credit, market, operational and liquidity risk (source risks).

## GOALS AND PRINCIPLES OF RISK MANAGEMENT

Erste Group does not quantify reputational risk explicitly in the economic capital calculation under pillar 2. The quantification of reputational risk distinguishes two types of losses:

_ losses the bank is willing to accept in order to avoid reputational damage, typically quantified in terms of market, credit and operational risk economic capital;
_ negative reputational damage on future earnings, e.g. reduced operating revenues due to the loss of customers covered by the business risk economic capital.

## METHODS AND INSTRUMENTS APPLIED

Reputational Risk Management is embedded in the "Group Operational & Non-Financial Risk management" Governance, where a committee with the following responsibilities is established:

_ The Regional Operational Conduct Committee (ROCC) holds delegated decision authority from the Holding Board with respect to Operational and Non-Financial Risk decisions, which may be represented as NFR decisions based on the predefined Risk Appetite Statement (RAS). The committee acts as a Reputational Risk Committee and is steering non-financial risks via the NFR Profile.

The primary responsibility for the identification, escalation and resolution of reputational risk issues resides with the business and the relevant risk type owner supports their resolution. As an example, reputational risk is mitigated by the following measures:

_ statement of purpose
_ code of conduct
_ new product approval process
_ credit policies
_ pro-active press and investor communication
_ outsourcing policy
_ conflicts of interest and anti-corruption policy
_ Responsible Finance Policy.

Identified risks are assessed and escalated in line with the risk appetite. The residual risk after mitigation is accepted using the unified method (Risk Return Decision). Identified risks are assessed and escalated in line with the risk appetite. The residual risk after mitigation is accepted using the unified method (Non Financial Risk Decision). Reputational risk is also part of the annual risk materiality assessment and the RAS.

# Cross-guarantee risk

DISCLOSURE REQUIREMENTS Art. 435 (1) (a) (b) (c) (d) CRR

Cross-guarantee risk is the risk arising from legal obligations due to Erste Group's membership in cross guarantee schemes (e.g. Sparkassen Haftungsverbund in Austria). The Haftungsverbund scheme in Austria supplements the statutory deposit guarantee and investor compensation schemes as an additional safety net. One of the main targets of the Haftungsverbund is to identify potential liability events and to facilitate early counteraction to prevent financial distress of any member of the Haftungsverbund.

## METHODS AND INSTRUMENTS APPLIED

In order to guarantee adequate capitalisation, liquidity and a consistent understanding and treatment of the various risk types, standardised regulations were implemented at every Austrian savings bank that is member of Sparkassen Haftungsverbund. These regulations are regularly reviewed and further developed. Furthermore, Haftungsverbund GmbH, the steering company of the Austrian Sparkassen Haftungsverbund scheme, has implemented an early warning system to identify potential liability events and to facilitate early counteraction.

# Compliance risk

DISCLOSURE REQUIREMENTS Art. 435 (1) (a) (b) (c) (d) CRR

Compliance risk is the risk of legal or regulatory sanctions, material financial loss, or loss to reputation a bank may suffer as a result of its failure to comply with laws, regulations, rules, related self-regulatory organization standards, and codes of conduct applicable to its banking activities (together, "compliance laws, rules and standards").

## GOALS AND PRINCIPLES OF RISK MANAGEMENT

To appropriately address Compliance risk, Erste Group sets the "tone at the top" and oversees management's role in fostering and maintaining a sound corporate and risk culture. Erste Group establishes an appropriate framework for identifying, assessing, measuring and monitoring Compliance risk, including regulatory compliance risk, in line with the institution's size and complexity. In accordance with the RAS non-compliance with regulatory or legal requirements is not eligible to any risk acceptance.

