Landwirtschaftliche Rentenbank

Disclosure Report for
Landwirtschaftliche Rentenbank as at
31 December 2019 in accordance with CRR

rentenbank

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List of abbreviations

CCF	credit conversion factor
CCR	counterparty credit risk
CRM	credit risk mitigation
CRSA	credit risk standardised approach
CVA	credit valuation adjustment
EBA	European Banking Authority
EHQLA	assets of extremely high liquidity and credit quality
GVA	general valuation allowance
HGB	Handelsgesetzbuch
HQLA	assets of high liquidity and credit quality
KWG	Kreditwesengesetz
RWA	risk-weighted assets
SFT	securities financing transactions

1. General information

The Basel Committee on Banking Supervision has defined internationally accepted banking supervision for banks' risk-appropriate capital base and liquidity. These regulations are intended to strengthen the security and solidarity of the financial system. The Basel framework agreement contains three mutually reinforcing pillars: the minimum capital requirements (pillar 1), the banking supervision process (pillar 2) and the extended disclosure requirements (pillar 3).

The aim of pillar 3 is to strengthen market discipline by increasing transparency of the banks' risk position. Banks must regularly publish qualitative and quantitative information about their base capital situation, the risks assumed, the risk measurement procedures and the risk management.

Since 1 January 2014, the implementation of the pillar 3 disclosure requirements according to part 8, Article 431 to 455 Regulation (EU) No 575/2013 (CRR) has been taking place at European level. This also applies to Rentenbank with regard to section 1a (1) of the German Banking Act (*Kreditwesengesetz* KWG). In Germany, the extended disclosure requirements of Capital Requirements Directive 2013/36/EU (CRD IV) were also transposed into national law through Section 26a KWG. This applies to Rentenbank insofar as this section is not explicitly (only) referring to credit institutes under CRR. The disclosure required by part 8 of the CRR in its applicable version or, as the case may be, section 26a KWG of qualitative and quantitative information is provided with this Disclosure Report in consideration of the BaFin circular 05/2015 (BA) and the guidelines of the European Banking Authority (EBA) about the disclosure obligations according to part 8 CRR (EBA/GL/2016/11).

Rentenbank produces the Disclosure Report in an aggregated format at group level in its role as a top-level institution. The figures shown in this report refer to the group of companies consolidated for regulatory purposes. The calculation of the figures is made using accounting methods in keeping with the German Commercial Code (*Handelsgesetzbuch* HGB).

In line with the requirements of article 431 (3) CRR, Rentenbank has set up proper processes using the applicable regulations which have been laid down in writing to guarantee the completeness, suitability and accuracy of the information disclosed.

As part of the process of producing the Disclosure Report, the reporting contents produced by the organisational units concerned are subject to a review and the qualitative and quantitative information is updated at the reporting date. Information, which is geared towards the data contained in the supervisory reports, is generated directly from the reporting software and/or has to be reconciled with the data reported.

The preparation of the Disclosure Report is carried out in line with the standard banking checking and monitoring procedures. After the divisions concerned have completed their quality assurance, the report is signed off by the heads of the Finance and Legal & Human Resources and the head of the Risk Controlling department.

Following this, the Disclosure Report and the description of the process is approved by Rentenbank's Management Board.

The disclosure report is published according to Article 434 (1) CRR on Rentenbank's website under About us/Publications/Disclosure Report.

Rentenbank does not avail itself of the option conceded in Article 432 (1) CRR to refrain from publishing non-essential information.

Pursuant to Article 432 (2) CRR, institutions may omit items of proprietary and confidential information. Rentenbank has not identified any proprietary and confidential information in the sense of Article 432 (2) CRR for the 2019 reporting year.

The disclosure report is produced and published on a quarterly basis in accordance with the BaFin circular dated 05/2015 (BA) and in consideration of the EBA guidelines (EBA/GL/2016/11).

The figures shown in the Disclosure Report were rounded according to standard commercial practice. In the summation, there may therefore be differences which are due to rounding. Lines or columns without content were blanked out in order to make the tables more legible. Where there are cells in the tables with a nil value, the item exists but is less than EUR 1 million. Blank cells in the tables mean that this item did not exist at the balance sheet date.

Material changes in the reporting period are explained accordingly. Unless a different reporting date is indicated, all tables were produced for the reporting date of 31 December 2019.

The Disclosure Report explicitly indicates items for which no disclosure can be made because they are not relevant to Rentenbank due to the Bank's existing business activities.

2. Risk management, aims and provisions (Article 435 Capital Requirements Regulation (CRR), Article 439)

The processes, the structure and the organisation of risk management as well as the processes for managing, quantifying and supervising the individual types of risk are described as part of the framework of the financial reporting approved by the Management Board in 2019 within the Management Report in the sections entitled 'Report on expected developments' and 'Risk report'. Rentenbank's general risk profile and important key figures and information about the risk profile and risk tolerance are illustrated in these sections.

All essential risks on the part of the subsidiaries are borne by Rentenbank and are comprehensively managed by it. Direct and indirect subsidiaries are: LR Beteiligungsgesellschaft mbH (LRB), DSV Silo- und Verwaltungsgesellschaft mbH (DSV) and Getreide-Import-Gesellschaft mbH (GIG). The business activities of the subsidiaries are rather limited. The subsidiaries obtain their funding exclusively from Rentenbank. Rentenbank provides the facilities and staff. Rentenbank has prepared a comfort letter for LR Beteiligungsgesellschaft mbH.

Rentenbank is a promotional bank operating at federal level. According to its Governing Law, Rentenbank is mandated to promote agriculture and the associated upstream and downstream industries as well as rural areas. The Bank's business activity is geared toward this development responsibility. The business model is primarily defined by the framework set out in Rentenbank's Governing Law and the Bank's statutes.

Rentenbank pursues the following goals as part of its business strategy:

- performing a self-supporting promotional activity,
- the sustainability of which is secured through appropriate net interest income from diversified sources as part of a prudent risk policy,
- with the possibility of adjusting the promotional activity at any time to account for changing requirements.

Financial key performance indicators are the key accounting-related metrics used to measure the achievement of the strategic objectives within the internal management system. Non-financial key performance indicators complement this management system.

The financial key performance indicators reflect the operating activities.

Rentenbank's financing activities are based on its Governing Law. They can be categorised into three segments:

- Promotional business

Within Promotional business, the Bank promotes investments in agribusiness and rural areas. This is achieved through funding with special purpose loans which are extended to end borrowers via local banks. The loans are granted in accordance with the terms and conditions applicable to our special promotional loans for supporting projects in Germany. Through managing interest rate terms, we support our preferred promotional targets, such as animal welfare, environmental protection or investments made by young farmers.

In addition, the bank fulfils its promotional mandate by acting as a funding partner to banks with business activities in agribusiness and rural areas as well as to local authorities operating in rural areas. This is effected though the provision of different forms of capital (registered bonds, promissory notes and securities). To some extent, these transactions also contribute to complying with the regulatory liquidity requirements. Rentenbank manages the business volume as well as the risk structure. Funding, which is mainly maturity-matched, is also allocated to the Promotional Business segment. The Bank does not hold securities, exposures or other exposures with structured or derivative credit risks, such as ABSs (asset-backed securities), CDOs (collateralised debt obligations) or CDSs (credit default swaps).

- Capital Investment

The Capital Investment segment includes the investments of equity reported in the balance sheet and of long-term provisions. The investments are principally made in securities and promissory notes and registered bonds issued by banks and public-sector issuers.

- Treasury Management

Short-term liquidity and short-term interest rate risks are monitored within the Treasury Management segment.

2.1 Risk management process

2.1.1 Risk statement

The Management Board declares that Rentenbank's risk management processes with regard to type, scope, complexity and risk content are appropriate and ensures that the established risk management systems correspond to Rentenbank's risk profile and strategy. This comprises the liquidity risk strategy, which aims to secure constant financial solvency, the optimisation of the funding structure and the coordination of the Bank's own issuances on the money and capital markets.

The Management Board also declares that a transparent picture of all material risks to solvency and funding based on the risk reports and/or event-related escalation processes is always available. This corresponds with the provisions within the business and risk strategy.

The risk-bearing capacity was always intact in accordance with both the normative and economic approaches as at the reporting date of 31 December 2019 (see chapter 2.2). Based on capital plan and stress tests, there is nothing to indicate that the risk-bearing capacity will be at risk in the future. All limits and regulatory indicators are complied with on a continuous basis. Overall, the Management Board is of the view that Rentenbank has very good access to the money and capital markets and an appropriate liquidity provision.

Within the framework of the financial reporting approved by the Management Board, the risk profile, important indicators and the risk tolerance are illustrated within the management report in the sections entitled, 'Report on expected developments' and 'Risk Report'.

In addition to the Management Board, the guarantor is involved, represented by the Supervisory Board and/or the Risk Committee, in determining the business and risk strategy. The risk strategy also contains statements regarding the monitoring of the risk-bearing capacity and the liquidity risk. Furthermore, the risk committee is kept informed about internal and regulatory indicators and compliance with the limits on a quarterly basis.

2.1.2 Organisation of risk management

The Management Board has the overall responsibility for the RMS.

Risk reporting is carried out in line with the regulatory Minimum Requirements for Risk Management (MaRisk). The Management Board is kept informed every month and as required on an ad-hoc basis about the risk situation.

The Supervisory Board Audit and Risk Committees are informed about the risk situation on a quarterly basis. Furthermore, the Supervisory Board is kept informed about material risk-related events by the Management Board and at its regular meetings in the event of a material risk.

In accordance with MaRisk, the Bank has delegated the management of the Risk Controlling function (RCF) to the head of the Risk Controlling department. The latter is responsible for monitoring and communicating the risks and is involved in all important management decisions regarding risk policy. The Risk Controlling department carries out all RCF tasks. They include the drafting of the risk strategy and the regular monitoring of the limits within the risk-bearing capacity. In addition, the department regularly monitors the maximum limit for all credit risk and the upper limit for unsecured facilities, the risk reporting, the daily valuation of the financial instruments and risk assessment within the New Product Process (NPP). The monitoring and reporting of risks takes place independently from the front office functions (Promotional Business and Treasury) according to the provisions of MaRisk.

The back-office functions are performed by the Credit division. The Credit division has an independent second vote in credit decisions and processes transactions involving purchased promissory notes and registered bonds. It also develops the credit risk strategy in conjunction with the Risk Controlling department. The Credit division evaluates the collateral and administers payment instructions in the special promotional loans business and is also responsible for the intensive monitoring and management of non-performing loans. Any necessary measures are taken here in consultation with the Management Board.

Furthermore, as part of loan portfolio management, the Credit division monitors compliance with the credit risk limits. In addition, the Credit division analyses credit and country risks, among other issues. Business partners and types of transactions with each business partner are classified using Rentenbank's own rating categories. In addition, the Credit division prepares proposals for credit decisions and monitors the aggregate lending portfolio on an ongoing basis. As front office functions, the Promotional Business and Treasury divisions are responsible for new business within the Promotional Business segment. Treasury manages market and liquidity risks within the defined strategic framework. This combines the risk strategy with the risk appetite statement and the treasury sub-strategy. As processing and controlling units, the Operations Financial Markets department and the Loan Transactions department within the Credit division monitor trading transactions in accordance with MaRisk. Risk Controlling is responsible for market conformity checks.

Independent risk assessment and monitoring is an inherent part of how Rentenbank is organised.

The Internal Audit department reviews and assesses the appropriateness of activities and processes as well as the appropriateness and effectiveness of the RMS and the Internal Control System (ICS) on a risk-oriented and process-independent basis. It reports directly to Rentenbank's Management Board and carries out its duties in an independent and autonomous way. The Management Board may issue instructions to perform additional checks. The members of the Audit Committee as well as the chairpersons of the Administrative and Risk Committees may request information directly from the head of Internal Audit.

In the context of MaRisk compliance, Rentenbank's compliance function, a part of the ICS, acts in collaboration with the other organisational units to avoid risks that may arise from non-compliance with the relevant legislation (compliance risk). It encourages both the implementation of effective procedures to ensure compliance as well as the relevant legislation and requirements for Rentenbank as well as corresponding mechanisms for control. It reports directly to Rentenbank's Management Board and carries out its duties in an independent and autonomous way. In terms of risk to assets, the risk indicators to determine materiality comprise sanction risk, other financial risk and the reputational risk in the event of non-compliance with a standard.

The Regulatory working group (*Arbeitskreis regulatorische Themen,* ART) is primarily responsible for tracking and evaluating regulatory and other legislative initiatives as well as for strengthening the compliance structure. It addresses the regulatory issues identified as relevant and ensures that unambiguous responsibilities are defined for the implementation within the Bank and that the issues are dealt with in a timely manner.

2.1.3 Business and risk strategy

The Management Board determines the Bank's sustainable business strategy on the basis of the company mission derived from the relevant legislation. Rentenbank's business strategy is primarily defined by its promotional mandate and the measures taken to fulfil it. Rentenbank does not keep a trading book. Rentenbank's business activities are not geared towards generating profits, but toward fulfilling its statutory promotional mandate.

Rentenbank provides its special promotional loans for agribusiness and rural areas via local banks (on-lending) and has to comply with the applicable regulatory requirements at all times.

Rentenbank's Risk Appetite Framework comprises all strategies and guidelines, methods, processes, responsibilities, controls and systems from which the Bank derives, communicates and monitors its risk appetite. Apart from the minimum target values, alert thresholds and limit systems, this also includes soft factors such as appropriate compliance and an active risk culture.

Rentenbank's risk strategy is derived from and is consistent with its business strategy. It comprises an overarching risk strategy as well as sub-strategies that focus on each specific type of risk.

The business and risk strategy are discussed with the Supervisory Board every year.

In the risk strategy and the risk appetite statement, the Management Board defines the core framework for the Bank's risk management.

Rentenbank defines risk appetite as the overall risk which it is willing to assume within the scope of the allocated risk coverage potential in order to achieve its strategic objectives. It is determined on the basis of quantitative requirements and qualitative assertions. The quantitative requirements are specified through the definition of limits and alert thresholds within the scope of the risk-bearing capacity. They are also set out in the requirements in relation to products and markets as well as in the treasury sub-strategy.

The credit risk strategy is shaped by the promotional mandate. Funds for promotion of the agribusiness and rural areas are generally only granted to banks registered in the Federal Republic of Germany or in other EU member states. These banks must be engaged in business activities with companies operating in the agricultural sector or in the associated upstream or downstream industries or in rural areas. Special promotional loans are limited to Germany as an investment location.

In addition, the Bank can acquire participations and provides funding via promissory notes, registered bonds or bearer securities issued by the German states. Rentenbank's lending business is therefore limited to the funding of banks and institutions as defined in Art. 4 CRR II and to the provision of capital to German local authorities. In accordance with the credit risk strategy, loans may be granted to companies only as part of the direct loan business with one of Rentenbank's subsidiaries. No corresponding new business was transacted in 2019.

Derivatives are only used as hedging instruments and with business partners where there is a collateral agreement in place.

Rentenbank's credit risk strategy requires prudent selection of business partners and products in all business activities. In accordance with its core competencies and business model, Rentenbank focuses on banks and public sector borrowers. Rentenbank has a sectoral concentration risk with regard to the banking sector. This emanates from the statutory mandate and therefore from the business model enshrined in law and is specifically characterised by demand for special promotional loans. The average credit quality of the total loan portfolio, an indicator of the Bank's risk profile, is supposed to be at least A+, having taken product credit quality into account.

The market risk strategy prescribes that interest rate risks are limited by using derivatives and that foreign currency risks are generally hedged. Market risks are limited within the framework of risk-bearing capacity.

The liquidity risk strategy aims to secure constant solvency, optimisation of the funding structure and coordination of the Bank's own issuances on the money and capital markets.

The management of operational risks focuses on preventing damages and, consequently, on ensuring the quality of all bank processes. Compliance with regulatory requirements as well as the minimisation of reputational risk by means of appropriate communications management and a code of conduct are also components of the risk strategy.

All material risks are limited within the defined risk appetite as part of the risk-bearing capacity calculation.

2.1.4 Risk culture

Rentenbank's risk culture is characterised by its understanding of dealing with risks in day-to-day business. It comprises all company standards, attitudes and behavioural patterns in relation to risk awareness, risk appetite and risk management.

2.1.5 Risk inventory

A risk inventory is used to obtain a structured overview of all risks that have a negative impact on Rentenbank's net assets, capital resources, results of operations or liquidity situation. This overview also comprises risk concentrations both among and between risk types.

In addition, material risks are identified using indicators based on quantitative and qualitative risk characteristics and are detected at an early stage as part of an internal review or 'self-assessment'. Further identification of risks takes place within NPP, ICS key controls, as well as the daily control and monitoring activities.

Rentenbank's risk profile encompasses the following as material types of risk: credit risks, market risks, liquidity risks, operational risks, as well as strategic risks. In terms of market risks, Rentenbank distinguishes between interest rate risks, spread and other risks (currency and volatility risks) as well as CVA risks. The material types of risk within strategic risks are reputational risk, regulatory risk and pension risk.

Rentenbank defines non-financial risks (NFR) as risks within operational and strategic risks.

An increasing focus is placed on opportunities and risks as a result of changes within environmental, social and governance (ESG) risks. In one of its 2019 fact sheets, BaFin published its expectations with regard to factoring in sustainability risks within risk management. Rentenbank takes these on board in its risk management system.

2.1.6 Validation risk measurement

The regulatory requirements are followed in a framework for validating methods and procedures for measuring material risks in Rentenbank's internal capital adequacy assessment process (ICAAP) and the internal liquidity adequacy assessment process (ILAAP).

Validation of the methods and processes takes place at least once a year with separate teams ensuring independence between method development and validation. The aim of the validation is to critically review the quality of methods and models used for risk measurement, their parameters and assumptions employing the quantitative and qualitative analyses. The assessment is based on predefined methods. The validation results are reported to the Management Board. Any changes to the methods and parameters following from the validation results must be approved by the Management Board.

2.2 Risk-bearing capacity

The risk-bearing capacity of Rentenbank (as a group) is the core element of its internal capital adequacy assessment process (ICAAP) and constitutes the basis for operational implementation of the risk strategy. The aim of the risk-bearing capacity concept is the continuation of the Bank's ability to meet its statutory mandate while complying with regulatory requirements, to safeguard the Bank's capital in the long term, and to protect creditors from losses from an economic perspective. The objectives are reflected in the two perspectives of Rentenbank's risk-bearing capacity concept, which comprises a normative approach and an economic approach. The risk management processes are geared towards meeting these objectives and requirements equally. Stress tests supplement the monitoring of the limits within the risk-bearing capacity.

In 2019, Rentenbank further developed its ICAAP and specifically the normative approach in view of the new regulatory requirements from the ECB's and BaFin's ICAAP guidelines.

2.2.1 Normative approach

The risk management objective of the normative approach is to meet all regulatory minimum capital requirements and regulations. Here a check is made as to whether capital resources have complied with all regulatory requirements at the reporting date and in the multi-year (5-year) capital plan and therefore can ensure the Bank can continue as a going concern in the basis scenario and adverse scenarios. The Bank's capital resources should allow for the business strategy to be pursued in an enduring way, even in these scenarios.

The following table shows regulatory own funds under the normative approach at the balance sheet date versus the respective prior-year figures.

Table 1: Risk-bearing capacity under the normative approach

	31 Dec 2019 EUR million	31 Dec 2018 EUR million
Subscribed capital	163.6	163.6
Retained earnings	1,131.3	1,082.5
Fund for general banking risks	3,115.0	3,069.5
Intangible assets	– 22.6	– 17.4
Tier 2 capital	138.9	214.0
Regulatory own funds	**4,526.2**	**4,512.2**

The changes compared to the respective prior year result from the appropriation of profit and the phasing out of tier 2 capital instruments.

The risk exposures or risk-weighted assets (RWAs) are presented in the following table:

Table 2: Risk exposures under the normative approach

	31 Dec 2019 EUR million	31 Dec 2018 EUR million
Credit risk	13,298.2	13,105.8
CVA charge	710.4	713.9
Operational risk	570.9	654.9
Overall RWAs	**14,579.5**	**14,474.6**

RWAs remain almost unchanged on the previous year.

This gives the regulatory capital ratios (total capital ratio, Tier 1 capital ratio, common equity Tier 1 capital ratio (CET 1 ratio) and the leverage ratio) at the reporting date. In addition, the planned values for the following three years for the base scenario in the capital plan are detailed for information purposes here:

Table 3: Regulatory indicators in the base scenario

	Balance sheet date	Base scenario		
	31 Dec 2019	2020	2021	2022
Total capital ratio in %	31.05	31.5	32.1	31.9
Tier 1 capital ratio in %	30.09	30.6	31.6	31.9
Common Equity Tier 1 capital ratio in %	30.09	30.6	31.6	31.9
Leverage ratio	4.99	5.05	5.06	5.08

The regulatory provisions are met in the capital plan at the reporting date and in the base scenario in all timeframes observed. The regulatory provisions were also adhered to in the various adverse scenarios of the capital plan. These simulate negative developments across the market (economic downturn and low interest rates) and effects specific to the Bank (such as rising costs).

2.2.2 Economic approach

The objective of the economic approach is to safeguard the Bank for the long term and to protect creditors from losses from an economic perspective. In order to achieve this, the economic risk coverage potential is compared with overall risk exposure and assessed for both at the reporting date and in the capital plan base scenario.

Risk coverage potential takes into account hidden reserves and liabilities from securities and promissory notes issued by the German states, including related hedging transactions, as well as reserves according to HGB 340f. Net income (accrued during the course of the year) from the income statement is taken into account; profits budgeted for but not yet generated are not included.

The risk coverage potential under the economic approach is illustrated below as of the reporting date compared to the prior year:

Table 4: Risk coverage potential under the economic approach

	31 Dec 2019 EUR million	31 Dec 2018 EUR million
Subscribed capital	163.6	163.6
Reserves	1,150.2	1,131.3
Fund for general banking risks	3,168.4	3,115.0
Hidden liabilities/reserves	872.1	776.5
Risk coverage potential	**5,354.3**	**5,186.4**

The planned appropriation of profits for 2019 is factored into the risk coverage potential. The economic risk coverage potential slightly increased year on year by allocations to retained earnings and higher reserves.

Under the economic approach, risks from all exposures are analysed irrespective of their accounting.

The risks are calculated based on a confidence level of 99.9% and a timeframe of one year. The risk exposures for the individual risk types are aggregated without considering the effects of diversification and are distributed as follows:

Table 5: Risk exposures under the economic approach

	31 Dec 2019 EUR million	31 Dec 2018 EUR million
Credit Risk	330.7	790.1
Market risk	1,211.9	1,085.6
of which risk from interest rate changes	*469.5*	*288.9*
of which CVS risk from derivatives	*77.0*	*155.7*
of which spread and other risks	*650.4*	*621.0*
of which risk buffer	*15.0*	*20.0*
Operational risk	88.9	91.4
Strategic risk	74.0	133.2
Total risk	**1,705.5**	**2,100.3**

The decrease in the overall risk exposure amount essentially results from lower credit risk exposure. The reasons for this is the improved methodology for credit portfolio modelling. With the new credit portfolio model comes an improved calculation of the credit value at risk (CVaR), primarily by more precisely accounting for concentration risks. Interest risks have increased mostly due to revisions made to the scenario during the course of validation. In the case of strategic risks, risk exposure has decreased as a result of updating the scenario.

Utilisation of the risk coverage potential has reduced significantly from 40.50% to 31.85% at the reporting date due to the higher risk coverage potential with a lower overall risk. The risk-bearing capacity under the economic approach was maintained at a comfortable level in 2019. All limits were maintained.

2.2.3 Stress tests

The objective of the stress tests is to analyse whether Rentenbank's risk-bearing capacity is guaranteed even in exceptional but plausible scenarios across various risk types. For this purpose, Rentenbank simulates a hypothetical scenario (of a serious economic downturn) as well as a historical scenario (financial market crisis and subsequent sovereign debt crisis) and analyses both market-wide and bank-specific aspects. The main risk parameters, on which the stress scenarios are based, are a deterioration of credit quality and change in interest rates and credit spreads. These stress tests are used to analyse the effects of the stress scenarios under the normative and economic approaches. Under the normative approach, the effects of the scenarios on the income statement and equity and notably the effect on risk-weighted assets are simulated over a time period of three years. The predominant risk we monitor under the normative approach is credit risk, whereas under the economic approach, credit risk and most of all market price risk are particularly relevant.

The risk-bearing capacity was guaranteed in both approaches even under stress scenarios, confirming the Bank's comfortable capital situation.

In addition to these stress scenarios, Rentenbank uses an inverse stress test to examine which events could lead to a situation where the risk-bearing capacity is no longer being maintained.

2.3 Risk categories – material individual risks

Credit risk, market risk, liquidity risk and operational risks as well as strategic risks are all ranked as material risks for the group.

Appropriate precautionary measures have been taken to deal with risks that are not classified as material, i.e. are minor risks for the Bank. These precautionary measures are in principle documented in operational and organisational guidelines.

2.3.1 Credit risks

Definition

Credit risk is the risk that a contractual partner does not meet or only partially meets their payment obligations. It is also the risk of losses due to a rating downgrade. Distinctions are made between credit risk, migrations risk and country risk subtypes.

Rentenbank's lending business is by and large limited to the funding of banks and institutions or financial institutions as defined in Article 4 CRR as well as to other interbank transactions. The credit risk on the part of the end borrower with special promotional loans is borne by the end borrower's local bank.

Quantification and management

The calculation of credit risk is based on the core risk parameters' probability of default, loss given default, exposure at default and the correlations between business partners. The latter serve to simulate simultaneous defaults by business partners within our loans portfolio model.

Our business partners' credit ratings determine their probability of default. We gauge credit quality by carrying out an internal risk classification process. This involves allocating individual business partners or types of transactions to one of twenty credit rating categories. The ten best rating categories (AAA to BBB–) are assigned to business partners who are subject to low credit risk (investment grade). The seven other rating categories (BB+ to C) denote latent or increased latent risks and the final three rating categories (DDD to D) are reserved for non-performing loans or business partners in default.

Our business partners' credit ratings are reviewed at least once a year based on the assessment of their annual financial statements and an analysis of their financial position. In addition to the key performance indicators, the analysis also takes into account qualitative characteristics, the background of the company, and other relevant factors, such as protection schemes or state guarantees. In addition, country risks pertaining to our business partners' country of incorporation are reflected in the determination of credit quality. In the case of certain products, such as mortgage bonds (*Pfandbriefe*), the associated collateral or cover assets are regarded as an additional criterion for determining the product rating over and above the respective national statutory provisions. If new information become available concerning a deterioration in the financial position or in the economic prospects of a business partner, the Credit division reviews the credit rating and, if necessary, adjusts the rating.

The loss given default rate quantifies the proportion of the exposure that is not recoverable after the default of a business partner and the liquidation of collateral provided. Rentenbank uses loss given default rates that are specific for products and types of transactions to quantify credit risk; these are determined based on an analytical and expert-based procedure. In this connection, the liquidation chain related to the special promotional loans (which are granted within the scope of the 'on-lending procedure') are specifically taken into account in measurement and parameterisation of the loss ratio for special promotional loans. The Bank also uses external data sources for individual transaction types.

The exposure at default corresponds to the balance at the reporting date plus off-balance-sheet transactions with individual debtors. This is the residual value of the exposure. In the case of derivatives, the exposure value is based on the mark-to-market method plus a premium for market value fluctuations, taking into account contractual netting and cash collateral.

The calculation of the economic capital for credit value at risk (CVaR) is effected with a credit portfolio model and factoring in correlations between business partners and, additionally, migration risks. The credit portfolio model was radically overhauled in 2019 and is based on Merton simulation model.

The method described enables Rentenbank to assess and monitor its risks in accordance with MaRisk. Negative developments as well as portfolio concentrations can therefore be identified at an early stage and countermeasures initiated.

Limitation and reporting

A maximum limit for all credit risk limits as well as an upper limit for unsecured lines are determined by the Management Board. Concentration risks are managed and effectively limited within the Bank at various levels by means of targeted policies. In addition, individual country exposure limits and country transfer risk limits have been established. Currency transfer risks can be limited per currency to limit risks.

A limit system manages the level and structure of all credit risks. Limits are specified for all borrowers, issuers and counterparties and, if applicable, subdivided by product and maturity. Rentenbank's risk rating system forms the basis for decisions on granting limits. Furthermore, a certain minimum credit quality is required for certain types of business or limits.

The limitation of credit risks within the context of risk-bearing capacity is effected using CvaR calculated based on the credit portfolio model.