## METHODS AND INSTRUMENTS APPLIED

Compliance Risk Management is embedded in the "Group Operational & Non-Financial Risk management" Governance, where following committee with the following responsibilities is established:

_ The Regional Operational Conduct Committee (ROCC) holds delegated decision authority from the Holding Board with respect to Operational and Non-Financial Risk decisions, which may be represented as NFR decisions based on the predefined Risk Appetite Statement (RAS). The committee is steering non-financial risks via the NFR Profile

According to § 39 Abs 6 BWG, a Regulatory Compliance Function (OU 0196 1738 Group Regulatory Compliance) was established newly in January 2019. Group Regulatory Compliance assists senior and top management in preventing, detecting and mitigating regulatory compliance risks by the means of constant monitoring, reporting and escalation if needed. Regulatory Compliance Risks deals with risks of non-compliance with a view of banking regulation (Austrian Banking Act, Capital Requirements Regulation, etc). Erste Group has established policies and processes in order to keep this risk at a minimum within Erste Group.

# Model risk (credit risk, market risk and operational risk related)

DISCLOSURE REQUIREMENTS Art. 435 (1) (a) (b) (c) (d) CRR

Model risk is risk relating to the underestimation of own funds requirements by regulatory approved models (e.g. internal ratings-based (IRB) models for credit risk).

### Credit Risk

Erste Group has in place an operating model with a goal to reduce the risk of potential losses and underestimation of own funds requirements as a result of flaws in the development, implementation or use of the models. In order to mitigate such risks, EG has an operating framework in place that allows to identify, understand and manage its models risk for internal models across its IRB Credit Risk model landscape.

To support execution of such operating model, EG has in place several policies such as:

_ Group IRB model governance policy
_ Credit Risk Model life-cycle poliswcy
_ IRB Model Validation policy
_ Rating Model Development standards
_ Holding Model Committee (HMC) By-laws.

These policies, define operating model for IRB Credit Risk model development, monitoring and validation across the model life-cycle, namely, organizational set-up of the area incl. roles & responsibilities, description of three-line of defense principles, execution of the model life-cycle process steps, standards for development of rating models, validation tests and measurement as an evaluation of models fit-for-purpose, decision authorities of model related aspects.

Target Operating Model (TOM) was re-designed to ensure coverage of full model lifecycle, centered around the following principles:

_ a subsidiarity model for development to balance development effort and to foster local ownership
_ a hub-and-spoke model for validation to ensure independence and control of validation standards
_ a dual model for approval reflecting ownership requirements across Group entities
_ a subsidiary model for monitoring to synchronise with model development and ensuring close ongoing local coordination

Operationalization of the re-designed Target Operating Model considering the above mentioned principles that lead to the strengthening of the steering functions of the Holding, enforcement of common standard across the whole Erste Group and accountability for local model development in larger subsidiaries.

### Market Risk

Erste Group has the GLMRM Model Risk Management Policy in place. It describes the framework for model risk management within the market risk area. Among others it provides a definition for models and model risk, describes the model governance, roles and respon-sibilities, model approval process and treatment of model deficiencies. Apart from group processes the policy also outlines the process for local model development and validation. Furthermore, model validation procedure exists providing additional guidance on minimum validation standards. To have a comprehensive overview of the market risk models GLMRM has a register of market risk models. This register provides all model relevant information like model owner, validation status, quantitative and qualitative model assessment, and model risk classification. The internal approval body for model changes with respect to internal market risk model and respective validation findings is the Market Risk Committee.

All the applied models within the market risk area do follow the life cycle framework and are under continuous validation, particularly back-testing. The internal market risk model for calculating the capital requirements of market risk shows low model risk as the model performed well, which is reflected in a low number of overshootings (as defined in Article 366 of CRR).

### Operational Risk

The Advanced Measurement Approaches (AMA) model is developed, implemented and governed centrally by Holding and the economic capital are allocated to entities based on an allocation key on quarterly basis. The AMA model received ECB approval for a material model change in October 2018, the updated model is first used for the Q4 2018 capital calculation. The new model is developed in compliance with the new RTS on AMA for operational risk and is subject to an independent model validation on a regular basis.