In addition, risk and recovery indicators provide an indication of potential risk increases or of risk migration within the portfolio at an early stage. Warning thresholds ensure that higher limit utilisations are identified early on and that appropriate measures can be taken.

Additional limits are monitored daily. The Management Board is notified immediately if limits are exceeded.

Credit risks are managed, monitored and reported for individual transactions at borrower level as well as at the level of the group of associated clients, at country level and the level of the total loan portfolio.

Portfolio Overview

The Bank has received collateral for the vast majority of its risk exposures in the form of assignments of the exposures funded for end borrowers and government guarantees. The remaining risk exposures mostly include collateralised products such as German mortgage bonds (*Pfandbriefe*). Unsecured risk exposures mainly relate to loans and advances to credit institutions which are members of joint liability schemes in Germany (*Haftungsverbünde*).

2.3.2 Market risk

Definition

Market risk is the potential loss resulting from changes in market variables. It comprises interest rate risks, CVA risks from derivatives as well as spread and other market risks. The latter include currency and volatility risks.

Interest rate risk is the risk from unexpected changes in the economic value or the present value of interest-sensitive positions as well as in net interest income due to changes in interest rates. The interest rate risk in terms of the present value is subsumed under the regulatory term Economic Value of Equity (EVE), while the interest rate risk in terms of net interest income is subsumed under the term Net Interest Income (NII). Rentenbank has allocated all transactions to the investment book and calculates interest rate risk from the EVE and NII perspective under the term Interest Rate Risk in the Banking Book (IRRBB).

The CVA risk is the risk of a potential decline in the market value of derivative financial instruments due to a deterioration in counterparty credit quality.

Spread risks are classified as credit spread risks, cross-currency basis swap risks and basis swap risks.

Currency risk is the risk of a present value loss on foreign currency positions based on adverse changes in exchange rates. Open currency positions only result from very low balances on nostro accounts. In the case of foreign currency positions, the market values of underlyings and hedging transactions are essentially distinct from credit spreads due to different valuation parameters This leads to temporary market value differences caused by exchange rates.

Volatility risk is the risk that the value of an option is changed due to changes to the implicit volatility. Options also include embedded options.

Further market risks, such as share price and commodity transaction risks, are not relevant due to Rentenbank's business model.

Quantification and management

Interest rate risks

Interest rate risks from a present value or economic perspective are measured daily based on a parallel shift in the interest rate by 160 basis points for the Treasury Management and Promotional Business segments and on a monthly basis at the level of the entire Bank. Equity is not shown as a liability in line with the regulatory accounting method used.

The income-related measurement of interest rates is effected as part of the stress scenarios under the normative approach over a time period of three years based on the fixed interest curve in the interest scenarios under analysis.

Risks from negative interest rates are taken into account in present value and income terms, especially the risks from variable-yield transactions with 0% floors.

The risk-bearing capacity calculations are supplemented by the analysis of stress scenarios.

Interest rate risk in the banking book under the economic approach primarily relates to long-term investment of equity in the Capital Investment segment. Therefore, only increasing interest scenarios are risk-relevant from a present value perspective (EVE). From an income-related perspective (NII), however, falling interest rates are risk-relevant as the effects of interest on new business over time are the main factor here.

Generating material income by entering into interest rate risks does not constitute part of Rentenbank's business strategy.

The Bank very much limits its exposure to interest rates through the use of derivatives. Derivatives are entered into on the basis of micro or macro relationships, the latter being used for special promotional loans.

CVA Risk

The CVA risk is the risk of a potential decline in the market value of derivative financial instruments due to a deterioration in counterparty credit quality. In addition to business partners' probability of default and the loss given default rate, the calculation includes potential future exposure at the level of netting pools.

Spread and other risks

Rentenbank quantifies spread risks using a VaR model based on a historical simulation. The present value sensitivities regarding the spreads of the included transactions are taken into account in the VaR calculation. The maximum loss for the defined confidence level is calculated on the basis of historical market data that goes back up to eight years. Credit spread risks are calculated for securities and highly liquid promissory notes from German states.

Currency and volatility risks are measured by scenario-based changes in exchange rates and volatilities.

Risk buffer

Model inaccuracies and simplifications are given appropriate consideration by means of a risk buffer.

Limitation and reporting

The market risk limit is allocated to interest rate risk, the CVA risk, spread and other risks as well as to the risk buffers. Compliance with the limits for interest rate risks within the Treasury Management and Promotional Business segments is monitored daily and reported. Reporting of the remaining market risks is on a monthly basis.

2.3.3 Liquidity risks

Definition

Rentenbank defines liquidity risk as the risk of not being in a position to meet current or future payment obligations without restriction.

Quantification and management

Rentenbank's open cash balances are limited by an amount defined by the Management Board on the basis of the funding opportunities available to Rentenbank. The liquidity position and the capacity used is monitored on a daily basis.

Instruments available for managing the short-term liquidity position include interbank funds, the issuance of ECP, and open-market transactions with the Bundesbank. Furthermore, securities can be bought to manage liquidity and funds borrowed with terms of up to two years via the Euro Medium Term Note programme (EMTN programme) or by issuing promissory notes, global bonds and domestic capital market instruments.

Under the risk-bearing capacity concept, liquidity risks are not covered by the risk coverage potential but by counterbalancing capacity or liquid assets. Rentenbank's triple-A ratings and the statutory guarantee of the Federal Republic of Germany allow the bank to raise liquidity on the market at any time. In addition, any collateral held at Deutsche Bundesbank may be pledged.

Concentration of funding and liquidity sources

Essentially, the medium and long-term funding to match maturities results from the issuing of unsecured bonds. In accordance with the LCR, the bonds issued by Rentenbank are classified as liquid assets in the EU. Rentenbank bonds also qualify as highly liquid assets in other jurisdictions, such as the United States and Canada. Furthermore, Rentenbank issuances denominated in euros and listed in the European System of Central Banks (ESCB) are recognised as securities which are eligible for funding. Comparable regulations apply in Australia and New Zealand. The Bank's bonds are also accepted as securities on the regulated Repo markets such as Eurex Clearing AG.

Rentenbank's sources of liquidity in the liquidity coverage ratio (LCR) liquidity buffer are essentially comprised of central bank assets and high-quality liquid assets (HQLA). As regards the assets of step 1 (assets of the utmost high liquidity and credit quality) public sector bonds and multi-lateral development banks, promissory notes from the German federal states (*Länder*) are prevalent as well as covered bonds of the utmost high quality. The assets of step 2 (assets of high liquidity and credit quality) consist for the most part of covered bonds of a high quality.

Liquidity stress scenarios

Stress scenarios are intended to examine the effects of unexpected events on Rentenbank's liquidity position and market liquidity risk. The liquidity stress scenarios developed for this purpose are an integral part of the internal control model. They are calculated and monitored on a monthly basis. The scenario analyses comprise a market-wide scenario with a price decline for securities (market liquidity) and calls of cash collateral as well as an idiosyncratic scenario with a simultaneous drawdown of all irrevocable credit commitments and defaults by major borrowers. A scenario mix is used to simulate the cumulative occurrence of liquidity stress scenarios. Liquidity stress tests are also performed on an ad hoc basis if risk-related events occur.

Liquidity ratios pursuant to CRR

The regulatory liquidity ratios LCR and NSFR (Net Stable Funding Ratio) are used to limit short-term as well as medium to long-term liquidity risks. The objective is to enable banks to remain liquid even during periods of stress by holding a liquidity buffer and maintaining stable funding. The LCR (i.e. the ratio of high-quality liquid assets to total net cash outflows under stress scenarios) must be at least 1.0%.

The minimum requirement for the NSFR (i.e. ratio of the amount of available stable funding relative to the amount of required stable funding) is 1.0% from 2021.

Limitation and reporting

The liquidity requirement calculated up to 30 days under stress assumptions has to be under the portfolio of liquid assets pursuant to the Liquidity Coverage Ratio (LCR) or the freely available funding potential.

The imputed liquidity requirement for 30 days to two years is limited by the freely available funding potential.

In addition, for the purpose of calculating medium and long-term liquidity, capital inflows and outflows over two years are aggregated into quarterly segments and carried forward. The cumulative net cash outflows may not exceed a limit set by the Management Board.

The scenario mix is defined as a scenario relevant for control purposes and limits the survival horizon by means of a traffic-light tool.

The short-term and medium to long-term liquidity limits are monitored daily. In the reporting year as in the previous year, liquidity was secured even within stress assumptions at every point in time analysed. All liquidity limits and regulatory liquidity key figures were comfortably maintained. On average, the LCR amounted to 5.29 (6.29 in 2018) and the NSFR to 1.32 (1.31 in 2018).

Reporting on short-term and medium and long-term liquidity, the results of the scenario analyses, the liquidity ratios LCR and NSFR and calculation of the liquidity buffer pursuant to MaRisk is carried out on a monthly basis.

2.3.4 Operational risks

Definition

Operational risks arise from failed or inadequate systems and processes, human error or external events. Operational risks also include legal risks, risks from money laundering, terrorist financing or other criminal acts, behavioural risks, risks from outsourcing, operating risks and event or environmental risks. In the Bank's view, they do not comprise entrepreneurial risks, such as business risks, regulatory risks, reputational risks, or pension risks.

Quantification and management

Under the risk-bearing capacity concept, operational risks are quantified for the economic approach at double the figure in the regulatory basic indicator approach.

All loss events and near misses are recorded in a loss event database by operational risk officers on a decentralised basis. The Risk Controlling function is accountable for the analysis and aggregation of incidents as well as for methodological development of the instruments used.

Rentenbank also carries out self-assessments in the form of workshops. Material operational risk scenarios are analysed and assessed here with regard to individual business processes from a risk-based perspective. This also involves specifying subsequent measures (e.g. as regards fraud prevention).

All operational risks are aggregated and analysed on a centralised basis by Risk Controlling. It is responsible for the use of instruments and the methodological development of risk identification, assessment, management and communication. Operational risks are managed by the relevant organisational unit.

Legal risks are managed and monitored by the Legal and Human Resources division. It informs the Management Board about current or potential legal disputes both on an ad hoc basis as well as in the form of semi-annual reports. Legal risks from business transactions are reduced by the Bank by largely using standardised contracts. The Legal department is involved at an early stage in decision-making and significant projects are to be carried out in collaboration with the Legal & Human Resources division. Legal disputes are recorded immediately in the loss event database. They are monitored using a defined risk indicator for the purpose of early risk identification.

In addition to the Compliance function, Rentenbank has set up a central unit for the prevention of money laundering, terrorist financing and other criminal acts. Such risks, which could put the Bank's assets at risk, are identified on the basis of a risk analysis in accordance with Section 25h KWG. Organisational measures are then derived from the risk analysis to maximise risk prevention. For this purpose, the Bank also analyses whether general and Bank-specific requirements for an effective organisation are being complied with.

Risks associated with outsourcing are captured as operational risks. Rentenbank has introduced centralised outsourcing management for outsourcing arrangements, while outsourcing arrangements are monitored on a decentralised basis. This central outsourcing management comprises risk management and risk monitoring. A distinction is made between significant and insignificant outsourcing based on a standardised risk analysis. Significant outsourcing is subject to special requirements, in particular with respect to the contracts, the intervals of the risk analyses and reporting.

Operating risks as well as event-related or environmental risks are identified throughout the Bank. They are managed and monitored based on how material they are.

The Bank has put in place an Information Security Management System (ISMS) to protect data, systems, networks and its site. The Information Security Officer (ISO) monitors compliance with the requirements defined by the ISMS as regards confidentiality, availability and integrity of information. Employees are regularly trained in information security and sensitised to risk via various channels. Information security risks are integrated into the operational risk management and are presented in a transparent way. This includes risks arising from the threats relating to cyber risks. The Bank has its service provider carry out regular penetration tests.

The Bank's Crisis Management has set up preventative and reactive measures in the event of emergencies or crises for time-critical business processes. The emergency manual and business continuity plans establish how to deal with disruptions to business. The Bank checks and monitors the effectiveness of these plans using test or training plans.

Limitation and reporting

The limits for operational risks are set at the amount of the risk exposure. During the fiscal years 2018 and 2019, there were no loss events for which the potential loss could have exceeded EUR 100 thousand. Reporting is carried out as part of the risk report.

2.3.5 Strategic risks

Definition

Regulatory risk, reputational risk and pension risk, as material risk types, are allocated to the strategic risks. Regulatory risk is the risk that a change to the regulatory environment could adversely affect the Bank's business activities or operating profit or that regulatory requirements are only being met at an insufficient level. Reputational risks arise from damage to the Bank's reputation that has a negative effect on its business operations. Transactions that result in reputational risk for Rentenbank are not entered into. In addition to that, no business is transacted with undertakings that conduct banking or credit brokering outside a regulated framework (shadow banking) as defined in Regulation (EU) No 575/2013. The calculation of pension provisions is based on various assumptions (e.g. interest rate development and mortality tables). The pension risk consists of changing assumptions causing a requirement to increase the pension provisions which are recognised as an expense.

Quantification and management

Regulatory and reputational risks are quantified using a corresponding scenario as part of medium-term planning (capital plan). To this end, regulatory and reputational risks are assumed to have monetary effects (e.g. increased funding costs or unexpected operating and personnel expenses) on the implementation of regulatory requirements. Pension risks are calculated on the basis of sensitivities and assumed parameter changes from an external actuarial opinion.

The risk exposures in the calculation of the risk-bearing capacity are derived from the scenario in the capital plan.

Losses incurred are monitored in the loss event database as well as in the monthly target/actual comparisons made by the Finance division in the income statement.

Regulatory risks are managed by actively monitoring of regulatory projects as well as other legislative initiatives affecting Rentenbank and by identifying any implications for Rentenbank. The Regulatory working group (ART) plays a central role in this process. In particular, it is responsible for monitoring and evaluating regulatory and other legal initiatives, as well as for strengthening the compliance function. To this end, the Regulatory working group initiates and monitors implementation projects. It reports to the Management Board on a regular basis.

A code of conduct and professional external corporate communications contribute to the management of reputational risks.

The calculation of pension provisions is based on current external parameters such as interest rates, inflation and life expectancy. Interest rate risks are taken into account for this purpose based on the interest-rate risks in the banking book (IRRBB).

Limitation and reporting

As with operational risks, the limits for strategic risks are also set at the amount of the risk exposure value. As in the prior year, no loss events materialised from strategic risks. Reports are prepared on a monthly basis.

2.4 Information about the Regulations for Corporate Governance and Control

The number of executive or supervisory directorships held by members of the management body is disclosed in Appendix 1.

The appointment of the members of the Management Board is incumbent upon Rentenbank's Supervisory Board. If a position on the Management Board becomes available, the nominations committee then assists he Supervisory Board with identifying applicants. Since the change to the statutes of Landwirtschaftliche Rentenbank and the Supervisory Board's rules of procedure at the meeting in autumn 2018, the nominations committee (Section 25d (11) KWG) has assumed the responsibilities of the former Administrative Committee with the exception of the responsibilities of the Remuneration Committee (Section 25d (12) KWG). In line with the Supervisory Board's rules of procedure, the Nominations Committee creates a job description with an applicant profile. Here the criteria regarding the selection of the candidates is specified. While these criteria are generally based on the vacant Board position to be filled, they can be expanded by suitable additional attributes, i.e. experience in public sector mandates. Furthermore, diversity is taken into account, including, among other things, the balance and diversity of knowledge, skills and experience of all members of the Management Board.

The selection of Management Board members is largely based on section 25c KWG, which requires that the Management Board members of an institution must have the necessary professional qualifications and be reliable. Further, they must dedicate sufficient time to carrying out their responsibilities. A prerequisite for the professional qualifications of management board members is that they have adequate theoretical and practical knowledge of the businesses concerned as well as managerial experience. Upon the approval of a member of the Management Board, the banking supervisory authorities confirm the candidate's subject-specific qualification and reliability based on the comprehensive documentation of skills, capabilities and experience.

At least once a year, the Supervisory Board assesses the organisation, size, composition and performance of the Management Board. The Supervisory Board assesses the Management Board's knowledge, skills and experience as well. The summary of each Board member's professional career is published on Rentenbank's website.

The selection of members for Rentenbank's Supervisory Board is prescribed in Section 7 (1) of Rentenbank's Governing Law. This is, to a large extent, not the responsibility of the Supervisory Board, but the responsibility of the associations and authorities set out in Rentenbank's Governing Law and/or it is defined by virtue of office. At the same time, these legal provisions also meet diversity requirements since, due to legal requirements, Rentenbank's Supervisory Board has to consist of members from various stakeholder groups relevant to Rentenbank. This ensures that the subject-specific capabilities are broadly diversified, ranging from financial expertise in managing companies to experience in supervisory matters related to banking. Since the Supervisory Board comprises representatives of the agricultural sector, the German Federal Ministry of Food and Agriculture, the German Federal Ministry of Finance and credit institutions, the interests of all of Rentenbank's stakeholders are taken into account.

Moreover, the Federal and State ministries that appoint representatives to Rentenbank's Supervisory Board are obliged, based on the applicable Federal and State laws, to seek to achieve equal representation of women and men as well as to take into account additional diversity criteria within the scope of these requirements. Therefore, strict quotas or targets have not been defined.

The members of the Supervisory Board draw on their broad experience and skills from their long-term activities at various credit institutions, from management positions at banks, savings banks and companies, from leading positions in Federal and State ministries as well as from key managing functions in associations and industrial sectors relevant to Rentenbank's promotional lending business. A yearly training session is held to maintain and increase the professional knowledge of the members of the Supervisory Board. The members of the Management Board also participate in the training session. Training sessions, in particular in relation to the principles of accounting, risk management and supervisory law, are generally held for new members of the Supervisory Board. Long-standing members are also encouraged to make use of the option of taking individual training courses if required.

Aspects prescribed by law relating to selection and diversity are expanded upon in Section 7 (1) No 6 of Rentenbank's Governing Law. It prescribes that the other members of the Supervisory Board elect three representatives from credit institutions or other credit experts based on a proposal made by the German Federal Government. The preparation of the election proposals by the Nominations Committee is governed by the rules of procedure of the Supervisory Board, taking the balance and diversity of all of its members' knowledge, skills and experience into account.

In addition, at its meeting on 26 March 2015, the Supervisory Board's Administrative Committee discussed the setting of a target to encourage the representation of the underrepresented sex on the Supervisory Board as well as a strategy to meet that target in accordance with Section 25d (11) sentence 2 No 2 KWG. Since there is no possibility of directly influencing the composition of the Supervisory Board as its composition is prescribed in Section 7 of Rentenbank's Governing Law, the Administrative Committee decided to advance the issue of the underrepresented sex by writing to the relevant associations and authorities approximately one year prior to the next constituent meeting in 2019 and making them aware of considering the under-represented sex in the appointment procedure.

In 2014, Rentenbank's Supervisory Board appointed a Risk Committee which generally meets twice a year. Accordingly, as at 11 March 2020, twelve meetings have taken place (two meetings per year in 2014, 2015, 2016, 2017, 2018 and 2019).

3. Information on the scope of application of the regulation (Article 436 CRR)

Rentenbank is a federal public law institution with its registered office in Frankfurt am Main. It has no branch offices. Country-by-country reporting required in accordance with section 26a (1) sentence 2 KWG is no longer necessary in accordance with the exemption from the scope of application of CRD.

As a promotional bank for agribusiness and rural areas, Rentenbank provides funds for a variety of investments. Rentenbank grants its special promotional loans to projects in Germany via local banks in a competitively neutral way (on-lending). The range of products is geared towards businesses in the agriculture, forestry, viticulture and horticulture and aquaculture/fisheries sectors. Rentenbank also finances projects in the food industry and agriculture-related upstream and downstream industries, investments in renewable energy and rural infrastructure. In addition, Rentenbank provides funding for other banks, savings banks, and local authorities operating in rural areas through registered bonds, promissory notes and securities.

Taking into account the exemption as set out in Section 290 (5) in conjunction with Section 296 (2) HGB, Rentenbank is not required by law to prepare consolidated financial statements in accordance with HGB. Rentenbank did not prepare voluntary consolidated financial statements.

The regulatory scope of consolidation of Rentenbank for the fiscal year 2019 includes Rentenbank as the parent company of the Group as well as its subsidiary 'LR Beteiligungsgesellschaft mbH (LRB)', Frankfurt am Main (cf. Table 8: EU LI3).

LRB's business activities comprise the administration of participations, possible new investments made as part of the promotional mandate, as well as the investment of cash funds at Rentenbank.

Institutions that do not need to publish any consolidated accounts only have to publish columns b to g as part of EU LI1 (cf. Table 6). Consequently, the explanation of the differences between the carrying amounts that are shown in the consolidated financial statements and are drawn up according to commercial law and the carrying amounts according to the regulatory scope of consolidation are omitted.

Table 6: EU LI1 – Differences between accounting and regulatory scopes of consolidation and the mapping of financial statement categories with regulatory risk categories

	b	c	d	e	f	g
	Carrying values under scope of regulatory consolidation	Carrying values of items				
		Subject to the credit risk framework	Subject to the CCR framework	Subject to the securitisation framework	Subject to the market risk framework	Not subject to capital requirements or subject to deduction from capital
	EUR million	EUR million	EUR million	EUR million	EUR million	EUR million
Assets						
Cash and balances with central banks	20	20				
Loans and advances to banks	60,417	59,884	533			
Loans and advances to customers	6,487	6,419	68			
Bonds and other fixed-income securities	17,162	17,134				28
Shares and other variable-yield securities	0	0				
Participations	174	174				
Investments in affiliated companies	0	0				
Assets held in trust	109					109
Intangible assets	18					18
Property and equipment	14	14				
Other assets	4,291	4,291				
Prepaid expenses	2,008	1,719	289			
Total assets	**90,700**	**89,655**	**890**			**155**
Liabilities and Equity						
Liabilities to banks	2,257		602			1,655
Liabilities to customers	2,681		53			2,628
Securitised liabilities	77,499					77,499
Liabilities held in trust	109					109
Other liabilities	862					862
Deferred income	2,049		1,764			285
Provisions	442					442
Subordinated liabilities	303					303
Fund for general banking risks	3,168					3,168
Equity	1,330					1,330
Total liabilities and equity	**90,700**		**2,419**			**88,281**

Table 7: EU LI2 – Main sources of differences between regulatory exposure amounts and carrying amounts in financial statements

		a	b	c	d	e
			Items subject to			
		Total EUR million	Credit risk framework EUR million	CCR framework EUR million	Securitisation framework EUR million	Market risk framework EUR million
1	**Assets carrying value amount under the scope of regulatory consolidation (as per template EU LI1)**	**90,700**	**89,655**	**890**		
2	Liabilities carrying value amount under the regulatory scope of consolidation (as per template EU LI1)	90,700		2,419		
3	Total net amount under the regulatory scope of consolidation					
4	Off-balance-sheet amounts	718	718			
5	Differences in valuations	575	575			
6	Differences in methodology for derivatives transactions	– 2,792	– 4,249	1,457		
7	No own capital requirements/ capital deductions	– 155				
10	**Exposure amounts considered for regulatory purposes**	**89,046**	**86,699**	**2,347**		

Table 8: EU LI3 – Outline of the differences in the scopes of consolidation (entity by entity)

	a	b	c	d	e	f
		Method of regulatory consolidation				
Name of the entity	Method of accounting consolidation	Full consolidation	Proportional consolidation	Neither consolidated nor deducted	Deducted	Description of the entity
Landwirtschaftliche Rentenbank	–	X	–	–	–	Credit institution
LR Beteiligungs-gesellschaft mbH	–	X	–	–	–	Financial institution

There are no impediments to the prompt transfer of own funds or repayment of liabilities between Rentenbank and its subsidiaries in accordance with Article 436 lit c) CRR.

The Group makes use of the derogation to the application of reporting obligations in relation to own funds, solvency, large exposures, leverage and disclosures pursuant to Article 7 (3) CRR in conjunction with Section 2a (1) KWG at single-institutional level (waiver rule).

As at the reporting date, all companies within the financial sector which are subsidiaries of Rentenbank Group have been factored into the regulatory scope of consolidation according to Article 18 (1) CRR. To that extent, there was no shortfall in regulatory capital requirements according to Article 436 lit d) CRR.

4. Own funds (Article 437 CRR)

The regulatory own funds of the group of institutions were calculated on the basis of Article 72 CRR. As the parent company of the Landwirtschaftliche Rentenbank Group of institutions, Rentenbank is responsible for the calculation of own funds on an aggregate basis pursuant to Section 10a (1) KWG in conjunction with Article 11 et seq CRR. Own funds are calculated using the aggregation method pursuant to Article 18 (1) CRR in conjunction with Section 10a (4) KWG on the basis of the HGB annual financial statements. The disclosure of own funds is effected in accordance with appendix IV of the Implementing Regulation (EU) No 1423/2013 of the European Commission.

Rentenbank Group's common equity Tier 1 capital is comprised of subscribed capital, retained earnings and the fund for general banking risks according to Section 340g HGB. There are no instruments for additional Tier 1 capital. Consequently, existing capital requirements (common equity Tier 1 capital and additional Tier 1 capital) have to be fully met with common equity Tier 1 capital.

The common equity Tier 1 capital and/or the Tier 1 capital in the amount of EUR 4,387 million exceeds the requirements of Article 465 CRR (4.5% and/or 6% of the total risk amount in the amount of EUR 14,580 million) by EUR 3,731 million and/or EUR 3,512 million.

Rentenbank Group's subscribed capital of EUR 164 million is fully recognised as Common Equity Tier 1 capital within the meaning of Article 26 (1) lit (a) in conjunction with Article 28 CRR in accordance with the list 'Capital instruments in EU member states qualifying as Common Equity Tier 1 instruments by virtue of Article 26(3) of Regulation (EU) No 575/2013', published by EBA on 17 December 2017.

Retained earnings at Group level amount to EUR 1,131 million and the fund for general banking risks amounts to EUR 3,115 million. Retained earnings and the fund for general banking risks were reduced due to the effects of consolidation.

Tier 2 capital of EUR 139 million consisted exclusively of subordinated liabilities. This included EUR 33 million for subordinated loans eligible as Tier 2 capital within the meaning of Article 62 lit (a) in conjunction with Article 63 CRR. The remaining contracts with a chargeable volume of EUR 106 million were included in accordance with the grandfathering provisions laid down in Article 484 (2) and (5) CRR. The associated interest rates are in the range of up to 5.0% for maturities due before 9 February 2024. The subordinated liabilities are structured as promissory notes, loan agreements, and bearer securities issued in the form of global certificates.

The main features of Rentenbank's capital instruments are presented on our website under 'about us/publications/disclosure reports' as is the publication of the conditions of issue for 'freely tradable' capital instruments.

Table 9 shows the composition of Rentenbank Group's regulatory own capital in accordance with part 2 of the CRR on the reporting day of 31 December 2019.

Table 9: Composition of regulatory own funds

		(A)	(B)	(C)
		Amount on the day of disclosure EUR million	Regulation (EU) No 575/2013 Article Reference	Amounts underlying regulations prior to (EU) No 575/2013 or mandatory residual amounts according to regulation (EU) No 575/2013 EUR million
Common Equity Tier 1 (CET1) capital: Instruments and reserves				
1	Capital instruments and the related share premium accounts	164	26 (1), 27, 28, 29, EBA list 26 (3)	
2	Retained earnings	1,131	26 (1) (c)	
3a	Funds for general banking risk	3,115	26 (1) (f)	
6	Common Equity Tier 1 (CET1) capital before regulatory adjustments	4,410		
Common Equity Tier 1 (CET1) capital: regulatory adjustments				
8	Intangible assets (net of related tax liability) (negative amount)	–23	36 (1) (b), 37, 472 (4)	
28	Total regulatory adjustments to Common equity Tier 1 (CET1)	–23		
29	Common Equity Tier 1 (CET1) capital	4,387		
Additional Tier 1 (AT1) capital				
44	Additional Tier 1 (AT1) capital			
45	Tier 1 capital (T1 = CET1 + AT1)	4,387		
Tier 2 (T2) capital: instruments and provisions				
46	Capital instruments and the related share premium accounts	33	62, 63	
47	Amount of qualifying items referred to in Article 484 (5) and the related share premium accounts subject to phase out from T2	106	486 (4)	
51	Tier 2 (T2) capital before regulatory adjustments	139		
Tier 2 (T2) capital: regulatory adjustments				
57	Total regulatory adjustments to Tier 2 (T2) capital			
58	Tier 2 (T2) capital	139		
59	Total capital (TC = T1 + T2)	4,526		
60	Total risk weighted assets	14,580		

		(A)	(B)	(C)
		Amount on the day of disclosure EUR million	Regulation (EU) No 575/2013 Article Reference	Amounts underlying regulations prior to (EU) No 575/2013 or mandatory residual amounts according to regulation (EU) No 575/2013 EUR million
Capital ratios and buffers				
61	Common Equity Tier 1 (as a percentage of total risk exposure amount)	30.09%	92 (2) (a), 465	
62	Tier 1 (as a percentage of total risk exposure amount)	30.09%	92 (2) (b), 465	
63	Total capital (as a percentage of total risk exposure amount)	31.05%	92 (2) (c)	
64	Institution-specific buffer requirement (CET1 requirement in accordance with article 92 (1) (a) plus capital conservation and countercyclical buffer requirements, plus systemic risk buffer, plus systemically important institution buffer, expressed as a percentage of risk exposure amount)	7.42%	CRD 128, 129, 130, 131, 133	
65	*of which: capital conservation buffer requirement*	*2.50%*		
66	*of which: countercyclical buffer requirements*	*0.42%*		
68	Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)	25.59%	CRD 128	
Amounts below the thresholds for deduction (before risk weighting)				
72	Direct and indirect holdings of the capital of financial sector entities where the institution does not have a significant investment in those entities (amount below 10% threshold and net of eligible short positions)	168	36 (1) (h), 45, 46, 56 (c), 59, 60, 66 (c), 69, 70	
73	Direct and indirect holdings by the institution of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities (amount below 10% threshold and net of eligible short positions)	0	36 (1) (i), 45, 48, 470, 472 (11)	
Applicable caps on the inclusion of provisions in Tier 2				
76	Credit risk adjustments included in T2 in respect of exposures subject to standardised approach (prior to the application of the cap)		62	
77	Cap on inclusion of credit risk adjustments in T2 under standardised approach	166	62	
Capital instruments subject to phase-out arrangements (only applicable between 1 Jan 2014 and 1 Jan 2022)				
84	Current cap on T2 instruments subject to phase out arrangements	229	484 (5), 486 (4) and (5)	

Table 10 contains the items relating to the Tier 1 capital, Tier 2 capital and the deductions from own funds with Rentenbank's respective balance sheet values in accordance with the audited statements and Rentenbank Group's balance sheet value.

Table 10: Transition of capital reported in the balance sheet to regulatory own funds

	Balance Sheet item according to Rentenbank's Financial Statements 31 Dec 2019 EUR million	Balance Sheet item according to Regulatory Group 31 Dec 2019 EUR million	Own funds pursuant to CRR 31 Dec 2019 EUR million
Subscribed capital	135	164	164
Retained earnings	1,163	1,150	1,131
Fund for general banking risks	3,294	3,168	3,115
CET 1 capital before regulatory adjustments			4,410
Regulatory adjustments			
Intangible assets	*18*	*18*	*–23*
CET 1 capital			4,387
Tier 1 capital			4,387
Tier 2 capital			
Subordinated liabilities	*303*	*303*	*33*
Subordinated liabilities (grandfathered)			*106*
Tier 2 capital before regulatory adjustments			139
Tier 2 capital			139
Tier 2 capital			**4,526**

5. Capital requirements (Article 438 CRR)

The regulatory capital requirements for credit risks are determined for Rentenbank Group by applying the Credit Risk Standardised Approach (CRSA). The counterparty credit risk is calculated using the mark-to-market method. The basic indicator approach is applied to operational risk. The calculation of the risk for the credit valuation adjustment (CVA risk) is carried out using the standardised approach.

The following table shows the risk-weighted assets (RWA) and the capital requirements for credit risk, counterparty risks and operational risk. The requirements for minimum own funds amount to 8% of the risk-weighted assets in accordance with CRR.

Table 11: EU OV1 – Overview of risk-weighted assets (RWA)

			RWA 31 Dec 2019 EUR million	RWA 30 Sep 2019 EUR million	Minimum capital requirements 31 Dec 2019 EUR million
1		Credit risk (excluding CCR)	12,822	12,581	1,026
2	*Article 438 (c)(d)*	*Of which the standardised approach*	*12,822*	*12,581*	*1,026*
6	Article 107, Article 438 (c)(d)	CCR	1,187	1,467	95
7	*Article 438 (c)(d)*	*Of which mark to market*	*477*	*591*	*38*
12	*Article 438 (c)(d)*	*Of which CVA*	*710*	*876*	*57*
23	Article 438 (f)	Operational risk	571	571	46
24		*Of which basic indicator approach*	*571*	*571*	*46*
27	Article 437 (2), Article 48, Article 60	Amounts below the thresholds for deduction (subject to 250% risk weight)	0	0	0
29	**Total**		**14,580**	**14,619**	**1,166**

The differentiated illustration of the RWA in accordance with the provisions of EBA/GL/2016/11 is expanded upon by the breakdown of exposure classifications to fully meet the requirements of Article 438 CRR:

Table 12: Split-up of risk-weighted assets (RWA) by exposure class

Exposure class	RWA 31 Dec 2019 EUR million	RWA 30 Sep 2019 EUR million	Capital requirements 31 Dec 2019 EUR million
Central governments or central banks	0	0	0
Regional governments or local authorities	0	0	0
Public sector entities	0	0	0
Multilateral development banks	0	0	0
International organisations	0	0	0
Institutions	11,074	10,851	886
Corporates	1	2	0
Covered bonds	1,498	1,481	120
Collective investment undertakings	0	0	0
Equity exposures	174	174	14
Other exposures	75	73	6
Total standardised approach CRSA (excluding CRR)	**12,822**	**12,581**	**1,026**

6. Countercyclical capital buffer (Article 440 CRR)

The countercyclical capital buffer is calculated as a weighted average from the set countercyclical capital buffer ratios for countries in which the relevant risk exposures of the institution exist.

In accordance with Article 140 (4) CRD IV, the countercyclical capital buffer does not contain any risk exposures of the classifications in accordance with Article 112 lit a) through lit f) CRR.

The required disclosure of the institution-specific countercyclical capital buffer in line with Article 440 CRR as well as the calculation of material credit risk exposures is effected in accordance with appendix I of Delegated Regulation (EU) 2015/1555.

The countercyclical capital buffer and the geographical distribution of Rentenbank Group are illustrated as follows as at 31 December 2019:

Countercyclical capital buffer in accordance with Section 10d KWG	**0.4229**
of which Denmark	*0.0490*
of which France	*0.0289*
of which United Kingdom	*0.0288*
of which Norway	*0.1565*
of which Sweden	*0.1596*

Table 13: Disclosure of the geographical distribution of the material credit risk exposures relevant to the calculation of the countercyclical capital buffer

		General credit risk exposures	Own funds requirements			
10	Breakdown by country	Exposure value for SA EUR million	Of which: General credit risk exposure EUR million	Total EUR million	Own funds requirement weights %	Countercyclical capital buffer rate %
		010	070	100	110	120
	Germany	7,500	73	73	51.95	
	France	2,020	16	16	11.55	0.25
	Netherlands	606	6	6	4.19	
	Denmark	579	7	7	4.90	1.00
	Belgium	91	1	1	0.52	
	Luxembourg	0	0	0	0.00	
	Norway	1,095	9	9	6.26	2.50
	Sweden	1,117	9	9	6.39	2.50
	Finland	547	4	4	3.13	
	Austria	1,417	11	11	8.23	
	United Kingdom	503	4	4	2.88	1.00
20	**Total**	**15,475**	**140**	**140**	**100.00**	

Table 14: Amount of the institution-specific countercyclical capital buffer

		010
010	Total risk exposure amount in EUR million	14,580
020	Institution-specific countercyclical buffer rate in %	0.42
030	Institution-specific countercyclical buffer requirement in EUR million	62

7. Credit risk and general information about credit risk mitigation (Article 442 CRR, Article 453 CRR)

7.1 General qualitative information about credit risks

The general treatment of non-performing loans is governed by the business credit risk strategies. The non-performing loans (NPL) ratio is monitored monthly using a key financial indicator. The threshold value for the NPL ratio is <0.1% of the total loan portfolio. Monitoring and reporting of this key financial indicator is included in the monthly risk report. Provisions as regards the granting of forbearance measures are set out in the organisational instructions on the credit risk analysis.

Rentenbank records obligations as being overdue if the borrower is in arrears with a major portion of their obligations to Rentenbank by more than 5 bank working days. The materiality limit is EUR 500 and/or 1% of the open exposure/or framework (the lower limit is always crucial here).

Identifiable risks in the lending business are sufficiently accounted for by specific valuation allowances and provisions. General valuation allowances (GVA) and contingency reserves pursuant to Section 340f HGB exist for latent (credit) risks in addition to the fund for general banking risks reported in the balance sheet.

Specific valuation allowance

Rentenbank assesses on a monthly basis whether there is any objective evidence that not all interest and principal payments may be made in accordance with the contractual terms. For accounting purposes, the Bank uses the following criteria to determine whether the recognition of a specific valuation allowance for an exposure is required:

- internal credit rating as non-investment grade,
- non-performing, deferred or restructured exposures
- material deterioration in the business partner's credit quality
- material deterioration in the credit quality of the business partner's country of incorporation

Rentenbank assesses the recoverability of both significant individual exposures and securities and exposures of amounts of minor significance on an individual basis. If there is objective evidence of impairment, the allowance is determined as the difference between the carrying amount and the present value of the expected cash flows.

The expected cash flows are determined on the basis of qualified estimates. They take into account the business partner's financial position as well as the liquidation of potential collateral and other relevant factors, such as belonging to protection schemes or state guarantees. The original effective interest rate is used as a discount rate for fixed-interest exposures as well as securities. The current effective interest rate is used for floating rate loans and advances as well as securities. The current market rate of return for a comparable financial asset is used for participations and valued at acquisition cost. Specific valuation allowances are recognised through profit or loss.

As in the previous year, Rentenbank has not recognised any specific valuation allowances as at the balance sheet date.

General valuation allowance

General valuation allowances are made for latent credit risks, the amount of which is calculated using the probability of default and the loss ratio as a basis.

Due to the fact that its portfolio experiences very few defaults, Rentenbank does not have enough of a default history to allow for a robust estimate of its default rate to be made. The internal master scale is therefore derived from the rates of default put in place by the Fitch, Moody's and S&P ratings agencies. The probabilities of default are allocated on the basis of the creditworthiness of the respective business partner. The loss given default rates for specific products and types of business transactions are determined using an analytical and expert-based procedure, taking into account the respective collateralisation.

In accordance with Article 442 lit (h) CRR, institutions are required to disclose the amount of non-performing and past due exposures, each provided separately, and, if appropriate, to provide a breakdown by significant geographical area and industry. In addition, both specific and general credit risk adjustments have to be disclosed, broken down by geographical area and industry.

Rentenbank has recognised general valuation allowances (specific credit risk adjustments) amounting to EUR 2.5 million (EUR 3.3 million in 2018) for exposures, securities and irrevocable loan commitments.

7.2 General quantitative information about credit risks

The following tables contain risk exposures by GVA broken down by risk exposure classification at the reporting date as well as the average risk exposures in the reporting period in accordance with Article 442 lit c) CRR, the risk exposures broken down by country in accordance with Article 442 lit d) CRR, the risk exposures broken down by sector in accordance with Article 442 lit e) CRR and the balance sheet risk exposures broken down by residual maturity in accordance with Article 442 lit f) CRR.

Derivatives (counterparty credit risk exposures) are shown in separate tables in chapter 9 of this report.

Table 15: EU CRB-B: Total and average net amount of exposures

		a	b
		Net value of exposures at the end of the period EUR million	Average net exposures over the period EUR million
16	Central governments or central banks	5,211	6,002
17	Regional governments or local authorities	7,056	7,032
18	Public sector entities	16,002	15,932
19	Multilateral development banks	2,700	2,574
20	International organisations	10	10
21	Institutions	40,242	40,775
22	Corporates	1	2
30	Covered bonds	13,891	13,348
32	Collective investment undertakings	0	0
33	Equity exposures	174	178
34	Other exposures	1,409	1,345
35	***Total standardised approach***	***86,696***	***87,198***
36	**Total**	**86,696**	**87,198**

Table 16: EU CRB-C: Geographical breakdown of exposures

		a	b	c	d	e
				Net value		
		Germany EUR million	Europe EUR million	International Organisations EUR million	OECD (without EU) EUR million	Total EUR million
7	Central governments or central banks	5,211				5,211
8	Regional governments or local authorities	7,056				7,056
9	Public sector entities	15,876	126			16,002
10	Multilateral development banks			2,700		2,700
11	International organisations			10		10
12	Institutions	36,072	1,700		2,470	40,242
13	Corporates	1				1
18	Covered bonds	5,915	7,976			13,891
20	Collective investment undertakings		0			0
21	Equity exposures	174				174
22	Other exposures	1,409				1,409
23	***Total standardised approach***	***71,714***	***9,802***	***2,710***	***2,470***	***86,696***
24	**Total**	**71,714**	**9,802**	**2,710**	**2,470**	**86,696**

Table 17: EU CRB-D: Concentration of exposures by industry or counterparty types

		f	g	j	l	o			u
		Construction EUR million	Wholesale and retail trade EUR million	Information and communication EUR million	Real estate activities EUR million	Public administration and defence, compulsory social security EUR million	Finance and Insurance EUR million	Other services EUR million	Total EUR million
7	Central governments or central banks					59	5,152		5,211
8	Regional governments or local authorities					7,056			7,056
9	Public sector entities						16,002		16,002
10	Multilateral development banks						2,700		2,700
11	International organisations						10		10
12	Institutions						40,242		40,242
13	Corporates						1		1
18	Covered bonds						13,891		13,891
20	Collective investment undertakings		0						0
21	Equity exposures	0	0	0	6		168		174
22	Other exposures							1,409	1,409
23	***Total standardised approach***	***0***	***0***	***0***	***6***	***7,115***	***78,166***	***1,409***	***86,696***
24	**Total**	**0**	**0**	**0**	**6**	**7,115**	**78,166**	**1,409**	**86,696**

Off-balance-sheet transactions are not contained in the following table in accordance with the provisions of EBA/GL/2016/11:

Table 18: EU CRB-E: Maturity of exposures

		a	b	c	d	e	f
		Net exposure value					
		On request EUR million	≤ 1 year EUR million	> 1 year ≤ 5 years EUR million	> 5 years EUR million	No stated maturity EUR million	Total EUR million
7	Central governments or central banks		5,173	38			5,211
8	Regional governments or local authorities		203	2,086	4,767		7,056
9	Public sector entities	0	1,040	5,087	9,672		15,799
10	Multilateral development banks		72	566	2,062		2,700
11	International organisations			10			10
12	Institutions	11	2,176	10,010	27,530		39,727
13	Corporates		1				1
18	Covered bonds		1,239	6,656	5,996		13,891
20	Collective investment undertakings					0	0
21	Equity exposures					174	174
22	Other exposures		18	251	1,140		1,409
23	***Total standardised approach***	***11***	***9,922***	***24,704***	***51,167***	***174***	***85,978***
24	**Total**	**11**	**9,922**	**24,704**	**51,167**	**174**	**85,978**

In comparison with the previous year, open-market transactions are accounted for as an item of <1 year rather than under ‘on request’.

Table 19: EU CR1-A: Credit quality of exposures by exposure class and instrument

		a	b	c	d	e	f	g
		Gross carrying values of					Credit risk adjustment charges of the period	Net values
		Defaulted exposures EUR million	Non-defaulted exposures EUR million	Specific credit risk adjustment EUR million	General credit risk adjustment EUR million	Accumulated write-offs EUR million	EUR million	(a+b-c-d) EUR million
16	Central governments or central banks		5,211	0				5,211
17	Regional governments or local authorities		7,056	0				7,056
18	Public sector entities		16,002	0				16,002
19	Multilateral development banks		2,700	0				2,700
20	International organisations		10	0				10
21	Institutions		40,245	3				40,242
22	Corporates		1					1
30	Covered bonds		13,891	0				13,891
32	Collective invest-ment undertakings		0					0
33	Equity exposures		174			8		174
34	Other exposures		1,409					1,409
35	***Total standardised approach***		***86,699***	***3***		***8***		***86,696***
37	Of which: Loans		68,233	2				68,231
38	Of which: Debt securities		17,555	1				17,554
39	Of which: Off-balance-sheet exposures		718					718

The following table corresponds with table EU CR1-A in terms of content. The risk exposures are broken down according to sector. This was expanded upon by the sector of Finance and Insurance Services which is extremely important to the Bank and which was not included in the template.

Table 20: EU CR1-B: Credit quality of exposures by industry or counterparty type

		a	b	c	d	e	f	g
		Gross carrying values of						Net values
		Defaulted exposures EUR million	Non-defaulted exposures EUR million	Specific credit risk adjustment EUR million	General credit risk adjustment EUR million	Accumulated write-offs EUR million	Credit risk adjustment charges EUR million	(a+b-c-d) EUR million
4	Construction		0					0
7	Wholesale and retail trade		0			8		0
10	Information and communication		0					0
10a	Finance and insurance		78,169	3				78,166
11	Real estate activities		6					6
14	Public administration and defence, compulsory social security		7,115	0				7,115
	Other services		1,409					1,409
19	**Total**		**86,699**	**3**		**8**		**86,696**

Table EU CR1-C corresponds with Table EU CR1-A in terms of content. The structure of the risk exposures is made according to geographical area.

Table 21: EU CR1-C: Credit quality of exposures by geography

		a	b	c	d	e	f	g
		Gross carrying values of						Net values
		Defaulted exposures EUR million	Non-defaulted exposures EUR million	Specific credit risk adjustment EUR million	General credit risk adjustment EUR million	Accumulated write-offs EUR million	Credit risk adjustment charges EUR million	(a+b-c-d) EUR million
1	Germany		71,716	2		8		71,714
2	Europe		9,803	1				9,802
3	International organisations		2,710	0				2,710
4	OECD (without EU)		2,470	0				2,470
11	**Total**		**86,699**	**3**		**8**		**86,696**

Classification by country corresponds with that of the annual report.

There are no non-performing, overdue or deferred exposures. The illustration according to the provisions

- EU CR1–D – maturities structure for overdue risk exposures
- EU CR1-E – non-performing and deferred risk exposures and
- EU CR2-B – changes in the stock of defaulted and non-performing loans and debt securities

are therefore omitted.

Similarly, this disclosure of non-performing and deferred risk exposures has been omitted according to the following EBA/GL/2018/10 provisions:

1 – credit quality of deferred risk exposures
3 – credit quality of non-performing risk exposures by past due days
4 – performing and non-performing risk exposures and therefore related provisions and
9 – collateral obtained by taking possession and execution processes

In the year under review, the general valuation allowance only changed because of dissolution of prescribed amounts for losses on loans. An illustration of a transition of the opening portfolio in the amount of EUR 3.3 million to the closing portfolio at EUR 2.5 million according to table EU CR2-A (changes to the portfolio of the general and specific credit risk adjustments) is not being provided.

7.3 General qualitative information about loan mitigations

To reduce credit risk, collateral and netting agreements are used. Netting agreements exist exclusively for derivatives by way of netting agreements (see section 9.1). Rentenbank generally accepts all kinds of collateral commonly accepted by banks. Exposures covered through institutional liability mechanisms, guarantor liability and separate cover funds, used for example in the case of *Pfandbriefe* (mortgage bonds), can also be accepted as collateral. The Promotional Business, Credit and Financial Markets divisions are responsible for collateral management. The stock of collaterals provided to Rentenbank is reviewed per business partner at least once a year depending on the type of collateral. The collateral is managed in Rentenbank's collateral system. The Bank performs routine, non-event-driven reviews on the use of funds earmarked within special promotional business. The reviews are conducted on a random basis, using local banks' credit documentation. The recoverability of all collateral held is regularly reported in an annual collateral report or on an ad hoc basis upon the occurrence of extraordinary events.

From a regulatory perspective, only warranties, especially guarantees and sureties, as well as financial collateral from collateral agreements are used by Rentenbank to reduce the capital charge on the basis of the Financial Collateral Simple Method. Only European countries, the German federal government, the German states and local authorities are recognised as eligible guarantors. There are no credit risk concentrations within the credit risk mitigation taken.

7.4 General quantitative information about credit risk mitigation

Rentenbank has used the following collateral as techniques for credit risk mitigation to 31 December 2019. The statement of the risk exposure is made taking GVA into account.

Table 22: EU CR3: CRM techniques – overview

		a	b	c	d	e
		Exposures unsecured – Carrying amount EUR million	Exposures secured – Carrying amount EUR million	Exposures secured by collateral EUR million	Exposures secured by financial guarantees EUR million	Exposures secured by credit derivatives EUR million
1	Total loans	68,192	39		39	
2	Total debt securities	17,554				
	off-balance-sheet positions	718				
3	**Total exposures**	**86,464**	**39**		**39**	
4	*Of which defaulted*					

To fully comply with the requirements of Article 435 lit f) and g) CRR, the techniques used for credit risk mitigation are broken down by exposure class in the following table.

Table 23: Article 453 CRR techniques for credit risk mitigation by exposure class

	Exposures unsecured – Carrying amount EUR million	Exposures secured – Carrying amount EUR million	Exposures secured by collateral EUR million	Exposures secured by financial guarantees EUR million	Exposures secured by credit derivatives EUR million
Central governments or central banks	5,211				
Regional governments or local authorities	7,056				
Public sector entities	16,002				
Multilateral development banks	2,700				
International organisations	10				
Institutions	40,203	39		39	
Corporates	1				
Covered bonds	13,891				
Collective investment undertakings	0				
Equity exposures	174				
Other exposures	1,409				
Total	**86,657**	**39**		**39**	

8. Credit risk and credit risk mitigating techniques within the standardised approach (Article 444 CRR, Article 453 CRR)

8.1 Qualitative information on using the standardised approach

Only external ratings from Moody's Investors Service are applied to calculate regulatory capital requirements for credit risks using the Credit Risk Standardised Approach (CRSA). Rentenbank has appointed Moody's Investors Service for risk position classifications with countries and banks. The process of transferring credit ratings from issuers and issuances to positions corresponds with the requirements prescribed in articles 136 and 138 et seq. CRR. Credit ratings are not transferred from issuers and issuances to items that are part of the banking book.

If available, a transaction rating is used instead of the business partner rating. In the absence of a transaction or business partner rating, the risk weight is determined on the basis of the country of incorporation. The external ratings are allocated to credit quality steps exclusively in accordance with the Commission Implementing Regulation (EU) 2016/1799.

No value from exposures is deducted from own funds.

8.2 Quantitative information on using the standardised approach

In the table below, the credit risk mitigation effects are illustrated by exposure classification (columns a-d). In column e) the risk assets are disclosed. Column f) contains the RWA density as a ratio of RWA and exposures by credit conversion factor and CRM.

Table 24: EU CR4: Standardised approach – Credit risk exposure and CRM effects

		a	b	c	d	e	f
		Exposures before CCF and CRM		Exposures post CCF and CRM		RWAs and RWA density	
	Exposure classes	On-balance-sheet amount EUR million	Off-balance-sheet amount EUR million	On-balance-sheet amount EUR million	Off-balance-sheet amount EUR million	RWAs EUR million	RWA density %
1	Central governments or central banks	5,211		5,211		0	0
2	Regional government or local authorities	7,056	0	7,095	0	0	0
3	Public sector entities	15,799	203	15,799	102	0	0
4	Multilateral development banks	2,700		2,700		0	0
5	International organisations	10		10		0	0
6	Institutions	39,727	515	39,688	257	11,074	27.72
7	Corporates	1		1		1	100
12	Covered bonds	13,891		13,891		1,498	10.78
14	Collective investment undertakings	0		0		0	100
15	Equity	174		174		174	100
16	Other items	1,409		1,409		75	5.39
17	**Total**	**85,978**	**718**	**85,978**	**359**	**12,822**	**14.85**

The table below shows both the Rentenbank Group credit risk exposures (by CCF and GVA) as at 31 December 2019 by risk exposure classification and risk weight in accordance with Art 444 lit e) CRR both before and after credit risk mitigation without counterparty credit risk exposures.

Table 25: EU CR5: Standardised approach before CRM

		Risk weight							
	Exposure classes	0% EUR million	10% EUR million	20% EUR million	50% EUR million	100% EUR million	250% EUR million	Total EUR million	Of which unrated EUR million
1	Central governments or central banks	5,211						5,211	
2	Regional government or local authorities	7,056						7,056	0
3	Public sector entities	15,901						15,901	
4	Multilateral development banks	2,700						2,700	2,700
5	International organisations	10						10	10
6	Institutions			29,703	10,281			39,984	
7	Corporates					1		1	1
12	Covered bonds		12,802	1,089				13,891	
14	Collective investment undertakings					0		0	0
15	Equity					174	0	174	174
16	Other items	954	304	129	5	17		1,409	1,409
17	**Total**	**31,832**	**13,106**	**30,921**	**10,286**	**192**	**0**	**86,337**	**4,294**

Table 26: EU CR5: Standardised approach after CRM

		Risk weight							Of which
		0%	10%	20%	50%	100%	250%	Total	unrated
		EUR	EUR	EUR	EUR	EUR	EUR	EUR	EUR
	Exposure classes	million	million	million	million	million	million	million	million
1	Central governments or central banks	5,211						5,211	
2	Regional government or local authorities	7,095						7,095	0
3	Public sector entities	15,901						15,901	
4	Multilateral development banks	2,700						2,700	2,700
5	International organisations	10						10	10
6	Institutions			29,664	10,281			39,945	
7	Corporates					1		1	1
12	Covered bonds		12,802	1,089				13,891	
14	Collective investment undertakings					0		0	0
15	Equity					174	0	174	174
16	Other items	954	304	129	5	17		1,409	1,409
17	**Total**	**31,871**	**13,106**	**30,882**	**10,286**	**192**	**0**	**86,337**	**4,294**

Substitution effects which emerge due to the use of the simple approach as part of CRM techniques cause the risk exposures, which originally had higher risk weights, to be shown in exposures with 0% risk weight.

9. Counterparty credit risk (Article 439 CRR, Article 444 CRR)

9.1 Qualitative information regarding counterparty credit risk

The Banks only enters into derivatives transactions in order to hedge existing or expected market risks. In order to reduce risk, Rentenbank has concluded collateral agreements with all counterparties, with which derivative transactions are effected (i.e. Credit Support Annex according to ISDA or collateral annex in accordance with the German Master Agreement for Financial Derivatives Transactions (DRV)). The positive market value from derivatives transactions is to be collateralised by counterparties using only cash contributions in euros. In return, Rentenbank undertakes to provide cash deposits denominated in euros in the event of negative fair values. New derivatives transactions are effected only based on a collateral agreement.

Netting agreements are used exclusively for derivatives. The use of netting arrangements from standardised netting agreements as well as from netting agreements recognised by regulatory authorities with all counterparties gives rise to reduced positive replacement values.

The limitation of derivative risk exposures per counterparty is effected as part of the processes to monitor and observe counterparty-related credit risk. The basis for the calculation of internal capital and the upper limits for the securitisation of counterparty credit risk is the measurement basis in accordance with the mark-to-market method pursuant to Article 274 CRR, while taking collateral into account.

Correlation between market and counterparty risks:

Diversification effects through correlations between credit risks and market risks which are designed to mitigate risk are not taken into account in the risk-bearing capacity concept in a risk-mitigating way. Instead, risk values are added conservatively.

Wrong way risk (WWR)

The specific WWR is the risk through correlations between the credit rating of the counterparty and the security received. As the collateral is only made in cash contributions, there is no specific WWR.

CVA risk in the risk-bearing capacity

Rentenbank takes account of the CVA risk in the risk-bearing capacity calculation. The CVA risk is calculated at the level of the netting pool using the following formula: EAD (exposure at default) x PD (probability of default) x LGD (loss given default).

In addition to the anticipated exposure, the potential future exposure based on a value-at-risk calculation is factored into the risk-bearing capacity (economic approach). The lower limit of the regulatory add-on in accordance with Article 274 CRR is taken into consideration here.

The probabilities of default are derived from liquid credit default swap quotes from counterparties. If there is any data missing, the probabilities of default from measuring credit risk based on the ratings are used.

9.2 Quantitative information regarding counterparty credit risk

Information regarding counterparty credit risk is disclosed in the following table. At Rentenbank, the exposure value for the counterparty credit risk is calculated using the mark-to-market method in accordance with Article 274 CRR.

Table 27: EU CCR1: Analysis of CCR exposure by approach

		a	b	c	d	e	f	g
		Notional EUR million	Replacement cost/current market value EUR million	Potential future credit exposure EUR million	EEPE EUR million	Multiplier	EAD post CRM EUR million	RWAs EUR million
1	Mark to market		727	1,620			2,347	477
11	**Total**							**477**

In accordance with Art 381 ff CRR, for risk exposures from OTC derivatives, requirements for own funds are to be taken into account to consider the risk of an adjustment to the credit rating (CVA risk). A CVA risk is deemed to be the risk of a change in value from derivatives transactions due to a downgrading in the rating of counterparties. Rentenbank calculates the CVA risk using the standard method in accordance with Article 384 CRR.

Table 28: EU CCR2: CVA capital charge

		a	b
		Exposure value EUR million	RWAs EUR million
4	All portfolios subject to the standardised method	1,493	710
5	Total subject to the CVA capital charge	1,493	710

Rentenbank does not conduct any transactions with central counterparties. Consequently, a disclosure of table EU CCR8 is not being provided.

9.3 Information according to the supervisory risk weighting approach

In the table below, risk exposure values are illustrated (after applying conversion factors and credit risk mitigation techniques) by exposure classification and counterparty-risk weighting.

Table 29: EU CCR3: Standardised approach – CCR exposures by regulatory portfolio and risk

		Risk weight				
		0%	20%	50%	Total	Of which unrated
	Exposure classes	EUR million	EUR million	EUR million	EUR million	EUR million
1	Central governments or central banks	854			854	
6	Institutions		901	592	1,493	
11	**Total**	**854**	**901**	**592**	**2,347**	

9.4 Additional information about counterparty credit risk

Eligible netting agreements and cash collateral are taken into account in a manner which mitigates risk in accordance with Art 298 CRR. In accordance with Article 439 lit e) CRR, the following table discloses information about the impact of the netting and securities held on the exposure value of derivatives and securities financing transactions (SFTs).

After netting including taking securities into account, a net credit risk position of EUR 4 million remains which means that acquiring credit reserves (provision for pending losses for derivatives) is not necessary.

Table 30: EU CCR5-A: Impact of netting and collateral held on value from exposure values

	a	b	c	d	e
	Gross positive fair value or net carrying amount EUR million	Netting benefits EUR million	Netted current credit exposure EUR million	Collateral held EUR million	Net credit exposure EUR million
Derivatives	3,639	2,912	727	723	4
Total	**3,639**	**2,912**	**727**	**723**	**4**

In the following table, collateral provided and held in conjunction with the counterparty credit risk are disclosed. Rentenbank only accepts cash contributions in euros as collateral for derivatives transactions. Columns e) and f) are blank because Rentenbank does not transact SFTs.

Rentenbank's triple-A ratings are due to the guarantee issued by the triple-A rated Federal Republic of Germany for Rentenbank's liabilities. The scenario involving a downgrading of Rentenbank's triple-A ratings combined with additional collateral relating to collateral agreements is regularly validated and is currently of minor relevance. The collateral agreements with derivative counterparties generally do not require Rentenbank to provide additional collateral in the event of a rating downgrade. Accordingly, Rentenbank does not expect to provide any additional collateral in the event of a downgrading of the rating.

Table 31: EU CCR5-B: Composition of collateral for exposures to CCR

	a	b	c	d
	Collateral used in derivative transactions			
	Fair value of collateral received		Fair value of posted collateral	
	Segregated EUR million	Unsegregated EUR million	Segregated EUR million	Unsegregated EUR million
Cash collateral	0	4,292	0	858
Total	**0**	**4,292**	**0**	**858**

As at the reporting date of 31 December 2019, the Bank did not have any derivative loans. Accordingly, a disclosure of Table EU CCR6 is not being provided.

10. Unencumbered assets (Article 443 CRR)

As regards the disclosure of unencumbered and encumbered assets in accordance with Article 443 CRR, Rentenbank follows delegated regulation (EU) 2017/2295 from 4 September 2017 in conjunction with the BaFin circular 06/2016 (BA 52-QIN 4300-2014/0001) from 30 August 2016 on the implementation of the EBA Guidelines on Disclosure (EBA/GL/2014/03) from 27 June 2014.

In accordance with the EBA definition, assets are treated as encumbered if they cannot be freely used by the institution to raise funds in an alternative way. This is always the case when assets are pledged or lent, i.e. when they are used to collateralise own loans and to secure potential obligations from derivative transactions (collateral agreements) in the context of on and off-balance-sheet transactions and therefore are not freely available. Assets are also considered as being not freely available when they require express prior approval before withdrawal or replacement.

The disclosure of quantitative information is based on median data compiled on a quarterly basis throughout the 2019 fiscal year.

Within the Rentenbank Group, the transactions mentioned below are almost exclusively allocated to the parent company.

10.1 Quantitative information

Table 32: Encumbered and unencumbered assets

		Carrying amount of encumbered assets		Fair value of encumbered assets		Carrying amount of unencumbered assets		Fair value of unencumbered assets	
			of which notionally eligible EHQLA and HQLA		of which notionally eligible EHQLA and HQLA		of which EHQLA and HQLA		of which EHQLA and HQLA
		010	030	040	050	060	080	090	100
		EUR million	EUR million	EUR million	EUR million	EUR million	EUR million	EUR million	EUR million
010	**Assets of the reporting institution**	4,604	72			86,943	24,301		
030	Equity instruments					174	0		
040	Debt securities					17,393	12,404	18,513	13,478
050	*of which: covered bonds*					*10,699*	*7,528*	*11,027*	*7,757*
060	*of which: asset-backed securities*								
070	*of which: issued by general governments*					*711*	*711*	*776*	*776*
080	*of which: issued by financial corporations*					*16,682*	*11,692*	*17,748*	*12,714*
090	*of which: issued by non-financial corporations*								
120	Other assets	4,604	72			69,428	12,160		

Table 33: Collateral received

				Unencumbered	
		Fair value of encumbered collateral received or own debt securities issued		Fair value of collateral received or own debt securities issued available for encumbrance	
			of which notionally eligible EHQLA and HQLA		of which EHQLA and HQLA
		010	030	040	060
		EUR million	EUR million	EUR million	EUR million
130	Collateral received by the reporting institution	827	0	2	0
140	Loans on demand				
150	Equity instruments				
160	Debt securities				
170	*of which: covered bonds*				
180	*of which: asset-backed securities*				
190	*of which: issued by general governments*				
200	*of which: issued by financial corporations*				
210	*of which: issued by non-financial corporations*				
220	Loans and advances other than loans on demand			2	0
230	Other collateral received	827	0		
240	Own debt securities issued other than own covered bonds or asset-backed securities			29	0
241	Own covered bonds and asset-backed securities issued and not yet pledged				
250	**Total assets, collateral received and own debt securities issued**	**5,373**	**72**		

Table 34: Sources of encumbered assets

		Matching liabilities, contingent liabilities or securities lent	Assets, collateral received and own debt securities issued other than covered bonds and ABSs encumbered
		010	030
		EUR million	EUR million
010	Carrying amount of selected financial liabilities	19	112

10.2 Qualitative information

Of the assets on the balance sheet in the amount of EUR 91.5 billion (median value), 5.0% are encumbered. The major portion (98.6%) of the encumbered assets (summary item entitled 'Other Assets') in the amount of EUR 4,604 million results from the provision of collateral for derivative transactions as well as from exposures included in the cover funds for covered bonds (cover pool). A general description of collateral agreements is given in chapter 9.1.

The basis for the cover pool is Rentenbank's Governing Law as well as the references included therein to the German Mortgage Bond Act (*Pfandbriefgesetz (PfandBG)*), as amended. In accordance with Section 13 (2) of Rentenbank's Governing Law, the covered bonds issued by Rentenbank must be covered up to the amount of their nominal value and interest at all times. The trustee's review as at the balance sheet date identified a security excess cover of 89.9% of the nominal amount of covered bonds (including the guarantee reserve pursuant to Section 2 (3) of Rentenbank's Governing Law in the amount resolved by the Supervisory Board in 2019) and a multiple over-collateralisation in relation to interest. The over-collateralisation was certified by the appointed trustee on 28 January 2020.

The remaining encumbered assets refer to the minimum reserve held at Deutsche Bundesbank.

Apart from this, there were no further collateral agreements at Rentenbank as at 31 December 2019.

The assets recorded as unencumbered in the summary item entitled 'Other Assets' are not used as collateral. In addition to unencumbered loans, the item contains credits and cash assets such as property and equipment, intangible assets, assets held in trust and prepaid expenses, which are not available as an exposure.

As at 31 December 2019, there were no off-balance-sheet transactions covered by assets other than derivatives.

Collateral received primarily includes the cash collateral received from derivative transactions.

11. Market risk (Article 445 CRR, Article 448 CRR)

To determine the capital requirements for foreign currency risks, the total currency exposure is calculated. This amounts to EUR 0.1 million as at 31 December 2019 (EUR 0.1 million in 2018) in line with the standardised approach. The threshold pursuant to Article 351 CRR was not exceeded so there was no need to use own capital for foreign currency risks. Table EU MR1 'Market risk in accordance with the standardised approach' is therefore not being provided.

There are no exposures to commodity, trading book and settlement risks or other market risks. Rentenbank does not apply its own risk models.

12. Remuneration policy and in practice (Article 450 CRR)

Rentenbank is required to disclose its remuneration policy pursuant to Section 16 (1) of the German Regulation on the Requirements for Institutions' Remuneration (*Institutsvergütungsverordnung, InstitutsVergV*) in conjunction with Article 450 CRR. In the following section, Rentenbank complies with this disclosure obligation for 2019.

Rentenbank's risk-averse business model, its public law status, its statutory promotional mandate and its competitive neutrality are also reflected in the Bank's remuneration system.

All employees and the Management Board at Rentenbank are paid using fixed remuneration only. The remuneration system does not contain any incentives to undertake any transactions or to take any risks outside Rentenbank's existing statutory framework. The priority is the fulfilment of the promotional mandate.

As at 30 September 2019, Rentenbank's risk bearers were identified in accordance with Section 18 (2) InstitutsVergV. In addition to the members of the Supervisory Board, this comprises the three members of the Management Board and 34 employees exempt from collective pay agreements.

The Supervisory Board members' remuneration corresponds with their remuneration arrangement and is published every year as an appendix to Rentenbank's Financial Statements.

The Supervisory Board is responsible for the configuration of the remuneration of the member of the Management Board listed in appendix 2. The Supervisory Board meets at least twice a year. The Supervisory Board set up a Remuneration Committee in accordance with Section 15 InstitutsVergV in conjunction with Section 25d (12) KWG. The committee consists of the chairman of the Supervisory Board, his deputy, a representative of the Federal Ministry of Finance and four additional members of the Supervisory Board. It meets at least twice a year. The Remuneration Committee's remit consists of the monitoring of the appropriate configuration of the remuneration system for the members of the Management Board as well as the drafting of the resolutions of the Supervisory Board regarding the remuneration of members of the Management Board. The remuneration is reviewed annually (usually at the spring meeting of the Supervisory Board) and revised if appropriate. Furthermore, the Remuneration Committee monitors and observes the appropriate configuration of the staff remuneration system.

12.1 Management Board

The Management Board's remuneration consists of a fixed pensionable remuneration which is paid monthly. In the case of one member of the Management Board, one part of the fixed remuneration is not pensionable. In turn, one part of this is paid monthly and the other part in the months of April and November in equal instalments. The amount of the fixed remuneration is to be determined by the roles and responsibilities.

A variable remuneration component (management bonus) was set for the 2015 fiscal year for the last time. The last deferral tranche from this management bonus was paid out in 2019.

Each member of the Management Board has a company car, the value of which is determined by tax rules. In addition, each of them has an individual pension agreement.

Payments to members of the Management Board in 2019:

Name	Fixed remuneration EUR [1]	Variable remunerations for the 2015 fiscal year EUR	Expense for pensions contributions [2] EUR
Dr Horst Reinhardt	763,400	26,667	37,984
Hans Bernhardt [3]	217,532	26,667	167,728
Dietmar Ilg	492,480	–	243,718
Dr Marc Kaninke [4]	288,561	–	112,822

[1] Includes cash benefit for company car. This component was not yet included in the previous year.
[2] The expense illustrated here is composed of staff and interest expenditure.
[3] Leaving date: 30 April 2019
[4] Start date: 1 June 2019

12.2 Employees (covered by collective pay agreements)

The members of the Management Board are responsible for how the staff remuneration system is configured. Every year they monitor the appropriateness of the business strategy against this background.

12.2.1 Exempt employees

There is an integrated remuneration system for exempted employees, including identified risk bearers. The exempt employees receive a pensionable annual basic salary. The amount of the annual basic salary, which is paid in monthly instalments, is largely determined according to the following criteria:

- professional experience,
- responsibility in the organisation,
- level of education,
- seniority,
- expertise,
- skills,
- restrictive framework conditions (such as social, economic or cultural factors),
- workplace experience,
- general business activity and pay level in the geographical area of Frankfurt am Main.

The amount of the individual remuneration of the employees is reviewed, and adjusted if necessary, as part of the annual salary review. Prior to the beginning of the pay round, the increase in the total remuneration volume is determined with reference to general economic circumstances, the sustainable financial performance of Rentenbank and the expected salary adjustments within the collective pay agreements.

In addition, non-dynamic, non-pensionable allowances and a fixed one-off payment, which is paid out in the months of April and November in equal instalments, may be components of remuneration.

Rentenbank also provides voluntary fringe benefits such as subsidies for commuting by public transportation or subsidised gym memberships. Each member of the senior management team may have the use of a company car, the value of which is to be determined by tax rules.

Each employee receives pension benefits from one of Rentenbank's pension plans applicable to him/her. Within the context of the guideline on deferred compensation, members may waive portions of the semi-annual fixed remuneration and may convert them into retirement benefit entitlements of an equivalent value.

Moreover, employee-financed deferred compensation for pensions may be arranged through the BVV pension fund or a direct insurance scheme.

12.2.2 Employees covered by collective pay agreements

Employees covered by collective pay agreements receive a pensionable monthly salary and a pensionable one-off payment in line with the respectively applicable collective pay agreement for the German private banking sector and public banks. Employees covered by collective pay agreements who have permanent contracts also receive a fixed, dynamic one-off payment, which is 50% pensionable.

Furthermore fixed, non-dynamic and non-pensionable bonuses can make up the remuneration.

The fringe and pension benefits mentioned under 12.2.1 also apply to employees covered by collective pay agreements.

12.2.3 Quantitative data for exempt employees and employees covered by collective pay agreements

Remuneration of the employees in 2019

Organisational Units	Fixed remuneration (all employees)[1] EUR million	Of which risk bearers EUR million	Expense for pensions contributions (all employees)[2] EUR million	Of which risk bearers EUR million	Number of risk bearers (FTE)[3]
Treasury Promotional Business Banks	7.0	3.4	3.5	1.7	19.2
Staff departments and services	18.0	2.7	9.1	1.4	14.8

1) Includes cash benefit for company car. This component was not yet included in the previous year.
2) The expense illustrated here is composed of staff and interest expenditure. The allocation to specific groups is based on estimates.
3) Full-time equivalent.

A total remuneration of EUR 1 million or more was not awarded to any employee, including the members of the Management Board, in the reporting year.

In 2019, an agreement was made to pay out a settlement in 2020 (we cannot provide any information regarding the amount of the settlement agreement for reasons of confidentiality). No further settlements were agreed to or paid out in 2019. Joining bonuses are generally not paid out.

13. Leverage ratio (Article 451 CRR)

The leverage ratio is calculated on a monthly basis and monitored. In addition, the risk of an excessive leverage ratio is addressed as part of the Bank's multi-year planning through the planning of the total assets and of the capital.

The Bank continually follows the current regulatory developments and therefore the review and calibration of the leverage ratio by the EBA as well. With the entry into force of CRR II on 27 June 2019, a leverage ratio of 3% must be maintained after a transition period of two years from 28 June 2021.

The introduction of indicators will allow the Bank to further develop its processes for monitoring the leverage ratio.

The following information is based on Commission Implementing Regulation 2016/200 (EU) as at 15 February 2016.

Table 35: LRSum: Summary reconciliation of accounting assets and leverage ratio exposures

		Applicable amounts EUR million
1	Total assets as per published financial statements	**90,904**
2	Adjustment for entities which are consolidated for accounting purposes but are outside the scope of regulatory consolidation	–
3	(Adjustment for fiduciary assets recognised on the balance sheet pursuant to the applicable accounting framework but excluded from the leverage ratio total exposure measure in accordance with Article 429(13) of Regulation (EU) No 575/2013)	–109
4	Adjustments for derivative financial instruments	–3,515
5	Adjustment for securities financing transactions (SFTs)	
6	Adjustment for off-balance-sheet items (ie conversion to credit equivalent amounts of off-balance-sheet exposures)	359
7	Other adjustments	299
8	**Leverage ratio total exposure measure**	**87,938**

Table 36: LRCom: Standard disclosure of the leverage ratio

		CRR leverage ratio exposures EUR million
	On-balance-sheet exposures (excluding derivatives and SFTs)	
1	On-balance-sheet items (excluding derivatives, SFTs and fiduciary assets, but including collateral)	90,268
2	(Asset amounts deducted in determining Tier 1 capital)	–23
3	Total on-balance-sheet exposures (excluding derivatives, SFTs and fiduciary assets) (sum of lines 1 and 2)	**90,245**
	Derivative exposures	
4	Replacement cost associated with *all* derivatives transactions (ie net of eligible cash variation margin)	4
5	Add-on amounts for PFE associated with *all* derivatives transactions (mark-to-market method)	1,620
7	(Deductions of receivables assets for cash variation margin provided in derivatives transactions)	–4,290
11	Total derivatives exposures (sum of lines 4 to 10)	**–2,666**
	Off-balance-sheet exposures at gross notional amount	
17	Off-balance-sheet exposures at gross notional amount	718
18	(Adjustments for conversion to credit equivalent amounts)	–359
19	Other off-balance-sheet exposures (sum of lines 17 and 18)	**359**
	Capital and total exposure measure	
20	Tier 1 capital	4,387
21	Leverage ratio total exposure measure (sum of lines 3, 11, 16, 19, EU-19a and EU-19b)	**87,938**
	Leverage ratio	
22	Leverage ratio	4.99
	Chosen transitional arrangements and amount of derecognised fiduciary items	
EU-23	Chosen transitional arrangements for the definition of the capital measure	Yes = transitional

Rentenbank's promotional business has a significant influence on the leverage ratio.

Table 37: LRSpl: Split-up of on-balance-sheet exposures

		CRR leverage ratio exposures EUR million
EU-1	Total on-balance-sheet exposures (excluding derivatives, SFTs, and exempted exposures), of which:	85,978
EU-3	Banking book exposures, of which:	85,978
EU-4	Covered bonds	13,891
EU-5	Exposures treated as sovereigns	30,815
EU-7	Institutions	39,688
EU-10	Corporate	1
EU-12	Other exposures (eg equity, securitisations, and other non-credit obligation assets)	1,583

In the last quarter, there were only slight changes to the leverage ratio of + 0.07% compared with 30 September 2019. This is primarily due to the expiry of existing transactions.

14. Indicators of global systemic importance (Article 441 CRR)

Rentenbank is not a global systemically important institution.

15. Operational risk (Article 446 CRR)

During the year under review, the operational risk for supervisory purposes was calculated based on the basic indicator approach in accordance with Article 315 CRR. The risk-weighted assets for the operational risk as at 31 December 2019 amounted to EUR 571 million (EUR 655 million in 2018).

16. Exposures in participations in the banking book (Article 447 CRR)

The participations we hold serve Rentenbank's promotional mandate. The investment strategy focus is on promoting agribusiness and rural areas and not on profit maximisation. Due to the fact that the business activities of its subsidiaries are currently very limited and due to the letter of comfort issued to LR Beteiligungsgesellschaft mbH, all material risks rest with Rentenbank which manages them at group level.

Participations are carried at acquisition costs less any possible write-downs at the lower fair value in the event of anticipated permanent value mitigation. In the event of write-downs to participations, the requirement to reverse write-downs when the reasons for them no longer exist according to section 253 (5) sentence 1 HGB will be observed: if the reasons for write-downs in previous years no longer exist at the reporting date, the write-back on the participation is implemented at an amount that is no more than the acquisition costs.

Due to uncertain forecasting of future cash flows and/or lack of specific market values, a reliable calculation of the fair value of the participations and investments in affiliated companies is not possible and/or of minor significance.

Rentenbank holds participations in the amount of EUR 174 million and investments in affiliated companies in the amount of EUR 0 million. Participations and investments in affiliated companies do not include marketable securities.

In the year under review, there were no realised gains or losses from disposals and liquidation. The Group's financial statements recorded unrealised losses from participations in the amount of EUR 8 million. The factoring in of the annual results in the Common Equity Tier 1 capital is effected upon approval of the annual financial statements.

17. Exposure to interest rate risks in the banking book (Article 448 CRR)

Rentenbank discloses information on interest rate risks in the banking book pursuant to Section 25 (2) KWG and/or Section 6 (3) of the German Regulation on Financial Information and Information on the Risk-Bearing Capacity (Annex 13 to *Finanz- und Risikotragfähigkeitsinformationenverordnung, FinaRisikoV*). Rentenbank applies the group waiver rule pursuant to Article 7 (3) CRR. As a non-trading book institution, Rentenbank has allocated all transactions to the banking book.

The Bank calculates interest rate risk in the banking book in accordance with BaFin circular 06/2019. This involves examining whether the negative change of the present value exceeds 20% of total regulatory own funds in the event of a parallel change in interest rates of +/– 200 basis points. In addition, as early warning indicators, changes from present value resulting from six specified interest rate scenarios are calculated in relation to Tier 1 capital. The threshold for the early warning indicators is 15%. The interest rate co-efficient and Rentenbank's early warning indicators are below the threshold values.

Existing capital is not taken into account pursuant to the regulatory requirements. Early repayments of loans are taken into account for the period up to the contractual maturity. No further assumptions were made as to early repayments of loans. Non-maturity customer deposits are not of material significance to Rentenbank and are not taken into account. The calculation of the present value does not take into account items that are not subject to interest rate risks, such as participations, property and equipment, intangible assets, other assets and other liabilities. A breakdown of the results by currency from the above-mentioned interest rate risks in the banking book is not provided as the Bank generally does not enter into open currency positions. Open currency exposures only result from small balances on nostro accounts. Exchange rate risks from foreign currency loans or issues of securities denominated in foreign currencies are hedged through currency derivatives or offsetting transactions recognised on the balance sheet. No material risk was identified for any currency.

18. Exposure to securitisation positions (Article 449 CRR)

As at the reporting date of 31 December 2019, the Bank does not have holdings in securitisation positions.

19. Liquidity risk (Article 435 CRR)

The calculation and disclosure of the average liquidity coverage ratio (LCR) is based on EBA guidelines on disclosure of liquidity coverage ratios (EBA/GL/2017/01) in conjunction with the liquidity management in accordance with Article 435 CRR.

The illustration is effected on a quarterly basis as a simple average of the previous 12 months based on the unweighted and weighted amounts of the respective reports.

Table 38: EU LIQ1-LCR Disclosure template

		Total unweighted value (average)				Total weighted value (average)			
Scope of consolidation (consolidated) Currency and units in EUR million									
Quarter ending on		31 Mar 2019	30 June 2019	30 Sept 2019	31 Dec 2019	31 Mar 2019	30 June 2019	30 Sept 2019	31 Dec 2019
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)					25,712	26,155	26,755	26,993
Cash – Outflows									
5	Unsecured wholesale funding	3,431	3,883	4,512	5,036	3,308	3,751	4,370	4,886
6	Operational deposits (all counterparties) and deposits in networks of cooperative banks								
7	Non-operational deposits (all counterparties)	289	312	331	325	166	180	189	175
8	Unsecured debt	3,142	3,571	4,181	4,711	3,142	3,571	4,181	4,711
9	Secured wholesale funding								
10	Additional requirements	3,309	2,951	2,607	2,454	1,791	1,785	1,767	1,771
11	Outflows related to derivative exposures and other collateral requirements	1,622	1,655	1,674	1,695	1,622	1,655	1,674	1,695
13	Credit and liquidity facilities	1,687	1,296	933	759	169	130	93	76
14	Other contractual funding obligations	56	52	55	52	56	52	55	52
15	Other contingent funding obligations	1	1	1	0	1	1	1	0
16	**Total cash outflows**					**5,156**	**5,589**	**6,193**	**6,709**
Cash – Inflows									
17	Secured lending (e.g. reverse repos)								
18	Inflows from fully performing exposures	726	688	680	698	724	686	679	697
19	Other cash inflows	493	683	648	681	493	683	648	681
20	**Total cash inflows**	**1,219**	**1,371**	**1,328**	**1,379**	**1,217**	**1,369**	**1,327**	**1,378**
EU-20c	Inflows subject to 75% cap	1,219	1,371	1,328	1,379	1,217	1,369	1,327	1,378
						Total adjusted value			
21	**Liquidity Buffer**					**25,712**	**26,155**	**26,755**	**26,993**
22	**Total net cash outflows**					**3,939**	**4,220**	**4,866**	**5,331**
23	**Liquidity coverage ratio (%)**					**653**	**620**	**550**	**506**

Inflows from special promotional loans and outflows from ECPs and global bonds and global loans primarily give rise to significant fluctuations in the Bank's ratio.

Additional outflows in conjunction with derivatives transactions predominantly reflect the effects of unfavourable market conditions on the Bank's derivatives portfolio.

Liquidity risks are fully hedged in securities in foreign currencies.

Appendices to the 2019 Disclosure Report

Appendix 1: Number of executive or supervisory directorships held by members of the management body (as at March 2020)

The number of executive or supervisory directorships held by members of the Management Board

	Number of managerial roles	Number of supervisory roles
Dr Horst Reinhardt	1	3
Dietmar Ilg	1	2
Dr Marc Kaninke	1	0

The number of executive or supervisory directorships held by members of the Supervisory Board

	Number of managerial roles	Number of supervisory roles
Joachim Rukwied	0	9
Julia Klöckner	0	2
Werner Hilse	0	1
Bernhard Krüsken	0	4
Brigitte Scherb	0	2
Karsten Schmal	1	6
Werner Schwarz	0	5
Franz-Josef Holzenkamp	0	9
Rainer Schuler	12	4
Ursula Heinen-Esser	0	2
Sebastian Thul	0	2
Wolfram Günther	0	1
Harald Schaum	0	5
Dr Hermann Onko Aeikens	0	1
Dr Marcus Pleyer	0	2
Michael Reuther	1	1
Dr Birgit Roos	1	4
Dr Caroline Toffel	1	2

The information also contains mandates which are privileged according to Section 25c (2) sentence 2 KWG or Section 25d (3) sentences 3 and 6 KWG, or which are subject to grandfathering according to section 64r (13) sentence 1 or (14) sentence 1 KWG.

Appendix 2: Supervisory Board (as at March 2020)

The members of the Remuneration Committee (RC) are identified as such with RC after their names

Chairman:

Joachim Rukwied (RC Chairman)
President of the German Farmers' Association

Deputy Chairwoman:

Julia Klöckner (RC Deputy Chairwoman)
Federal Minister for Food and Agriculture

Representatives of the German Farmers' Association:

Werner Hilse
The Farmers' Association of Lower Saxony

Bernhard Krüsken (RC)
Secretary General of the German Farmers' Association

Brigitte Scherb
President of the German Rural Women's Association

Karsten Schmal
President of the Farmers' Association of Hesse

Werner Schwarz (RC)
President of the Farmers' Association of Schleswig-Holstein

Representatives of the German Raiffeisen Association:

Franz-Josef Holzenkamp
President of the German Raiffeisen Association

Representatives of the Food Industry:

Rainer Schuler
President of the Federal Association of Agricultural Traders

State Ministers of Agriculture:

North Rhine-Westphalia:
Ursula Heinen-Esser
Minister for the Environment, Agriculture, Conservation and Consumer Protection, North Rhine-Westphalia

Saarland:
Sebastian Thul
State Secretary for the Ministry of Environment and Consumer Protection Saarland

Saxony:
Wolfram Günther
Minister of State for Energy, Climate Protection, Environment and Agriculture, Free State of Saxony

Representative of the Trade Unions:

Harald Schaum (RC)
Deputy Federal Chairman of IG Bauen-Agrar-Umwelt

Representative of the Federal Ministry of Food and Agriculture:

Dr Hermann Onko Aeikens
State Secretary (retired)

Representative of the Federal Ministry of Finance:

Dr Marcus Pleyer (RC)
Head of Directorate

Representatives of credit institutions or other lending experts:

Michael Reuther
Member of the Management Board of Commerzbank AG (until 31 December 2019)

Dr Birgit Roos (RC)
Chairwoman of the Management Board of Sparkasse Krefeld

Dr Caroline Toffel
Member of the Management Board of Berliner Volksbank eG

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